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Society of Open Innovation Technology, Market & Complexity

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PROCEEDINGS(Abstract Version)

SOI & DEMI of UNINA University 2023 Conference

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

July 12(Wed.) ~ 15(Sat.), Conference Days, 2023
University of Naples Federico II(Conference Centre), Naples, Italy & Online(Zoom)
***July 10(Mon.) ~ 11(Tue.), SOI 2023 Summer School by Open Innovation Academy**

Society of Open Innovation: Technology, Market, and Complexity (SOI) & Department of Economics, Management, Institutions(DEMI) of the University FedericoII of Naples(UNINA) 2023

The full version(about 4000 papges) of proceeding can be downloaded in SOI homepage from July 31, 2023.
*Only the SOI 2023 participants with registration could download the proceedings after logging in.

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

• ***Hosted by University of Naples Federico II, Naples, Italy***

• ***Sponsored by***

• ***12(Wed.) ~ 15(Sat.), Conference Days, 2023; University of Naples Federico II(Conference Centre), Naples, Italy & Online(Zoom)***
*July 10(Mon.) ~ 11(Tue.), SOI 2023 Summer School by Open Innovation Academy

PROGRAMME OF

SOI & DEMI of UNINA University 2023 Conference

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

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Society of Open Innovation: Technology, Market, and Complexity (SOI) & Department of Economics, Management, Institutions(DEMI) of the University Federico II of Naples(UNINA) 2023

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▶July 15(Saturday) 09:30~11:00 SALA B(Ground Floor)

▶July 15(Saturday) 09:30~11:00 SALA C(Ground Floor)

Welcoming Speech by the Organizing President of SOI

-Prof. Dr. JinHyo Joseph Yun

Ladies and gentlemen, distinguished guests, and esteemed members of the Society of Open Innovation: Technology, Market, and Complexity (SOI),

Welcome to the prestigious SOI 2023 conference, hosted by the esteemed Naples Federico2 University! It is an honor to stand before you as the founder of this remarkable gathering and the organizing president of SOI 2023.

As we come together in this momentous event, we are presented with an extraordinary opportunity to explore the new frontiers of open innovation and embrace transformative business models, particularly in the wake of the global pandemic. Under the theme of "New Way of Open Innovation and Open Business Model After Pandemic for the Recovery of World Economy," we gather here to discuss, analyze, and collectively envision a path forward towards economic recovery on a global scale.

The world has witnessed unprecedented challenges and disruptions, but through adversity comes the potential for innovation, resilience, and growth. The SOI 2023 conference provides us with a platform to share groundbreaking ideas, research, and insights, all aimed at paving the way for a brighter and more inclusive future.

During these five remarkable days, we will delve into the evolving landscape of open innovation, exploring the dynamic intersections between technology, market dynamics, and the complexities of our modern society. With renowned experts, scholars, industry leaders, and visionaries among us, we have the unique opportunity to redefine the norms, reimagine business models, and foster an environment of collaboration that transcends borders.

Let us seize this moment to reflect on the lessons learned from the pandemic, to identify the untapped potential within our economies, and to harness the power of open innovation to fuel recovery and progress. Together, we will forge new alliances, bridge disciplines, and inspire collective action to overcome the challenges we face.

I extend my heartfelt appreciation to the organizing committee, the Naples Federico Ⅱ University, our esteemed partners, and each and every one of you for your invaluable contributions to the success of this conference. Your presence here today signifies a shared commitment to driving positive change and shaping a future that is defined by innovation, resilience, and inclusive growth.

On behalf of the entire SOI community, I invite you to engage in meaningful discussions, form lasting connections, and embark on a journey that will undoubtedly inspire transformative ideas and actions. Let us work together to create a new era of open innovation and open business models, setting the stage for the recovery of the world economy.

Once again, I extend a warm welcome to SOI 2023. May this conference be a catalyst for profound insights, game-changing collaborations, and a brighter future for all. Thank you for being part of this incredible journey.

Let us commence SOI 2023 and pave the way towards a world of open innovation and economic recovery.

Thank you and welcome!

July 13th, 2023

Prof. Dr. JinHyo Joseph Yun

Founder of Society of Open Innovation; Technology, Market, and Complexity(SOI)

Organizing President of SOI 2023, and Principal Professor of Open Innovation Academy

Tenured principal research of DGIST

jhyun@dgist.ac.kr, journalofopeninnovation@gmail.com, +821066978355

Welcoming Speech by the DEMI of UNINA

Hosting Chair

- Prof. Valentina Della Corte

Welcome to Naples and to the 2023 International Conference of the Society of Open Innovation (SOI) at University of Naples Federico II. Founded in 1224, Federico II is the oldest lay University in the world. In 2024 University of Naples Federico II celebrates 800 years, a prestigious anniversary.

It is one of the nation's leading research universities and it is dedicated to the education of students from diverse backgrounds at the undergraduate, graduate and professional levels.

I'd like to thank SOI organizing committee members for all their hard work, creativity, and flexibility in creating a fun and meaningful event.

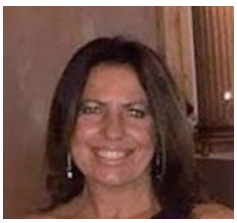
The innovative ideas of Professor JinHyo Joseph Yun and the organizing Committee have created the foundation for the topic of the conference "New Way of Open Innovation and Open Business Model after Pandemic for the Recovery of World Economy".

I am grateful to Prof. Xiaofei Zhao who she is both the strategic and operative person supporting all the organizational process.

I hope the conference will contribute more responses to new way of open innovation and open business model after pandemic for the recovery of world economy. Moreover, I also hope that researchers, entrepreneurs, managers and policy makers will be inspired by this event to generate great ideas that will contribute to the global economy and sustainability.

I look forward to meeting many of you in person in the coming days.

Enjoy the conference, enjoy the University of Naples Federico II, enjoy Naples!



Prof. Valentina Della Corte

Full Professor of University of Naples Federico II, Italy & Hosting Chair of SOI 2023,
Coordinator of the Degree Course in Hospitality Management

Delegate of the Rector Unina 2024

Congratulatory Speech by the Rector of University of Naples Federico II

-Prof. Matteo Lorito

On behalf of the entire community of the University of Naples Federico II, one of the oldest and largest universities in the world, I am pleased to welcome you. As a rector, I am extremely impressed with the dedication and enthusiasm of the conference organizing committee members. I congratulate to all of them for the team effort that is adding to the success of the conference.

Before we begin 2023 International Conference of the Society of Open Innovation, I would like to express my heartfelt gratitude to Professor JinHyo Joseph Yun and Professor Della Corte, as Chairs of the Conference, and to all of you who sincerely committed to this event to make it a success. This event would have been impossible without the support of each and every one present here.

On behalf of the University, we look forward to having you as our guests and wish you a wonderful conference and a pleasant stay in Naples.

I am delighted to send my warmest greetings to the scholars, professors, businessmen and the organizing committees connected with the SOI & DEMI 2023 Conference, which takes place in Naples.

I ensure this event will be profitable and fruitful for everyone present here.

Prof. Matteo Lorito

Rector of the University of Naples Federico II

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

-Keynote Speech

Contents	Onsite Room	Online Room	
Keynote Speech	**AULA MAGNA (1st Floor)**	Keynote Speakers	**Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09 Meeting ID: 891 6094 1900; Passcode: SOISOI1**
		Audience	Facebook Live: Open Innovation-first Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos] 

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

-Session Presenters

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Meeting ID: 891 6094 1900
Passcode: SOISOI1</td><td>Facebook Live: Open Innovation-first
Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos]
 
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<tr><td>SALA A (Ground Floor)</td><td>Zoom link: https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09
Meeting ID: 813 0320 8148
Passcode: SOISOI2</td><td>Facebook Live: Open Innovation-b
Method: [Friends Search → "Open Innovation-b" → Select the search result with the name of "Open Innovation-b" → add friend → visiting the live videos]
 
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-Session Presenters(Continued)

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Meeting ID: 862 3826 9513
Passcode: SOISOI3</td><td>Facebook Live: Open Innovation-third
Method: [Friends Search → "Open Innovation-third" → Select the search result with the name of "Open Innovation-third" → add friend → visiting the live videos]
 
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<tr><td>SALA C (Ground Floor)</td><td>Zoom link: https://us06web.zoom.us/j/88570486108?pwd=REpDMFBKTjA1ZHo1QUY4M1N6L0ZGdz09
Meeting ID: 885 7048 6108
Passcode: SOISOI4</td><td>Facebook Live: Open Innovation-d
Method: [Friends Search → "Open Innovation-d" → Select the search result with the name of "Open Innovation-d" → add friend → visiting the live videos]
 
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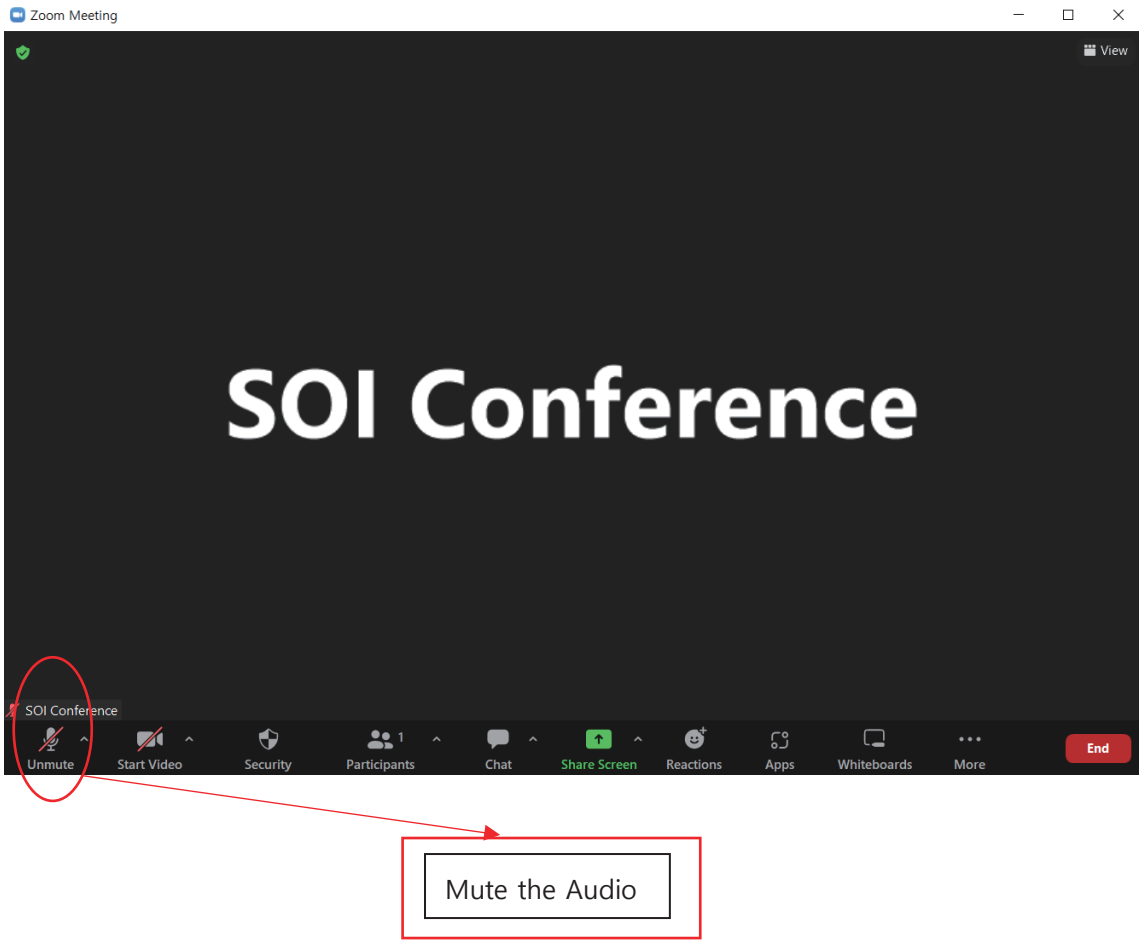
*Important Instructions for Using Zoom

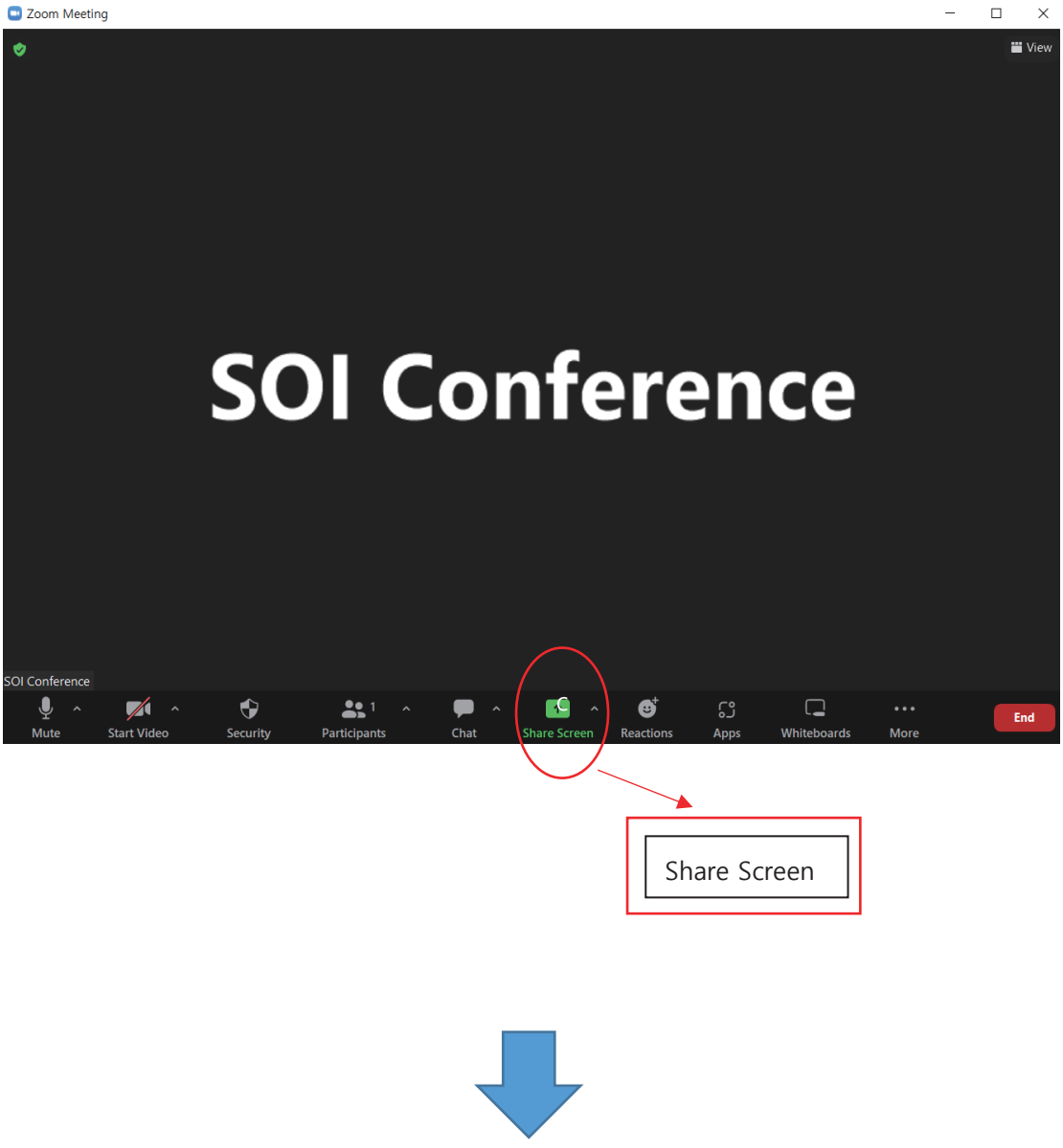
1. Please download zoom app(https://zoom.us/download) and register as a member.

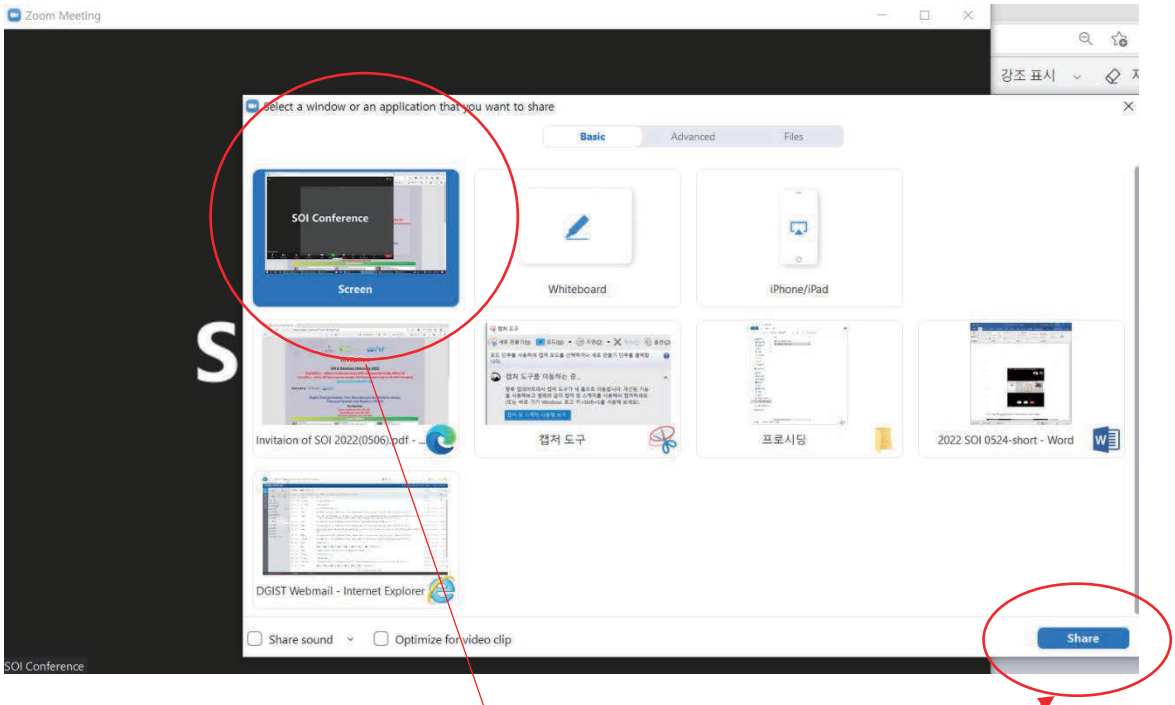
   * It's free. Otherwise, it might limit your video chatting and other rights.

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



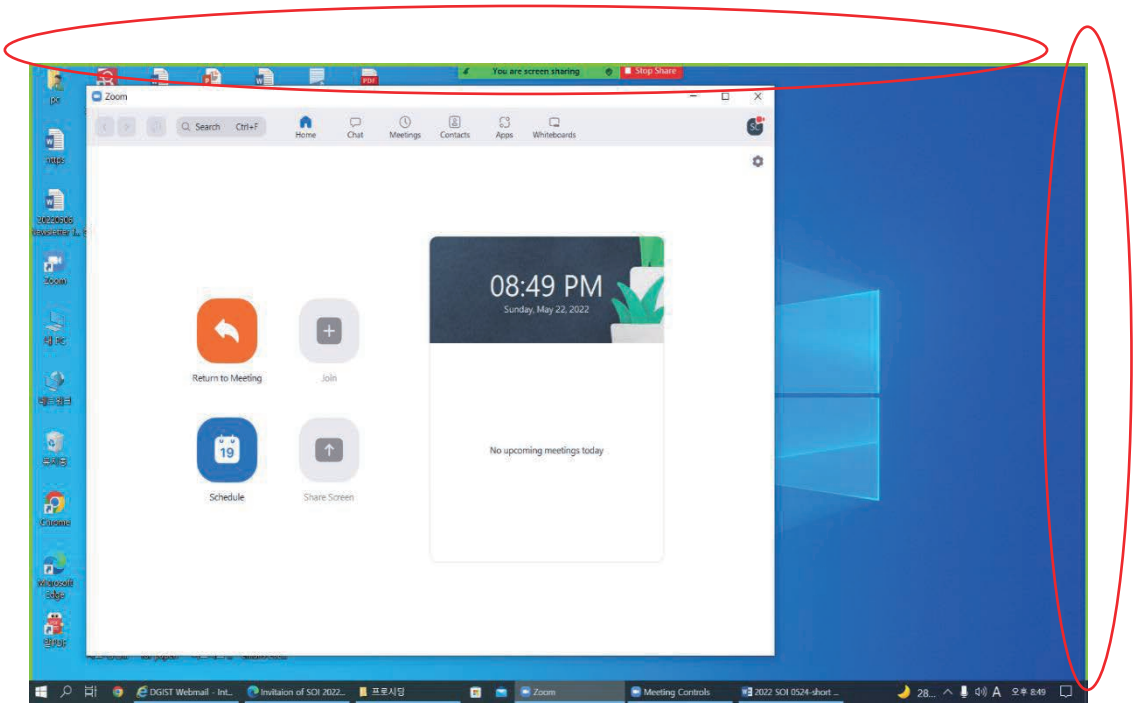
3. Method for Presenters to show the PPT with others





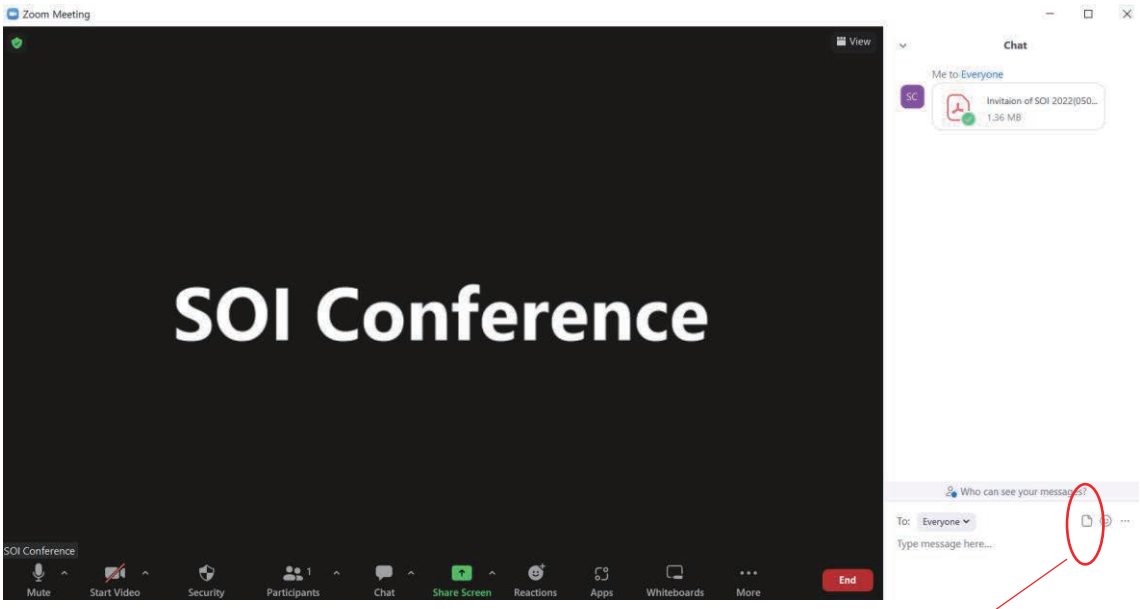
*When ask you to "Select a window or an application that you want to share", please just select the "Screen". And then press the "Share" button.

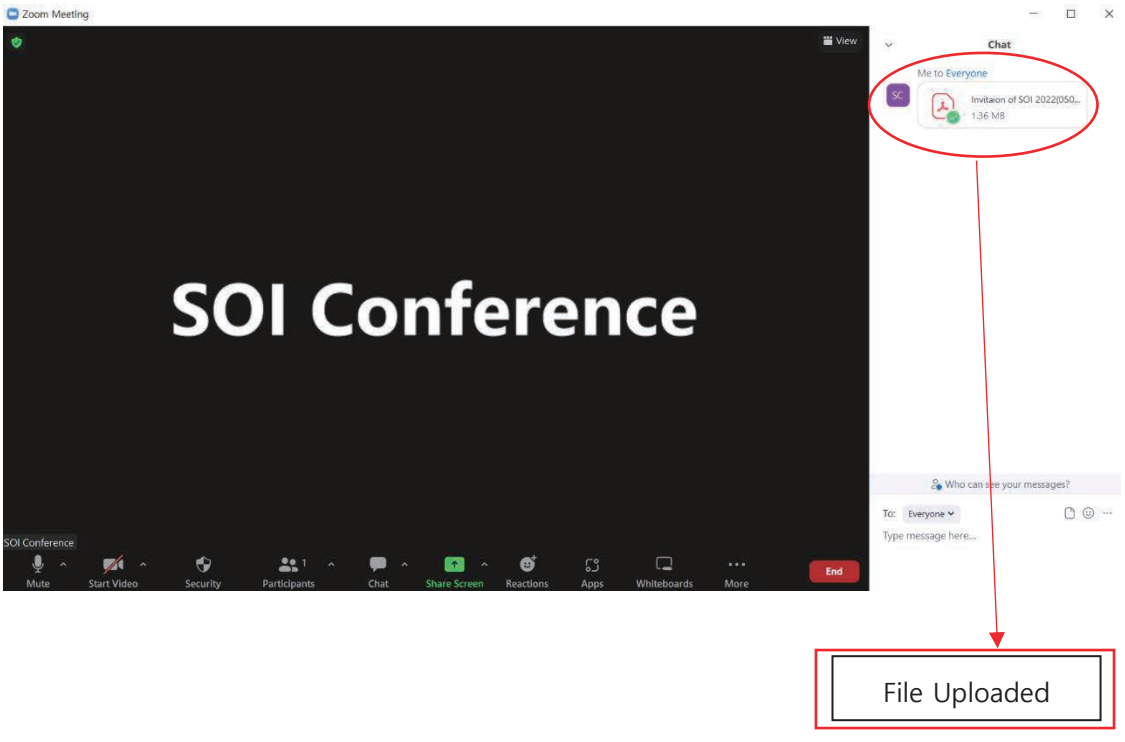
* Otherwise, it might limit your slides show(stop showing) to others.



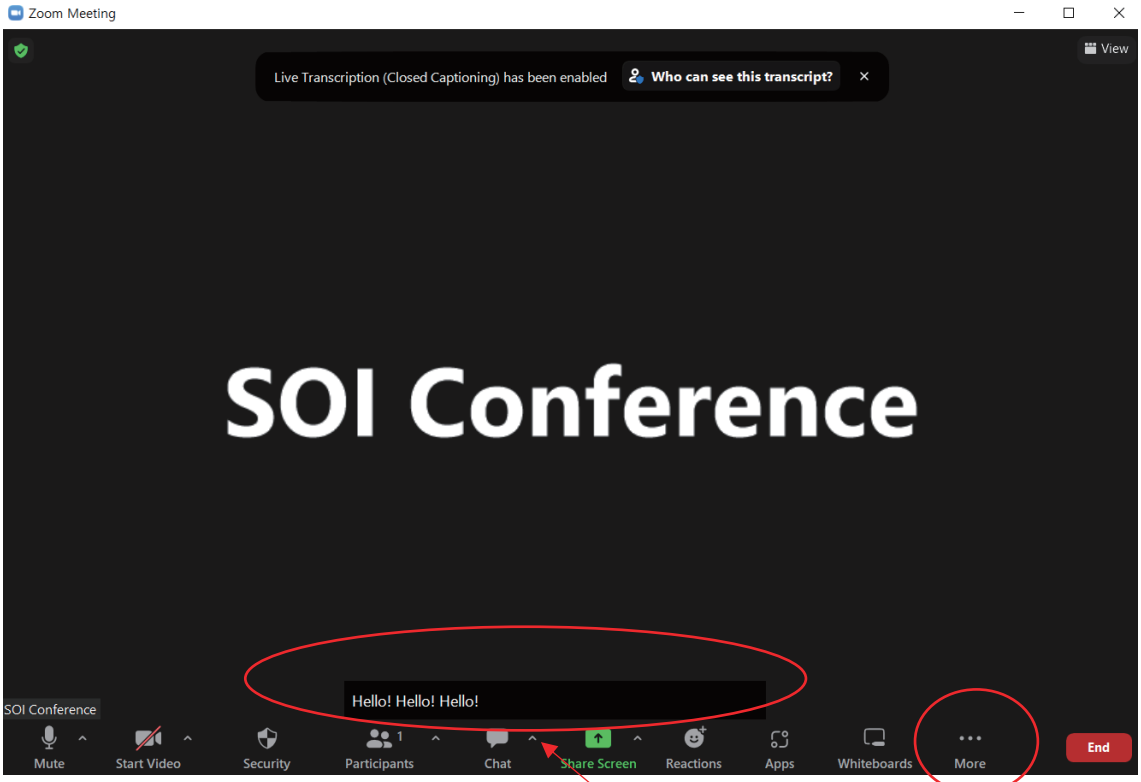
*When there is a green color window frame, it means you are sharing your screen.

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





5. Additional Function: Live Transcript



Press here and select "Live Transcript", and then you can see the the presenter's words in text here.

July 10 (Mon.) ~July 11(Tue.)	**Programs** ***Venue: SALA A(Ground Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**	
09:30~16:00	**SOI 2023 Summer School by Open Innovation Academy** **Presider: Assistant Professor of Open Innovation Academy, Xiaofei Zhao** ***Everyday will check the attendance, full attendants will be awarded "SOI Open Innovation Academy Alumni Certificate" on July 11th, 2023** •Venue & Address: SALA A(Ground Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy *For more schedule details & lecture materials, please check Page 46-50. ***Contact: Principal Professor JinHyo Joseph Yun; +82-10-6697-8355, jhyun@dgist.ac.kr** **Or Assistant Professor Xiaofei Zhao; +82-10-4072-8595, qiaoke@dgist.ac.kr** ***Online Participation*: Zoom** **Zoom link:** https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09 **Meeting ID: 813 0320 8148** **Passcode: SOISOI2**	

7. 12(Wed.)	Programs	*Venue: Industry Visiting & Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy
09:30~14:30	**Industry Visiting "Sorrentino Vini SRL(Wineyard)"** **Presiders: Xiaofei Zhao(DGIST, Korea) & ENRICO DI TARNTO(University of Naples Federico Ⅱ, Italy)**	

1. (09:30~)Royal Continental Hotel & Conference Centre of University of Naples Federico II → Wineyard

• Bus waiting from 09:00 in front of Royal Continental Hotel & Conference Centre of University of Naples Federico II (Via Partenope 38 & 36, Naples, Italy)

* Royal Continental Hotel is next to Conference Centre of University of Naples Federico II

2. •10:00~14:00 Sorrentino Vini SRL(Wineyard)

•Bus departure at 14:00 from the parking lot of Sorrentino Vini SRL(Wineyard)

*11:30~12:30 Lunch time (Lunch will be provided in Sorrentino Vini SRL(Wineyard); *15 Euros of tour and lunch fee in Sorrentino Vini SRL(Wineyard) will be paid by SOI.

3. 14:00~14:30 Sorrentino Vini SRL(Wineyard) → Conference Centre of University of Naples Federico II

4. Only for the First 50 applicants who had sent the applications can participate in the tour.
Contact: openinnovationtmc@dgist.ac.kr

Audience Facebook Live: Open Innovation-b

Method: [**Friends Search** → "**Open Innovation-b**" → Select the search result with the name of "**Open Innovation-b**" → add friend → visiting the live videos]

Open Innovation-b

14:30~15:30	**Welcome Reception + Preliminary Registration** *** Venue: 1st Floor, Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy(Coffee and dessert will be provided)**	

Society of Open Innovation
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7. 12(Wed.)	Programs		*Venue: Industry Visiting & Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy					
15:30~17:00	AULA MAGNA(1st Floor)		SALA A(Ground Floor)		SALA B(Ground Floor)		SALA C(Ground Floor)	
	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)
	Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09 **Meeting ID: 891 6094 1900 Passcode: SOISOI1**	Facebook Live: Open Innovation-first Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos] 	**Zoom link:** https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09 **Meeting ID: 813 0320 8148 Passcode: SOISOI2**	Facebook Live: Open Innovation-b Method: [Friends Search → "Open Innovation-b" → Select the search result with the name of "Open Innovation-b" → add friend → visiting the live videos] 	**Zoom link:** https://us06web.zoom.us/j/86238269513?pwd=UlJhWmNhRHR6NWcrWllHUnlpeWk3dz09 **Meeting ID: 862 3826 9513 Passcode: SOISOI3**	Facebook Live: Open Innovation-third Method: [Friends Search → "Open Innovation-third" → Select the search result with the name of "Open Innovation-thirdt" → add friend → visiting the live videos] 	**Zoom link:** https://us06web.zoom.us/j/88570486108?pwd=REpDMFBKTjA1ZHo1QUY4M1N6L0ZGdz09 **Meeting ID: 885 7048 6108 Passcode: SOISOI4**	Facebook Live: Open Innovation-d Method: [Friends Search → "Open Innovation-d" → Select the search result with the name of "Open Innovation-d" → add friend → visiting the live videos] 
	Session **Business Model Open Innovation and Capitalistic Economy after Pandemic** **Chair: JinHyo Joseph Yun(DGIST, Korea)** • Paper 1: "Open innovation signal in financial data" by **JinHyo Joseph Yun*, BongHwan Kim**, Xiaofei Zhao, Euiseob Jeong, Joonggi Ahn** • Paper 2: "Issues of Innovation Expert Support for Business Decision-Making: Prioritizing the key factors of commercializing innovations" by **Agota Giedrė Raišienė*, Tibor Dőry, Simonas Juozapas Raišys**		**Session** **Platform innovation and digitalisation** **Chairs: Lei Ma(Nanjing Univ. of Science and Technology, China) & Zheng Liu(Cardiff Metropolitan University, UK)** • Paper 1: "Technology empowerment: Research on the service supply model based on the intelligent elderly care platform" by **Jie Gao, Lei Ma*, Zhizhong Ding, Dandan He** • Paper 2: "Spark Innovation for Food Delivery Platforms through Emphatic Design Research : Focusing on the Special Delivery" by **Fan Xu, Taesun Kim**		**Session** **Open Innovation and Business Model in Biomedical Industry** **Chairs: Kwangsoo Shin(The Catholic University of Korea, Korea), Harry Jeong(Central Research Institute of Dr.Chung's Food, Korea)** • Paper 1: "What is the Impact of Dynamic Capabilities on Firms' Low-Carbonization Performance?" by **Seunghyun Kim, Changhyeon Song, Harry Jeong, Kwangsoo Shin*** • Paper 2: "Open Innovation and the "Good Ancestor": OMRON Corporation in Japan" by **Mari Iizuka**		**Session** **Digital Transformation of Traditional Business** **Chair: Hee Dong Yang(Ewha Womans University, Korea)** • Paper 1: "Influencers who do not expose their faces: Analysis of the impact of posting strategy according to the influencer's self-disclosure on Sales" by **Sulim Kim, Hee-Dong Yang, Heeseok Lee** • Paper 2: "Nine-path concurrent analysis of factors that impact crisis resilience of companies" by **Karine OGANISJANA, Natalja LACE, Iveta**	

7. 12(Wed.)	**Programs**	***Venue: Industry Visiting & Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**		
	• Paper 3: "The design of an open innovation ecosystem focused on sustainability: the case of the Butterfly Area in Turin, Italy" by **Dario Peirone, Judy Yueh Ling Song** • Paper 4: "Innovation Optimisation, Online Platform and Business Support Services: The Moderating Role of Skills and Business Association" by **S. Kehinde Medase, Joseph Amankwah-Amoah, Jutta Günthe** **Honor Discusser: Jason Potts**	• Paper 3: "Smart city as an emerging new regional Industry; an open innovation perspective in Sejong Smart city initiative" by **Junghee Han** • Paper 4: "Prosocial Behavior Impact on Business Results" by **Artūrs Bernovskis, Deniss Sceulovs** **Honor Discusser: YongJiang Shi**	• Paper 3: "Holistic innovation in the medical device: A case from cochlea implant" by **Dongwoo Kim, Kwangsoo Shin*** • Paper 4: "INTEGRATION OF AI IN CRM AND MARKETING: ENABLING FACTORS, CHALLENGES AND GUIDELINES" by **Ledro, Cristina*, Dalla Pozza, Ilaria, Nosella, Anna**	**POKROMOVICA, Konstantins KOZLOVSKIS** • Paper 3: "Gendered and inclusive innovation: concepts and practices" by **Heajin Kim** • Paper 4: "Disruptive technology identification based on the open innovation network: A case of virtual travel" by **Ben Zhang, Ziyang Huang**
17:00~17:30	**Break Time**			
17:30~18:30	**Keynote Speech 1** (17:30~18:00) **Jason Potts** (RMIT University, Australia) •Theme: Web3 toolkits: A user innovation theory of crypto development **•Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy** ***Presiders: Zheng Liu(Cardiff Metropolitan University, UK)) & Kwangsoo Shin(The Catholic University of Korea, Korea)** **Onlin participation: Zoom** **Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09** **Meeting ID: 891 6094 1900; Passcode: SOISOI1** **Audience Facebook Live: Open Innovation-first** Method: [**Friends Search** → "**Open Innovation-first**" → Select the search result with the name of "**Open Innovation-first**" → add friend → visiting the live videos]			

7. 12(Wed.)	**Programs**	***Venue: Industry Visiting & Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**
		
	Keynote Speech 2 (18:00~18:30) **Yongjiang Shi** (University of Cambridge, UK) •Theme: How can Open Innovation and Industry Ecosystem Work Together to Achieve Sustainable Value Creation and Society Development?	
19:00~	**Invited VIP Dinner by the president of SOI** ***Presiders: KwangHo Jung(Seoul National Univ., Korea), Valentina Della Corte(University of Naples Federico Ⅱ, Italy)** • Venue: "Palazzo Petrucci" (Joint Taxi will be prepared); Address: Via Posillipo, 16 C,80123 Napoli, Italy; +39 338 532 1885 * Because of the limited seats, we will contact the invited VIPs separately. VIP dinner inviting letter in advance distribution.	

7. 12(Wed.)	**Programs**	***Venue: Industry Visiting & Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**

Audience Facebook Live: Open Innovation-b

Method: [**Friends Search** → "**Open Innovation-b**" → Select the search result with the name of "**Open Innovation-b**" → add friend → visiting the live videos]

Open Innovation-b

7. 13(Thur.)	**Programs**				***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**				
Time	**AULA MAGNA(1st Floor)**		**SALA A(Ground Floor)**		**SALA B(Ground Floor)**		**SALA C(Ground Floor)**		
	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	

7. 13(Thur.)	Programs		*Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy						
	Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09 Meeting ID: 891 6094 1900 Passcode: SOISOI1	Facebook Live: Open Innovation-first Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos]  Open Innovation-first	**Zoom link: https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09 Meeting ID: 813 0320 8148 Passcode: SOISOI2**	Facebook Live: Open Innovation-b Method: [Friends Search → "Open Innovation-b" → Select the search result with the name of "Open Innovation-b" → add friend → visiting the live videos]  Open Innovation-b	**Zoom link: https://us06web.zoom.us/j/86238269513?pwd=UlJhWmNhRHR6NWcrWllHUnlpeWk3dz09 Meeting ID: 862 3826 9513 Passcode: SOISOI3**	Facebook Live: Open Innovation-third Method: [Friends Search → "Open Innovation-third" → Select the search result with the name of "Open Innovation-third" → add friend → visiting the live  Open Innovation-third	**Zoom link: https://us06web.zoom.us/j/88570486108?pwd=REpDMFBKTjA1ZHo1QUY4M1N6L0ZGdz09 Meeting ID: 885 7048 6108 Passcode: SOISOI4**	Facebook Live: Open Innovation-d Method: [Friends Search → "Open Innovation-d" → Select the search result with the name of "Open Innovation-d" → add friend → visiting the live videos]  Open Innovation-d	
08:30~09:30	**Registration (Registration Desk: Foyer(Ground floor) of the building)**								
09:30~11:00	**Session Regional Development, and Open Innovation Chair: DaeCheol Kim(Hanyang University, Korea)** • Paper 1: "Servitization of Regional Clusters for Regional Development" by **Eun Song Bae, Tae Youn Kim, Daecheol Kim*** • Paper 2: "Open innovation and sustainability: the role of the network" by **Giovanna Del Gaudio*, Fabiana Sepe, Enrico Di Taranto, Alessio Pira** • Paper 3: "Circular economy and open innovation: a systematic literature review" by **Anna**		**Session Digitally innovative and socially inclusive Chair: Taesun Kim(Hanyang University, Korea)** • Paper 1: "Risks that older adults meet in residential areas while walking, especially during winter" by **Duanduan Liu, Taesun Kim** • Paper 2: "Open Innovation Approach for Empowering Parkinson's Patients" by **Roberta Dutra de Andrade, Marcelo Martins Silva, Raysa Geaquinto Rocha*** • Paper 3: "Circular economy and open innovation: a systematic literature review" by **Anna**		**Session Open Innovation & HRM Chair: Yuri Sadoi(Meijo University, Japan)** • Paper 1: "Regional alliances and geoeconomic factors in the semiconductor industry" by **Lih Ren Li, Kuanju Lin, Yuri Sadoi, Cheng Wu** • Paper 2: "An analytic approach to finding substitute human resources with a focus on external stakeholder effects" by **Lim, Jitaek, Yoon, Junghyun, Sung, Sanghyun** • Paper 3: "What makes ESG management boost firms' value		**Session Regional Innovation & Entrepreneurship in the era of the 4th industrial revolution & Innovation Management and Platform Research Chairs: SungYong Choi(Hanyang University, Korea) & Junic Kim(KonKuk University, Korea)** • Paper 1: "The Effect of Entrepreneurial Orientation of Technology Startups on Firm Performance – Considering the Mediating Effect of Technology Acquisition" by **Byungyun Bae, Sungyong Choi***		

7. 13(Thur.)	Programs	*Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy			
	Prisco*, Fabiana Sepe, Enrico Di Taranto, Mario Tani • Paper 4: "Value Co-creation in Post-Pandemic Tourism through Open Innovation Platforms: Nexus between Digital Tourism 'Hackathon', Reward-based Crowdfunding and Destination Competitiveness" by **Umer Zaman*, Inhyouk Koo, Shahid Nawaz, Pablo Farías** **Honor Discusser: JinHyo Joseph Yun**	• Paper 3: "Analysis of the Digital Potential of a Company" by **Viktorija Babiča, Deniss Ščeulovs** • Paper 4: "Comparative Usability Analysis of Mobile Healthcare Applications: Focusing on Apple Health,MyFitnessPal,and Mint Health" by **Zheyuan Zhang, Taesun Kim**	up? - Focusing on US pharmaceutical firms" by **Harry Jeong; Seunghyun Kim; Changhyeon Song; Kwangsoo Shin*** • Paper 4: "Smart services in the era of open innovation: a systematic literature review" by **Marialuisa Marzullo*, Irene Di Bernardo, Angelo Ranieri**	• Paper 2: "Resell platform and Open market platform: A multigroup analysis" by **Huan Meng, Junic Kim** • Paper 3: "Assessing progress towards decent work in companies using framework indicators and considering regional trends in Latvia" by **Angelina ROSA, Natalja LACE**	
11:00~11:30	Coffee Break ★ **Coffee and dessert will be provided in 1st floor coffee room.**				
11:30~13:00	**Welcoming Speech by the Organizing President of SOI - Prof. Dr. JinHyo Joseph Yun** (11:30~11:40) **•Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy** ***Presiders: Giovanna Del Gaudio(University of Naples Federico Ⅱ, Italy) & Junic Kim(KonKuk University, Korea)** **Onlin participation: Zoom** **Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09** **Meeting ID: 891 6094 1900; Passcode: SOISOI1** **Audience Facebook Live: Open Innovation-first** Method: [**Friends Search** → "**Open Innovation-first**" → Select the search result with the name of "**Open Innovation-first**" → add friend → visiting the live videos]  **Open Innovation-first**				
	Welcoming Speech by the DEMI of UNINA Hosting Chair-Prof. Valentina Della Corte (11:40~11:50)				
	Congratulatory Speech by the Rector of UNINA-Prof. Matteo Lorito (11:50~12:00)				

7. 13(Thur.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**			
	Keynote Speech 3 (12:00~12:30) **JinHyo Joseph Yun** (DGIST, Korea) •Theme: Business Model Nudge- Matching between Technology, and Market in Open Innovation Dynamics				
	Keynote Speech 4 (12:30~13:00) **Vincenzo Corvello** (University of Messina, Italy) •Theme: Accelerating the recovery through Open Innovation and Corporate-Start-up collaboration				
13:00~14:30	Lunch Break				
14:30~16:00	**Session** **DIGITALIZATION for Open Innovation after Pandemic for the Recovery of World Economy & SUSTAINABILITY & Open Innovation** **Chairs: Giovanna Del Gaudio(University of Naples Federico Ⅱ, Italy) & ENRICO DI TARNTO(University of Naples Federico Ⅱ, Italy)** • Paper 1: "Innovation and M&AS in the tourism sector. A systematic literature review" by **V. Della Corte, Olimpia Meglio, Giovanna Del Gaudio** • Paper 2: "Open (Sustainable) Tourism for Regional Development" by **Tae Youn Kim, Daecheol Kim*** • Paper 3: "Open innovation in the University ecosystem" by **Giovanna Del Gaudio, I. Quinto**	**Session** **Challenges and New Perspectives of Business, Technology and Management** **Chairs: Deniss Ščeulovs(Riga Technical University, Latvia), Viktorija Babiča(Riga Technical University, Latvia), Linda Saulīte(Riga Technical University, Latvia)** • Paper 1: "Brand and masculinity archetypes as an innovative research approach for analyzing consumer preferences on masculinity in advertising" by **Toms Kreicbergs, Deniss Ščeulovs, Artūrs Bernovskis** • Paper 2: "R&D Performance in the context: A comparison of defense R&D and national R&D" by **Seungwon Yu, Jaeseong Kim** • Paper 3: "A Study on Entrepreneurship Education and Entrepreneurship Education	**Session** **Knowledge Management, Entrepreneurship, and Technology/Knowledge Transfer: The Perspective from Open Innovation** **Chairs: Junghyun Yoon(Yeungnam University, Korea) & Sanghyun Sung(GyeongSang National University, Korea)** • Paper 1: "Comparative Study between Korean Regional Innovation System and European Regional Innovation System" by **Yoon, Junghyun, Baek, Kwang Ho*** • Paper 2: "Human Resource Development in IT industry in Myanmar - Its challenge and practices" by **Win Zaw, Yuri Sadoi** • Paper 3: "A bibliometric study on global trends of women entrepreneurship research from	**Session** **Innovation Diversity for Emerging Economies** **Chairs: Natalja Lace(Riga Technical University, Latvia), Karine Oganisjana(Riga Technical University, Latvia), Yuanyuan Liu(Riga Technical University, Latvia)** • Paper 1: "Strategies for the state interventions to promote infrastructure sustainability" by **Justina HUDENKO*, Igors KUKJANS, Ieva KUSTOVA** • Paper 2: "Career Clusters, Career Mobility and Career Success Among IT Professionals in South Korea: A Gender Perspective" by **Seonyoung Shim, Sojung Kim, Thomson S.H. Teo, Vivien K.G. Lim** • Paper 3: "Measuring MNE's Collaborative Synergies from Sequential Acquisitions of	

7. 13(Thur.)	Programs	*Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy			
	• Paper 4: "Educating the new generation. The role of open innovation" by **Enrico Di Taranto**	Program's Promotion of Entrepreneurial Intention : A Meta-Analysis" by **Lee Duckjai**	2000-2020" by **Lee, Junghee, Lee, Myeongju, Yu, Soonmi, and Sung, Sanghyun** • Paper 4: "A method for assessing the readiness for knowledge transfer: case of manufacturing companies" by **Mikus Dubickis & Agnese Zariņa**	International Ventures by Advanced Real Options" by **CIRJEVSKIS, Andrejs** • Paper 4: "Does college students' digital literacy affect their entrepreneurial intentions?" by **Byungyun Bae, Sungyong Choi***	
16:00~16:30	Coffee Break ★ **Coffee and dessert will be provided in 1st floor coffee room.**				
16:30~18:00	**Session** **TOURISM sector and Open Innovation and Open Business Model** **Chair: Valentina Della Corte(University of Naples Federico Ⅱ, Italy)** • Paper 1: "Cultural heritage and open innovation: road to Federico II 800" by **V. Della Corte*, Eleonora Napolano, Stefano D'Ovidio** • Paper 2: "Sustainable Business Model Innovation in Digital Transformation - Finding From the Open Innovation Dynamics of long living Restaurants in Naples, and Daegu, and Nagoya" by **JinHyo Joseph Yun*, Xiaofei Zhao, Valentina Della Corte,**	**Session** **Innovation & Growth** **Chairs: Kangwon Lee(Korea Institute for Advanced Study, Korea) & Seung Hoo Jin(Sumsung SDS, Korea)** • Paper 1: "A Case Study on the Development of Input-Output Tables in the Defense Industry" by **Jaeho Jung, Kangwon Lee** • Paper 2: "Contemporary Approach to Business Education Enhancement: Agile Tools for System Evaluation" by **Tatjana Ņikitina, Inga Lapiņa** • Paper 3: "A Longitudinal Analysis of Perception of Genetically Modified Organisms Using Autoregressive Cross Lagged	**Session** **Innovation Strategy in New Global and Digital Era** **Chair: DongHoon Oh(Ministry of Trade, Industry and Energy, Office of Strategic R&D Planning, Korea)** • Paper 1: "Identification of Promising Technology Areas requiring Prior Support from National R&D" by **Cheol-Ju Lee, Hyoung Ryul Ma*** • Paper 2: "Knowledge networks, university incubation and the growth of start-ups: Case studies from Portugal" by **Dario Peirone, João Leitão, Dina Pereira, Judy Yueh Ling Song** • Paper 3: "Cooperative Activities between Big Companies and Small and medium-sized	**Session** **Gendered Innovation and Cross Cutting Issues in Science and Technology Governance** **Chair: Hyomin Kim(Ulsan National Institute of Science and Technology(UNIST))** • Paper 1: "Gendering of engineering identities in Korea: Impact of age and academic prestige" by **Hyomin Kim** • Paper 2: "The Green Deal Affect and Baltic Regional Energy Sector – Transition Towards Sustainable Economic Model" by **Elmārs Kehris, Elīna Gaile-Sarkane** • Paper 3: "The Impact of Regularizing Non-Regular Employees on Financial Performance of Korean Public Enterprises: Management	

7. 13(Thur.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**			
	Giovanna Del Gaudio, Yuri Sadoi • Paper 3: "Identification of emerging road kill hotspots on Korean highways by using space time cubes" by **Sangdon Lee, Minkyung Kim** • Paper 4: "Tourists' acceptance of blockchain technology in smart destinations: applications of the Planned Behavior Theory" by **Simone Luongo*, Enrico Di Taranto, Eleonora Napolano, Valerio Muto** **Honor Discusser: Vincenzo Corvello**	Modeling : A Case Study in Korea" by **Daehyun Han** • Paper 4: "Degree Assortativity in Collaboration Networks and Breakthrough Innovation" by **Lun Wang, Runhui Lin**	Enterprises, and Technological Transfer" by **Kim, Daesu, Kim, Yongwoo, Yoon, Junghyun**	Capacity Matters" by **Jaewon Yun, Kwangho Jung*** • Paper 4: "Dynamic Platform: emergent and deliberate strategies" by **Junic Kim, Shanghe Ahn, Ian Miles**	
19:00~	**Gala Dinner** ***Presiders: Natalja Lace (Riga Technical University, Latvia) & BongHwan Kim(Seoul National University, Korea)** • Venue: "Ristorante reginella" (Bus will wait in front of the conference centre from 18:00~) * Address: Via Posillipo, 45A- 80123 Napoli, Italy; Tel. +39 081 5754020/+39 081 2403220; ristorante.reginella@alice.it *Payment of registration: 60Euro; In advance application via email to openinnovationtmc@dgist.ac.kr * World Best Restaurant should be experienced in Naples; SOI paid some addition and support the gala dinner at this special price.				

7. 13(Thur.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**	




Audience Facebook Live: Open Innovation-third

Method: [**Friends Search** → "**Open Innovation-third**" → Select the search result with the name of "**Open Innovation-third**" → add friend → visiting the live videos]

7. 14(Fri.)	Programs		*Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy						
Time	AULA MAGNA(1st Floor)		SALA A(Ground Floor)		SALA B(Ground Floor)		SALA C(Ground Floor)		
	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	
	Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09 Meeting ID: 891 6094 1900 Passcode: SOISOI1	Facebook Live: Open Innovation-first Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos] 	Zoom link: https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09 Meeting ID: 813 0320 8148 Passcode: SOISOI2	Facebook Live: Open Innovation-b Method: [Friends Search → "Open Innovation-b" → Select the search result with the name of "Open Innovation-b" → add friend → visiting the live videos] 	Zoom link: https://us06web.zoom.us/j/86238269513?pwd=UlJhWmNhRHR6NWcrWllHUnlpeWk3dz09 Meeting ID: 862 3826 9513 Passcode: SOISOI3	Facebook Live: Open Innovation-third Method: [Friends Search → "Open Innovation-third" → Select the search result with the name of "Open Innovation-third" → add friend → visiting the live 	Zoom link: https://us06web.zoom.us/j/88570486108?pwd=REpDMFBKTjA1ZHo1QUY4M1N6L0ZGdz09 Meeting ID: 885 7048 6108 Passcode: SOISOI4	Facebook Live: Open Innovation-d Method: [Friends Search → "Open Innovation-d" → Select the search result with the name of "Open Innovation-d" → add friend → visiting the live videos] 	
08:30~09:30	Registration (Registration Desk: Foyer(Ground floor) of the building)								
09:30~11:00	**Session** **Business Model Competition Session** **Chair: Juhyun Eune(Seoul National University, Korea)** ***BEST BM selection 1~2 by chair.** • Paper 1: "Business Model Proposal for a Virtual Traveling Platform that Enhances Mobility Experience" by **Ahn Chaeyeun, Juhyun Eune*** • Paper 2: "Uncovering the Relationship between Open		**Session** **Innovation and Business Models in Emerging Economies** **Chairs: Elina Gaile-Sarkane(Riga Technical University) & Inga Lapina(Riga Technical University)** • Paper 1: "Systemic and Data-driven Decision Making in University: Indicators for Strategy Evaluation" by **Aija Medne, Inga Lapiņa, Artūrs Zeps** • Paper 2: "Multiple Perspectives of COVID-19 Patients on		**Session** **Innovation, Sustainable Development and Climate Justice & Environmental assessment and climate change monitoring with the use of ICT** **Chairs: João Leitão(University of Beira Interior, Portugal) & Sang-Don Lee(Ewha Womans University, Korea)** • Paper 1: "Windows of opportunity to catch-up in the biopharmaceutical industry:		**Session** **The open innovation mechanism in a future perspective** **Chair: Ben Zhang(Huazhong University of Science & Technology, China)** • Paper 1: "A patent portfolio value analysis based on intuitionistic fuzzy sets: An empirical analysis of Chinese artificial intelligence healthcare enterprises" by **Chenxu Ming, Ben Zhang***		

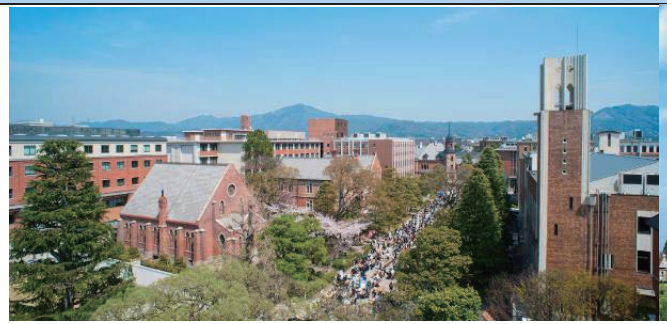
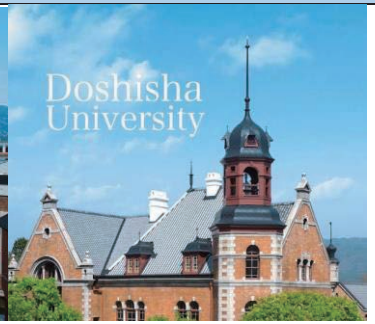
7. 14(Fri.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**			
	Innovation and Financial Metrics: A Tesla Case Study on the Impact of Investment Indicators" by **Minseo Jung** • Paper 3: "UNINA Sanitary pad Business model: Custom Cycle Delivery System" by **Eunjin Kim, Kim Woori, Juhyun Eune*** • Paper 4: "A Study on the Improvement of the Open innovation customized support system for College Entrance by Outstanding High School Students" by **Dayoung IM, Changwoo PARK*** • Paper 5: "A study on the Roly-poly model based on organizational culture improvement for sustainable work performance in open innovation" by **Jeenyoung PARK, Changwoo PARK*** • Paper 6: "Korea Media Rating using artificial intelligence technology in terms of open innovation" by **Jeonghyun PARK, Changwoo PARK***	Community Treatment Centers in South Korea: Q-Method Approach" by **Jae Young Lee, Kwangho Jung*** • Paper 3: "Correlation Analysis Between Local Extinction Crisis and Social Integration Level" by **Yang, Oh Suk*, Kim, Jong Bub** • Paper 4: "Building an Ecosystem for 21st Century Higher Education in STEM: Councils of Stakeholders and Skills Frameworks" by **Anita Līce, Inga Lapiņa, Elīna Gaile-Sarkane, Līga Kamola, Nenad Zrnic**	Lessons from the case of Korea" by **Changhyeon Song, Harry Jeong, Seunghyun Kim, Kwangsoo Shin*** • Paper 2: "Spatial Agglomeration and Productivity of Portuguese Industrial Districts" by **João Leitão, Joaquim Ferreira** • Paper 3: "The use of ICT driven assessment methods in ecological characteristics" by **Sangdon Lee, Minkyung Kim** • Paper 4: "How to switch from groupthink to collective intelligence in organization? The use of emerging technologies by task complexity" by **Namjun Cha, Eungdo Kim***	• Paper 2: "Ecosystem innovation in rural areas" by **Valentina Della Corte*, Teresa Del Giudice, Giovanna Del Gaudio** • Paper 3: "What drives the acceptance of AI technology?: the role of expectations and experiences" by **Minsang Yi, Hanbyul Choi** **Honor Discusser: Venni V Krishna**	
11:00~11:30	Coffee Break	★ **Coffee and dessert will be provided in 1st floor coffee room.**			

7. 14(Fri.)	**Programs** ***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**				
11:30~12:30	**Keynote Speech 5** (11:30~12:00) **Venni V Krishna** (University of New South Wales, Australia) •Theme: AI and Contemporary Societal Challenges: The Good, Bad and the Ugly ***[Online Speech]*** **•Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy** ***Presiders: FABIANA SEPE(University of Naples Federico II, Italy) & Junghyun Yoon(Yeungnam University, Korea)** **Onlin participation: Zoom** **Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09** **Meeting ID: 891 6094 1900; Passcode: SOISOI1** **Audience Facebook Live: Open Innovation-first** Method: [**Friends Search** → "**Open Innovation-first**" → Select the search result with the name of "**Open Innovation-first**" → add friend → visiting the live videos] 				
	Keynote Speech 6 (12:00~12:30) **Valentina Della Corte** (University of Naples Federico II, Italy) •Theme: Open innovation and inter-firm collaboration				
12:30~14:00	Lunch Break				
14:00~15:30	**Session** **Engineering Practice and Open Innovation for Project Ecosystem** **Chair: Changwoo PARK(Seoul National University, Korea)** ***BEST BM selection 1~2 by chair.** • Paper 1: "Business modeling of a ticket trading platform using NFTs (Non-Fungible Tokens)" by **Hacksun Hwang, Changwoo PARK***	**Session** **Green Governance** **Chair: Weian Li(Nankai University & Tianjin University of Finance and Economics, China)** • Paper1: "Are Female Directors Helping Listed Companies Revive Financial Performance During the COVID-19 Outbreak?" by **Weian Li, Xingye Chen**	**Session** **Open Innovation and Knowledge Management** **Chair: Eungdo Kim(Chungbuk National University, Korea)** • Paper 1: "Coexistence of Heterogeneous Capability Can Stimulate Firm＇s Innovativeness Performance? : Based On The Perceived Strength of Employees "by **Namjun Cha***	**Session** **Digital Government Innovation in South Korea-The Center of Intelligent Society and Policy, Seoul National University** **Chairs: Dongwook Kim(Seoul National Univ., Korea) & Choong-Sik Chung(KyungSung Univ., Korea)** • Paper 1: "A Study on the Future Prediction of Smart City in South	

7. 14(Fri.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**			
	• Paper 2: "ESG Solution for Pet Problem of Korea in Metaverse: Adorable Pet" by **Kim Eunjin, Juhyun Eune*** • Paper 3: "Business modeling of Appropriate Technology application for overseas chemical plant projects" by **Seongwoon KANG, Changwoo PARK*** • Paper 4: "Comparison on business models: Korean government's support for start-ups from all generation entrepreneurs" by **Lee Mingu, Misung Kim, Jihyun Seok, Juhyun Eune*** • Paper 5: "A Case Study of the NASA 4-D System for Engineering Project Performance Creation in Open Innovation" by **Dageon LEE, ByungJun KANG, Changwoo PARK*** • Paper 6: "Successful Proof of Concept design for large companies to expand into new markets" by **Jea HUH, Changwoo PARK***	• Paper 2: "Process framework for innovation through tradition: the case of La Torrente" by **Fabiana Sepe*, Simone Luongo** • Paper 3: "The influence of new collaborators on the innovation performance of focus inventors: the moderating role of network embeddedness" by **Runhui Lin, Ze Ji** • Paper 4: "Open innovation in sport event management" by **Valentina Della Corte*, Giovanna Del Gaudio, Roberto Vona**	• Paper 2: "Successful start-up - Lessons from those who have experienced at enterprises in Japan" by **Nguyen Manh Quan, Nguyen Trong Hieu** • Paper 3: "Re-globalisation of European multinational corporations: A new framework to respond to the uncertain environment" by **Eloi Letzelter, Yongjiang Shi, Zheng Liu, Bo Yang** • Paper 4: "Productivity of the Korean Pharmaceutical Industry: Exploring the Effect of Business Model and Open Innovation" by **Jaehoon Yang, Eungdo Kim***	Korea: Focusing on Concept Definition and Implementation Time Forecasting" by **Choong-sik Chung, Seung-Yoon Shin, Ahra Lee** • Paper 2: "The Global Innovation Kaleidoscope: Understanding and Leveraging Cross-Cultural Dynamics in the Quest for Progress" by **Kanwal Gul, Swapnil Morande** • Paper 3: "Using virtual reality as an innovative service delivery tool" by **Hanchan Hwang & Dongwook Kim**	
15:30~16:00	Coffee Break ★ **Coffee and dessert will be provided in 1st floor coffee room.**				

7. 14(Fri.)	Programs	*Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy		
16:00~17:30	**Session** **FOOD Industry and Open Innovation** **Chair: FABIANA SEPE(University of Naples Federico Ⅱ, Italy)** • Paper 1: "Open innovation and systemic collaboration in the agri-food sector" by **F. Sepe*, G. Del Gaudio** • Paper 2: "Practical strategies of science, technology and innovation for a local government" by **Saimi WOO** • Paper 3: "Photovoice technique to measure Food Waste Consciousness. A comparative analysis among Italian and Pakistani Students" by **V. Della Corte, Kanwal Gul, F. Sepe, Enrico Di Taranto** • Paper 4: "Short food value chain. Open innovation in the agri-business industry" by **Fabiana Sepe*, Giovanna Del Gaudio** **Honor Discusser: Valentina Della Corte**	**Session** **Digital Transformation and Global Open Regional Innovation & Pacing Industry, Servitization and Innovation** **Chairs: Moosup Jung(Dong-A University, Korea) & JungHee Han(HongIk University, Korea)** • Paper 1: "Servitization process analysis; in automotive headrest manufacturing" by **Junghee Han** • Paper 2: "Blockchain-enabled collaboration among enterprise-related agents: progress, framework and prospect" by **Runhui Lin, Wenchang Li, Lun Wang** • Paper 3: "Chance and Threat of Digital Transformation on Global Open Regional Innovation System(GORIS)" by **Moosup Jung, A-ra Joe**	**Session** **Sustainability oriented innovation** **Chairs: Zheng Liu (Cardiff Metropolitan University, UK Nanjing University of Science and Technology, China), Bo Yang (Swansea University, UK)** • Paper 1: "Implementing circular economy: Experience from Wales" by **Zheng Liu, Gary Walpole, Nick Clifton, Homeira Faqdani** • Paper 2: "Punishing or ignoring: An evolutionary game of open source group interests based on license types" by **Tao Li, Zheng Liu, Lei Ma, Kaitong Liang, Chaonan Yi** • Paper 3: "Determinants of Innovative Performance of Knowledge Service Firms" by **Francisco Rebelo, João Leitão**	**Session** **Valuation Methodologies for Sustainable Growth of Firms** **Chair: Hun Park(KISTI, Korea)** • Paper 1: "A Novel GAN algorithm and its Application to Technology Valuation" by **Hun Park, Byunghoon Kim, Jongtaik Lee, Hyunwoo Park** • Paper 2: "The Heterogeneity Classification and its Impact on the Customer Churn Management" by **Woong Park, Kee-Young Kwahk, Kyoung-jae Kim, Hyunchun Ahn** • Paper 3: "Open Innovation and blockchain technologies: exploring implications in fashion industry" by **Simone Luongo, Vincenzo Basile*, Nunzia Capobianco**	
17:30~18:00	Break Time **& SOI 2023 Award Committee Meeting(only for 6 committee members) in AULA MAGNA(1st Floor).**			

7. 14(Fri.)	Programs *Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy	
18:00~19:00	**General Meeting of SOI** **•Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy** ***Presiders: KyungBae Park(SangJi University, Korea) & Yuri Sadoi(Meijo University, Japan)** **Onlin participation: Zoom** **Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09** **Meeting ID: 891 6094 1900; Passcode: SOISOI1** **Audience Facebook Live: Open Innovation-first** Method: [**Friends Search** → "**Open Innovation-first**" → Select the search result with the name of "**Open Innovation-first**" → add friend → visiting the live videos] **Open Innovat...**  **Open Innovation-first** *** Best Paper(Best Paper/Outstanding Paper) Award Ceremony** ***Appreciation Plaque Ceremony for SOI 2023 Organizing President, Hosting Chair.** ***Important Decision Issues(including SOI 2024 & SOI 2025 planning, new honorable advisory members and board members inviting)** **Notice of SOI & Toshisha University 2024 Conference by Prof. Mari Iizuka.**	

7. 14(Fri.)	**Programs** ***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**	
	  • Hosted by Toshisha University; *Hosting Chair: Prof. Mari Iizuka • Organized by Society of Open Innovation: Technology, Market, and Complexity (SOI); *Organizing President: Prof. Dr. JinHyo Joseph Yun •Theme: New Frontiers of business model and sustainability of economy, which are from long history of economic culture, and the end front of innovation • Date: July 8(Mon.) ~ 11(Thur.), Conference Days, 2024, Donshisha University, Kyoto, Japan *July 6(Sat.)~7(Sun.), SOI 2024 Summer School by Open Innovation Academy Lecture Days;	
19:30~	**Inviting Dinner** **Venue: Le Arcate** **Address: Via Aniello Falcone, 249, 80127 Napoli, Italy; Tel. +39 081 761 3380** ***Presiders: Mari Iizuka(Toshisha Univ., Japan), Eungdo Kim(Chungbuk National Univ., Korea), Sang-Don Lee(Ewha Womans Univ., Korea)**    	

7. 14(Fri.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy**	
	 *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 openinnovationtmc@dgist.ac.kr). * Shuttle bus will wait wait in front of the conference centre from 19:00~ & after dinner, take the path from Le Arcate -> Royal Continental Hotel **Audience Facebook Live: Open Innovation-d** Method: [**Friends Search** → "**Open Innovation-d**" → Select the search result with the name of "**Open Innovation-d**" → add friend → visiting the live videos]  **Open Innovation-d**	

7.15(Sat.)	Programs *Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy & Cultural Tour								
Time	AULA MAGNA(1st Floor)		SALA A(Ground Floor)		SALA B(Ground Floor)		SALA C(Ground Floor)		
	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	Online Presenters (Zoom)	Online Audience (Facebook Live)	
	Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09 **Meeting ID:** 891 6094 1900 **Passcode:** SOISOI1	Facebook Live: Open Innovation-first Method: [Friends Search → "Open Innovation-first" → Select the search result with the name of "Open Innovation-first" → add friend → visiting the live videos] 	**Zoom link:** https://us06web.zoom.us/j/81303208148?pwd=bHVQVXZuVmVYMkFOTjZuRTJXdWp1Zz09 **Meeting ID:** 813 0320 8148 **Passcode:** SOISOI2	Facebook Live: Open Innovation-b Method: [Friends Search → "Open Innovation-b" → Select the search result with the name of "Open Innovation-b" → add friend → visiting the live videos] 	**Zoom link:** https://us06web.zoom.us/j/86238269513?pwd=UlJhWmNhRHR6NWcrWllHUnlpeWk3dz09 **Meeting ID:** 862 3826 9513 **Passcode:** SOISOI3	Facebook Live: Open Innovation-third Method: [Friends Search → "Open Innovation-third" → Select the search result with the name of "Open Innovation-third" → add friend → visiting the live 	**Zoom link:** https://us06web.zoom.us/j/88570486108?pwd=REpDMFBKTjA1ZHo1QUY4M1N6L0ZGdz09 **Meeting ID:** 885 7048 6108 **Passcode:** SOISOI4	Facebook Live: Open Innovation-d Method: [Friends Search → "Open Innovation-d" → Select the search result with the name of "Open Innovation-d" → add friend → visiting the live videos] 	
08:30~09:30	**Registration (Registration Desk: Foyer(Ground floor) of the building)**								
09:30~11:00 **Poster Presentation Prize Money would be awarded for every conference room's with 3 best posters.**	**Poster Session** **Chairs: Simone Luongo(University of Naples Federico Ⅱ, Italy) & Choong-Sik Chung (KyungSung University, Korea)** • Paper 1: "Open innovation in converted new industry and regulation conversion" by **JinHyo Joseph Yun*, Xiaofei Zhao, Bo Yang, Zheng Liu**		**Poster Session** **Chairs: Giovanna Del Gaudio(University of Naples Federico Ⅱ, Italy), Dongwook Kim(Seoul National Univ., Korea) & Youeil KIM (KISTI, Korea)** • Paper 1: "Do Powerful CEOs Aggravate the Corporate Fraud of Listed Companies?" by **Xianan Li**		**Poster Session** **Chairs: ENRICO DI TARNTO(University of Naples Federico Ⅱ, Italy) & Euiseob Jeong(KISTI, Korea)** • Paper 1: "Measures and practices for digital transformation in SMEs of Japan" by **Yuri Sadoi, Sergei Shaposhinikov**		**Poster Session** **Chairs: FABIANA SEPE(Univ. of Naples Federico Ⅱ, Italy), KwangHo Jung(Seoul National Univ., Korea) & SungYong Choi(Hanyang Univ., Korea)** • Paper 1: "Big Data analytics predicting Chinese tourists intentions to choose Latvia as a tourism destination to visit" by		

7.15(Sat.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy & Cultural Tour**			
Award: 100 $/per poster **Evaluating Method: Every visitor would be given three heart memos before enter each room, then after visiting the presentation, you can choose the best three posters in every room and paste your heart memos on those posters. Poser session chairs would account the final results.**	• Paper 2: "Business Model Nudge- Matching between Technology, and Market in Open Innovation Dynamics" by **JinHyo Joseph Yun*, Xiaofei Zhao, Heungju Ahn, KyungBae Park, Sung Deuk Hahm** • Paper 3: "Exploiting open innovation for improving the concept of quality in the hospitality industry" by **V. Della Corte, Enrico Di Taranto** • Paper 4: "Museums and open innovation. The role of aspect-based sentiment analysis" by **V. Della Corte, Giovanna Del Gaudio, Vincenzo Moscato, Alessio Botta, Antonio Galli** • Paper 5: "The Effect of R&D Management Competency on Researchers' Satisfaction from the Perspective of Open Innovation" by **Byung Yong Hwang*, Sung Hun Park, Na Rae Lee, Tae Youn Kim** • Paper 6: "Analysis of technology trends by technology fields of	• Paper 2: "Comparative analysis of customer usability of mobile food delivery applications- Focused on BaeMin, Hungry Panda" by **JINGZE PIAO, Taesun Kim, Xintong Ma, Hongyuan Zhao** • Paper 3: "Driving Transformational Change in Digital Healthcarewith Design Thinking" by **HONGYUAN ZHAO, Taesun Kim, Xintong Ma, JingZe Piao** • Paper 4: "Importance of News Media Branding in a Contemporary Media Environment" by **Linda Saulīte, Deniss Ščeulovs** • Paper 5: "Artificial Intelligence Application for Business Needs: Challenges and Opportunities" by **Deniss Ščeulovs, Dace Vanaga, Ilja Afanasjev** • Paper 6: "The impact of open innovation activities on the innovation outcome : According	• Paper 2: "Challenges and Opportunities in Human Resource Development of Myanmar Engineers Working in Japan-" by **Than Than Aung, Yuri Sadoi** • Paper 3: "Knowing what kind of open innovation and Who am I, it goes to succeed" by **HeaJoo Wang, Changhyeon Song; Kwangsoo Shin*** • Paper 4: "Developing on the interface design of Time Bank web-side based on user experience" by **Xintong Ma, Taesun Kim, Hongyuan Zhao, Jingze Piao** • Paper 5: "Biomedical innovation strategy for catching-up with leading companies: A case of pre-clinical test industry" by **Harry Jeong; Beom Mo Gu, Kwangsoo Shin*** • Paper 6: "Linking HR's entrepreneurial orientation and networking capability to innovation performance: From	**Yuan Yuan LIU*, Natalja LACE, Konstantins Kozlovskis, Lu Lu CHEN** • Paper 2: "Technological acceptance modelling for promoting tourism destinations with METAVERSE" by **Yuan Yuan LIU*, Natalja LACE, Konstantins Kozlovskis, Lu Lu CHEN** • Paper 3: "Sustainability Condition of Post-Capitalism:-Finding evidences from the roots of modern capitalism in Italy Mediterranean regions such as Genova, Milano, and Naples" by **JinHyo Joseph Yun*, Xiaofei Zhao, (Valentina Della Corte*, Giovanna Del Gaudio)** • Paper 4: "Open Data and Citizen Participation: The Case of South Korea" by **Seung-Yoon Shin & Joowon Jeong** • Paper 5: "Knowledge flow mechanism for platform innovation ecosystem enabled by digital technology: multiple case	

7.15(Sat.)	**Programs**	***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy & Cultural Tour**			
***Posters are welcomed to be introduced in coffee room from July 12 till poster session opening.**	Korea: With focus on patentees of registered patents" by **Youeil KIM, EuiSeob JEONG*** • Paper 7: "Analysis Open Innovation Trends based on the Transaction Data of Global Bio-companies" by **Jinny Seo, JaeYoung Yoo** • Paper 8: "Comparing the Perspectives between Humans and AI Chatbots: Water Pollution Solutions Through Open Innovation" by **Yoonseo Jung** • Paper 9: "Social Arts Market and Open Innovation: Facilitating Community Innovation and Global Collaboration" by **Yoonseo Jung & Risa Bhaumik, Justin Merriman**	to the development phases of Small and medium companies" by **Daeyu Kim, Seunghoo Jin** • Paper 7: "A study on the knowledge flow and transformation mechanism of open source platform based on SECI model" by **Chaonan Yi, Zheng Liu, Lei Ma, Kaitong Liang, Bao-Qing Zhu** • Paper 8: "An Introduction to Data Valuation" by **Jongtaik Lee, Hun Park, Hyunwoo Park** • Paper 9: "Managing and innovating business models in Social Purpose Organizations (SPOs): the role of social robots." by **Valentina Della corte*, Fabiana Sepe, Anna Prisco**	the strategic perspective" by **Ryu Dongwoo, Yoon Junghyun** • Paper 7: "Towards Sustainable Manufacturing: Understanding the Key Determinants of Pro-environmental Behavior in Manufacturing Firms" by **Sangjae Pyo, Seung Gun Chung, Hyoung Ryul Ma, Dong Hoon Oh*** • Paper 8: "Would collaboration make research team to less depend on their leaders? Analysis on the performance of single and multiple leadership" by **Eungdo Kim*, Sunmi Jung** • Paper 9: "Open innovation and digitalization at service of senior citizens" by **V. della Corte, G. Del Gaudio, Anna Crisci**	studies on IP operation platforms in China" by **Lei Ma, Ben Zhang*, Kaitong Liang, Zheng Liu, Yang Cheng** • Paper 6: "Competing Theories in Explaining the Evolution of Electronic Vouchers in Korean Social Services" by **Kwangho Jung** • Paper 7: "Circular Economy Model: Sustainable Fashion Industry" by **Seung-Hee Lee** • Paper 8: "Evaluating Determinant Priority for Successful Strategic Alliance" by **Eungdo Kim**	
11:00~11:30	Coffee Break	★ **Coffee and dessert will be provided in 1st floor coffee room.**			
11:30~12:00	**Poster Presentation Award Ceremony** **•Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy** ***Presiders: Juhyun Eune(Seoul National Univ., Korea), Valentina Della Corte(Univ. of Naples Federico Ⅱ, Italy) & Hyomin Kim(UNIST, Korea)**				

7.15(Sat.)	**Programs** ***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy & Cultural Tour**	
	Onlin participation: Zoom **Zoom link: https://us06web.zoom.us/j/89160941900?pwd=RTg4Z1d1REdyMnVrYURWZGdtNWZyZz09** **Meeting ID: 891 6094 1900; Passcode: SOISOI1** **Audience Facebook Live: Open Innovation-first** Method: [**Friends Search** → "**Open Innovation-first**" → Select the search result with the name of "**Open Innovation-first**" → add friend → visiting the live videos]  	
12:00~17:00	**Cultural Tour "Walking Tour alongside the Naples Habor"** ***Presiders: Saimi Woo(BISTEP, Korea), Bo Yang(Swansea Univ., UK), Giovanna Del Gaudio(Univ. of Naples Federico Ⅱ, Italy)**  1. (Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy) -> Walk Tour	

7.15(Sat.)	**Programs** ***Venue: Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy & Cultural Tour**	
	2. 14:00~ Participants may act for themselves, • Participants can go to another place whenever you would like to. 3. 17:00~ (Back to → Royal Continental Hotel) 4. Only for the First 50 applicants who had sent the applications can participate in the tour. Contact: openinnovationtmc@dgist.ac.kr ※ Lunch & water will be provided; **Audience Facebook Live: Open Innovation-d** Method: [**Friends Search** → "**Open Innovation-d**" → Select the search result with the name of "**Open Innovation-d**" → add friend → visiting the live videos]  **Open Innovation-d**	

Keynote Speech

July 12(Wednesday)

(Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy; Time: 16:00~17:00)

Jason Potts (RMIT University, Australia)
•Theme: Web3 toolkits: A user innovation theory of crypto development

Yongjiang Shi (University of Cambridge, UK)
•Theme: How can Open Innovation and Industry Ecosystem Work Together to Achieve Sustainable Value Creation and Society Development?

July 13(Thursday)

(Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy; Time: 12:00~13:00)

JinHyo Joseph Yun (DGIST, Korea)
•Theme: Business Model Nudge- Matching between Technology, and Market in Open Innovation Dynacmis

Vincenzo Corvello (University of Messina, Italy) •Theme: Accelerating the recovery through Open Innovation and Corporate-Start-up collaboration

July 14(Friday)

(Venue: AULA MAGNA(1st Floor), Conference Centre of University of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy; Time: 11:30~12:30)

Venni V Krishna (University of New South Wales, Australia)
•Theme: AI and Contemporary Societal Challenges: The Good, Bad and the Ugly

Valentina Della Corte (University of Naples Federico II, Italy)
•Theme: Open innovation and inter-firm collaboration

Web3 toolkits: A user innovation theory of crypto development

Jason Potts

RMIT Blockchain Innovation Hub, RMIT University, Melbourne, Victoria, Australia

Abstract

The development of Web3 — a stack of decentralised technologies underpinned by blockchains — isn't simply a technical or financing challenge, it is also a problem of innovation and entrepreneurial discovery. In this paper we apply the lens of user innovation toolkit theory to the development of Web3. Toolkits are an organizational design solution to an innovation problem with sticky and local information. Our aim is to explore how toolkits theory applies to Web3 innovation, proposing that Web3 innovation is being organized through toolkits (e.g., blockchains, token standards, DAO frameworks) that enable efficient organization of sticky information to facilitate innovation. The contribution of this paper is the first application of toolkits theory to Web3, reframing its development as a problem of entrepreneurship and innovation in the context of distributed information. We provide implications for the role of developers as user innovators, the economic problem of emergent toolkit stacking, and the design of toolkit business models.

Keywords: Toolkits, User Innovation, Web3, Cryptoeconomy, Entrepreneurial Discovery

How can Open Innovation and Industry Ecosystem Work Together to Achieve Sustainable Value Creation and Society Development?

Yongjiang Shi

Institute for Manufacturing, Department of Engineering, University of Cambridge

17 Charles Babbage Road, Cambridge CB3 0FS, The United Kingdom

Abstract:

This paper seeks to understand and clarify the relationships between open innovation and industrial ecosystem based on comprehensive literature reviews on the concepts and their int4ractive relationships. It eventually aims to enrich the understandings about main mechanisms and management processes of the industrial ecosystems, taking open innovation as one of the key enabling approaches in the ecosystem. The paper takes its title as the research question – "**how can open innovation make an innovation ecosystem work?**" It mainly emphasizes on the theoretical reviews, discussions and synthesis, including five sections and ending with a conceptual framework development for the future research work.

Since introduced in 2003, open innovation is adopted to increase embrace of external cooperation in a complex world (Chesbrough, 2003). It is now regarded an established paradigm in the innovation management (Patrucco et al., 2021). Meanwhile, various types of ecosystems including both innovation and the boarder concept business ecosystems have been mushroomed in the last two decades across strategy and innovation disciplines to deal with dynamic environments, providing important strategic guidance to companies. It seems that open innovation and the ecosystems share similar characteristics of collaboration, openness, change and complementor interaction, yet the exact linkage between the two bodies of knowledge is unclear.

Literature review on open innovation will cover motivations, evolutionary process and practical tools. Open innovation is defined as "*the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. [This paradigm] assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology*" (Chesbrough, 2006 p.1). The incentives and motivations of open innovation are identified as reducing R&D cost and risk, stimulating growth, accelerating the process of commercialisation, shared learning, and accessing complementary capabilities and knowledge (Huizingh, 2011; Chesbrough and Crowther, 2006).

Keywords: Industrial Ecosystems, Open Innovation, Interactions between Systems and Ecosystems

Business Model Nudge- Matching between Technology, and Market in Open Innovation Dynamics

JinHyo Joseph Yun

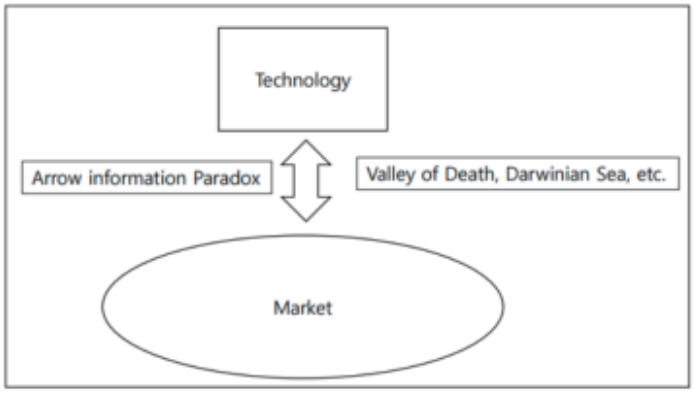
(DGIST, Korea)

Abstract

The creative way which can connect the valuable technology and market creatively, is receiving higher attention right now than before with digital transformation, and appearance of diverse general-purpose technologies such as AI, 3D, Big Data, 5G, IOI, etc. We want to answer to the following research question; How can we decrease the connecting cost between technology, and market, and increase market size and diversity from the connecting? To answer to this research question, first, the theorems on the relation between technology and market are defined from literature review. Second, by developing the mathematical model of BM nudge, 2 factors are found as following; 1) the Chesbrough point from which the cost of BM nudge model is smaller than technology-market model, 2) the long-term effect of BM nudge which make huge additional market. Third, by the analogies like the technology patent with BM patent as reference, and the BM concept and components, the existence and function of mathematical model of BM nudge are analyzed. Fourth, by expanding the value of BM nudge from the causal loop modeling of BM nudge, the architecture design of well operating BM nudge to link between technology, and market is proposed.

Keywords: Business Model, Nudge, Matching, Open Innovation, Market Design, Economics Engineering

The relation between Technology and Market (1)



Accelerating the recovery through Open Innovation and Corporate-Start-up collaboration

Vincenzo Corvello, Ph.D.,

Associate Professor at the Department of Engineering, University of Messina, Italy

Abstract

Start-ups and large corporations are complementary organizations. Large companies have enormous resources, but respond slowly to environmental changes. Start-ups are inherently agile, but have limited resources to handle the difficulties of company growth. Therefore partnerships between large companies and start-ups can be means to mitigate the dilemmas of both parties. Large corporations have experimented with different forms for more efficient and effective collaborations with start-ups. The forms include accelerators, incubators, the venture client model, innovation hubs. There are several reports of successful collaborations between large corporations and start-ups. These success stories have popularized this approach.

Despite the enthusiasm towards partnerships between large companies and start-ups, both in literature and in business practice, there are reasons that hold back both partners. Large companies fear that start-ups are inexperienced and therefore unreliable partners, with the consequent risk of partnership failure, waste of resources and possibly damage to the corporate image. Start-ups fear opportunistic behavior from large companies, which could exploit their knowledge or technology without worrying too much about the growth of their partners.

It is important to understand the dynamics of this collaboration models, in order to effectively design the partnership and translate the innovation potential into actual positive performances.

A I and Contemporary Challenges: The Good, Bad and the Ugly

Venni V. Krishna

Professor, School of Humanities and Languages, University of New South Wales, Sydney, Australia
& Editor-in-Chief, Science, Technology and Society (Sage)

Abstract

On 29 March 2023, over 1,000 technology leaders and researchers, including Steve Wozniak, Co-Founder of Apple; Elon Musk of Tesla; Rachel Bronson, President of Bulletin of Atomic Scientists; Tristan Harris, Yoshua Bengio, among others, called for a moratorium on the artificial intelligence (AI) system's research and development. All these leaders realized that AI represents 'profound risks to society and humanity'. This open letter from Future Life Institute stressed that, 'powerful AI systems should be developed only once we are confident that their effects will be positive and their risks will be manageable'. At the same time there are equal number of other technology leaders like Kai-Fu Lee, former head of Google China who are quite optimistic about the future of AI in society. He argued in his recent book on *AI Superpowers* that there is a vision in which artificial intelligence transforms key economic sectors and that office worker in 2040 will travel in autonomous vehicle.

The emergence of the 4th Industrial Revolution technologies and the current discourse on AI and society has posed a number of challenges. It has brought into sharp focus the sociological perspectives of technological determinism *versus* the social shaping of technology. The General Conference of the UNESCO in November 2021 issued a series of recommendations on 'the ethics of Artificial Intelligence'. In no uncertain terms this international body expressed concern on the profound and dynamic positive and negative impact of AI on societies on all its dimensions of everyday living. Further, it clearly spelled out that AI technologies 'can deepen existing divides and inequalities in the world, within and between countries, and that justice, trust and fairness must be upheld so that no country and no one should be left behind'. The way in which powerful AI technologies could transform our lives, society, economics, governance and most importantly ethics and morality surrounding it is quite popular in every day news media as well as our drawing room discussions at home.

Historically speaking, it will be a big folly and surely not the intention of this talk to take a *luddite* argument or oppose the growth of transformative and disruptive technologies such as AI.

Open innovation and inter-firm collaboration

Valentina Della Corte

Full Professor, Federico II University of Naples

Abstract

The talk will explore the role of open innovation in inter-firm collaboration, with a specific focus on tourism industry.

Firstly, the speech will highlight the role of single firms and their bundle of resources and capabilities. Firms bring two sets of capabilities to any possible inter-firm collaborations: their relational capabilities, or their ability to form cooperative relationships with other firms, and their non-relational capabilities, or the tangible and intangible assets they control that can be a source of economic value and competitive advantage that have nothing to do with their ability to form inter-firm collaboration.

Secondly, the talk will emphasize the role of inter-firm collaboration and will explore the relationship between coopetition and open innovation as well as on their impact on competitive advantage. Firms can create inter-firm collaborations through an open innovation approach that takes into account not only the organizational context but also the referring ecosystem.

The speech will also show a bibliometric analysis on the topic and some case studies, highlighting the role of open innovation in inter-firm collaboration. The talk will underline the state-of-art of the topic, the main theoretical advances and it will outline the managerial, social implications and the future directions for both the research side and the business world.

SOI & DEMI of UNINA 2023 Conference

July 12(Wed.) ~ 15(Sat.), Conference Days, 2023

Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy

& Online(Zoom)

July 12 (Wednesday)

July 12 (Wednesday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Business Model Open Innovation and Capitalistic Economy after Pandemic

Chair: JinHyo Joseph Yun(DGIST, Korea)

• Paper 1: "Open innovation signal in financial data" by **JinHyo Joseph Yun*, BongHwan Kim**, Xiaofei Zhao, Euiseob Jeong, Joonggi Ahn**

• Paper 2: "Issues of Innovation Expert Support for Business Decision-Making: Prioritizing the key factors of commercializing innovations" by **Agota Giedrė Raišienė*, Tibor Dőry, Simonas Juozapas Raišys**

• Paper 3: "The design of an open innovation ecosystem focused on sustainability: the case of the Butterfly Area in Turin, Italy" by **Dario Peirone, Judy Yueh Ling Song**

• Paper 4: "Innovation Optimisation, Online Platform and Business Support Services: The Moderating Role of Skills and Business Association" by **S. Kehinde Medase, Joseph Amankwah-Amoah, Jutta Günthe**

July 12 (Wednesday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Platform innovation and digitalisation

Chairs: Lei Ma(Nanjing Univ. of Science and Technology, China) & Zheng Liu(Cardiff Metropolitan University, UK)

• Paper 1: "Technology empowerment: Research on the service supply model based on the intelligent elderly care platform" by **Jie Gao, Lei Ma*, Zhizhong Ding, Dandan He**

• Paper 2: "Spark Innovation for Food Delivery Platforms through Emphatic Design Research : Focusing on the Special Delivery" by **Fan Xu, Taesun Kim**

• Paper 3: "Smart city as an emerging new regional Industry; an open innovation perspective in Sejong Smart city initiative" by **Junghee Han**

• Paper 4: "Prosocial Behavior Impact on Business Results" by **Artūrs Bernovskis, Deniss Sceulovs**

July 12 (Wednesday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Open Innovation and Business Model in Biomedical Industry

Chairs: Kwangsoo Shin(The Catholic University of Korea, Korea), Harry Jeong(Central Research Institute of Dr.Chung's Food, Korea)

- Paper 1: "What is the Impact of Dynamic Capabilities on Firms' Low-Carbonization Performance?" by **Seunghyun Kim, Changhyeon Song, Harry Jeong, Kwangsoo Shin***
- Paper 2: "Open Innovation and the "Good Ancestor": OMRON Corporation in Japan" by **Mari Iizuka**
- Paper 3: "Holistic innovation in the medical device: A case from cochlea implant" by **Dongwoo Kim, Kwangsoo Shin***
- Paper 4: "INTEGRATION OF AI IN CRM AND MARKETING: ENABLING FACTORS, CHALLENGES AND GUIDELINES" by **Ledro, Cristina*, Dalla Pozza, Ilaria, Nosella, Anna**

July 12 (Wednesday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Digital Transformation of Traditional Business

Chair: Hee Dong Yang(Ewha Womans University, Korea)

- Paper 1: "Influencers who do not expose their faces: Analysis of the impact of posting strategy according to the influencer's self-disclosure on Sales" by **Sulim Kim, Hee-Dong Yang, Heeseok Lee**
- Paper 2: "Nine-path concurrent analysis of factors that impact crisis resilience of companies" by **Karine OGANISJANA, Natalja LACE, Iveta POKROMOVICA, Konstantins KOZLOVSKIS**
- Paper 3: "Gendered and inclusive innovation: concepts and practices" by **Heajin Kim**
- Paper 4: "Disruptive technology identification based on the open innovation network: A case of virtual travel" by **Ben Zhang**

Open innovation signal in financial data

JinHyo Joseph Yun
(First and Corresponding author, DGIST)
BongHwan Kim
(Co-Corr. SNU)
Xiaofei Zhao
(DGIST)
Euiseob Jeong
(KISTI)
Joonggi Ahn
(SNU)

1. Introduction

• The requirement of method to measure open innovation is increasing for firm, consulting firm, and government.

• Open Innovation Measure's required condition

Enough meaning having measure which include the implications of literature reviews.

Objectiveness to compare between agents

Easiness to obtain and calculate

No additional serious costs to gain the measure

2. Research Question

• How can we catch the signal of open innovation in the financial statements?

• What kind of items in financial statements can be used to catch of the signal of open innovation of the firm?

Research Framework (1)

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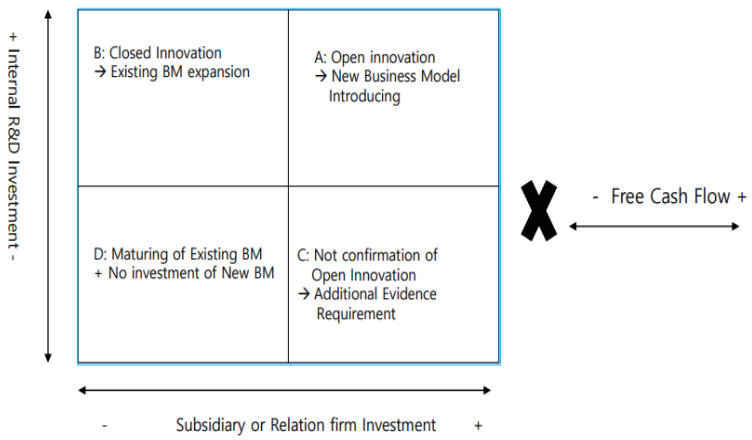

INTEGRATION OF AI IN CRM AND MARKETING: ENABLING FACTORS, CHALLENGES AND GUIDELINES

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Abstract

The next development toward unique and more effective customer relationship management (CRM) is artificial intelligence (AI). Companies have been expressing a growing interest in AI-integrated CRM tools that support continuous innovation. However, the organizational and managerial elements that should be considered in the design and execution of these cutting-edge systems are also not completely understood by practitioners. Uncertain outcomes, high levels of perceived complexity, and a lack of experience are some reasons why AI integration in enterprises is still low (Mishra et al., 2022). Alongside this, the literature leaves room for future investigation into the factors that facilitate and pose obstacles to the use of AI applications in CRM and marketing.

This study closes this gap by identifying, defining, and classifying from one side the enabling factors (EFs) that favor the successful integration of AI in CRM and from another side the new challenges that businesses must overcome while planning, implementing, and improving a successful AI-CRM integration.

In order to reveal the complexity of the AI-CRM integration phenomenon beyond the specific technical application, we chose to consider various purposes driven by AI, with varying degrees of decision-making: *automation of smart processes*; *business growth support through predictions; demand forecasting and customized services*; and *seamless customer experience*.

Key Literature Reviews:

The literature calls for research into the most effective management and implementation of AI in businesses as well as for suggestions to address difficulties (Davenport et al. 2020) and reduce risks connected with AI efforts (Reim et al., 2020).

The design of an open innovation ecosystem focused on sustainability: the case of the Butterfly Area in Turin, Italy

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Judy Yueh Ling Song

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Abstract

Innovation ecosystems have been recognized as an important tool for local and regional development, given their potential to generate jobs, income and social well-being through innovation. Higher education institutions have been playing a major role in the innovation ecosystems and their role is no longer confined to developing human capital and advancing technology but to actively participating in economic development with the companies and governments. Universities act as the brains to connect the different stakeholders and it can be done by applying their intellectual, reputational, and financial capital strategically to establish and maintain a strong ecosystem. The paper investigates *the role of the university to promote innovative synergies between academia and companies by connecting knowledge, research and business specifically studying the university's role in orchestrating the evolution of an open innovation system by creating the 'Butterfly Area to enhance collaboration amongst the university and the industry.* The study looks into the open innovation system of the butterfly area that enables different stakeholders to collaborate in its areas of interest and the possibility to enable academics and companies to set up joint laboratories, pilot plants and access to university research tools. As inspired by its name 'butterfly area', the butterfly signifies transformation, and the Butterfly area allows the idea to activate transformation by allowing transformation through combined and concurrent actions of different organisations and experiences. The paper would further explore *the plausible contribution of the Butterfly Area which would boost the pathway of social, economic and sustainability.* As the study investigates the ecosystem of the butterfly that enables different stakeholders to collaborate in its areas of interest like the field of sustainability, this made it possible to enable academics and companies to set up joint laboratories, pilot plants and access to university research tools. The Butterfly area's goal is to work on the challenges in today's world particularly, in the key areas of EU's future investment.

Innovation Optimisation, Online Platform and Business Support Services: The Moderating Role of Skills and Business Association

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Abstract

This study examines whether firms belonging to business associations predict innovation at focal firms. We then examine the impact of business support services during the pandemic on firms' innovation. To predict innovation scale, we test the effect of online activity and its synergy with organizational skill sets. The World Bank Enterprise Survey of the Netherlands between 2019 and 2021 is used to test our hypotheses. Data support the positive effects of specific business support services, membership in business associations, and e-business. A focal firm's innovation is positively correlated with government support. In addition, membership in business associations moderates the link between access to new credit, fiscal exemption, cash support and innovation. Synergies between government support and credit deferral weaken innovation returns without a synergy effect with wage subsidies. We also test the synergy effect of online engagement and organizational skill sets. We conclude by building on innovation theory that firms' diverse skills are fundamental to innovation. The findings indicate that technical, managerial-leadership, interpersonal-communication skills, and online activities positively correlate with innovation. Furthermore, the synergy effect between E-business and technical skills is pronounced. E-business adoption during crises has relevant theoretical and practical implications for innovative firms and business associations. This study demonstrates that innovation and business association practices complement each other in fostering performance.

Keywords: business association; business support services; government support; technological innovation; skills; online activity

Technology Empowerment: Research on the service supply model based on the intelligent elderly care platform

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Abstract

However, referring to the pilot development status of some smart pension construction cities in China, there are still certain development difficulties and bottlenecks. First of all, the construction of smart elderly care platforms in some regions is slow, and various regional departments are fighting their own battles, resulting in poor database information sharing. Secondly, some products of smart elderly care only consider advanced technology, but do not fully consider the living habits and electronic product use ability of the elderly; From the perspective of the main body, the main body and element coordination mechanism of the whole society is not perfect, and the supply of elderly care services is sporadic, fragmented and single-chain.

According to the data of the seventh national census, by the end of 2020, the national elderly pulation aged 60 and above was 264.02 million, accounting for 18.70% of the total population, of which 190.64 million were aged 65 and above, accounting for 13.50% of the total population. As a result, a series of problems have emerged, including the longer life expectancy of the elderly and the increase in complex underlying diseases; The adjustment of social and family structure and the insufficient ability to care for the elderly; In addition, starting from the needs of the elderly themselves, it is increasingly difficult for the traditional pension model to meet the growing demand for diversified elderly care services, and the lack of integration of elderly care resources hinders the needs of the elderly for a better life, and the problem of elderly care has become a hot issue that the government and society need to solve urgently. In 2017, the Ministry of Industry and Information Technology, the Ministry of Civil Affairs, and the National Health Commission jointly issued the Action Plan for the Development of the Smart Health and Elderly Care Industry, and the continuous establishment of the standard system encouraged the development of new business formats, and the concept of smart and healthy elderly care was deeply rooted in the hearts of the people.

Society of Open Innovation Technology, Market & Complexity

Spark Innovation for Food Delivery Platforms through Emphatic Design Research : Focusing on the Special Delivery

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Abstract

Food delivery platforms have transformed the way people eat, providing convenience and speed to our daily lives. With a user base that has grown from 0.59 to 1.07 billion people worldwide and revenue that has risen from 96.99 to 208.00 billion USD from 2019 through 2021(Statista, 2022)[1],it's clear that these platforms have become an integral part of our society. South Korea has seen an even greater surge in usage, with app usage rates increasing by 11.2% in 2019, 19.9% in 2020, and 29.5% in 2021 (MK news, 2022)[2]. However, with the quasi-monopolistic and oligopolistic positions of major players like Baemin, Yogiyo, and Coupang Eats, the market has seen an increase in advertisement rates and delivery commission fees, resulting in higher costs for both merchants and consumers. To address this issue, local governments in South Korea have launched over twenty delivery applications that charge lower commission fees of 0-2% (Choi, 2021)[3]. Unfortunately, these government-run platforms have struggled to gain market share, with each platform holding only about 1% of the segment (Yun, 2022)[4].

As the pandemic comes to an end, the market is experiencing a significant shift. The three most popular delivery applications have lost 1.22 billion customers due to market dynamics such as the withdrawal of distancing measures, increased commission fees, and a shortage of delivery riders. This shift highlights the need for empathetic design(Koskinen, 2003)[5] techniques to resolve conflicts between stakeholders and improve the competitive edges of public sector delivery platforms. By focusing on the authentic needs of food order and delivery platforms, partner restaurants, consumers, delivery agency platforms, and delivery riders, we can provide greater benefits to consumers while simultaneously settling the frictions between stakeholders (Thomas & McDonagh, 2013)[6]. This study aims to achieve these goals , and several questions were following :

RQ1: What is the experience process for each user during the Special Delivery service system?

RQ2: What system factors of the Special Delivery does each user ' s experience discovered by an emphatic approach converge on?

Smart city as an emerging new regional Industry; an open innovation perspective in Sejong Smart city initiative

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Abstract

The objective of this study is to find the difference in smart city service provision. A qualitative comparison of the smart city initiatives in selected target countries and cities were done. The research strategy in this study approximates the grounded theory, utilising inductive reasoning to generate arguments and conclusions about the form, validity and future of the smart city. And conceptual framework of Smart city. The main conclusion of this study was that the current research on smart city does not fully address the complex smart public service.

It is needless to say that smart city (SC)'s effectiveness is as well public service provision as private. Not only the quality of service but also the scope of service feature, the user-friendliness of the SC customer is decisive important in terms of the effectiveness of public smart service initiative. Smart city has been paid attention as well an evolution of city as inclusive public service provision system since the smart city is mentioned to have first appeared the beginning of 1990s. By 2050, 75% of the world's population is expected to live in cities (Yan and Lee, 2023). The word "smart" refers to an autonomous system, introduced to perform the desired activity within given conditions (Ahad et al., 2020). SC is a defined as the holistic vision of a city that utilizes information, communication and technologies (ICTs) for the empowerment of quality of life and the increase of its inhabitants and ensures a sustainable economic, social, and environmental development. SC can be regarded as a result of the convergence between urbanization and information communication and technologies (ICTs).

With a change old city into smart city, "smartization of city" is a global phenomenon, so as to empower habitats incomparable benefits. Generally, considering that interesting in smart city is more advanced public services and user-friendly service provision, SC can be defined as a city in incessant search for new city solutions focused on not only quality of living for citizens but also its enterprises. A smart city is the city that contemplates inclusive services provisions. Becoming a smart does involve in not adaptation of the cutting edged ICTs but improvement of city operations as the habitant quality of life need to focus foremost on their communities (OECD, 2015).

Prosocial Behavior Impact on Business Results

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Deniss Sceulovs

Professor at Riga Technical University, Latvia

Abstract

How can prosocial motivation impact business results?

Prosocial behaviors are those which primarily benefit others, or the society yet might be costly to themselves. Traditionally, these behaviors include volunteering, helping strangers, donating, etc. Here we'd like to extend the meaning of 'prosocial behaviors' to any action that contributes to public goods. Thus, prosocial behaviors in cities cover but not limit to those that promote sustainability, equity, social justice, social harmony, urban commons, etc. Blockchain is a system of recording information that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is the system's distributed and immutable electronic database – a ledger of all transactions that have ever occurred on the network. Data is stored in the form of cryptographically protected 'blocks' that are linked together in a 'chain' (Choi, et al. 2022). Within the blockchain, a (public) ledger is used for recording the data, as well as the information of each transaction. Information about each completed transaction is stored in a distributed ledger, shared across all the participating nodes of the blockchain network (Alladi et al., 2019). Blockchain technologies with gamification elements could motivate city stakeholders to be more active in sustainable activities. A sustainable mindset is habit change and stakeholders need to learn Gamification blockchain or GamiChain can help as it increases students' and teachers' motivation to build a more transparent, safe, and enjoyable educational environment (Qurotul et al., 2022). Gaming as the Future's language' that can sensitize and stimulate a hypothetical world to the people giving them an immersive experience with the power to change the dynamics of the complex system. The decision made by the players in the game self-organizes the system's dynamics making the consequences of connected choices visible to the player. This provides the best learning-by-doing experience to constantly observe and reflect upon an individual's role in the self-organizing complex systems. This experience can encourage people to actively participate in collective prosperity (Duke, 1974). Gamification methods have shown good results in impacting human behavior and can be used to solve sustainable issues in cities. Blockchain technologies can bring trust and transparent solutions, thus making decentralized gamified motivational programs for cities.

How does ESG meet value creation to the firm? : A case of Korean medical device industry

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Abstract

ESG is a concept that collectively refers to Environment, Social, and Governance. ESG includes all activities that reinforce and link social and ethical values throughout management activities for the sustainable development of the company. Since the term ESG encompasses the environment, society and governance as a whole, its history can also be seen as very old. In particular, the concept of sustainability in terms of environment and society is often viewed as its etymology, and sustainability was first used as the term 'Sylvicultura oeconomica (Sustainability)' in 1713 (Carlowitz, 2013). Since then, the term sustainability has been steadily developed through various programs such as UN Environment Programme (UNEP).

It wasn't long before the term ESG began to be used in earnest in companies. In particular, it can be said that the ESG term was expanded to companies and the general public mainly around 2020, which can also be confirmed through Google search volume trends.

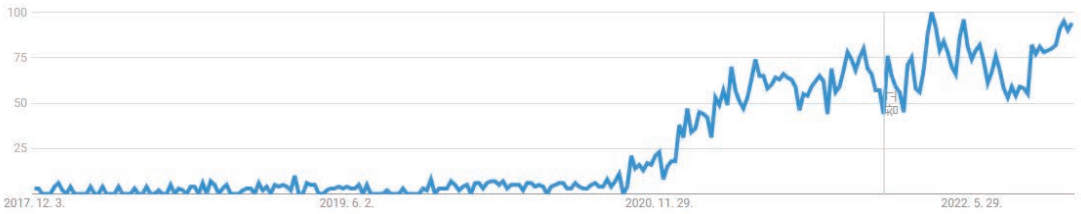

Figure1. Term 'ESG' trend search results.

Although ESG is a concept that has been developed in terms of oriented to environmental and social values, it can be said that in order to induce it to companies, it is necessary to motivate companies to voluntarily convert to ESG.

Open Innovation and the "Good Ancestor": OMRON Corporation in Japan

Mari Iizuka, Ph.D.

Doshisha Business School

Abstract

OMRON Corporation is a global technology company headquartered in Kyoto, Japan, that specializes in the development and production of automation components, equipment, and systems. They are also known for the health care equipment, such as blood pressure machine. Founded in 1933 by Kazuma Tateishi, the company has expanded its operations worldwide, providing innovative and advanced solutions in the fields of industrial automation, healthcare, automotive, and social infrastructure, among others. OMRON's mission is to contribute to a better society by creating products that improve people's lives and promote global sustainability.

OMRON's Philosophy and SINIC Theory

OMRON's corporate philosophy is centered around the principle of "contributing to society through technology" and is committed to solving social issues through its innovative products and services. The company's founding spirit of "working for the benefit of society" continues to guide its business strategy and decisions.

SINIC (Seed-Innovation to Need-Impetus Cyclic Evolution) Theory is a unique innovation model that OMRON has developed to guide its approach to technology and product development. The theory aims to create a sustainable cycle of innovation by identifying emerging needs in society, and then developing innovative technologies and products that address those needs. By continuously evolving and adapting its offerings to respond to changing societal needs, OMRON ensures its long-term relevance and success.

OMRON's commitment to sustainability is apparent in its corporate strategy, environmental conservation, and social responsibility initiatives. Using a case study approach, this research tries to understand how OMRON could be No.1 in ESG/CSR among Japanese corporations. Also, it tries to explain the relationship between the Kyoto, and its business culture, evolved for a very long history of being a Japanese capital for more than 1000 years.

Holistic innovation in the medical device: A case from cochlear implant

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Kwangsoo Shin (Corr.)

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Abstract

The concept of technological innovation systems has been playing a pivotal role in understanding the processes associated within innovation, industrial transformation, and economic growth [1]. Multiple researchers have attempted to tackle the topic of innovation systems to understand the specific dynamics and structure of a certain industry [1]. The medical device industry is not an exception. For the past decades, the medical device industry has boasted off its relentless path of innovation. While a large number of medical devices could selected as the good examples of these achievements, the development of cochlear implant is an apparent case of breakthrough which needs to be highlighted. Cochlear implant is a medical device which helps the patients with severe hearing loss to gain speech intelligibility by stimulating auditory nerves electrically [2]. Among the roles of medical devices such as treatment and diagnosis, the device is to compensate for disabilities [3]. Cochlear implant is known as the most successful neural prosthetic since its development as it has clearly shown its remarkable improvement in the auditory function of patients with profound hearing loss [4].

The purpose of this paper is to examine the case of the holistic innovation of cochlear implant with the adoption of cause & effect analysis/root cause analysis. In alignment with the objective of this research, this study presents the following research questions: (1) What triggered the development of cochlear implant? (2) What are the key traits which have contributed to the on-going innovation of cochlear implant? (3) What factors are working as apparent barriers to the faster innovation of cochlear implant?

This study has conducted extensive literature review to better understand the theoretical background associated with the innovation of cochlear implant. The innovation of medical device largely relies on multiple factors such as national health systems, regulatory approvals, quality guidelines, and others [5]. On top of the factors, the paper aims at delving into the unique dynamics within the cochlear implant sector.

INTEGRATION OF AI IN CRM AND MARKETING: ENABLING FACTORS, CHALLENGES AND GUIDELINES

Ledro, Cristina (Corr.)

Researcher, Department of Management and Engineering, University of Padua, Italy

Dalla Pozza, Ilaria

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Nosella, Anna

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Abstract

The next development toward unique and more effective customer relationship management (CRM) is artificial intelligence (AI). Companies have been expressing a growing interest in AI-integrated CRM tools that support continuous innovation. However, the organizational and managerial elements that should be considered in the design and execution of these cutting-edge systems are also not completely understood by practitioners. Uncertain outcomes, high levels of perceived complexity, and a lack of experience are some reasons why AI integration in enterprises is still low (Mishra et al., 2022). Alongside this, the literature leaves room for future investigation into the factors that facilitate and pose obstacles to the use of AI applications in CRM and marketing.

This study closes this gap by identifying, defining, and classifying from one side the enabling factors (EFs) that favor the successful integration of AI in CRM and from another side the new challenges that businesses must overcome while planning, implementing, and improving a successful AI-CRM integration.

In order to reveal the complexity of the AI-CRM integration phenomenon beyond the specific technical application, we chose to consider various purposes driven by AI, with varying degrees of decision-making: automation of smart processes; business growth support through predictions; demand forecasting and customized services; and seamless customer experience.

The literature calls for research into the most effective management and implementation of AI in businesses as well as for suggestions to address difficulties (Davenport et al. 2020) and reduce risks connected with AI efforts (Reim et al., 2020).

The literature has examined the new role of marketers (Shah and Murthi, 2021; Miklosik et al., 2019) and marketing managers (Volkmar et al., 2022) in relation to AI in CRM and marketing, exploring how they can thrive in the age of AI (Volkmar et al., 2022) and identifying the factors influencing employees' attitude and adoption of an AI-integrated CRM system (Chatterjee et al., 2020; 2021) or machine learning in digital marketing (Miklosik et al., 2019).

Influencers who do not expose their faces: Analysis of the impact of posting strategy according to the influencer's self-disclosure on Sales

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Professor, Ewha Womans, Republic of Korea
Heeseok Lee
Professor, KAIST Business School, Republic of Korea

Abstract

This study aims to analyze the effect of posting strategies depending on the influencer's self-exposure on sales of events held by influencers. We investigate the self-exposure of influencers in images in social media postings through human coding. Moreover, by crawling posts uploaded by influencers on social media, we analyze how the posting-related variables such as the number of images, videos, postings, postings' words, and likes effect on the sales depending on the influencer's self-exposure. We use the panel data regression analysis through a random model. Thus, the results of this study suggest that an influencer who minimizes their exposure to reduce the risk of cyber bulling can still communicate with their followers by executing a posting strategy that is suitable for them. Furthermore, the study provides a consideration of the proper function of social media.

Keywords: Social media, Influencer, Self-disclosure, Posting Strategy, Social commerce

What are the posting strategies if influencer with or without self-disclosure?

As 49% of the global population uses social media platforms, the online market is being reorganized from social commerce to influencer and community-oriented markets. In the past, the transactions between companies and individuals (B2C) through online shopping malls or social commerce platforms were the main focus, but the transactions between individuals (C2C) within social media have been activated recently. Especially, influencers are mainly driving this phenomenon. An influencer is a person who exerts great influence on social media by generating their own contents (De Veirman et al., 2017). For example, influencers produce content based on their experiences in the form of texts, photos, and videos on the social media platform.

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Society of Open Innovation Technology, Market & Complexity

Nine-Path Concurrent Analysis of Factors that Impact Crisis Resilience of Companies

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Abstract

The purpose of this research is to explore the factors that impact crisis resilience of companies based on the interviews of European and Asian big, medium, and small sized enterprises of different ages and experiences in overcoming the Global Financial Crisis of 2007-2008, the drastic consequences of the COVID-19 pandemic worldwide, and/or the turmoil caused by Russia's war in Ukraine.

Each of these three crises gave rise to unprecedented shock and instability striking humanitarian, social, financial, economic, energetic, environmental, political, technological, legal, and/or other spheres of life in different ways. That is why factors that impact crisis resilience of companies (CRC) can be preponderant in one crisis but not decisive in another crisis across business fields and countries due to dissimilarities in circumstances and social context which change everything (Dias et al., 2022; Wales et al., 2013). For example, creativity, innovation, and ability to create new opportunities and realize innovative solutions are undeniably accepted as CRC promoting factors (Sabatino, 2016; Pokromovica et al., 2022). However, Dias and colleagues did not find correlation between innovation and CRC in tourism businesses during the COVID-19 pandemic due to the lockdown (Dias et al., 2022). There are contradictions also on the relation of CRC to financial support. Despite the almost axiomatic supposition of the positive impact of financial help, especially governmental subsidies, on CRC (Pokromovica et al., 2022), some scholars argue that financial help is not crucial (Dias et al., 2022), especially if it is provided as short-term investments (Garel & Petit-Romec, 2020) characterizing the latter as a CRC hindering factor (Bistrova et al., 2021).

Gendered and inclusive innovation: concepts and practices

Heajin Kim

Korea center for Gendered Innovations for Science and Technology Research(GISTeR)

Abstract

We present the international 'Gendered Innovations in Science and Technology' policy and the efforts of the public to solve this problem. Furthermore, we suggest the method and guidelines for sex/gender integration for the neuroscience research.

The existing male-centered research culture in the biomedical field is being raised as the causes of drug side effects, diagnosis and treatment failure due to research and development that does not consider sex/gender factors (Buolamwini & Gebru, 2018; Schiebinger, 2012; WHO, 2002).

Korea, USA, Canada, Europe, and Japan have established the policy on 'Gendered Innovation for Science and Technology' to suggest awareness of the importance of sex/ gender analysis and to increase the support for the research. In addition, the major scientific journals realize the importance of segregation and analysis between the sex and demand the results. With this trend, we 'Korea center for Gendered Innovations for Science and Technology Research' (GISTeR) has established specific guidelines from the research planning stage to the result interpretation stage to help the study of sex and gender differences in Neuroscience.

While the importance of sex/gender differences has been recognized in basic and clinical research data, we highlight that neuroscience research on the causes of sex/gender differences in brain disorders can benefit from gendered perspectives.

Neuroscience can obtain new level of research excellence by considering gender characteristics and increase the accuracy of reproducibility of basic and clinical research by making it applicable to both men and women.

Keywords: gender, gendered innovations in science and technology, neuroscience

Reference

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World Health Organization [WHO] (2002). Integrating Gender Perspectives in the Work of WHO. Geneva: WHO Publishing.

Disruptive technology identification based on the open innovation network: A case of virtual travel

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Abstract

Several industrial revolutions have shown that advanced technology often has a significant impact on incumbent technology, and reshapes social order from multiple levels, which is the specific manifestation of disruptive technological evolution. At present, disruptive technology has not yet formed a unified concept. The disruptive innovation theory represented by Christensen is a more recognized theoretical source, and has formed multiple theoretical branches. As for the tourism industry, under the dual role of digital technology and the COVID-19 epidemic, it is urgent to transform, that is, to use advanced digital technology to build a virtual tourism scene, so that tourists can realize a new experience of home tourism. This paper focuses on the development of relevant technologies and business models of virtual travel, and explores the evolution trend of open innovation mechanism based on patent network data.

Since Christensen put forward the theory of disruptive innovation, the identification of disruptive technologies has become an important issue (Christensen et al., 2002). However, from a macro perspective, the industry of disruptive technologies is also formed from the open innovation system. The emergence of a large number of innovative achievements has formed a complex effect, which has accelerated the evolution of technological innovation to a certain extent (Yun et al., 2018). The structural embeddedness of cooperative networks has driven enterprises to open up and innovate, and their network inertia has played a positive role in network relations (Shi et al., 2020). Therefore, innovation is no longer limited to internal activities, absorbing knowledge and technology from the outside, as well as spreading their knowledge to more organizations has become more and more popular. (Kodama, 2018). It is a common way to use scientific literature data to explore the evolution process of emerging technologies. On this basis, combined with complex network analysis methods, more in-depth insights can be formed to provide reference for industrial decision-makers (Suh&Jeon, 2019; Guo et al., 2019).

Based on the collection of scientific literature related to virtual travel, this paper uses patent analysis and complex network analysis to explore. On the one hand, summarize and summarize the development trend of this emerging field from a global perspective.

SOI & DEMI of UNINA 2023 Conference

July 12(Wed.) ~ 15(Sat.), Conference Days, 2023

Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy

& Online(Zoom)

July 13 (Thursday)

July 13 (Thursday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Regional Development, and Open Innovation

Chair: DaeCheol Kim(Hanyang University, Korea)

- Paper 1: "Servitization of Regional Clusters for Regional Development" by **Eun Song Bae, Tae Youn Kim, Daecheol Kim***
- Paper 2: "Open innovation and sustainability: the role of the network" by **Giovanna Del Gaudio*, Fabiana Sepe, Enrico Di Taranto, Alessio Pira**
- Paper 3: "Circular economy and open innovation: a systematic literature review" by **Anna Prisco*, Fabiana Sepe, Enrico Di Taranto, Mario Tani**
- Paper 4: "Value Co-creation in Post-Pandemic Tourism through Open Innovation Platforms: Nexus between Digital Tourism 'Hackathon', Reward-based Crowdfunding and Destination Competitiveness" by **Umer Zaman*, Inhyouk Koo, Shahid Nawaz, Pablo Farías**

July 13 (Thursday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Digitally innovative and socially inclusive

Chair: Taesun Kim(Hanyang University, Korea)

- Paper 1: "Risks that older adults meet in residential areas while walking, especially during winter" by **Duanduan Liu, Taesun Kim**
- Paper 2: "Open Innovation Approach for Empowering Parkinson's Patients" by **Roberta Dutra de Andrade, Marcelo Martins Silva, Raysa Geaquinto Rocha***
- Paper 3: "Analysis of the Digital Potential of a Company" by **Viktorija Babiča, Deniss Ščeulovs**
- Paper 4: "Comparative Usability Analysis of Mobile Healthcare Applications: Focusing on Apple Health,MyFitnessPal,and Mint Health" by **Zheyuan Zhang, Taesun Kim**

July 13 (Thursday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Open Innovation & HRM

Chair: Yuri Sadoi(Meijo University, Japan)

- Paper 1: "Regional alliances and geoeconomic factors in the semiconductor industry" by **Lih Ren Li, Kuanju Lin, Yuri Sadoi, Cheng Wu**
- Paper 2: "An analytic approach to finding substitute human resources with a focus on external stakeholder effects" by **Lim, Jitaek, Yoon, Junghyun, Sung, Sanghyun**
- Paper 3: "What makes ESG management boost firms' value up? - Focusing on US pharmaceutical firms" by **Harry Jeong; Seunghyun Kim; Changhyeon Song; Kwangsoo Shin***
- Paper 4: **"**Smart services in the era of open innovation: a systematic literature review" by **Marialuisa Marzullo*, Irene Di Bernardo, Angelo Ranieri**

July 13 (Thursday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Regional Innovation & Entrepreneurship in the era of the 4th industrial revolution & Innovation Management and Platform Research

Chairs: SungYong Choi(Hanyang University, Korea) & Junic Kim(KonKuk University, Korea)

- Paper 1: "The Effect of Entrepreneurial Orientation of Technology Startups on Firm Performance – Considering the Mediating Effect of Technology Acquisition" by **Byungyun Bae, Sungyong Choi***
- Paper 2: "Resell platform and Open market platform: A multigroup analysis" by **Huan Meng, Junic Kim**
- Paper 3: "Assessing progress towards decent work in companies using framework indicators and considering regional trends in Latvia" by **Angelina ROSA, Natalja LACE**

July 13 (Thursday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:30~16:00

DIGITALIZATION for Open Innovation after Pandemic for the Recovery of World Economy & SUSTAINABILITY & Open Innovation

Chairs: Giovanna Del Gaudio(University of Naples Federico Ⅱ, Italy) & ENRICO DI TARNTO(University of Naples Federico Ⅱ, Italy)

- Paper 1: "Innovation and M&AS in the tourism sector. A systematic literature review" by **V. Della Corte, Olimpia Meglio, Giovanna Del Gaudio**
- Paper 2: "Open (Sustainable) Tourism for Regional Development" by **Tae Youn Kim, Daecheol Kim***
- Paper 3: "Open innovation in the University ecosystem" by **Giovanna Del Gaudio, I. Quinto**
- Paper 4: "Educating the new generation. The role of open innovation" by **Enrico Di Taranto**

July 13 (Thursday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:30~16:00

Challenges and New Perspectives of Business, Technology and Management

Chairs: Deniss Ščeulovs(Riga Technical University, Latvia), Viktorija Babiča(Riga Technical University, Latvia), Linda Saulīte(Riga Technical University, Latvia)

- Paper 1: "Brand and masculinity archetypes as an innovative research approach for analyzing consumer preferences on masculinity in advertising" by **Toms Kreicbergs, Deniss Ščeulovs, Artūrs Bernovskis**
- Paper 2: "R&D Performance in the context: A comparison of defense R&D and national R&D" by **Seungwon Yu, Jaeseong Kim**
- Paper 3: "A Study on Entrepreneurship Education and Entrepreneurship Education Program's Promotion of Entrepreneurial Intention : A Meta-Analysis" by **Lee Duckjai**

July 13 (Thursday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:30~16:00

Knowledge Management, Entrepreneurship, and Technology/Knowledge Transfer: The Perspective from Open Innovation

Chairs: Junghyun Yoon(Yeungnam University, Korea) & Sanghyun Sung(GyeongSang National University, Korea)

- Paper 1: "Comparative Study between Korean Regional Innovation System and European Regional Innovation System" by **Yoon, Junghyun, Baek, Kwang Ho***
- Paper 2: "Human Resource Development in IT industry in Myanmar - Its challenge and practices" by **Win Zaw, Yuri Sadoi**
- Paper 3: "A bibliometric study on global trends of women entrepreneurship research from 2000-2020" by **Lee, Junghee, Lee, Myeongju, Yu, Soonmi, and Sung, Sanghyun**
- Paper 4: "A method for assessing the readiness for knowledge transfer: case of manufacturing companies" by **Mikus Dubickis & Agnese Zariņa**

July 13 (Thursday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:30~16:00

Innovation Diversity for Emerging Economies

Chairs: Natalja Lace(Riga Technical University, Latvia), Karine Oganisjana(Riga Technical University, Latvia), Yuanyuan Liu(Riga Technical University, Latvia)

- Paper 1: "Strategies for the state interventions to promote infrastructure sustainability" by **Justina HUDENKO*, Igors KUKJANS, Ieva KUSTOVA**
- Paper 2: "Career Clusters, Career Mobility and Career Success Among IT Professionals in South Korea: A Gender Perspective" by **Seonyoung Shim, Sojung Kim, Thomson S.H. Teo, Vivien K.G. Lim**
- Paper 3: "Measuring MNE's Collaborative Synergies from Sequential Acquisitions of International Ventures by Advanced Real Options" by **CIRJEVSKIS, Andrejs**
- Paper 4: "Does college students' digital literacy affect their entrepreneurial intentions?" by **Byungyun Bae, Sungyong Choi***

July 13 (Thursday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:30~18:00

TOURISM sector and Open Innovation and Open Business Model

Chair: Valentina Della Corte(University of Naples Federico Ⅱ, Italy)

- Paper 1: "Cultural heritage and open innovation: road to Federico II 800" by **V. Della Corte*, Eleonora Napolano, Stefano D'Ovidio**
- Paper 2: "Sustainable Business Model Innovation in Digital Transformation - Finding From the Open Innovation Dynamics of long living Restaurants in Naples, and Daegu, and Nagoya" by **JinHyo Joseph Yun*, Xiaofei Zhao, Valentina Della Corte, Giovanna Del Gaudio, Yuri Sadoi**
- Paper 3: "Identification of emerging road kill hotspots on Korean highways by using space time cubes" by **Sangdon Lee, Minkyung Kim**
- Paper 4: "Tourists' acceptance of blockchain technology in smart destinations: applications of the Planned Behavior Theory" by **Simone Luongo*, Enrico Di Taranto, Eleonora Napolano, Valerio Muto**

July 13 (Thursday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:30~18:00

Open Innovation & Growth

Chairs: Kangwon Lee(Korea Institute for Advanced Study, Korea) & Seung Hoo Jin(Sumsung SDS, Korea)

- Paper 1: "A Case Study on the Development of Input-Output Tables in the Defense Industry" by **Jaeho Jung, Kangwon Lee**
- Paper 2: "Contemporary Approach to Business Education Enhancement: Agile Tools for System Evaluation" by **Tatjana Ņikitina, Inga Lapiņa**
- Paper 3: "A Longitudinal Analysis of Perception of Genetically Modified Organisms Using Autoregressive Cross Lagged Modeling : A Case Study in Korea" by **Daehyun Han**
- Paper 4: "Degree Assortativity in Collaboration Networks and Breakthrough Innovation" by **Lun Wang, Runhui Lin**

July 13 (Thursday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:30~18:00

Innovation Strategy in New Global and Digital Era

Chair: DongHoon Oh(Ministry of Trade, Industry and Energy, Office of Strategic R&D Planning, Korea)

- Paper 1: "Identification of Promising Technology Areas requiring Prior Support from National R&D" by **Cheol-Ju Lee, Hyoung Ryul Ma***
- Paper 2: "Knowledge networks, university incubation and the growth of start-ups: Case studies from Portugal" by **Dario Peirone, João Leitão, Dina Pereira, Judy Yueh Ling Song**
- Paper 3: "Cooperative Activities between Big Companies and Small and medium-sized Enterprises, and Technological Transfer" by **Kim, Daesu, Kim, Yongwoo, Yoon, Junghyun**

July 13 (Thursday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:30~18:00

Gendered Innovation and Cross Cutting Issues in Science and Technology Governance

Chair: Hyomin Kim(Ulsan National Institute of Science and Technology(UNIST))

- Paper 1: "Gendering of engineering identities in Korea: Impact of age and academic prestige" by **Hyomin Kim**
- Paper 2: "The Green Deal Affect and Baltic Regional Energy Sector – Transition Towards Sustainable Economic Model" by **Elmārs Kehris, Elīna Gaile-Sarkane**
- Paper 3: "The Impact of Regularizing Non-Regular Employees on Financial Performance of Korean Public Enterprises: Management Capacity Matters" by **Jaewon Yun, Kwangho Jung***
- Paper 4: "Dynamic Platform: emergent and deliberate strategies" by **Junic Kim, Shanghe Ahn, Ian Miles**

Sevitization of Regional Clusters for Regional Development

Eun Song Bae

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Abstract

Servitization is a strategy to strengthen the competitiveness of the manufacturing industry through product-service convergence. Korea has developed a regional economy based on manufacturing. Most regions of Korea have industrial clusters based on manufacturing. However, the degree of servitization varies by region. As of 2020, the value-added production share of the service industry is 62.4% in Korea, 91.3% in Seoul, 73.7% in Busan, and 49.7% in Gyeongnam. Moreover, in the UK, a manufacturing powerhouse, the value-added production share of the service industry is 97.7%.

This study aims to determine whether the degree of servitization in the region impacts regional development. In addition, we want to find out whether the investment of local governments and the government impacts regional development for servitization regional manufacturing.

Panel Data on regional development, region of servitization, and local government investment from 2009 to 2020 are collected for analysis. Through the various tests for panel data analysis model selection.

[Research Model 1]

Compare 5 Regions: Gyeongnam, Seoul, Gyeonggi, Incheon, Pusan in Republic of Korea.

12 years panel data from 2009 to 2020

Dependent variable: GRDP

Explanatory variables: Service industry value-added production, Service industry productivity, Proportion of service goods in final demand, Industrial cluster development budget, Local business support budget, Service industry development and support budget, 6 Variables.

[Research Model 2]

Compare 2 Regions: Republic of Korea, United Kingdom & 12 years panel data from 2009 to 2020

Open innovation and sustainability: the role of the network

Giovanna Del Gaudio (Corr.)
Research Fellow, Federico II University of Naples
Fabiana Sepe
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Enrico Di Taranto
PhD, Federico II University of Naples
Alessio Piras
PhD, Federico II University of Naples

Abstract

The purpose of this paper is to examine the role of relational capabilities in the process of value creation and value capture within networks and in the light of open innovation.
Literature on value creation through "network resources" (Wassmer and Dussauge, 2011) has gained increasing attention, over years, in the strategic management community. The reason of this interest can be linked to the assumption that new sources of value are generated also through the exchange and combination of resources in new different ways (Goshal and Moran, 1996) and the activation of different relations outside firm's boundaries. Starting from this point of view, a network can be a new way of exchanging and combining resources in order to generate value (Dyer and Singh, 1998). In particular, in the light of the relational view, a network is a way to generate relational rents that are distributed amongst partners and whose benefits can occur both at a common and a single. This view recalls the issue of value creation and appropriation. In particular, network is considered the unit of analysis for the rent-seeking opportunities since some scholars conceive it as facilitator of knowledge transfer and exchange in the light of open innovation (Hwang et al, 2018). According to this view, network has to be able to deploy capabilities that allow the acquisition, generation and combination of knowledge (Bae et al., 2017), since knowledge is conceived as a core component in the creation and appropriation of value.
Value is, hence, created by the network where this network is the expression not only of the sum of the different resources brought by the single firms within the relational aggregate but also of the new resources and opportunities generated by the network itself. This reflection underpins the question of value capture since it is important to understand to what extent such created value is then spread between the firms and the network itself.

Circular economy and open innovation: a systematic literature review

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Abstract

Today there's an open debate on the transformation from the take-make-waste, the traditional, linear approach to production and consumption, to the borrow-use-return one, a closed loop approach developed from the idea of maximizing the resource exploitation efficiency by reducing waste and make them into useful resources for new production processes (Ellen MacArthur Foundation, 2012). This approach as often been seen as a more advanced model of waste management but it should instead be more focused on preventing the negative impacts, more than treating them (Ghisellini et al., 2016). Accordingly, the Closed-Loop system includes several different ways companies may improve their impact on the common environment such as better ecodesigns, responsible waste management and prevention, and the reuse and recycling of materials (Camilleri, 2018). Moreover, adopting an approach like there would not only advantages to business and consumers (Stål and Jansson, 2017), but even to the society as a whole, such as the creation of new jobs (Ghisellini et al., 2016).

In this paper, we propose to look into the existing literature to understand how the closed-loop approach may benefit from a widespread adoption of the open-innovation approach (Chesbrough, 2003, 2004) that should help to make all the supply chain players more aware of the consequences of their strategic choices (McGahan et al., 2021; Köhler et al., 2022) and help them to cooperate in a more effective, and efficient, way (Jesus and Jugend, 2021).

Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959-975.

- Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open innovation: Research, practices, and policies. *California Management Review*, 60(2), 5-16.

Value Co-creation in Post-Pandemic Tourism through Open Innovation Platforms: Nexus between Digital Tourism 'Hackathon', Reward-based Crowdfunding and Destination Competitiveness

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Abstract

Open innovation platforms are transforming global tourism by enhancing visitors experience, creating resilient destinations, mobilizing creativity and shared expertise across diverse stakeholders. The present research explores the impact of digital tourism hackathon, reward-based crowdfunding and value co-creation on destination competitiveness through an online survey of tourism industry professionals (N=479).

The COVID-19 pandemic has severely impacted the global tourism industry, and there is a growing need to explore new ways of creating value in the post-pandemic era (Assiouras et al., 2023; Cao, Xie & Qu, 2023). Open innovation platforms such as digital tourism 'hackathons' and reward-based crowdfunding have emerged as potential solutions for value co-creation in the tourism industry (Chaudhary et al., 2022; Scaliza et al., 2022). Value co-creation is a process that involves the collaboration of different stakeholders to jointly create value that benefits all parties including tourists, tourism organizations, and local communities in the development of tourism products and services (Cao, Xie & Qu, 2023; Melis et al., 2023). With the advent of open innovation platforms, such as digital tourism 'hackathons' (Kitsios & Kamariotou, 2023; Sufi, 2022) and reward-based crowdfunding (De-Crescenzo et al., 2023; Salem et al., 2022), the potential for value co-creation in the post-pandemic tourism industry has grown significantly (Scaliza et al., 2022; Shin & Perdue, 2022).

Risks that older adults meet in residential areas while walking, especially during winter

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Abstract

Population aging is an established trend in many countries, and Korea's transition to an "aging society" is one of the fastest in the world. As the aging population increases, the living environment of the elderly and fall problems have become hot topics, and the design of safe walking for the elderly with vulnerable transportation is gradually gaining attention. Older adults continue to have lower risk prediction ability, vision, and walking speed than the average adult as aging progresses. Especially in countries with winter, many older adults slip and fall on snow and ice surfaces. To solve these problems, it is necessary to investigate the awareness of older adults about the walking environment around their residence, collect and analyze risk factors in activities and walking, and seek solutions from the standpoint of older adults.

1. To understand what the situation of the risk factor present in the winter walking environment is?
2. Identify the main inconvenience factors for older adults walking and where the risk-prone areas are?
3. What are the pedestrian experience, perceived safety in residential areas, and social environment factors?
4. How to improve the safety of older adults walking in residential area by investigation the risk elements?

Encouraging travel is vital for seniors, but most seniors want to stay in their homes and communities because they are more likely to take short trips close to home than other age groups(Ottoni, 2021)1. Many scholars have obtained that Access to Facilities 12(100), Shops and services 12(100), Pedestrian Infrastructure 12(100), Crossings 11(91.7), Aesthetics 11(91.7), Familiarity with Routine activities 11(91.7) are essential factors that influence older adults walking through walking interviews(Cao et al., 2019)2. Research shows: Access to facilities, services, and pedestrian infrastructure is vital to older adults as pedestrians. Older adults can gain a sense of familiarity through long-term residence and daily activities, which gives them the confidence to walk for exercise even as their strength declines.

Open Innovation Approach for Empowering Parkinson's Patients

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Raysa Geaquinto Rocha (Corr.)

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Abstract

Purpose: Technological advancements have grown substantially in the wearable health device market. It has registered a compound annual growth rate of 5.6% and reached USD 25 billion in 2020 (Papa et al., 2020). One of the targets is that people with motor limitations, such as Parkinson's disease, face challenges adapting to the mechanisms and devices they use daily.

According to WHO (2022), approximately 5.8 million people manifested Parkinson's in 2019, signifying an 81% increase since 2000. Degeneration and motor symptoms, including slow movement, tremors, rigidity, and imbalance, characterise Parkinson's Disease. It is also associated with various non-motor complications, such as neuropsychiatric and autonomic symptoms, sleep and other sensory disturbances (Dorsey et al., 2007). The increased symptoms and complications adversely affect the patient's quality of life, and inconsistent data make it challenging to estimate the disease's impact accurately.

Open innovation within the health sector has allowed for significant technological leaps, generating competitiveness for the industry and value creation for society. Companies can improve innovation and new product development processes by leveraging customer knowledge of their latent needs (Puschmann, 2017).

Therefore, this research aims to report the synergistic collaboration between multiple research institutions to design and produce a wearable device utilising three-dimensional printing technology. The proposed device has been specifically engineered to be affixed to various everyday utensils such as cutlery, brushes, and shavers to assist individuals with Parkinson's disease. The study seeks to illuminate the depth and scope of patients' involvement in developing novel healthcare products and their impact on knowledge acquisition, commercial efficacy, and technical proficiencies.

Analysis of the Digital Potential of a Company

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Abstract

Digital transformation can deliver a range of benefits for businesses, such as increased productivity, efficiency, profitability, better collaboration among departments, generating better customer insights, and ensuring better resource management. Global changes related to the digitalization process cause its effects to be felt both at global and local levels. This applies to individual countries and their groups as well as individual companies. The significance of digital transformation has been emphasized also by the European Union.

Organizations fail to capitalize on digitalization and/or digital transformation; if an organization is not aware of its current digital status and is not able to analyze its potential, then it is impossible for the company to successfully seek digital transformation and be part of the digital economy and Industry 4.0.

Digital potential or digital readiness differs from digital maturity in the scope that the first initiates the area of possibilities for digitalization and digital transformation. The assessment of the digital potential varies by the internal (business model, goals, IT etc.) and external (industry specifics, national legislation etc.) environment of each company. The purpose of the paper is to develop a framework of criteria and determinants / indicators for the comprehensive assessment of the business digital potential. The framework will make possible for organization to evaluate their present digital potential and select possible areas for digital development.

Digital potential as well as digital maturity is not a static index, but a continuous and ongoing process of adaptation to changing digital landscape [1]. Digital maturity represents a systematic way for an organization to transform digitally [2], but digital potential states the capabilities of the company to be digitally mature.

There is no general approach to assess digital maturity, but when the definition of the term is clear is possible to set several criteria for valuation, for example, digital intensity is an investment in technology-enabled initiatives to change how a company operates – operation processes – customer engagements, internal operations, business models [3].

Comparative Usability Analysis of Mobile Healthcare Applications: Focusing on Apple Health,MyFitnessPal,and Mint Health

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Abstract

The healthcare industry is undergoing a digital transformation in the era of Industrial Revolution 4.0(Michiko Iizuka & Yoko Ikeda,2021)[1].As more people gain access to smart mobile devices, healthcare services are increasingly available through mobile applications. One area that has garnered considerable attention is the development of mhealth applications. However, as the number of these apps has grown, so too has the need for improved usability. This study examines the usability of an mhealth application from a user experience perspective, identifies potential issues, and provides insights for optimal design of future mhealth applications.

1. What are the usability factors that affect the user experience of mhealth applications?
2. Which of the usability factors affecting the user experience are significant?
3. What are the possible directions for improving the user experience of the mhealth application?

More and more people are using smart mobile devices, and technological innovations are improving access to healthcare services. One of the new ways of accessing healthcare is to reduce healthcare costs by giving people more active access to healthcare information and data through information technology (IT).(UNICEF connect,2012)[2].mHealth apps are healthcare apps that patients and health care providers use on their mobile devices to consult, communicate and share healthcare-related information, manage health professionals, promote personal health management and access healthcare education resources(Vo,V et al.,2019)[3].Over 100,000 health and wellness apps are currently published in the Android and iOS mobile shops (2019)(Rucker, M.,2019)[4].Grand View Research, Inc. reports that the global mHealth market size is expected to grow at a CAGR of 17.6% from 2021 to 2028(Grand View Research,2021)[5].In addition, the COVID-19 pandemic saw a significant increase in downloads and use of various mhealth health apps, which has continued to the present. Mhealth health apps have clearly stimulated demand for preventive care for individuals and have facilitated health care practices(Almalki M＆Giannicchi A,2021)[6].

Regional alliances and geoeconomic factors in the semiconductor industry

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National Taichung University of Science and Technology, Taiwan

Kuan-Ju Lin

Associate Professor Dr. and Chair, Department of International Business and Trade,

Aletheia University, Taiwan

Yuri SADOI

Professor Dr. Faculty of Economics, Meijo University, Japan

Cheng Wu

Lecture Dr. Faculty of Economics, Meijo University Japan

Abstract

The purpose of this paper is to examine Taiwan's technological strength and industrial innovation from a geo-economic perspective through the history of its development. Taiwan has been in a difficult position internationally politically due to its relationship with mainland China, but it has coped geo-economically through its technological development and strength in advanced technology on numerous occasions.

Geoeconomics is the study of the temporal, spatial and political aspects of economies and resources. Kato (2017) defines geoeconomics as 'a political and diplomatic method of realising geopolitical interests through economic means'. Taiwan's semiconductor industry has become the largest and most technologically advanced in the world. Subsequently, Taiwan began to exert geo-economic influence in ways that changed the way it guaranteed its technological international status: since the 1970s, Taiwanese policymakers have focused on shifting Taiwan from a labour-intensive industry to a high-tech, innovative and internationally competitive industry.

How has Taiwan succeeded in advancing its semiconductors, science and technology and industry over the decades? And what are Taiwan's innovative technologies? This paper explores these core questions and Taiwan's approach to foreign and strategic geopolitical policy through the regional industrial network centre of production processes in relation to the US, EU, China and Japan. It is now becoming increasingly clear that not only does the nature of economic organisation raise important theoretical and practical questions about the basis of international competition, but also that the impact of Taiwan's geo-economic location is largely determined by the relative shifts in the balance of economic power.

An analytic approach to finding substitute human resources with a focus on external stakeholder effects

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Abstract

Unlike traditional human resource, which relies on experience and intuition, HR analytics analyzes human resource data to support decision making that improves organizational performance (Guenole et al., 2017; Lawler et al., 2004; Rasmussen and Ulrich, 2015). HR analytics plays a critical role in all aspects of the HR function, including recruitment, succession planning, workforce planning, retention, compensation and benefits (Mishra et al., 2016). In particular, workforce planning, which is the placement and planning of the right people with the right skills at the right time (Diya and Mansor, 2019), has a significant impact on organizational performance and is an important issue for all organizations.

In a rapidly changing environment where unexpected events often occur, it is difficult for organizations to secure the right internal human resources at the right time (Ali et al., 2014; Doughty, 2000; Drotter and Charan, 2001; Rothwell, 2011). In particular, as products become more diverse and complex, organizations increasingly outsource through multiple suppliers, and the absence of internal human resources causes significant damage to organizations. For example, due to the COVID-19 pandemic, human resources have been absent due to infection or self-isolation. Thus, suppliers they work with have also experienced significant difficulties and damage.

To overcome these situations, various studies have analyzed event logs to identify and deploy suitable internal substitutes for absent human resources (Chiorrini et al., 2020; Lee et al., 2019). However, in previous studies, the relationship between an internal human resources and suppliers' stakeholders was not considered when finding internal substitutes for absent human resources. Therefore, this research presents an analytic approach to finding substitute human resources with a focus on the relationship with suppliers.

What makes ESG management boost firm's value up? - Focusing on US pharmaceutical firms

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Seunghyun Kim

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Changhyeon Song

Associate Research Fellow, Korea Institute of S&T Evaluation and Planning, Republic of Korea

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Graduate school of public health and healthcare management, The Catholic University of Korea, Republic of Korea

Abstract

The pharmaceutical industry takes a lot of time and money in the R&D stage. It is necessary to secure an appropriate investment destination for a long time on account of the burden of development costs. ESG investing has become popular in recent years as interest in responsible investing has increased (Dziadkowiec and Daszyńska-Żygadło, 2021). Even in the pharmaceutical industry, it will be difficult for companies with poor ESG performance to attract investment. The competitiveness of pharmaceutical companies that have not received proper investment will decline. In this context, pharmaceutical companies need to confirm whether ESG management has led to corporate value improvement and respond appropriately.

The industry is being forced to take social responsibility to reach the climate crisis and sustainable development. Improvements in ESG performance are urgently needed even for novel and significant challenges such as Covid-19. Companies need to provide more timely and reliable data to help address these challenges and improve ESG performance to attract investors (Arvidsson and Dumay, 2022). ESG related factors are becoming critical in investment decisions (Perks, Mudd and Currell, 2022). In addition, regulations on ESG disclosure are being strengthened, but corporate performance entered a phase of stagnation. Nevertheless, the pressure from investors cannot be ignored especially in the pharmaceutical industry, where corporate investment is carried out from a long-term perspective, and companies should focus on creating better practical performance in ESG.

ESG transparency helps mitigate information asymmetry between companies and stakeholders while facilitating better resource allocation by increasing investment efficiency (Hammami and Zadeh, 2020; Ellili, 2022).

Smart services in the era of open innovation: a systematic literature review

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Irene Di Bernardo

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Angelo Ranieri

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Abstract

The use of smart devices is transforming our ordinary life more and more. The amount of digital voice assistants such as Amazon's Alexa, Google Assistant or Apple's Siri being used in devices around the world is expected to grow from 4.2 billion in 2021 to 8.4 billion in 2025 (Statista 2022). Moreover, according to Statista (2022) one third of the younger Internet users use smart watches or fitness tracker. Illustrative examples could go on and on indicating clearly that the advancements in technology and increasing use of smart technology and other tools, have enabled the launch of smart services that have become quite common across various industries (Wünderlich et al., 2015). According to conventional wisdom in business and management literature, smart services are defined as services delivered through smart products (e.g., Allmendinger and Lombreglia 2005; Wünderlich et al., 2015). In turn, they co-create value by the customers and providers via connected systems and machine intelligence (Gavrilova and Kokoulina, 2015). However, despite in recent years the number of publications focusing on smart services has increased significantly, published research takes a piece-meal approach by focusing on particular smart service aspects or -subsets (e.g., smart cities, systems), rather than taking a broader birds-eye view of the overall smart services literature. Moreover, given the differing theoretical lenses used to explore the smart services, the field is suffering from theoretical shortage, yielding a need to systematically map this flourishing literature stream. In addition, none has yet articulated a systematic review and research agenda on the field and the published research is dispersed across multiple disciplines. This misalignment was a major motivation to pursue and advance the understanding of existing studies To address these shortcomings, the method of a systematic literature review was deemed as most appropriate (Paul and Criado, 2020; Hulland and Houston, 2020).

In line with that, we carry out a systematic literature review to collect and scrutinize the information coming from published studies. The aim is to get an overall vision of the phenomenon and understand how the smart services concepts are elaborated in the service literature.

The Effect of Entrepreneurial Orientation of Technology Startups on Firm Performance – Considering the Mediating Effect of Technology Acquisition

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Abstract:

This study investigates the effect of entrepreneurial orientation and technology acquisition on the performance (financial and non-financial) of technology start-ups. Data of 121 Korean technology startups were collected and empirically analyzed. The analysis results support the claim that both entrepreneurial orientation and technology acquisition improve the performance (financial and non-financial) of technology start-ups. In addition, technology acquisition of technology startups has a significant indirect effect on performance (financial and non-financial) through entrepreneurial orientation. Overall, this study contributes to improving the understanding of the antecedent factors for achievement of performance of technology startups in the field of entrepreneurship research by presenting a new research model of the relationship between entrepreneurial orientation, technology acquisition, and performance of technology startups.

Keywords: Entrepreneurial Orientation, Technology Acquisition, Performance, Technology Startups

Resell platform and Open market platform: A multigroup analysis

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Abstract

Today, along with the rapid online market growth, the used trade is also proliferating, and we call this resell. In particular, as the resell culture grows and becomes popular, especially among the MZ generation, the online 'Resell' market is growing rapidly. Moreover, the resell market is growing as the paradigm of consumption is changing along with collaborative consumption (Benjaafar et al., 2019). Collaborative consumption refers to the creation of new value through the free transfer of ownership of products by people. For example, by trading products that have already been discontinued in the market through second-hand transactions, the seller can obtain monetary value, and the buyer can obtain mental satisfaction. The biggest difference between 'Resell' and existing 'Second-hand transactions' is that existing online second-hand transactions are generally direct transactions between individuals and resell platforms are mainly purchased and sold through intermediaries by those seeking limited edition products. According to Global Data's 2022 announcement, the global resell market is showing a market size of $ 119 billion in 2022 and is predicted to reach $ 218 billion by 2026.

In other words, it can be seen that the paradigm of e-commerce is also changing along with collaborative consumption. In the past, e-commerce consumption gave ownership value, but recently, consumption on resell platforms added the centre of gravity to investment value. Buyers can feel satisfaction while purchasing limited edition or ultra-high-priced luxury goods, and as the value of limited edition products rises, they change from buyers to sellers. As a result, consumers felt a new sense of satisfaction, and the resell market grew explosively through reselling individual products. To meet these demands, many platforms have recently come to offer person-to-person (C2C) resale services. For example, China's Taobao and America's eBay allow products purchased in the first market to be resold through the C2C method.

Assessing progress towards decent work in companies using framework indicators and considering regional trends in Latvia

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Abstract

The current study aims to shed light on the assessment of progress made in the implementation of decent work concept, taking into account specific trends in Latvia. The following research questions are explored. What priority issues need to be addressed to promote decent work in companies in Latvia? What are the methods for assessing progress towards decent work at the company level?
Key Literature Reviews (About 3~5 papers):
Work, working environment and aspects of conditions of employment have the significant impact on the individuals' quality of life providing them not only with income, but also increasing the opportunity to build their capacity through self-development and self-realization (Cascales, 2021). Moreover, decent work conditions promote work/life balance which is considered as the indicator for wellbeing (Hasan et al., 2020). The quality of employment is the subject of both constant scientific discussions and serious disputes, as well as international and national initiatives of recent decades. The concept of Decent Work was first presented on the International Labor Conference in 1999 as a new normative framework focusing on the world of work (Berten, 2022). Decent work is defined as "productive work for women and men in conditions of freedom, equity, security and human dignity" (ILO, 1999). The word 'work' was selected as the alternative to 'labor , ' recognizing all forms of work, not just covered by labor and employment (Standing, 2008). Hauf, F. (2015) argues that decent work concept addresses the problem of informal and precarious employment, social insecurity as well as the problem of legitimation through the introduction of new labor policies.
The concept of decent work is based on four pillars: rights at work; employment and work; social protection; and social dialogue (ILO, 2007a, p. viii). Rights at work cover all fundamental rights related to social real work, the absence of forced and child labor, and encompass such relations as freedom of association and non-discrimination.

Innovation and M&AS in the tourism sector. A systematic literature review

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Abstract

The aim of this paper is to study the evolution of merges and acquisitions (M&A) in the tourism sector.

The topic of M&A has been studied according to different perspectives (strategic management, financial, etc.) in the tourism field. The importance of mergers and acquisitions strategies as an open strategic option, especially to tourism companies pursuing diversification strategies, cannot be disputed (Čirjevskis, 2019; Lopes et al, 2021). The number of companies that have pursued M&A strategies to diversify over the past few years is steadily increasing. However, diversification is not the only strategy that can lead to mergers and acquisitions; companies can integrate vertically through acquisitions, or they can develop their market share by acquiring competitors, or they can enter new international markets by acquiring local companies.

Literature identifies different types of M&A (Rozen-Bakher, 2018). The M&A is vertical (Almeida, 2021), when the buyer integrates vertically, both upstream and downstream, by acquiring suppliers of raw materials or customers or distribution networks; horizontal, when it acquires a competitor; by product extension, when it acquires complementary products; by extension of the market, if its primary objective is access to new geographic markets; conglomerate, in cases in which there are no vertical or horizontal links between the companies for the development of products or for the development of markets.

The paper draws a systematic literature review methodology to explore the issue of Innovation and M&AS in the tourism sector. Thus it starts by establishing research tools according to which the research gaps can be discovered/tested. The adopted method has required several steps that began with an extensive search in bibliographic electronic databases, such as Emerald, Direct (Elsevier), Business Source Premier (EBSCO) and Google Scholar, overlapping tourism management journals and crossing the resulting lists.

Open (Sustainable) Tourism for Regional Development

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Abstract

Tourism development is known to have an important impact on the economic growth and the competitiveness of the region. For tourism development, the Jeju local government introduced a visa-waiver program that is valid only for the Jeju region. According to the results of previous studies, it was found that the Jeju visa-waiver program had an effect on the increase in Chinese tourists. This study aims to examine whether this program affect the local economy. In addition, we would like to examine the impact of major political conflicts such as THAAD on Jeju tourism and the local economy. Finally, in terms of the characteristics of an island, the impact of the number of aircraft operations and the capacity of accommodation facilities on tourism and the local economy is to be examined.

Q1: Does Jeju visa-waiver program actually affect Jeju RGDP?

Q2: What is the impact of political events such as THAAD on the number of Chinese tourists visiting Jeju and the economy of Jeju?

Q3: What is the effect of number of flights to Jeju and accommodation capacity on Jeju tourism and the Jeju economy?

Keywords: Jeju visa-waiver program, Difference-in-differences, Jeju local economy, Regional development

Research Methodology

Q1. Visa-waiver program and RGDP

- Methodology: Differences in Difference
    - Treatment Group: Jeju RGDP &Control Group: Gangwon RGDP

Q2. Political event and Jeju tourism

- Methodology: Differences in Difference
    - Treatment Group: Jeju & Control Group: Japan or European countries

Q3. Infra-capacity and Jeju Tourism & RGDP

- Methodology: Differences in Difference
    - Treatment Group: Jeju RGDP & Control Group: Gangwon RGDP

Open innovation in the University ecosystem

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Abstract

The Universities are trying to narrow the gap between science and industry and are urging to create specific units, designing specific programs to assist in brokeraging knowledge together with academics, businesses and venture capitalists, seeking to facilitate the transfer of knowledge from academia to the industry while infusing an entrepreneurial culture of innovation. The substantial increase in corporate venture capital spending reflected more fundamental shifts. Along with venture capital, banks, individual angel investors, and corporations are among the other providers of capital for these university- industry linkages (Erkut, 2018; Jeon et al., 2015;). The spinoffs have a vital role in the knowledge and technology transfer process as contributors to the regional economic development and in the promotion of the innovation culture. As knowledge and technologies are transferred to the entrepreneurs, their enterprises can improve their operational processes, services or business models, adapting to compete with the evolving situations and demands of the market. Although participating in a knowledge and technology transfer provides benefits for university and industry, some barriers hinder this process. The existing weak links are that organizations are restricted with time constraint and cannot evaluate the quality of the invention before researchers evolve with an idea; however every idea may also have a commercial viability screening before acceptance. Industries and universities do not have a communication cooperating conduit to present their needs and exchange development inputs or seeking solutions that make industrial operations and processes more competitive, products more attractive, and this consequently enable them to become more profitable. Furthermore University research projects tend to require long periods, while industry demands short cycles to compete in the market and achieve a competitive advantage. The catch of this scenario is the ownership bottleneck, is the intellectual property ownership, where the universities cling to being the owners of research results and therefore, being unable to market them, exists as significant impediments limiting their potential to grow. This article reviews the relationship between academic spin offs and the role of university to support entrepreneurs collocating it in the network of open innovation intermediaries and proposes a significant model that can be a spinoff support for quick, time bound, and immediate use to any industrial requirement.

Educating the new generation. The role of open innovation

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Abstract

The aim of this paper is to explore the role of ICT and the its influence on open innovation through an *exursus* in literature.

Literature on the role of ICT in education is huge (Shirazi et al, 2009; Kumar, 2008). The importance of digital support is widely recognized for both students and teachers, even if the use of ICT *per se* is not sufficient because it requires the contextual implementation of a parallel pedagogic approach (Bray and Tangney, 2017; Jung, 2005; Loveless, 2003; Aouad and Bento, 2020; Quiñones et al., 2019; Shin et al, 2019).

ICT is a useful tool to support and contribute to make education more efficacious but cannot substitute human resources and their role in the educational process. Therefore, embracing a pedagogic method, peer to peer learning can be very helpful (Lang et al., 2016). As claimed by Jung (2005 p. 94) "ICT is not a panacea for all educational problems" even if it is precious and even essential at different levels (organizational, learning, teaching, network). The digital world needs, indeed, the knowledge of teachers, both at a starting phase and at a developing stage, to support the ICT path undertaken by students (Lang et al., 2016).

In this field, particular interest is given to students and, more precisely, to the use of ICT and its connected advantages, critical issues, problem solving and team work perspectives (Hoyles, 2016).

Indeed, some scholars (Aesaert et al., 2015, 2017; Fraillon et al., 2014) are concentrated on the topic of "ICT self-efficacy" that concerns the degree of ability to use computer and Internet. The understanding of abilities and capabilities is of paramount importance to develop and enhance the performance (Bandura, 1986) connected with a certain behavior or task.

The concept of ICT self-efficacy depends on the actual competences (i.e., accuracy of ICT self-efficacy), on the gender (Bench et al., 2015; Pajares and Kranzler, 1995), on the individual cognitive ability (Nietfeld and Schraw, 2002) and on the familiarity with the topic of interest (Zell and Kriza, 2014).

It is important to underline that research on the use of ICT in education has a specific field of application (for example, mathematics rather than geography – Bray and Tangney, 2017; Livingstone, 2012), as well as different referring levels of education (primary school, secondary, high school, university, etc.).

The use of ICT is relevant to enhance team relationships, to give emphasis to practical exercises "through modelling, visualisation, manipulation and the introduction of more complex scenarios" (Bray and Tangney, 2017).

Brand and masculinity archetypes as an innovative research approach for analyzing consumer preferences on masculinity in advertising

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Abstract:

The research aims to explore consumer perceptions of masculinity in advertising in an innovative approach. The authors aimed to determine which type of masculinity and which brand and masculinity archetypes consumers favor in a masculine character. That would help the advertisers understand what type of masculine character to focus on and whether advertis-ers' offered version of masculinity is in alignment with consumer preferences. Methods included qualitative video content analysis of advertisements centered around masculinity and quantita-tive research methods such as survey research and A/B testing of younger consumer segments such as Generation Z and millennials. The empirical results were analyzed using the SPSS 23 sta-tistical software program. The research found that in traditional masculinity advertisements, consumers appreciate characters that are rebellious rule breakers who are influential and stub-born but also visionary, seductive, and playful. In modern masculinity advertisements, consum-ers prefer a character who is caring, compassionate, generous, romantic, warm, and intelligent. Research also showed that there is a disconnect between what advertisers offer to consumers and what consumers give their preference for when it comes to masculinity in advertising and that there are statistically significant differences between men's and women's preferences for mascu-linity's depiction in advertising.

Keywords: advertising, branding, archetypes, traditional masculinity, modern masculinity, marketing.

R&D Performance in the context: A comparison of defense R&D and national R&D

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Abstract

Defense R&D has several unique characteristics in goal, process, market structure and economy, and planning procedure. However, the national R&D system and the defense R&D system are not completely separated, with a civil-military cooperation that encompasses the entire national R&D system and the defense R&D system being promoted.

In this study, we want to compare and analyze the contextual variables of national R&D and defense R&D systems to overcome the limitations of defense R&D and maximize defense R&D performance. Although many prior studies have made simple comparisons of laws, institutions, or structures, we attempt more dynamic and extensive comparative studies covering contexts such as norms, practices, politics and cultures.

The Socio-technological perspective emphasizes the interaction between technical and social systems and is presented as an alternative view to supplement the limitations of an approach that focuses only on technical factors when introducing technology within an organization (Bostrom & Heinen, 1977). According to the socio-technical perspective, an organization's work system consists of two subsystems: a technical system that includes skills and tasks, a structure, and a social system that includes humans, and each subsystem is independent and closely connected to each other. The technical framework converts inputs into outputs, and the social framework plays a role in facilitating or constraining this transition (Feeney & Welch, 2013) Therefore, from a socio-technical point of view, the interaction between these elements is more important than the individual influence of each element, and the performance of the organization depends on how to manage the interaction between the various elements of the technical and social system.

Recently, many researchers are increasingly attempting to examine the comprehensive relationship between technology and management, and organizational context from a socio-technical perspective that encompasses the components of the technical system and social system.

A Study on Entrepreneurship Education and Entrepreneurship Education Program's Promotion of Entrepreneurial Intention : A Meta-Analysis

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Abstract

The economic changes brought about by the COVID-19 pandemic have forced companies to be more innovative and adapt to new ways of doing business. Open AI, specifically Chat GPT, has opened new opportunities for non-face-to-face and digital interactions, making it a prime time for startups to make their mark.

In order to survive in this competitive environment, companies must prioritize innovation as their main strategy. Change and innovation are essential for a company to remain relevant and continue to exist. For this reason, employees must be willing to change and innovate in order to achieve the company's goals. The organization itself plays a central role in driving change and innovation, and the leadership team is crucial in providing direction for the company's future (Yeonwoong Jeong et al., 2014).

Unemployment remains a pressing concern for governments worldwide, as the number of job seekers exceeds the number of available positions. One solution to this problem is the creation of new businesses, as governments cannot provide jobs for everyone (Rosa M. Batista-Canino, 2023). Entrepreneurship has emerged as a viable solution to this growing problem caused by the global crisis (Rosa M. Batista-Canino, 2023), which has led to increased interest in entrepreneurial intent (EI) research over the past 20 years (Rosa M. Batista-Canino, 2023).

The effectiveness of university-based entrepreneurship education has received significant attention in academia and practice. Our study provides the first empirical evidence showing how university-based entrepreneurship education, in an organizational context, promotes the formation of future entrepreneurs from both a passion and competency-based perspective. We discuss the consensus of our findings (Fei Hou, 2023).

Although many studies have used the TPB model to investigate individual intentions toward entrepreneurship, there have been no efforts to quantitatively analyze the results of these studies to determine the meta-analytic synthesis of relationships between structures of the TPB model.

Comparative Study between Korean Regional Innovation System and European Regional Innovation System

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Abstract

In the period of rapid economic growth, regional development policies based on distribution and growth policies based on factor input were possible. However, as competition between countries intensified and environmental uncertainty increased, the driving force for growth was greatly weakened. At this time, the above model is losing its theoretical and practical validity. In other words, building endogenous regional innovation capabilities that can quickly and efficiently cope with the rapidly changing global environment and uncertain global economic changes caused by the COVID-19 pandemic is emerging as a new alternative for creating regional innovation. Building endogenous innovation capabilities in the region will not only have a positive impact on the establishment of a regional innovation system, but will also help a lot in establishing government policies to resolve regional imbalances. This phenomenon is occurring not only in Korea, but also in France and the United Kingdom, which have centralized regional innovation systems. Therefore, in this study, we plan to conduct historical research on the establishment of regional innovation systems in Korea, France, and the United Kingdom. Based on this, we would like to provide policy and practical implications for resolving regional imbalances in a rapidly changing environment amid the COVID-19 pandemic, strengthening regional competitiveness, and further strengthening national competitiveness. Finally, this study aims to provide a new regional innovation system that can be applied after the post-COVID-19.

The Regional Innovation System (RIS) refers to the cooperation and learning relationship between the players who play the regional innovation roles in the process of regional innovation, forming an organic connection with each other. When characterizing innovation as a social, non-linear, and interactive learning process, innovation should be understood as an 'innovation system' rather than simply the result of a single activity carried out by a company.

Human Resource Development in ICT industry in Myanmar - Its challenge and practices

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Abstract

Human Resource Development (HRD) in IT industry is one of the important functions and it is now an integral part of economic activities and underpins the social infrastructure of every country. Since IT industry is in highly skilled and knowledge intensive industry, human resource plays a vital role. Furthermore, this industry is highly competitive, dynamic technical industry and it needs highly skilled, talented and well-learned human resource. That is why most of the organization in IT industry are now facing some difficulties and challenges to develop optimal IT human resources. Myanmar needs skilled and experienced ICT professionals more than ever. Even though there are graduates with high competency in ICT from universities across Myanmar, there are still shortages of ICT expertise in both the government and the private sectors (Myanmar e-Governance ICT Master Plan, 2015). This paper aims to study the challenges and practices of HRD in IT industry in Myanmar for developing a more talented and superior quality workforce which will help them accomplish the organizational goals better. It is also intended to contribute the studied information for those who are relevant to interested organizations in the public and private sectors that are internal or external to Myanmar.

IT industry as a whole has become more competitive and that exceeds national boundaries. HRD is the centrality for the development and Myanmar needs skilled and experienced ICT professionals more than ever even though there are graduates with high competency in ICT from universities across Myanmar. A number of factors underlie the difficulties and challenges of HRD in IT industry. Cho and McLean (2009) compared Information Technology (IT) firms in two leading Asian countries in the IT industry, India and South Korea and made suggestions how to leverage human resource development (HRD) practices for continued growth. The research questions in this study were: What HRD practices in the IT industry have supported South Korea's and India's development within a short period of time? How do these HRD practices in the IT industry compare between India and South Korea? Using content and case analysis approaches, this study identified HRD practices in the IT industry in South Korea and India.

A bibliometric study on global trends of women entrepreneurship research from 2000-2020

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Abstract

The purpose of this study is to analyze the research trend of women entrepreneurship, which is receiving great attention worldwide. Currently, although entrepreneurship is receiving great attention both domestically and internationally, there are few attempts to systematically analyze studies in the specific fields of female entrepreneurship. In order to identify research trends in the field of female entrepreneurship, this study analyzed bibliographic information published in international journals from 2000 to 2020. In particular, a keyword co-occurrence network was established centering on the keywords of the authors of the thesis to derive dynamic research trend changes in the field. In addition, synonyms were effectively merged by considering the semantic similarity of keywords, thereby improving the accuracy of the analysis results. By extracting author affiliations and countries as additional bibliographic information, a network was established to identify research trends by institutions and countries in the field. This study is expected to provide a lot of help to many related researchers in the field of female entrepreneurship to understand research trends in the field and to explore and plan future research topics.

Keywords: women entrepreneurship, women entrepreneurship research, social network analysis, research trends, bibliometric research

Society of Open Innovation Technology, Market & Complexity

A method for assessing the readiness for knowledge transfer: case of manufacturing companies

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Abstract

The mechanical engineering and metalworking sector is considered a strategic sector with high added value, as it influences the technology level of other sectors by supplying them with the necessary production systems, their components, tools, equipment, and technologies (European Economic and Social Committee, 2013). At the same time, well-performing knowledge transfer is necessary for engineering and metalworking manufacturing companies to achieve a higher level of innovation and competitiveness (Association of Entrepreneurs of Mechanical Engineering and Metalworking Industry, 2005; Al-Dalaien et al., 2019). Knowledge transfer is generally affected by various factors, so the research question is to determine which factors and to what degree directly affect manufacturing companies. On the other hand, to increase the performance of knowledge transfer, companies need to find the opportunity to identify the aspects that need to be improved in their operation, so the purpose of the study is to develop a method for assessing the readiness for knowledge transfer.

In recent years, factors affecting knowledge transfer have been studied in

Entrepreneurship (Sondari and Akbar, 2016; Ebrahiminejad, 2017; Ghazinoori et al., 2019; Marjani et al., 2019; Szondi and Gergely, 2020; Thang, 2021),

Education (Hu, 2016; Yin, 2017; Yancey et al., 2018; Mohidin et al., 2019; Kurniawan and Asari, 2019; Habtoor et al., 2020; Sharma and Garg, 2020; Es-Sadki and Arundel, 2021; Djeflat and Maaref, 2021),

Medicine (Xia et al., 2016; Hassan et al., 2016; Wang et al., 2017; Ghodsian et al., 2017; Vasli et al., 2018; Al-Dalaien et al., 2019; Chelagat et al., 2019; Gerbin and Drnovsek, 2020),

Human resources (Zulkifly and Ismail, 2015; Enane, 2016; Zulkifly et al., 2017; Mokhtarzadeh and Faghei, 2017),

Information technology (Siu and Chu, 2017; Madhu and Reddy, 2019; Sahu and Dwivedi, 2020; Wang et al., 2021),

Public institutions (Azizan et al., 2017; Azizan et al., 2018),

Catering (Moon et al., 2021),

Hotels (Powell and da Sousa, n.d.)

Strategies for the State Interventions to Promote Infrastructure Sustainability

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Abstract

Infrastructure has been attracting a lot of interest in the past decade as it can play an important role in addressing of emerging sustainable developments goals (SDG). For example, Khan (2022) has previously observed that access to energy is central for better education, as is access to clean water and sanitation for better health. Other SDGs that may be closely related to infrastructure developments are SDG1 (combating of poverty), SDG2 (reducing of hunger), SDG6 (supplying clean water and sanitation), SDG8 (inclusive growth) as well as SDG9 itself where resilience of infrastructure is required.

Recently, a considerable literature has grown up around the theme of sustainability of the infrastructure. State incentives are a major area of interest within the field as life cycle of infrastructure overcomes business interests. Quick review of literature review papers shown the diversity in understanding of proper state actions to be provided: Castelblanco & Guevara (2 022) provided matrix of interconnections between Private Public Partnership (PPP) and SDG, in contrast Ampratwum et al (2022) stated that PPP is a gray area in infrastructure resilience research domain; Evans & Vermeulen (2021) shown that state and corporate forms of governanc e have the most impact on sustainability. Very close in conclusions was Emodi et al (2022), who underlined a lack of well-structured long-term national development plans, policy awareness, and tax support schemes. Han & Kim's (2021) critical review of city infrastructure projects resulted that the majority of the selected articles only address the sustainable growth of smart by focusing on innovations, that is not sufficient. Franco-Riquelme & Rubalcaba (2021) and Witt (2022) oppose that focus on innovation is poor. Finally, Cimen's (2021) study found that SDGs literature remains at an early stage despite recent growth in academic interest.

Observed studies show the diversity of focuses on infrastructure: construction sector, transportation systems, energy infrastructure, waste management, water security.

Career Clusters, Career Mobility and Career Success Among IT Professionals in South Korea: A Gender Perspective

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Abstract

For the past two decades, countries have undertaken efforts to improve gender diversity in the STEM (Science, Technology, Engineering, Math) fields. Despite these efforts, little progress has been made (Gorbacheva et al., 2019). Anecdotal evidence and research show that women are still largely underrepresented in the IT field (McGee, 2018; Harmon & Walden, 2021) and are paid lower and promoted less often than men, despite having similar years of work experience.

The IT field is rapidly evolving and growing (Dinger et al., 2015) with more opportunities for career mobility. With the emergence of new firms and new technologies, opportunities of job movement and hierarchical advancement increase as the firm grows over time, with more units, departments, and additional layers in the organizational structure (Feldman, 2007). Therefore IT professionals need to regularly update their skill sets, identify potential new technologies, and stay abreast of new practices in their field in pursuit of long-term career growth and success (Chang, 2010). IT professionals who fail to keep up face the choice of either moving to another labor market or exiting the workforce entirely. Generally, shifts to other industries involve movements to secondary labor markets with lower wages, non-permanent positions and women-dominated positions (Scarborough, 2018; Fritsch et al., 2020). Such shifts tend to affect women more than men, thus contributing to the gender imbalance in careers in the IT field.

Although many interventions have been implemented to promote gender diversity, gender imbalance in the IT workforce remains unresolved. The IT workforce in South Korea consists of 87% men and 13% women (OECD, 2018). While many women start their careers in the IT field, their career prospects and growth are limited.

Measuring MNE's Collaborative Synergies from Sequential Acquisitions of International Ventures by Advanced Real Options

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Abstract

The paper aims to explore how simple and advanced real options (options with changing volatilities) can be employed to value collaborative synergies when multinational enterprises (MNE) pursue sequential acquisitions of international ventures. Volatility change is a typical feature of sequential acquisitions of ventures when MNE is pursuing integrative strategies from partial acquisition or alliance to the total acquisition of an international venture, where the riskiness of synergies generated by this acquisition can change significantly at the time of getting on a full takeover. Therefore, to further developed real options theory and international business disciplines, the paper provides theoretical and empirical contributions to a critical issue in international strategy and asks the research question: How to value collaborative synergies when MNE is pursuing integrative strategies from partial acquisition to the total acquisition of an international venture and MNE's stock volatility is noticeably changing at the time of deciding on a full takeover? The paper discusses how recombining and non-recombining lattices with constant and increasing volatilities are employed to value collaborative synergies by the advanced real options application. The proposed theoretical proposition has been justified by the explanatory case study: Natura Cosméticos S.A.'s (Brazil) sequential acquisition of the Aesop brand (Australia) within the 2012-2016 period. With the application of simple and advanced real options with changing volatility, the paper provides an answer to the research question and justified the theoretical proposition.

Conventionally, the valuation of the joining partners' firms is based on the analysis of discounted free cash flow (DFCF) forecasts. However, a valuation that is made relying solely on DFCF is inherent to several limiting assumptions, which seldom materialize in the real world. Thus, for example, (1) all uncertainty associated with the deal is already accounted for with an appropriate discount rate or a weighted average cost of capital (WACC); (2) DFCFs are deterministic and can be forecasted with precision – they are fixed and assumed as known for certain (Mun, 2002, p. 59); (3) managerial flexibility to actively manage the strategic collaboration after implementation is ignored, and the assumption is given in DFCF that the collaboration is managed passively – it is simply carried-out as forecasted and will not be altered after implementation (Brandão et al., 2005).

Does college students' digital literacy affect their entrepreneurial intentions?

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Abstract:

Our paper proposes a model to link university students' entrepreneurial intentions with digital literacy. While studies linking entrepreneurship education and intention are plentiful, few have focused on digital literacy. This paper adopts the theory of planned action (TPB) model to explore the effect of digital literacy in college students on their entrepreneurial intentions. This study contributes to the literature related to entrepreneurship education and early fields of technical entrepreneurial intentions by providing evidence through empirical analysis of the structural model of digital literacy and TPB. Data were collected from 250 Korean university students using a quantitative approach. As a result, it was found that college students' SW-centered social adaptation ability, SNS use and collaboration ability had a positive effect on entrepreneurial intention formation through the mediating effect of individual attitudes toward entrepreneurship, subjective norms, and perceived behavioral control. It enriches research based on the TPB model by incorporating an unprecedented construct of digital literacy. In fact, it informs academics and institutions about the necessity of cultivating digital literacy of SW-centered social adaptation ability, SNS utilization and collaboration ability, and ICT competency in order to develop entrepreneurial intentions of college students. In addition, the ability to use basic work has a significant negative effect on individual attitudes toward entrepreneurship, so it should be considered when developing the entrepreneurial intentions of college students.

Keywords: Digital Literacy, College Students, Entrepreneurial intentions

Cultural heritage and open innovation: road to Federico II 800

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Stefano D'Ovidio
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Abstract

In the year 2024, the University of Naples Federico II is preparing to celebrate 800 years since its foundation. For this reason, the University, together with entrepreneurs and students, has undertaken a series of initiatives to open up beyond boundaries, understood both as the physical walls of buildings and as horizons. First, a re-branding operation was necessary, quite similar to the one many destinations undertook in order to host the Olympics. Our work is based on the consumer response to open innovation initiatives and the re-branding. Our research questions are as follows. Is open innovation a winning strategy to attract and keep neighbors anchored to the territory? Will visitors return to Federico II's sites after the 800th anniversary celebrations?

As a lot of authors have said, the presence of the Olympic spirit in the host city, and in the national imaginary, does offer a real and rare opportunity to develop and mobilise cultural, communal and social action e opportunities to catalyse large-scale transformation (Leopkey B.; Parent M. M., 2017; Rowe&al. 2012), as well as having long-term consequences after the event is over (Latuf de Oliveira Sanchez&al., 2017). Tools that convey the Olympics are different from those that can be implemented by a univerity's centenary celebration. The type of tourism that the Olympics are pushing is sports tourism, while the university's tourism is cultural and conference tourism, but the type of innovation applied, and the type of tourism planning is the same. The evidence shows that cultural tourism has had a positive impact on the economic and social development of numerous tourist destinations, where radical innovation is a key driver to compete globally (Souto, 2015). The methods of revitalizing cultural heritage sites and their business models should be open innovation because innovation capability is a key antecedent of pioneering orientation in tourism enterprises (Adam R. Szromek, 2022, Ruiz-Ortega et al., 2021). Thus, in the service industry, the higher the firm's level of innovation success is, the more intensive its recourse to cooperation with universities (Janeiro, Proença, & da Conceição Gonçalves, 2013; Suh & Kim, 2012).

Sustaining Business Model Innovation with Open Innovation Dynamics; -Long living restaurants at Daegu Korea, Kyoto Japan, and Naples Italy

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Abstracts

Restaurant industry as the representative service industry, long living restaurants could carry the secrets of key factors which are needed to build up "sustaining business model" . We want to answer to the following. How can restaurant innovate business model sustainably to live long more than 50 years until the era of digital transformation which is appearing with high open innovation dynamics? 5 long living restaurants each from Daegu, Kyoto, and Naples which were selected by snowballing are analyzed through deep interview, and participatory observation. Restaurants in Daegu are long living mainly from adding and boning value in recipes most of all. Restaurants in Kyoto are living very long through decoupling of mainly original service and in addition, ingredients, and recipe. Restaurants in Naples are living long by coupling or recoupling of ingredients, and additionally service, and recipe. Long living restaurants, or service firms could maintain their own sustainability through dynamics circling among 1) adding and boning of recipe(focusing of special menu), 2) coupling of ingredients(creative recoupling of original source and others), and 3) decoupling of service(disconnect of value chain and rebalance it).

<keywords> long living restaurant, open innovation, business model, recipe, ingredient, service

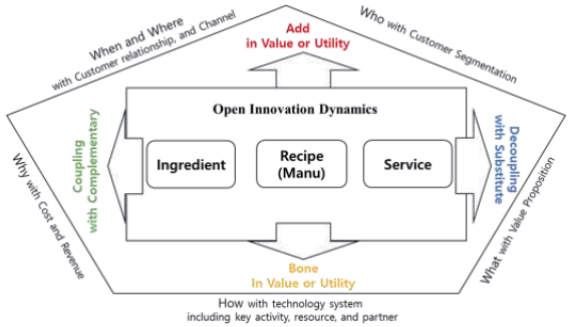

Figure 1. Research Framework; sustaining business model innovation from ABCD under OI dynamics

Identification of emerging road kill hotspots on Korean highways by using space time cubes

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Abstract

Wild animal accidents on high-speed national highways where high-speed driving takes place cause not only primary accidents caused by road kills but also secondary accidents. In this study, based on roadkill data of four major species (*Hydropotes inermis*, *Nyctereutes procyonoides*, *Lepus coreanus* and *Sus scrofa*) that occurred from 2004 to 2019 on high-speed national highways in Korea, this study analyzed spatial analysis through optimized hot spot analysis and a spatiotemporal patterns based STC (Space Time Cube) technique. The main results are as follows. (1) There is a difference in the temporal and spatial occurrence of road kills by species. (2) As for the water deer, the animal species with the most road kills, hot spots appeared in parts of the southern part of the capital area, around the Chungnam region, and in the western Chungbuk and Gangwon-do. However, the road kill according to the time trend was different for each region. (3) The wild boar, which is a large animal, is a situation in which road kills are increasing recently. In particular, a number of new hotspot areas have been derived centered on the metropolitan area (Gyeonggi-do), where the population and infrastructure are concentrated. The result of the emerging hotspots applied with STC determines the cold spots and hotspot trends over time, so that the spatial-temporal clustering pattern and the change trend of the onset can be observed more intuitively. Through this, it is thought that it will be easy to accurately analyze the causes of road kills and establish reduction measures.

Keywords: spatio-temporal, wildlife vehicle collision, priority, reduction measure, waterdeer

Tourists' acceptance of blockchain technology in smart destinations: applications of the Planned Behavior Theory.

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Abstract

In recent years, academics have shown a growing interest in blockchain technology (BT) in a wide range of research domains. As a disruptive innovation, BT would affect how the tourism industry will develop smart destinations while providing integrated and seamless tourist experiences (Khan et al., 2017). A blockchain is defined as a decentralized and distributed network characterized by cryptographic hashes to store transactions among peers (Avdimiotis et al., 2022). However, the literature on BT in the tourism sector, and particularly with reference to smart destinations, is relatively scarce, especially compared to other Internet-related technologies, and limited emphasis has been placed on tourists' willingness to embrace it. Consequently, this study examines the antecedents affecting the acceptance of BT in the tourism industry from a demand-side perspective, with the aim of underling the main motivations and objections toward its adoption.

The fragmented nature of the tourism industry exposes tourists to many contracts and transactions between multiple actors, security issues, disputes and inconveniences (Irannezhad and Mahadevan, 2021). BT comes into play in this context, guaranteeing data security, transparency and accuracy to many critical points for all parties (Setyowati et al., 2020). On the other side, consumer psychology and behavior is one of the most challenging fields of research, with increasing interest in recent years from scholars in marketing and tourism, as well as from practitioners and destination managers (Ulker-Demirel and Ciftci, 2020). Consumers are constantly changing their behavior, attitudes and intentions, thus the implementation of BT in tourism could have a crucial impact on the whole industry given its unique features (Tyan et al., 2021; Raluca-Florentina, 2022). Therefore, it is necessary to conduct more in-depth studies on the impact of the implementation of this new technology within the tourism sector, investigating how it will influence the trend to develop smart destinations and the tourists' willingness to use it during tourism services delivery contexts.

A Case Study on the Development of Input and Output Tables in the Defense Industry

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Abstract

As of 2022, the government budget invested by the Korean government in the defense industry continues to rise to about 17 trillion won. As the government's fiscal input gradually increases, interest in the effect of government finances on the domestic industry is also increasing. For example, how much positive (+) effect can be had on the domestic industry if one FA-50 is produced, a domestic supersonic light attack aircraft that has been powered since the early 2000s? This can be measured only when the input-output structure of the components input to the weapon is closely identified.

Then, is there a way to measure how positive domestic weapons are affecting the domestic industry? Previously, the effect on the domestic industry was estimated by using the inducement coefficients of the industry-related table provided by the Bank of Korea. However, the Bank of Korea's industrial association table estimates the induction coefficient, focusing on the input structure of private products. In other words, considering that the input structure of defense products is quite different from that of private products, the use of the Bank of Korea's industrial inducement coefficient for defense products without modification is an estimate of low reliability. In other words, it is necessary to devise a method that is somewhat different from the existing method in order to increase the reliability of the economic ripple effect on the government's finances invested in the defense industry.

This study first examines the current status of defense fiscal input and examines a methodology that can estimate the ripple effect of defense fiscal input on the domestic industry in a more reliable way. And based on this methodology, the industrial ripple effect of a specific weapon will be estimated.

Contemporary Approach to Business Education Enhancement: Agile Tools for System Evaluation

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Abstract

The current research investigates whether decision-making tools applied in agile software development for the elaboration of a holistic view of a system and assessment of its status quo might be beneficial as a cross-industry benchmark to increase organisational agility in higher education institutions (HEIs). Business schools and HEIs providing educational programs in business management and administration are within the scope of the study.

Volatile situations in modern universities require leaders with agile leadership skills to respond to the dynamics: "Agility helps leaders develop relationships, meet the needs of students, stakeholders, and organisations, and anticipate future concerns" (Taylor, 2017). The agile project management approach in higher education helps in successful project implementation and change management (Macheridis, 2017). Although agile principles implementation in higher education is still rare, business schools' accreditation authority, in its recent report (AACSB, 2020), reminded us that the speed of business change tends to grow, resulting in new needs for skills, knowledge, and new methods for business schools. Porto Business School continued the idea by presenting at a recent Baltic Management Development Association conference in September 2020 a case study on a new MBA designed and marketed in 5 months (Porto Business school, n.d.).

Emphasising the rapid increase in complexity in the business world, researchers suggested systemic thinking as the best option to deal with complex challenges as it becomes a driver of competitive advantage for organisations and is considered a "pre-condition for success" (Smith et al., 2010). It was found that systemic thinking encourages a dynamic, more holistic perspective, impacting the ability of the decision-makers to manage processes about complex problems (Reynolds et al., 2012). In software development Essence Alpha States approach is a governance approach to evaluate the status of a system; the methodology aims to develop a holistic view of the multiple elements of a system that forms an integrated model for decision-making and is measured with KPIs.

A Longitudinal Analysis of Perception of Genetically Modified Organisms Using Autoregressive Cross Lagged Modeling: A Case Study in Korea

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Abstract

Modern biotechnology is based on genetic modification technology. It cannot be denied that genetic modification technology continues to evolve even today and provides benefits in the form of food, and medicines in our daily lives. GMO is a product applied with genetic modification technology. However, despite the usefulness and future value of GMOs, social opposition is not formidable.

This study is about the perception system of attitudes and acceptance of GMOs by general citizens in Korea. This study presupposes that a certain perception system is working for ordinary citizens. For this study, Technology Acceptance Model (TAM), which is widely used in research on acceptability toward technology and products, was introduced. In addition, in order to confirm the long-term perception system of ordinary citizens, an autoregressive cross-lagged model (ACLM), a type of structural equation model that reflects the concept of time flow, was introduced. Methodologically, the factors constituting the technology acceptance model were extended and arranged over time, and the recognition system of GMOs was analyzed.

The data used in this study are multi-year questionnaire data for domestic citizens obtained from the Korea Research Institute of Bioscience and Biotechnology. The data used in the study are longitudinal data from 2015 to 2019, and although there is a limitation in that it is a cohort rather than a panel data, it was designed with a proportional allocation sampling method to represent the population. Based on the theoretical background, the pattern and causal relationship of the cognitive system were presented as research models and research hypotheses under the assumption that ordinary citizens would have an inherent cognitive system about GMOs in the longitudinal data.

As a result of the test of the hypothesis, a significant autoregressive effect was established in the autoregressive pathway of general citizens' usefulness perception towards GMOs. In the cross-lagged path, a cross-lagged effect occurred where usefulness and attitude had a significant effect on acceptance perception. Based on the analysis of the autoregressive cross-lagged model, it was confirmed by a statistical model that citizens had a certain perception of the usefulness, attitude, and acceptance of GMOs.

Degree Assortativity in Collaboration Networks and Breakthrough Innovation

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Abstract:

Breakthrough innovation is the weakness of innovation system of Chinese enterprises, and it is an effective way to conquer core technologies in key fields. Based on social network theory, this paper use 2011-2019 data of computer communication and electronic equipment manufacturing listed companies in China, examining the effect of degree assortativity of collaboration network on breakthrough innovation. The results show that degree assrotativity of collaboration network is negatively realted to breakthough innovation. In addition, giant of knowledge network has a negative moderating effect on the relationship between degree assortativity of collaboration network and breakthrough innovation, while entropy of knowledge network has a positive moderating effect on the relationship between degree assortativity of collaboration network. The paper provide guidence for enterprises to mobilize resources to achieve breakthtoughs.

Key words: Collaboration Network; Knowledge Network; Degree Assortivity; Breakthrough Innovation

Identification of Promising Technology Areas requiring Prior Support from National R&D

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Abstract

In all industries, the active use of big data and artificial intelligence has been accelerating the speed of technological development like never before. Consequently, identifying and predicting promising technologies has become crucial for countries and companies seeking to differentiate their technological advantages and discover new growth engines.

This study aims to discover promising technologies that require priority National R&D funding support across various industrial technology fields. Using the industrial technology level survey and principal component analysis methodology, the competitiveness, maturity, and importance of various technology areas were identified. A portfolio was then formed to derive promising future technology fields that require prior national R&D support. We applied our methodology to the secondary battery industry and identified the promising technologies in this field.

This study is distinctive in that it utilized the results of a technology level survey, unlike previous bibliometric research utilizing information from patents or papers, in discovering promising technologies. Furthermore, the methodology proposed in this study can be used not only at the national level but also at the corporate level.

This study aims to discover promising technologies that require priority National R&D funding support across various industrial technology fields.

ㅇ Emerging or promising technology

definition of emerging(promising) technology	reference
Technologies with high potential but not yet proven value or consensus has not been reached	Cozzens et al.(2010)
Technologies with universal agreement on novelty and potential for growth	Small et al.(2014)
A radical novel technology that grows relatively quickly, while maintaining a certain degree of consistency over time and capable of having profound social and economic impacts.	Rotolo et al.(2015)

Knowledge networks, university incubation and the growth of start-ups: Case studies from Portugal

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Abstract

Incubators have spread around the world as a tool to support entrepreneurial activities and accelerate the growth of start-ups. These incubators, mostly linked to universities, seek to provide a helping hand to entrepreneurs and early-stage start-ups. The paper aims to explore the framework of university incubation by using the resource-based and social capital perspectives. There is extensive literature on incubators and the growth of start-ups, looking at the knowledge relationship with the incubated firms, but the outcomes of these studies show different results since they are based on the description of different ecosystems in static contexts. The goal of this study is to better conceptualize the interplay between the start-up's growth and the knowledge network of university incubators, through a dynamic analysis of case studies that show the relationship over time between 6 firms and their university specialized incubator. Scholars have extensively observed the relationship between incubators and start-ups, but these are commonly instigated at a specific period of start-ups' growth and concentrated mainly on the services and structure of the incubator, rather than continuous observation overtime on the influence of the incubator and its relationship with the start-ups. Consequently, this paper targets to fill the gap, by providing an extensive analysis of this bond between an incubator and start-ups throughout the start-up's growth, from its inception to its expansion even after leaving its base inside the incubator. The research questions driving this paper are: (1) How does the strength of the academic incubators facilitate the needs of start-ups? (2) How do incubated firms utilize these resources, capabilities, and relational capital to grow and perform?

Cooperative Activities between Big Companies and Small and medium-sized Enterprises, and Technological Transfer

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Junghyun Yoon*

Abstract

Technology is becoming more and more important in the development of enterprises. Companies interested in implementing innovations, introducing new products and services to the market, pay more and more attention to the planned processes of technology and knowledge management, thanks to which they achieve market success more efficiently and increase their profitability.

However, "for many organisations including large companies (), innovation is difficult to understand and execute. There remains a clear discrepancy between how big business and startups approach it. As a result, big business is looking to start ups and entrepreneurs to identify disruptive ideas and opportunities for their business..." Cooperation between technology startups and large corporations is necessary to promote and develop innovations in the world. Therefore, we would like to provide a model to be able to link between big companies and small and medium sized companies throughout technology transfer.

the attitude of old companies in Europe is changing: most European companies today see the importance of so-called "open innovation". This is a concept developed by an American professor Henry Chesbrough. He is Executive Director of the Center for Open Innovation at the Haas School of Business at the University of California, Berkeley. According to him "Open Innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology. Open Innovation combines internal and external ideas into architectures and systems whose requirements are defined by a business model". As a consequence, corporates not only establish internal corporate innovation groups and R&D divisions but also turn to startups and SMEs for innovative ideas and solutions.

However, implementation of innovations through communication with the startup-up is not an easy process. Effective cooperation between these two players is possible, but the road to get there is quite bumpy.

Gendering of engineering identities in Korea: Impact of academic prestige

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Abstract

We aim to advance knowledge on female students' self-view as future scientists-engineers and the sources of their perspectives by examining their narratives.

The 'chilly climate' refers to a male-dominated environment that contributes to the continued lack of women in STEM fields (Cech et al., 2013; Faulkner, 2009; Varma, 2007).

One hundred and thirty-two young people, either enrolled in prestigious STEM high schools or colleges less known for their academic rankings were interviewed.

The results suggest certain similarities and differences between self-views and related perspectives on STEM narrated by students enrolled in more or less prestigious academic institutions.

We add new elements, such as female students' narratives on intrinsic value as a motivation and engineering as fallback career to previous findings on gendered engineering identities. By understanding how gendering of engineering identities intersects with other systems of inequality such as academic ranking, we may be able to increase the pipeline of women interested in technological innovations.

Keywords: engineering identities, gender, engineering education

Reference

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The Green Deal Affect and Baltic Regional Energy Sector – Transition Towards Sustainable Economic Model

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Abstract

The energy sector is the basic component of the economy, and its health directly affects its competitiveness and sustainability. The Green Deal plans to transform the European Union into a modern, resource-efficient and competitive economy together with ensuring the reduction of greenhouse gasses by 55% by 2030. After the aggressive Russian invasion of Ukraine European Union has developed the REPowerEU which plans to make Europe independent from Russian fossil fuels well before 2030. Clean and green energy is the future of our economy, but the new energy mix scenario must also be competitive and affordable to everyone. Therefore it's necessary to understand how European and local planning institutions could help the transition to the modern and sustainable energy sector in regions. Baltic region countries historically have been connected with the Russian energy sector and its supply of fossil fuels. Countries such as Latvia, Lithuania and Estonia were the first countries who stopped to import of the gas and fossil fuels from Russia after their aggressive invasion of Ukraine. The energy prices in Baltic states have increased dramatically in 2022 and local institutions are transforming their energy sector to withstand the new challenges. Therefore, this research will analyze how the green deal affects the energy sector and the transition to a sustainable economic model in the Baltic region.

How does the Green Deal affect the Baltic region's energy sector and the transition to sustainable economic model?

The research paper is based on systematic literature review results about the green deal effect on the Baltic region country energy sector transition. The Baltic region country data are analyzed and modelled to determine how the green deal affects the transition towards a sustainable economic model. The results are discussed with energy experts from Latvia.

Determined if and how the Green Deal affects the Baltic region's energy sector and the transition to sustainable economic models.

The Impact of Regularizing Non-Regular Employees on Financial Performance of Korean Public Enterprises: Management Capacity Matters

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Abstract

To improve efficiency in response to economic downturns and heightened competition, companies worldwide have increased their employment of non-regular workers. However, this has resulted in low wages and job insecurity, leading to socio-economic polarization. Recognizing the dual structure problem in the labor market, the Moon Jae-in administration in South Korea developed a policy to convert non-regular workers into regular workers in public organizations. However, concerns over its benefits, costs, labor disputes, and reduced employment have sparked controversy. This study examines the impact of the policy on the financial performance of public enterprises under the Moon Jae-in administration. Specifically, the research question is whether the conversion of non-regular workers to regular workers affects financial performance, and whether the impact varies depending on organizational personnel management capacities and characteristics. The study tests the policy's effectiveness, identifies potential problems, and provides implications for future non-regular workers.

Governments worldwide have been dealing with non-regular workers in the public sector due to economic fluctuations, competitiveness, and the need for flexibility, which causes socio-economic polarization. Many countries have introduced policies to convert non-regular workers to regular workers to tackle the dual-structure problem in the labor market. Previous studies suggest that conversion can positively affect organizational performance, but many public organizations face implementation and personnel management problems. Recent cases suggest policymakers should thoughtfully design and implement the policy, considering costs, benefits, organizational context, and personnel management capabilities.

This study explores the empirical link between converting non-regular employees to regular employees in the Korean public sector and the financial performance of 36 public enterprises during 2017-2021. The panel data comprises the execution status of the conversion policy, organizational performance, and several financial indicators as dependent variables.

Dynamic Platform: emergent and deliberate strategies

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Abstract

Platform strategy is a new and robust organizational strategy to deliver innovation and business transactions across multiple industries, and the platform business offers significant innovation potential to the enterprise (Kim, 2016). It is likely to generate value in a variety of ways through interaction between two or more different affiliated users in a two-sided market (Rochet & Tirole, 2004), and continue to grow using network effects (Evans, Hagiu, & Schmalensee, 2008). As a result, many companies have recently adopted platform supply strategies, and these platform operators, regardless of their size, build trading sites for electronic devices such as personal computers, mobile, and tablet PCs and provide various contents and services (Gawer & Cusumano, 2014). Accordingly, the platform strategy has been one of the fastest-growing businesses in the last decade.

However, with the growth of the platform ecosystem, the business environment began to change more and more rapidly, and the market began to change continuously. The speed of changing leadership and hegemony in the platform industry began to accelerate. And this phenomenon has created new challenges for the industry. The rapidly changing internal and external environment and fierce competition show that there is no "eternal winner" in the platform industry. In today's rapidly changing internal and external environment, many platform companies frequently change their business strategies to ensure sustainable growth and competitive advantage. That is, formal and rigid strategic processes have been shown to be insufficient to shape strategies in response to change (McKiernan & Morris, 1994; Parnell et al., 2012). In today's volatile and harsh competitive environment, the emergent strategic processes related to organizational adaptability and surveillance (Chari et al., 2014; Hamel, 2009; Thomas & D'Aveni, 2009; Whittington et al., 2016). Therefore, this study focused on platform companies' strategic changes and emergent strategies.

SOI & DEMI of UNINA 2023 Conference

July 12(Wed.) ~ 15(Sat.), Conference Days, 2023

Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy

& Online(Zoom)

July 14 (Friday)

July 14 (Friday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Business Model Competition Session

Chair: Juhyun Eune(Seoul National University, Korea)

- Paper 1: "Business Model Proposal for a Virtual Traveling Platform that Enhances Mobility Experience" by **Ahn Chaeyeun, Juhyun Eune***
- Paper 2: "Uncovering the Relationship between Open Innovation and Financial Metrics: A Tesla Case Study on the Impact of Investment Indicators" by **Minseo Jung**
- Paper 3: "UNINA Sanitary pad Business model: Custom Cycle Delivery System" by **Eunjin Kim, Kim Woori, Juhyun Eune***
- Paper 4: "A Study on the Improvement of the Open innovation customized support system for College Entrance by Outstanding High School Students" by **Dayoung IM, Changwoo PARK***
- Paper 5: "A study on the Roly-poly model based on organizational culture improvement for sustainable work performance in open innovation" by **Jeenyoung PARK, Changwoo PARK***
- Paper 6: "Korea Media Rating using artificial intelligence technology in terms of open innovation" by **Jeonghyun PARK, Changwoo PARK***

July 14 (Friday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Innovation and Business Models in Emerging Economies

Chairs: Elina Gaile-Sarkane(Riga Technical University) & Inga Lapina(Riga Technical University)

- Paper 1: "Systemic and Data-driven Decision Making in University: Indicators for Strategy Evaluation" by **Aija Medne, Inga Lapiņa, Artūrs Zeps**
- Paper 2: "Multiple Perspectives of COVID-19 Patients on Community Treatment Centers in South Korea: Q-Method Approach" by **Jae Young Lee, Kwangho Jung***
- Paper 3: "Correlation Analysis Between Local Extinction Crisis and Social Integration Level" by **Yang, Oh Suk*, Kim, Jong Bub**

- Paper 4: "Building an Ecosystem for 21st Century Higher Education in STEM: Councils of Stakeholders and Skills Frameworks" by **Anita Līce, Inga Lapiņa, Elīna Gaile-Sarkane, Līga Kamola, Nenad Zrnic**

July 14 (Friday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Innovation, Sustainable Development and Climate Justice & Environmental assessment and climate change monitoring with the use of ICT

Chairs: João Leitão(University of Beira Interior, Portugal) & Sang-Don Lee(Ewha Womans University, Korea)

- Paper 1: "Windows of opportunity to catch-up in the biopharmaceutical industry: Lessons from the case of Korea" by **Changhyeon Song, Harry Jeong, Seunghyun Kim, Kwangsoo Shin***
- Paper 2: "Spatial Agglomeration and Productivity of Portuguese Industrial Districts" by **João Leitão, Joaquim Ferreira**
- Paper 3: "The use of ICT driven assessment methods in ecological characteristics" by **Sangdon Lee, Minkyung Kim**
- Paper 4: "How to switch from groupthink to collective intelligence in organization? The use of emerging technologies by task complexity" by **Namjun Cha, Eungdo Kim***

July 14 (Friday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

The open innovation mechanism in a future perspective

Chair: Ben Zhang(Huazhong University of Science & Technology, China)

- Paper 1: "A patent portfolio value analysis based on intuitionistic fuzzy sets: An empirical analysis of Chinese artificial intelligence healthcare enterprises" by **Chenxu Ming, Ben Zhang***
- Paper 2: "Ecosystem innovation in rural areas" by **Valentina Della Corte*, Teresa Del Giudice, Giovanna Del Gaudio**

- Paper 3: "What drives the acceptance of AI technology?: the role of expectations and experiences" by **Minsang Yi, Hanbyul Choi**

July 14 (Friday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Engineering Practice and Open Innovation for Project Ecosystem

Chair: Changwoo PARK(Seoul National University, Korea)

- Paper 1: "Business modeling of a ticket trading platform using NFTs (Non-Fungible Tokens)" by **Hacksun Hwang, Changwoo PARK***
- Paper 2: "ESG Solution for Pet Problem of Korea in Metaverse: Adorable Pet" by **Kim Eunjin, Juhyun Eune***
- Paper 3: "Business modeling of Appropriate Technology application for overseas chemical plant projects" by **Seongwoon KANG, Changwoo PARK***
- Paper 4: "Comparison on business models: Korean government's support for start-ups from all generation entrepreneurs" by **Lee Mingu, Misung Kim, Jihyun Seok, Juhyun Eune***
- Paper 5: "A Case Study of the NASA 4-D System for Engineering Project Performance Creation in Open Innovation" by **Dageon LEE, ByungJun KANG, Changwoo PARK***
- Paper 6: "Successful Proof of Concept design for large companies to expand into new markets" by **Jea HUH, Changwoo PARK***

July 14 (Friday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Green Governance

Chair: Weian Li(Nankai University & Tianjin University of Finance and Economics, China)

- Paper1: "Are Female Directors Helping Listed Companies Revive Financial Performance During the COVID-19 Outbreak?" by **Weian Li, Xingye Chen**
- Paper 2: "Process framework for innovation through tradition: the case of La Torrente" by **Fabiana Sepe*, Simone Luongo**

- Paper 3: "The influence of new collaborators on the innovation performance of focus inventors: the moderating role of network embeddedness" by **Runhui Lin, Ze Ji**
- Paper 4: "Open innovation in sport event management" by **Valentina Della Corte*, Giovanna Del Gaudio, Roberto Vona**

July 14 (Friday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Open Innovation and Knowledge Management

Chair: Eungdo Kim(Chungbuk National University, Korea)

- Paper 1: "Coexistence of Heterogeneous Capability Can Stimulate Firm $ Innovativeness Performance? : Based On The Perceived Strength of Employees "by **Namjun Cha***
- Paper 2: "Successful start-up - Lessons from those who have experienced at enterprises in Japan" by **Nguyen Manh Quan, Nguyen Trong Hieu**
- Paper 3: "Re-globalisation of European multinational corporations: A new framework to respond to the uncertain environment" by **Eloi Letzelter, Yongjiang Shi, Zheng Liu, Bo Yang**
- Paper 4: "Productivity of the Korean Pharmaceutical Industry: Exploring the Effect of Business Model and Open Innovation" by **Jaehoon Yang, Eungdo Kim***

July 14 (Friday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 14:00~15:30

Digital Government Innovation in South Korea-The Center of Intelligent Society and Policy, Seoul National University

Chairs: Dongwook Kim(Seoul National Univ., Korea) & Choong-Sik Chung(KyungSung Univ., Korea)

- Paper 1: "A Study on the Future Prediction of Smart City in South Korea: Focusing on Concept Definition and Implementation Time Forecasting" by **Choong-sik Chung, Seung-Yoon Shin, Ahra Lee**

- Paper 2: "The Global Innovation Kaleidoscope: Understanding and Leveraging Cross-Cultural Dynamics in the Quest for Progress" by **Kanwal Gul, Swapnil Morande**
- Paper 3: "Using virtual reality as an innovative service delivery tool" by **Hanchan Hwang & Dongwook Kim**

July 14 (Friday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:00~17:30

FOOD Industry and Open Innovation

Chair: FABIANA SEPE(University of Naples Federico Ⅱ, Italy)

- Paper 1: "Open innovation and systemic collaboration in the agri-food sector" by **F. Sepe*, G. Del Gaudio**
- Paper 2: Paper 3: "Practical strategies of science, technology and innovation for a local government" by **Saimi WOO**
- Paper 3: "Photovoice technique to measure Food Waste Consciousness. A comparative analysis among Italian and Pakistani Students" by **V. Della Corte, Kanwal Gul, F. Sepe, Enrico Di Taranto**
- Paper 4: "Short food value chain. Open innovation in the agri-business industry" by **Fabiana Sepe*, Giovanna Del Gaudio**

July 14 (Friday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:00~17:30

Digital Transformation and Global Open Regional Innovation & Pacing Industry, Servitization and Innovation

Chairs: Moosup Jung(Dong-A University, Korea) & JungHee Han(HongIk University, Korea)

- Paper 1: "Servitization process analysis; in automotive headrest manufacturing" by **Junghee Han**
- Paper 2: "Blockchain-enabled collaboration among enterprise-related agents: progress, framework and prospect" by **Runhui Lin, Wenchang Li, Lun Wang**

• Paper 3: "Chance and Threat of Digital Transformation on Global Open Regional Innovation System(GORIS)" by **Moosup Jung, A-ra Joe**

July 14 (Friday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:00~17:30

Sustainability oriented innovation

Chairs: Zheng Liu (Cardiff Metropolitan University, UK Nanjing University of Science and Technology, China), Bo Yang (Swansea University, UK)

• Paper 1: "Implementing circular economy: Experience from Wales" by **Zheng Liu, Gary Walpole, Nick Clifton, Homeira Faqdani**
• Paper 2: "Punishing or ignoring: An evolutionary game of open source group interests based on license types" by **Tao Li, Zheng Liu, Lei Ma, Kaitong Liang, Chaonan Yi**
• Paper 3: "Determinants of Innovative Performance of Knowledge Service Firms" by **Francisco Rebelo, João Leitão**

July 14 (Friday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 16:00~17:30

Valuation Methodologies for Sustainable Growth of Firms

Chair: Hun Park(KISTI, Korea)

• Paper 1: "A Novel GAN algorithm and its Application to Technology Valuation" by **Hun Park, Byunghoon Kim, Jongtaik Lee, Hyunwoo Park**
• Paper 2: "The Heterogeneity Classification and its Impact on the Customer Churn Management" by **Woong Park, Kee-Young Kwahk, Kyoung-jae Kim, Hyunchun Ahn**
• Paper 3: "Open Innovation and blockchain technologies: exploring implications in fashion industry" by **Simone Luongo, Vincenzo Basile*, Nunzia Capobianco**

Open innovation strategy in crisis: An overview of the Business Model Proposal for a Virtual Traveling Platform that Enhances Mobility Experience

Chaeyeun Ahn
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Juhyun Eune (Corr.)
Professor, Seoul National University, South Korea

Abstract

Transpace is a VR entertainment service that provides virtual traveling experience to its users through Roblox. Users of this service, specifically those who reside in an urban area, can choose to be the drivers or passengers of an autonomous car of Level 4-5. When starting the game, users can choose a country or a planet they wish to travel through a virtual space environment offered by the game. After that, users will answer a few questions about their travel styles, which will help pair each individual with a guide whose travel style is similar to the users. When they finish their virtual space travel, the users who drive actual cars start to drive towards their destination. Whenever the vehicle is stopped due to a red light or traffic, the users and their pairs have the opportunity to appreciate the virtual view of their desired countries through VR devices. The elements of the surrounding environment such as trees, roads, vehicles, and pedestrians are synchronized with that of the virtual environment. While appreciating the view, the 'guide' mode user provides the driver and the passenger users with interesting information about the city via voice chat.

The utilization of the 'Quadruple Compass' methodology and the creation of the Business Model Canvas were vital to test the viability of this service. Based on the Quadruple Compass methodology, the features of this service can be classified into five parts: 'Who', 'What', 'How', 'Why', and 'When and Where'.

'Who' indicates the target of this service, which is known as customer segmentation. The target audience is people in their twenties to their thirties who hesitate to travel due to the rapid rise of traveling costs. Other potential targets are teenagers who have not had enough chances to communicate with others due to social distancing caused by the pandemic. This target is defined as the Bone for Bottom Expanding. Elderly people who hesitate to travel due to physical weakness can be another target audience.

Keywords: Metaverse, Travel, Space, VR, Business Model

Society of Open Innovation Technology, Market & Complexity
DGIST

Uncovering the Relationship between Open Innovation and Financial Metrics: A Tesla Case Study on the Impact of Investment Indicators

Minseo Jung

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Abstract

Research Background: In the emerging market of social enterprises, the impact of open innovation is critical within the field of impact investing (Vivani, 2019). Rather than evaluating the qualitative success of the company's open innovation strategy, this research provides measuring success quantitatively proven the financial metrics, allowing for a scalable impact of open innovation. Empirically measuring financial indicators that accurately demonstrate the activities and performance of open innovation is essential in evaluating its effectiveness. However, despite previous studies measuring the performance of open innovation (Rogo, 2014), only a few have utilized financial indicators to do so (West, 2014).

Research Question: The research explores how financial indicators can demonstrate the process and performance of open innovation. Few empirical studies have discussed the limitations of using financial indicators in open innovation and identified which financial indicators can effectively demonstrate its process and outcome (Michelino, 2016). Thus, it is necessary to design and analyze the scalable impact of open innovation, one showing the inside-out activities of open innovation and the other, showing the outside-in activities of open innovation (Inauen, 2011). Analyzing a relevant company case can illustrate the empirical link between financial indicators and the open innovation process and output mechanism.

Case based Financial Analysis: This study involves a case study of Tesla Solar company to analyze the process of financial analysis and open innovation in detail. To collect data, this study will analyze three main financial statements (balance sheet, income statement, and cash flow statement). While the previous studies did not highlight how open innovation has a direct impact on the company's performance, in this case study's result, we are able to identify specific financial impact of open innovation practices in social enterprises. This case study focuses on how open innovation practices impact financial metrics of socially responsible company by focusing on revenue growth, profitability, return on investment, and assets and liability. The study will evaluate Tesla, a manufacturing electric car company, by conducting a competitor analysis and analyzing the three financial statements through calculating effective income tax rate (%), gross profit margin, current ratio, and return on capital employed.

UNINA Sanitary pad Business model: Custom Cycle Delivery System

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Abstract

Recently, there has been a rise in interest in health, which has put eco-friendly items in the forefront. Several of these have to do with women's physiology and are most directly related to skin disorders. Everyone claims to have used environmentally friendly products, but if you examine it closely, you can notice that they only utilized some chemicals, which is not even good for your health. UNINA, the environmentally friendly product in the entire process, is presenting a great outcome. Periods of women occur in cycles, so that sanitary pads are a need every month for every woman. Most women in today's busy culture do not carry sanitary pads with them all times. It is currently not feasible to provide the sanitary pads you require, not even in a country with a superb delivery system like Korea. UNINA's delivery system intends to carry out regular monthly deliveries to prevent such a challenging circumstance. Periodic delivery system is already practiced by many businesses. But because it is a bespoke distribution system, UNINA's delivery method is unique. This research is to help women in needs with a fine business model of sanitary pads, which will benefit both of producer and customers.

There are one important questions and purpose before starting and setting up our UNINA business model. The question is that if women in their periods really need whole package of sanitary pads. The sizes of sanitary pads vary; from the extremely small size "liner" through the night "overnight,". It is segregated according to size. Most women will use various sizes on the first, second, and final days of their period. So, should we order all our sanitary pads by size? Women those want sanitary pads in a variety of sizes find it overwhelmed to buy 10 units (or a bulk) at once. Also, even if they buy a bulk of it, they cannot use it all due to its limited needs. Rest of pads are too old to use it later also.

To address this issue, UNINA Custom Delivery suggests a system in which customers can choose the type, quantity, and frequency of their monthly sanitary pad deliveries.

A Study on the Improvement of the Open innovation customized support system for College Entrance by Outstanding High School Students

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Abstract

The college entrance rate of high school graduates in Korea is 73.3 percent, about 30 percentage points higher than the Organization for Economic Cooperation and Development (OECD) average of 44 percent. Meanwhile, the total fertility rate ranked the lowest in the world (198th) in the UN Population Fund's "2020 World Population Status Report." In particular, the decrease in the school-age population due to the low birth rate is directly related to the crisis in universities. The decline in the school-age population has already turned a red light on the recruitment of new students at universities, and some predict that there may be a series of "closed universities" in the future.

Now, the college entrance support system is required to provide excellent and competitive educational content and activities worldwide beyond the choice of Korean universities. To this end, it is time to establish a world-class learning plan and motivate teaching methods, and it is to improve and give implications for Korea's admission support system today.

Based on open innovation literature research, expert consultation, and examples, this study proposes ways to improve the admission support system for universities envied by excellent high school students. In particular, it is necessary to provide a support system for excellent students to successfully enter the university through choice and concentration that suits their aptitude and career path, motivational teaching methods based on specific career settings.

Keywords: Open Innovation, College Entrance, Customized Support System, Outstanding High School Students, Universities

Reference

1. Yun, J., Zhao, X. (2020). Business Model Innovation through a Rectangular Compass: From the Perspective of Open Innovation with Mechanism Design, J. Open Innov. Technol. Mark. Complex.2020, 6, 131; doi:10.3390/joitmc6040131

A study on the Roly-poly model based on organizational culture improvement for sustainable work performance in open innovation

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Abstract

The current market model that explains business activities in the economic ecosystem does not satisfactorily fulfill the purpose. Especially when it comes to interpreting open innovation activities in untapped fields. In order to overcome these limitations, this study intends to present a Roly-poly model for creating a sustainable performance of the work performed by engineers. The Roly-poly Model is divided into three areas known as 'zone'. Different interpretations are applied to each zone, and the model is based on the model that the zones interact with each other. While the relationships among organizational culture, work performance, and overall performance have been examined separately just one to one in prior studies, this is the first look at all of them in one unique model. In addition, this work attempted a systematic approach to the field of organizational culture improvement using this Roly-poly model. Through this, we will comprehensively understand the organizational culture that we want to develop in a new way. This approach of the Roly-poly model seeks to contribute to establishing a vision to be fitted to rapidly evolving open innovation.

Keywords: Open innovation, Culture, Roly-poly model, Project ecosystem, Sustainable work performance

Reference

1. Park, C. (2016). Project Ecosystem Competency Model. Procedia - Social and Behavioral Sciences, 226(October 2015), 116–123. https://doi.org/10.1016/j.sbspro.2016.06.169

2. Lee, U., Park, J., Fahmy, M., Park, C. (2022). Roly-poly model: Work-based project leadership and value creation, Proceedings of the 10th IPMA Research Conference "Value co-creation in the project society", pp.196－209. https://doi.org/10.56889/xxet2882

3. Yun, J., Zhao, X. (2020). Business Model Innovation through a Rectangular Compass: From the Perspective of Open Innovation with Mechanism Desgn, J. Open Innov. Technol.Mark. Complex.2020, 6, 131; doi:10.3390/joitmc6040131

Korea Media Rating using artificial intelligence technology in terms of open innovation

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Abstract

According to Articles 71 (Media Rating Committee) and 72 (Duties) of the Act on the Promotion of Movies and Videos, the Korean government secures ethics and publicity for movies, videos, performances, and their advertisements and propaganda and protects youth.

Due to the recent explosive increase in video clips, the Korean government is considering self-rating in line with changes in the market. In particular, the need to develop auxiliary tools that can efficiently classify and follow-up management by using the classification of media as artificial intelligence technology has increased.

This study examines the possibility of introducing technology based on sensitivity and violence using artificial intelligence-related commercial API (application programming interface) and open source technologies, and presents the possibility of using auxiliary tools for media rating and follow-up management of online video.

Keywords: Media Rating, Artificial Intelligence, Application Programming Interface, Open Source, Open Innovation

Reference

1. Park, C. (2016). Project Ecosystem Competency Model. Procedia - Social and Behavioral Sciences, 226(October 2015), 116–123. https://doi.org/10.1016/j.sbspro.2016.06.169

2. Yun, J., Zhao, X. (2020). Business Model Innovation through a Rectangular Compass: From the Perspective of Open Innovation with Mechanism Design, J. Open Innov. Technol. Mark. Complex.2020, 6, 131; doi:10.3390/joitmc6040131

3. Korea Media Rating Board., https://kmrb.or.kr

Systemic and Data-driven Decision Making in University: Indicators for Strategy Evaluation

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Abstract

In today's global and interdisciplinary environment, universities are searching for a holistic system to ensure that their processes, available resources, and performance results are aligned with their strategic objectives. Systemic and data driven decisions are an integral part of efficient and sustainable university management model. Nowadays, one of the challenges for universities is to develop a set of Key Performance Indicators (thereafter – KPIs) that are in line with the institutional strategy and, at the same time, reflect desirable development results.

The aim of this research is to analyse the main groups of indicators that are used to measure a sustainable university's strategy implementation while comparing them to strategic priorities and objectives.

Literature review and qualitative content analysis with open coding were used to identify the groups of indicators that describe the quality system development.

In recent years, the number of higher education institutions around the world has increased rapidly, contributing to an increasingly competitive environment. New solutions that are linked to sustainable university strategy implementation and to the effectiveness of university operations are needed. The system needs to be continuously developed to enable the opportunity to adapt to the demands and needs of the stakeholders involved. The organization should measure the KPIs consistently and systematically for improvement, accountability and sustainability of the organization [1]. Universities have been able to adapt and implement various systematic and data-driven principles in their operation, facilitating the adjustment of the internal systems and processes. Institutions have integrated not only comprehensive quality approaches but also business models in the university management.

Society of Open Innovation Technology, Market & Complexity

The Impact of Regularizing Non-Regular Employees on Financial Performance of Korean Public Enterprises: Management Capacity Matters

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Kwangho Jung (Corresponding Author)

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Abstract

To improve efficiency in response to economic downturns and heightened competition, companies worldwide have increased their employment of non-regular workers. However, this has resulted in low wages and job insecurity, leading to socio-economic polarization. Recognizing the dual structure problem in the labor market, the Moon Jae-in administration in South Korea developed a policy to convert non-regular workers into regular workers in public organizations. However, concerns over its benefits, costs, labor disputes, and reduced employment have sparked controversy. This study examines the impact of the policy on the financial performance of public enterprises under the Moon Jae-in administration. Specifically, the research question is whether the conversion of non-regular workers to regular workers affects financial performance, and whether the impact varies depending on organizational personnel management capacities and characteristics. The study tests the policy's effectiveness, identifies potential problems, and provides implications for future non-regular workers.

Governments worldwide have been dealing with non-regular workers in the public sector due to economic fluctuations, competitiveness, and the need for flexibility, which causes socio-economic polarization. Many countries have introduced policies to convert non-regular workers to regular workers to tackle the dual-structure problem in the labor market. Previous studies suggest that conversion can positively affect organizational performance, but many public organizations face implementation and personnel management problems. Recent cases suggest policymakers should thoughtfully design and implement the policy, considering costs, benefits, organizational context, and personnel management capabilities.

This study explores the empirical link between converting non-regular employees to regular employees in the Korean public sector and the financial performance of 36 public enterprises during 2017-2021. The panel data comprises the execution status of the conversion policy, organizational performance, and several financial indicators as dependent variables.

Correlation Analysis Between Local Extinction Crisis and Social Integration Level

Yang, Oh Suk (Corr.)

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Kim, Jong Bub

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Abstract

The ultimate research goal is to improve the level of generalization necessary for the development of the theory for fat loss. To this end, we intend to adopt three specific analysis units (levels): province, region, and country. In addition, in the process of uncovering the causal relationship of local extinction, the local extinction (resilience) index is used, and research using the local extinction (resilience) index is aimed at helping local governments overcome local extinction. It is expected that customized strategic countermeasures to respond to regional extinction will be presented through analysis of each recovery factor, such as the field of activity. Local extinction basic data is multi-year variable data obtained by assimilating, restructuring, and preprocessing after collecting time-series data by local government using public databases provided by the National Statistical Portal, Employment Information Service, Industrial Research Institute, National Balanced Development Committee, and Office of Education. It has high utility value. The main items collected are city, county and district data, including population (22 items), family (10 items), health (12 items), education (16 items), employment and labor (9 items), housing and transportation (24 items), and culture and leisure. (1), growth and stability (18), safety (6), environment (7), and social integration (11). The regional extinction (resilience) index is the 'regional extinction index' (Employment Information Service), 'regional extinction index' (Research Institute for Industrial Economics and Trade), 'regional development index' (National Balanced Development Committee), and 'regional resilience index', which have been used by national research institutes. ' (Korea Research Institute for Human Settlements) and 'Regional Resilience Index' (used in UK and US studies) maintains the basic concept and framework of index analysis by variable item, but partially corrects and supplements indicators.

This study diagnoses Korea's low birth rate, population decline, and local extinction, which have continued for the past 10 years, as a structural crisis, analyzes causes, and proposes top-down policies to resolve the crisis or through social economy activation. Going one step further from a distributed and microscopic solution (bottom-up), it sees the need for fundamental response and preparation, and raises the need for a long-term sustainable convergence solution.

Building an Ecosystem for 21st Century Higher Education in STEM: Councils of Stakeholders and Skills Frameworks

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Nenad Zrnic

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Abstract

Science, technology, engineering, and mathematics (STEM) fields in Latvia and Serbia stand out with a particularly high labour market demand for qualified specialists, while employers are not completely satisfied with the quality of student learning outcomes. Surveys of employers show the increasing relevance of 21st century skills, among which social competences play an important role, which allow professional knowledge to be applied more effectively at the workplace and thus promote the competitiveness of companies. High student dropout rates in STEM studies and equal participation of students of both sexes are also common challenges for both countries, which creates long-term social and economic negative consequences for both the individuals involved and the countries due to cost of economic opportunity. The aim of the research is to explore the stakeholder engagement mechanisms in STEM higher education to address the aforementioned challenges and how universities and the Councils of Stakeholders can form a common ecosystem for the effective implementation of the skills demand-supply system in STEM fields. The research is based on a literature review on the role of stakeholders' engagement in addressing higher education challenges and the stakeholder engagement mechanisms, as well as the case study method to investigate the cooperation mechanisms and opportunities for cooperation within the real-life context, utilizing multiple sources of evidence, such as the assessment by the key stakeholders in STEM fields in Latvia and Serbia and interviews.

Windows of opportunity to catch-up in the biopharmaceutical industry: Lessons from the case of Korea

Changhyeon Song

Associate Research Fellow, Korea Institute of S&T Evaluation and Planning, Republic of Korea

Harry Jeong

Senior Researcher, Central Research Institute of Dr. Chung's Food, Republic of Korea

Seunghyun Kim

Research Fellow, Science and Technology Policy Institute, Republic of Korea

Kwangsoo Shin(Corr.)

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Abstract

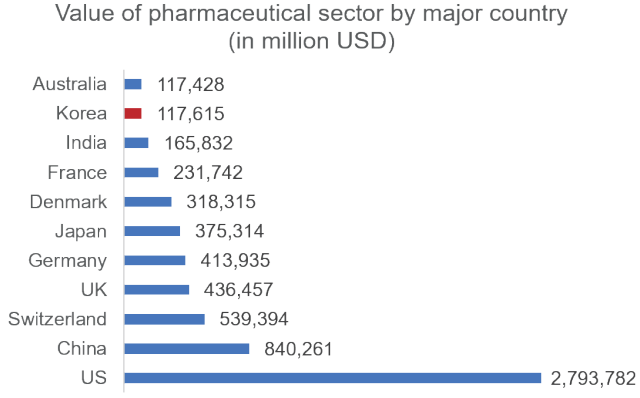
Continued domestic market growth, but no major players in pharmaceutical industry

Korean pharmaceutical market grew 9.6% from the previous year to 25.4 trillion KRW (about 22.2 billion USD) in 2021

Continued growth of exports (annual average 18%), but trade deficit of 2 trillion KRW (high dependence on imports)

No Korean pharmaceutical companies among the top 20.

Monopolistic new drugs from multinational pharmaceutical companies potentially endanger national health care system. ex) Tamuflu, an influenza antiviral drug developed by Gilead Sciences and sold exclusively by Roche. For pharmaceutical sovereignty, new drug development capabilities of domestic companies are needed.



Spatial Agglomeration and Productivity of Portuguese Industrial Districts

João Leitão

Associate Professor with Habilitation, University of Beira Interior, Portugal

Joaquim Ferreira

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Abstract

The composition of an Industrial District consists of a synergy of various essential processes to form an organizational model, highlighting among these the growth of labor divisions, and the formation and multiplication of networks to integrate and develop competences and operations in the established production process. To give a complete response to market needs, it is also necessary to ensure the circulation of individuals and organizations of value, explicit knowledge to integrate production processes, the formation of formal and informal institutions as agents promoting the balance between good performance of the specialized production process and versatility, the formation and consolidation of feelings of belonging to a given community and social mobility (Becattini, 2002.a.b).

Industrial Districts tend to present higher levels of performance, due to existing inter-relations, above all of organization (labour division processes), knowledge (innovation), con-centration (network between players in a similar specialization), training (continuous training of entrepreneurs), transaction (mutual collaboration and knowledge, reducing information asymmetry) and adaptation to change (feeling of sacrifice for the common good) (Becattini & Musotti, 2003).

Given the conceptual framework serving as a basis for the Industrial District approach, this study aims firstly to operationalize empirically this approach considered fundamental in the context of Europe's necessary re-industrialization, considering the heterogeneous configuration of its regional space. Secondly, to adopt a quantitative approach, which to our knowledge is pioneering, to the Industrial Districts of Portugal, a peripheral country in the context of European industry, greatly affected by its weak industrial density and limited capacity, for assessing the role played by spatial agglomeration in productivity of industrial districts, using a panel data approach.

To do so, use was made of an adaptation of the algorithm originally developed by Canello and Pavone (2016), which consists of implementing ratios to assess business density and concentration ratios, not only for small and medium-sized companies but also micro and large ones, as well as implementing the social capital ratio as a proxy of a community's value system.

The use of ICT driven assessment methods in ecological characteristics

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Abstract

Verification by applying the environmental impact assessment decision supports algorithm developed among important factors of EIA such as Air pollution, Water, Soil. Noise. Vibration, Ecosystems, etc. The verification and demonstration of the integrated decision review support model for environmental impact assessment into upper level of decision-making tools

- Application and verification of environmental impact assessment decision support algorithms developed in actual facilities/linear projects
- Applying and verifying algorithms to linear projects (road, railway, river use, etc.) and face-to-face projects (industrial locations and industrial complexes, urban development, etc.)
- A review of the results of predicting environmental impact through the decision support algorithm for each project;

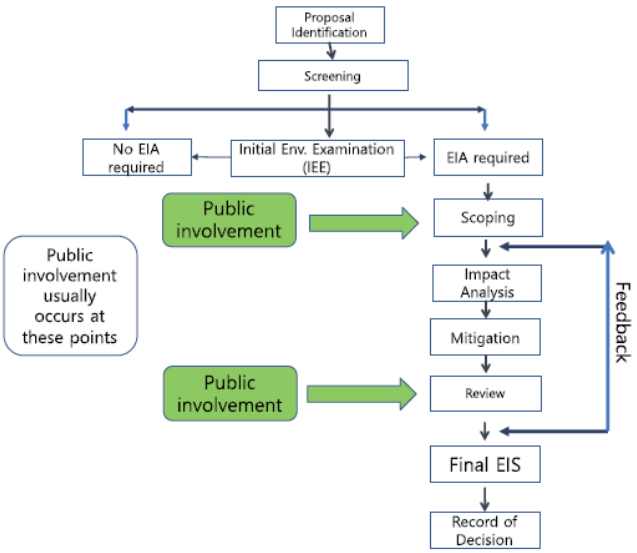

Fig 1. General process of EIA and stages with public involvement based on the environmental impact assessment (Lee et al. 2022, IJERPH)

How to switch from groupthink to collective intelligence in organization? The use of emerging technologies by task complexity

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Abstract

Technologies have changed not only our daily life but also organizational capability, behavior and system fundamentally. Especially, development of information and communication technology (ICT) dramatically has increased both the connectivity of organizations and the speed of information processing, and ultimately provide an environment for open innovation so that the knowledge permeates into the organization (K. Kim & Altmann, 2019). So, reliance on ICT is generally unavoidable (Will, 1991). With the beginning of the fourth industrial revolution, the conjecture that ICT will effectively solve our social problems has become social confidence. Response to those expectations, the benefits from ICT development have contributed to resolving the crucial social dilemma such as asymmetry of information, optimal allocation of limited resources, effective collaboration and accumulation of knowledge (Alavi & Leidner, 2016; Faraj et al., 2011; Täuscher, 2017).

Consequently, the use of technology has become a critical factor and basis of knowledge creation and management. The advances in ICT facilitate cooperation of organization even though they are geographically dispersed. ICT-based knowledge management system makes people going beyond the socio-cultural obstacles which inhibit knowledge interactions, such as politics, trust, authority, hierarchy or concerns about personal relationships (Omotayo, 2015; Sun & Scott, 2005). In addition, emerging technologies transform the traditional functions into new area. For example, the customized recommendation system in AMAZON is being provided by artificial intelligence algorithms rather than human intuition or deduction. Big data and AI technology actively intervene in the area considered as the unique ability of humans such as decision-making process, knowledge recombination and finding patterns (Grossman & Siegel, 2014). In addition, according to the previous studies, participation in online platforms has been identified as a catalyst of knowledge collaboration (Faraj et al., 2011) and collective intelligence (Luo et al., 2009). So, this study focuses on BDA and online platform in terms of organizational knowledge creation.

A patent portfolio value analysis based on intuitionistic fuzzy sets: An empirical analysis of Chinese artificial intelligence healthcare enterprises

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Abstract

In the era of technology-driven economy, patent value analysis has become the basis of enterprise technology innovation management [1]. Patent value analysis is not only a reference for rational allocation of resources within enterprises, but also a precondition for technical cooperation and transaction between enterprises. Some of the patented innovation may build on each other, and hence the value of patents may be influenced by the value of others [2]. However, most of the existing studies of patent value assume that patents are independent from each other and the value of one patent is not related to other patents, without considering possible interrelatedness that may exist within a patent portfolio [3]. Therefore, how to analyze patent value from the perspective of patent portfolio is an urgent problem to be solved.

The value of an individual patent not only depends on the size of its patent portfolio, but also on the function the patent serves within the portfolio, etc., as an exclusive right to non-cumulative technology or as a bargaining chip for cumulative technology [4]. In addition, core patents occupy most of the value in the patent portfolio, which is closely related to the position of core patents in the patent portfolio and the relationship with other patents in the same field. Therefore, in the analysis of patent portfolio value, in addition to the value of individual patents, the function or position of individual patents within the portfolio should also be considered, which can be achieved through the analysis of patent network proximity [5-7].

The value of patent portfolio is fuzzy and its analysis should be conducted in an appropriate fuzzy framework [8]. Fuzzy set theory was first proposed in 1965, using membership degree and membership function to express uncertain information [9].

Ecosystem innovation in rural areas

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Abstract

The topic of agricultural modernization has been highlighted in the recent economic policy documents preceding the imminent launch of the rural development program for the next programming period. Modernization is described as a multidimensional phenomenon based on three main pillars: knowledge, digitization and the creation of stable flows of information between the various actors involved. In particular, the document on "The future of food and agriculture" (EU, 2017) recalls the need to reduce the digital divide in rural areas; the need to enhance innovation with particular regard to the digital one; the need to link agriculture interventions to services that will provide knowledge, advice, skills and innovation.

As asserted by the European Union "up to 90% of the population in many developing countries depends on agriculture and farming for their living, as these provide income, employment and food, as well as raw materials for industry and exports"(European Union, 2017). The new challenges involving agri-food and rural systems (economic, social, environmental and institutions) impose a careful reflection on the trajectories of modernization. This modernization has been designed in the Community agricultural policy documents, being the outcome of a trajectory built around knowledge, digitization and the creation of stable flows of information between the various actors involved, becomes a composite process. They contribute to this phenomenon different actors, as well highlighted in the recent literature on sustainable innovation: the entrepreneurial figure is no longer restricted to the firm and its members; new actors have joined the process of innovation: policy-makers, the media, civil society actors (associations, NGOs), evenactivities consumers. Furthermore, the literature on entrepreneurial traits (openness, conscientiousness, extraversion, friendliness and neuroticism) suggests that, in the agricultural sector, there are certain traits that have a strong influence on sustainable innovation (Chae & Go, 2020; Dudnik et al, 2021; Lee et al, 2019).

What drives the acceptance of AI technology? : the role of expectations and experiences

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Abstract

This study aims to analyze the effect of the public's expectation of artificial intelligence (AI) and the satisfaction of AI products and service experience on the intention to accept AI technology.

Artificial intelligence technology is expected to be utilized across the board in the near future and bring about innovation. However, even if it is a better technology, there are few users, the technology is discarded, or diffusion is delayed. The problem of underutilized ICT is pointed out as the cause of the productivity paradox (Venkatesh & Goyal, 2010). Efforts are needed to understand how consumers think about AI technology and respond strategically.

Currently, there is a significant gap in the technology and application level of artificial intelligence. Products or services equipped with AI have yet to be common in the market. Expectations for the development of AI are being formed, and although AI products and services are still in their infancy, the public who has experienced it is gradually increasing. Expectations and experiences are important factors that influence consumers' purchase intentions. Considering the current level of development and commercialization of artificial intelligence technology, it is necessary to analyze the relationship between expectations, experiences, and intentions of acceptance of AI in order to understand the public's intention to accept AI technology.

Expectation about technology is defined as perceptions and beliefs about new technology, product, or service before using it (Venkatesh et al., 2010), or prediction of the likelihood of a particular event and an evaluation of whether the event is good or bad (Oliver, 1980).

Expectations of technology can affect both social and individual levels. According to Borup et al. (2006), the technological expectation is a technological promise and vision. It is formed under the influence of technology development activities and is a channel through which social demands are put into these activities. Expectations play a role in mobilizing macro and micro resources for the technology. Expectations of technology lead to an interest in technology by various actors, such as innovation networks, investors, regulators, and users. Through this, it affects the role, regulation, and support of each actor in the process of technology development. On the other hand, Brennen et al. (2020) present the risks that can arise from excessive expectations.

Business modeling of a ticket trading platform using NFTs (Non-Fungible Tokens)

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Abstract

Ticket sales fraud remains a significant problem, especially online. Scammers use tactics such as creating fake websites and social media advertisements. Reselling tickets at inflated prices and selling counterfeit tickets are common types of fraud. Event organizers have implemented measures like paperless ticketing and worked with law enforcement to combat fraud.

With the arrival of the Web 3.0 era, it is possible to create a platform that can solve this problem by using blockchain technology. Non-fungible tokens (NFTs) may initially sound like fancy jargon, but they are quite easy to understand. Blockchain-based NFTs are digital items that are often linked to one-of-a-kind digital material, like music or photographs.

By using NFT technology, buyers, sellers, and event planners can make safe and secure ticket transactions, providing mutual benefits to all participants. Using the concept of open innovation, it is possible to build a platform that combines the existing platform system with the sales system, access system, and secondary transaction system.

Keywords: Ticket sales fraud, Blockchain technology, Non-fungible tokens(NFT), Secure transactions, Open innovation.

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ESG Solution for Pet Problem of Korea in Metaverse: Adorable Pet

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Abstract

The outbreak (COVID-19) in 2019 prompted a rapid transformation in the societal structure. The concept of the Metaverse, which had long existed but had gone unrecognized, was expanded. This Metaverse movement was spearheaded by Silicon Valley, a holy ground for IT technology, demonstrating that the Metaverse is more than a passing fad and is evolving into a universal medium for social interchange. Our design researchers chose to embrace this shift and create a Metaverse to address social issues linked with pets in South Korea. Based on case analysis and design methodology, we effectively presented visual design components and Metaverse functions. This study aims to build entire business models for the pet Metaverse based on functionalities. Education, mental and physical health care, medical function, and community bonding are the four types of functions in the Metaverse. A well-designed business model will allow this Metaverse to be deployed in locations where it is needed with no restrictions and helps to effectively solve the social problems.

Due to a variety of causes, including a low birth rate, the aging of the population, an increase of single families, and changes in lifestyle that place a higher priority on happiness and quality than improvement, there are a growing number of domestic pet-raising households. 6.38 million homes, or 27.7%, of the total 23.4 million households in 2020 were counted to be raising pets. It means that 1 in 4 of these families kept pets. According to statistics, it will increase to 15.2 million by 2026. From the survey of 20~30s, it is proven that pets are no longer considered to be "animals" but rather "family" living together(64.3%). They are also deeply concerned with protecting animal rights. Yet, several social issues have emerged because of the rise in the number of pet owners. The domestic social system fails to adapt this new pet market industry structure; the abandonment of pets and animal mistreatment are two prominent examples of this failure. The uncooperative pet owners in the region contributed another social problem with the stray animals. Stray animals create environment issues and noise issues to neighbors. Aside to these factors, the average and common pet owners in Korea confront a variety of challenges. There are roughly four complaints to be considered. The first issue is a practical restriction.

Business modeling of Appropriate Technology application for overseas chemical plant projects

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Abstract

The "Appropriate Technology" for humanity and the environment is expected to help address various problems stemming from the use of fossil fuels, particularly those related to 'the climate crisis and sustainability', across a range of industries, including the chemical plant construction sector. And appropriate technology is also recognized as a technology to help poor areas in developing countries.

Since most workers on overseas chemical plant projects come from poor areas in developing countries, educating them on appropriate technology can improve the quality of construction by enhancing their skills and knowledge. As a result, by developing their skills and knowledge, these workers can contribute to the development of their hometowns without relying on external assistance.

Improving the skills and knowledge of workers from poor regions can lead to increased income for workers. In addition, construction companies can improve their construction capabilities with these competent workers, resulting in reduced schedule delays and costs due to errors, as well as building a reputation as a responsible global company.

Plant engineers can use appropriate technology to develop technologies that are needed in poor areas, such as solar power, water treatment and so on. Solar power is an essential technology for reducing carbon emissions in overseas chemical plant projects. It is important to develop these skills and teach them to workers from poor regions, as it is a relatively low-cost solution.

In the end, the development of the skills and knowledge of both the workers and plant engineers not only provides opportunities for them to contribute to their hometowns or to contribute to global society, but also enhances their capabilities. Ultimately, it is the plant construction companies that benefit the most from these efforts. Thus, the companies can make their project ecosystem sustainable.

Comparison on business models: Korean government's support for start-ups from all generation entrepreneurs

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Abstract

Government supports strengthening the understand in startups innovation policy knowledge
How to share government's business innovation status, capabilities, and supporting policies
Research aims at establishing SME innovation networks and governance.

Research Question:

How to find Benchmarking opportunities to each support type by sharing each direction and good practices of business innovation support.

How to discover the fields which SME support projects and the key strategic fields in which support is mainly investing.

How to prepare for cooperation system for supporting innovative business which are in the field that government is following and strategically investing.

Mainly from K-startup materials from KISED and TIPS. Additional benchmark contents from Intel, KPMG Global Report, IBM.

Korean government supports for start-ups from all generation entrepreneurs. Let me compare the business model. There are three main purposes of comparison. First, Government supports strengthening the understand in startups innovation policy knowledge. Second, how to share government's business innovation status, capabilities, and supporting policies. Third, research aims at establishing SME innovation networks and governance. This study aims to examine ways for founders across generations to better utilize government support.

We talk about "a lifelong kindergarten" of entrepreneurs. First, let's talk about Youth Bizcool.

A Case Study of the NASA 4-D System for Engineering Project Performance Creation in Open Innovation

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Abstract

It is very important to increase the technological maturity of elemental technology in open innovation. However, as this importance increases, the way you work with people becomes more important. In particular, collaboration is important to create results for engineering projects, but collaboration itself is difficult because the tendencies of workers are different.

Due to the nature of open innovation, it is more difficult for various organizations to collaborate to achieve one goal. As the size and complexity of the project increases, it is important to efficiently and systematically manage the capabilities and resources of the workers.

In this study, NASA's 4D system, a process for team building, is considered in terms of open innovation and unexpected variables and risks of project teams and stakeholders are managed to contribute to the creation of engineering projects.

Keywords: Engineering Projects, Project Team Building, 4D system, Risk, Open Innovation

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Successful Proof of Concept design for large companies to expand into new markets

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Abstract

In order to secure a sustainable competitive edge for a company, it is essential to reduce resources and respond flexibly to the external environment. Recently, an open innovation strategy is being introduced to efficiently introduce external resources, and among them, Proof of Concept accounts for a large portion. Proof of Concept is a step for pre-validation before launching a product on the market, and it is an essential process to verify the possibility of success by combining external and internal resources. In the IT industry, Proof of Concept is a common process, but now other industries are starting to introduce Proof of Concept as well. Successful feasibility verification is possible only when it is done on the premise of discovery of needs and specialized collaboration through the voluntary participation of field teams. Through examples, Proof of Concept collaborations experienced in the construction and mobility fields, strategies that large corporations should have to have success factors are derived. Through this, we present guidelines to focus on in the process of preparing an actual Proof of Concept. Efforts are being made to introduce the corresponding Proof of Concept in various industries, and it is necessary to study more detailed Proof of Concept strategies through this.

Keywords

Open Innovation, Strategy, New Market, large Company, Proof of Concept, Optimal path

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Society of Open Innovation Technology, Market & Complexity

Are Female Directors Helping Listed Companies Revive Financial Performance During the COVID-19 Outbreak?

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Abstract

The outbreak of the COVID-19 pandemic in 2020 has had a major impact on companies, but some companies have turned their danger because of the characteristics of the board of directors. Based on the exogenous impact of the epidemic on Chinese listed companies, this study explores the governance mechanism of female directors in companies. The results show that listed companies with female directors can effectively improve their resilience in the face of shock, and can effectively resist the impact of the epidemic in the short term. However, for long-term goals, investors' perception of the role of female directors is not significant, resulting in a decrease in the company's stock market value. Therefore, female directors have substantially improved the resilience of companies during the risk, and we should call on external investors to recognize the participation of female directors in the governance of directors.

The influence of the existing literature on female directors participating in corporate governance is mainly based on traditional corporate governance theory (agency theory and resource dependence theory), human capital theory and high-level theory.

Burke (2000) pointed out that traditional human capital theory believes that women lack human capital of the board of directors, and the director of resources dependence on resource dependencies believes that the board of directors need to bring unique human capital and resources to supplement the existing capabilities of the board of directors (Kesner, 1988) So women are often excluded from the board of directors. However, a large number of studies have shown that more than male directors, female directors are more highly educated (Hillman et al., 2002; Singh and vinicombe, 2004; Singh et al., 2008), similar to men or even men or even men Spelling more than men's professional knowledge, skills and occupational experience (Singh et al., 2008). Therefore, a large number of influencing factors of the gender diversification of the board of directors in addition to the individual characteristics of women.

Process framework for innovation through tradition: the case of La Torrente

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Abstract

Innovation through tradition is an increasingly relevant area of research particularly in the food industry. The purpose of this study is to develop a process framework of innovation through tradition for food sector and investigate the antecedents and challenges of its implementation.

The interrelation between tradition and innovation is much more complex than often played out by contemporary food marketing. Our theoretical section aims to illustrate the tradition through innovation framework highlighting its multidimensionality characteristics and to indicate dynamics as social and historical constructions (e.g., relying on heritagization moments (Geyzen et al., 2019). A stream of research considers the combination between traditional and innovative strategies as the unique way to achieve a competitive advantage, both exalting the firm's traditional values and benefitting from new innovative solutions (Vrontis et al., 2016). In this direction, several scholars have noted that innovation derives from the search and re-combination of pre-existing components; (Savino et al., 2017). From this perspective, innovation can be considered as the cause of knowledge accumulation, but at the same time it can be the effect of knowledge accumulation (Savino et al., 2017). In addition, the history of the local area and that of the firm itself both affect market opportunities (historic dependencies); consequently, previous actions and outcomes determine the range of available actions and outcomes. There is a kind of emotional link to the geographic area and to the local culture, which accentuates this approach. Therefore, when a firm launches a new product, this can include a new interpretation, adaptation or collection of a pre-existing cultural heritage (heritagization). In this view, past knowledge can be a fundamental source of entrepreneurial creativity as well as a source for inspiration, since creativity can be based on what a firm has found to be suitable in the past for its future needs. Basically, knowledge pertaining to the past is increasingly recognized as a powerful and unique source of innovation. Consequently, firms need to develop capabilities to interiorize and reinterpret past knowledge to innovate. The adoption of past knowledge may be a good practice only if employed together with more recent applications, linked to an open innovation approach (Natalicchio et al., 2017; Najib et al., 2021; Wang et al., 2022).

The influence of new collaborators on the innovation performance of focus inventors: the moderating role of network embeddedness

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Abstract:

Based on the social network theory and the view of knowledge recombination, this paper develops a theoretical model of the relationship between the proportion of new collaborators and the number and impact of inventions of the focus inventors, and further investigates two contingencies namely, the direct tie strength between the new collaborators and focus inventor, and focus inventor's structural holes in the collaboration network, that moderate the aforementioned relationship. Inventor's ego collaboration networks are constructed based on patent data of Huawei's filed in China between 2004 and 2013, and hypotheses are tested by negative binomial regression model. The results show that the proportion of new collaborators positively influence the number and impact of inventions of the focus inventors , the direct tie strength between the new collaborators and focus inventor strengthens the relationship the aforementioned relationship, focus inventor's structural holes in the collaboration network do not affect the aforementioned relationship. This research enriches the literature related to network dynamics at the inventor level and deepens the understanding of the relationship between the structure, content of collaboration network and innovation performance.

Keywords: Proportion of New Collaborators; Number of Invention; Invention Impact; Direct Tie Strength; Structural Holes

Open innovation in sport event management

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Abstract

This work aims to investigate the key role of different stakeholders of sport ecosystem in sport events and the impact that the community engagement can have on the destination.
The organization of a sport event is supported by the cooperation of several stakeholders and in the specific case of a sport sport event a key role is played by the local community and a network of volunteers that provide own capacities and skills to help managers to organize efficient and successful event organizations. Today volunteerism is considered a new segment market of the tourism and leisure sectors. Millions of travellers take part to many voluntary programmes around the world visiting developing countries.
Several authors offer an overview regarding the different typology of sport events, most of them pay attention to mega events and only few of them try to give a definition of small events. Previous authors offer a classification identifying four man categories: 1) Mega Events as Olympic and The Fifa World Cup Game, 2) Major spectators' sport events held annually, 3) Irregular major sporting competitions as international level swimming event; 4) Major competitor driven events, 5)Small scale sport events include minor events where competitors are often more than spectators, they occur annually and are not characterized by a large national media interest and a limited economic activity compared to the large-scale events (Chae & Goh, 2020; Dudnik et al, 2021; Lee et al, 2019).
There is not a clear distinction about the differences among events but the are many indicators on the which the categorization is based: the economic impact, the local, regional, national and international level, the media interest, the regular or irregular occurrence, the number of spectator and players, the tourism impact and the sport development opportunity.
Sport activities are closed connected to the community, especially to small communities that see in sport their tradition. Sport favours the community development in terms of capabilities, strengthening the local knowledge, personal skills, and leveraging on local resources. Traditional sports encourage volunteers to develop a critical way to think, to focus their attention on issues, and to takea lternative problem-solving decisions.

Coexistence of Heterogeneous Capability Can Stimulate Firm's Innovativeness Performance?: Based On The Perceived Strength of Employees

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Abstract

There have been vast amount researches in enhancing the performance of a firm. Both innovativeness and sales are one of the most frequently selected variable as a measure of a firm's core competency. This study focuses on the perceived capabilities known as capabilities determining the performance of innovation and sales of a firm. To collect perceived capabilities of each firm, this study used 'Glassdoor' website sharing reviews and information of companies in a form of text. In this study, capabilities of firm are categorized into four, and defines an ambidexterity as a pairwise coupling of them. Through the result of the perceive type of capabilities, I analyzed the effect of pairs of four types of perceived capabilities.

This study aims to figure out the relationship between firm's capabilities and its performance in terms of perceived ambidexterity and job satisfaction. This study tries to find the impact of perceived ambidexterity of firm on both sales and innovation performance.

The term 'organizational ambidexterity' is a term fisrt used by Duncan in 1976. Organizational ambidexterity represents the ability to reconcile factors that difficult to coexist such as conflicting interests (Raisch & Birkinshaw, 2008). March(1991) is a key study that promoted the application of the concept of organizational ambidexterity. March(1991) proposed exploration and exploitation as two ways that companies concentrate their resources and suggested the effect of each on organizational performance. Some previous studies argued that trade-off exists between the two factors as the concept of exploration and exploitation requests fundamentally different organizational structures, strategies, and contexts (Ancona, Goodman, Lawrence & Tushman, 2001; Floyd & Land, 2000; Leventhal & March, 1993). Within this context, it had been concluded that simultaneous acquisition of conflicting competencies is difficult to achieve, and even if achieved closely, the efficiency will be significantly low. Based on these results, there have been studies insisting that focusing on one of the conflicting competencies is more effective for organizational success (Burns & Stalker, 1961; Denison, Hooijberg, & Quinn, 1995; Ghemawat & Ricart i Costa, 1993).

Successful start-up - Lessons from those who have experienced at enterprises in Japan

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Abstract

Vietnam is a developing economy. The contribution of businesses in many economic sectors to growth counts a key part. Recorded with a relatively high growth rate (6-7%), Vietnam still lags behind many economies in the region and in the world. To foster the further growth of the economy, the growth of domestic enterprises plays a very important role. Therefore, supporting the development of SMEs is a measure of the country.

The Covid 19 pandemic creates a challenge that only SMEs with the ability and appropriate approach can overcome. Many established and operating SMEs are facing economic survival during and after the pandemic. However, there are still newly established SMEs that are still doing well and can overcome the difficulties during the pandemic to develop and grow. What factors can help these SMEs overcome difficulties in the start-up period? Could the lessons learned from these successes help reduce the risk of start-up failure? and is it useful for the development of the policies to support new business ventures?

Apart of this, for many years, Vietnam sent its workers for studying and working abroad, including Japan. One of the goals and expectations is that these workers can acquire knowledge and experience to use after returning home. The actual evidence shows that this goal does not seem to be achieved as expected. So what policy solutions can help to achieve this goal? Besides the causes related to the difference in the development level of the two economies, are there other causes or reasons related to workers and government policies which could be overcome the situation?

The study was conducted with the hope of pointing out the factors that can help employees who go to work and study in Japan and want to start a business have a greater chance of success, and that can help to make the Government's supportive policies to the start-ups achieving greater effectiveness.

Re-Globalisation of European Multinational Corporations: A new framework to respond to the uncertain environment

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Abstract:

1. Research background and aim

In the last ten years, manufacturing globalisation has been facing several challenges Manufacturing FDs have seen a strong growth since the 80s, increasing even more with china joining the WTO. However, between 2010 and 2019, the growth of GDP and FDI were aligned, and a series of event (e.g. Brexit, US-China trade war) have shown the limits of globalisation. COVID-19 has even more paused global trade, with disruptions in supply chains (Liu, Shi, and Yang, 2022). Necessity for supply chain but also strategic sovereignty considerations have pushed companies and governments to adapt and grow.

The purpose of this paper is to present driving forces of a new business environment and explore new design principles of manufacturing and supply chain globalisation in reaction and anticipation. Specifically, the objectives are:

- Determine what the main drivers of a 'global reset' are,
- Explore how companies are reacting and what they are implementing due to such drivers of reconfiguration,
- Identify what the new long-term designs of an optimal industrial footprint, supply chain configuration and value-chain organisation and coordination are.

2. Methodology

A literature review is conducted to identify the radical changed business contexts. Then, to understand this complex phenomenon that is context-specific, case studies are conducted (Eisenhart, 1989). Three European Multinational Corporations in electrical equipment industry, which has many characteristics maximizing generalisability of findings, are selected.

Productivity of the Korean Pharmaceutical Industry : Exploring the Effect of Business Model and Open Innovation

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Abstract

Business model is a process to monetize a firm's capabilities. The most representative way to classify business models is defined by the scope of the value chain you operate. With traditional perspectives, by the value chain role and the level of vertical integration, the business model of pharmaceutical industry is consist of RIPCO(Research Intensive/royalty only Pharmaceutical company), FIDDO(Fully Integrated Drug Discovery & Development), NRDO(No Research Development Only), FIPCO(Fully Integrated Pharmaceutical Company), and FIPNET(Fully Integrated Pharmaceutical Network) [1]. In addition, several global FIPCOs are trying to transform their business model into VIPCO(Virtually Integrated Pharmaceutical Company) nowadays [2]. This trend is due to the belief that open innovation can replace activities in companies and external environmental changes such as digital transformation and COVID-19.

In the pharmaceutical industry, it is very risky to link R&D result to innovative product. Because huge amount of investment is needed [3,4], and the success ratio of clinical trials which is essential process for every bio-pharma product is extremely low [5]. In this context, relying more on open innovation strategies can be a reasonable alternative.

The COVID-19 pandemic has enhanced pharma companies to rethink their organizational strategies. The unexpected event tried to identify whether they can co-operate virtually or not. According to the McKinsey&Company survey of anticipated trends for the future of the pharma industry in 2021, 56% of respondents will move away from managing the end-to-end value chain in-house, instead focusing on core capabilities and working with a broader ecosystem of partners [6].

In this study, we tried to find out whether the business model (or change) of the Korean pharmaceutical industry and whether open innovation activities were carried out affected the productivity of the company. To this end, a group based on business models and open innovation activities was defined using survey results published by the Korea Bio-Industry Association, and productivity was compared through meta-frontier analysis.

Society of Open Innovation Technology, Market & Complexity

A Study on the Future Prediction of Smart City in South Korea : Focusing on Concept Definition and Implementation Time Forecasting

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Abstract

This study aims to define the smart city (abbreviated as SC) concept considering the Korean context and predict the successful implementation time of Korea's national SC pilots. With the rapid growth in urban populations, national and local governments face various urban problems. Smart city, which presents the potential to resolve urban problems and enhance the quality of citizens' life, has received considerable attention as a new alternative city model. Many governments worldwide are competitively working on SC (Paskaleva, 2013) and recognize it as a growth engine in the digital transformation era. On the other hand, Korea promoted the U-city policy discussed as the initial model of SC more than a decade ago. However, the U-city was evaluated as 'not-successful,' and the scholars estimated its causes as the absence of a clear concept of SC and largely emphasis on the hardware oriented innovation (Choi, 2018; KISDI, 2010; KIPA, 2020). Thus, this study attempts to define the SC considering previous Korea's SC experience. Based on the SC concept, the authors try to predict when Korea's SC will be implemented. Upon these backgrounds, this study established the following research questions:

RQ1. How can we define the Smart City concept considering the Korean context?

RQ2. When will Korea's Smart City be successfully implemented?

The recent studies regarding the conceptualization of SC have focused on the systemic review of the SC-related literature (e.g., Anthopoulos et al., 2019; Greco & Cresta, 2015; Nam & Pardo, 2011; Sinkiene et al., 2014; Winkowska et al., 2019). Greco & Cresta (2015), which conducted a critical review of the previous studies on SC concepts, summarizes three approaches: (1) technology-centered approach characterized by a strong emphasis on "hardware," new technologies, and infrastructure so that ICT would be the key to the smart city (Washburn & Sindhu 2010).

The Global Innovation Kaleidoscope: Understanding and Leveraging Cross-Cultural Dynamics in the Quest for Progress

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Abstract

Innovation is a vital catalyst for national growth and development, as it enables the creation of novel products, services, and technologies that enhance productivity, generate employment, and propel economic growth (Barrichello et al., 2020; Gomes & Lopes, 2022). It involves devising and implementing new ideas, products, or processes aimed at creating value and refining existing solutions (Dziallas & Blind, 2019). Remaining competitive and reinforcing a nation's core necessitates innovation and the fostering of a creative and entrepreneurial culture (Amini Sedeh et al., 2022). Matos et al. (2022) assert that innovation enables the conception of novel solutions for pressing societal challenges, such as healthcare, climate change, and sustainable development. If a country's innovation stagnates, its competitiveness decreases, economic growth drops and social progress opportunities are missed (Stoica et al., 2020), leading to hibernated industries, limited job creation, reduced quality of life, and even brain drain (Shahabadi et al., 2020). In Consonance with Arshi et al. (2020) several factors can drive innovation within a country, including access to funding, a supportive regulatory environment, resource availability, an entrepreneurial culture, and skilled talent availability.

Pursuant to Ziakis et al. (2022) Innovation and economic growth rely on an effective startup ecosystem, effective networking activities, and R&D investments. Roos & O'Connor (2015) believe that R&D expenditure can lead to ground-breaking innovations and competitive advantages, while a dynamic startup ecosystem encourages disruptive ideas, and networking activities facilitate idea cross-pollination and accelerated innovation. Conforming to Bigliardi & Filippelli (2022) sustainable innovation has become a central goal within the global innovation system. Interdisciplinary collaboration in combination with R&D expenditures and thriving startup ecosystems can generate powerful synergies that promote innovation, develop new solutions, and stimulate economic growth (Kim et al., 2022; Lee et al., 2022; Tariq et al., 2021). As a result of this fact reinforced by the 'Medici Effect', (Carmona-Lavado et al., 2023) interdisciplinary collaboration and idea-sharing can sustain technological advancements (Gomes & Lopes, 2022) by creating new markets and innovation opportunities.

Keywords: Innovation Management; Entrepreneurship, Drivers; Medicci Effect; Sustainability

Using virtual reality as an innovative service delivery tool

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Abstract

This research aims to investigate how virtual reality could be used as an innovative service delivery tool for balancing both needs of standardization and customization of public services. On the one hand, a public service organization(PSO) should provide standardized public services to citizens regardless of their gender, age, race, etc. On the other hand, it should give more responsive and customized public services to individual citizens who have different demands and preferences. While a PSO faces a dilemma of two different requirements for effective and efficient public service delivery, there is a lack of literature that focuses on the role of digital technologies (e.g. virtual reality technology) to resolve the current and serious dilemma. Using virtual reality might have the potential to provide both standardized and customized services for citizens.

Public services have three distinctive characteristics: intangibility, simultaneous production and consumption, and coproduction (Osborne & Strokosch, 2013). Owing to these characteristics, a PSO should put more emphasis on investigating and monitoring citizens' demands and preferences in order to make successful service delivery with more standardization and customization. Digital technologies, ranging from a web page of a PSO to big data and artificial intelligence technologies, have long been adopted to change internal work arrangements and interact with citizens and other organizations (Hyytinen, Tuimala, & Hammar, 2022; Chen, Walker, & Sawhney, 2020). Given that there are a lot of articles focused on the use of artificial intelligence and big data technologies, virtual reality has been understudied in the public sector, meaning that there is a lack of literature that deals with the possibility of virtual reality to facilitate public service innovation. Following Chen et al. (2020), we define public service innovation as the development and implementation of an imaginative idea by a public service organization to create public values. And we expect that virtual reality would be a tool for public service innovation.

We offer an in-depth review of the public administration and public policy literature on the role of digital technologies in the public sector. Since the use of virtual reality in the public sector has been understudied, we begin with this overview of key themes and core factors in the literature, followed by the expected role of virtual reality.

Open innovation and systemic collaboration in the agri-food sector

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Abstract

Agri-food sector represents a complex network of inputs and outputs that link farm production inputs to food consumers. They involve a wide range of stakeholders. Nowadays, the agri-food system is facing with profound transformations in terms of technological innovations. These challenges can have a great impact on the sustainability issues in its different dimensions, adaptive capacity, and resilience. This work seeks to investigate on the innovation and sustainable strategies implemented by some Italian firms. Specifically, a crucial aspect is to investigate the way firms, as actors of a more complex system, manage stakeholder relationships inside the agri-food system, trying to influence suppliers and/or customers to adopt sustainable management practices and implement innovations through purposive inflows and outflows of knowledge.

In line with the research purpose, this study focuses on the Open Innovation (OI) approach that is relevant in accelerating internal innovation and expanding the markets for external use of innovation, thus concretely creating a competitive advantage. Specifically, the OI approach assumes that firms can enhance their innovative performance by acquiring knowledge and competences from outside (Chesbrough, 2003), and it also emphasises the importance of inter-firm cooperation (Paiva et al., 2020). Referring to this latter aspect, academic research acknowledges effective collaboration as a pivotal element for innovation (Varadarajan & Cunningham, 1995). OI is the combination of practices that allows firms, also those operating in the agri-food sector (Solarte-Montufar et al., 2021), to collect ideas from an external environment, which is capable of triggering innovation processes, and which can then increase businesses competitiveness. These considerations pave the way to the notion of systemic innovation and relational & dynamic capabilities, which correspond to the type of innovation that only generates value if accompanied by complementary innovations. In particular, systemic innovation is consistent with the capability of interdependent actors to continuously identify constraints and opportunities, and in response collaborate with others to acquire new and existing knowledge, resources and capabilities, to experiment with social, technical and institutional options. In this direction, agri-food firms can carry out processes of inter-firm cooperation with external stakeholders.

Practical strategies of science, technology and innovation for a local government

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Abstract

In 2022, Busan established the 2nd Busan science and technology master plan as a medium and long-term plan for regional innovation system. The 1st Busan Science and technology master plan had been carried out with foci on budgets and projects. As the first plan had been managed largely as an ensemble of projects, it was difficult to accurately evaluate the plan's performance. We investigate what practical strategies are needed for regional science and technology policy to work properly.

Šipikal, Pisár, and Uramová (2019) found that the problems of local government's innovation activities include dearth of financial resources and cooperation between policies. Cooke, Uraga, and Etxebarria(1997) found that the success of regional innovation systems depends on trust, reliability, exchange and cooperative interaction.

We analyze budgets, interactions among different projects and polices related to regional science and technology.

Projects with interoperability between policies and consistent budget will produce good results.

Research limitations/ Implications: Our research suggests a new framework in which a local government can investigate its budget, projects, departments, policies and actors. We also provide what factors the city government of Busan need to incorporate for its successful management of the 2nd Busan science and technology master plan in regards to its polices, relationships between actors, relationships between projects, and support types.

Keywords: Innovation policy for local government, Science and technology policy for local government, Differences between national and local government in STI policy, Decentralization STI policy, Practical strategies for RIS

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Photovoice technique to measure Food Waste Consciousness. A comparative analysis among Italian and Pakistani Students.

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Abstract

Food waste has globally become a social, economic, and environmental issue and has captured both scholar's and policymakers' attention (Lugo-Morin, 2022). It represents a threat to global food security; hence, in 2015, members of the United Nations established Sustainable Development Goals, i.e., to halve the per capita food waste across the globe by 2030. While according to the Food and Agricultural Association, consumer-level food waste has doubled since 2011. Consequently, European Commission introduced Zero-waste food programs, and EU countries passed legislation to reduce food waste. However, tracking the progress of the goals remains unclear due to a lack of data, comparability, and imprecise evaluations of the implemented programs. Based on these considerations, this paper aims to understand food waste consciousness and the impact of interventions on university students using the Photovoice technique and involving students in the research process. The paper will compare the data gathered from high-income (Italy) and Low-income (Pakistan) countries. The study discloses the main reasons for food waste at the consumer level in two distinct socio-economic geographies and the possible solutions suggested by the students.

Nowadays, consumption patterns are a critical issue since they dictate the shape of the global food production system (Benvenuti et al., 2016; Harsanto et al., 2022). This is particularly true when talking about young people whose consumption habits will frame the future of the food supply chain. The amount of food wasted at schools has been the object of different studies, which have shed light on the relevance of addressing this topic. Specifically, Byker et al. (2014), found that 45.3% of total food served to students in a school in the US was wasted, Bergman et al. (2004) showed that between about 20% and 30% of calories offered were finally wasted. By reducing food waste, young students can contribute to a more sustainable food system.

Short food value chain. Open innovation in the agri-business industry

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Abstract

The aim of the paper is to verify the relationship between entrepreneurs' personality traits and the firm performance. While the up to now developed literature explains the connection between the entrepreneurs' traits and firm performance, this paper goes deeply into this process, focusing on the links between entrepreneurial traits, capabilities of catching/creating opportunities and the involved risks, and their overall impact on performance. In investigating this relationship, we illustrate the entrepreneurship literature on the topic, clarifying the concepts of entrepreneur and entrepreneurship and pinpointing the related gaps.

In order to reach this objective, we carried out a Likert based questionnaire among Italian agro-food entrepreneurs.

Furthermore, to better explain the connection between entrepreneurial traits and firm's performance we used a multiple regression analysis. Our findings reveal that conscientiousness and agreeableness significantly influence firm performance.

Contents The study of entrepreneurial traits has received enormous attention in psychological discipline, while literature on entrepreneurship research has underestimated this topic, showing "inconsistencies….in identifying personal characteristics that predict the phenomena of entrepreneurship" (Rauch and Frese, 2008)

The trait approach, recalled in this paper, is that of the Big Five personality that identifies openness, conscientiousness, extraversion, agreeableness, and neuroticism (OCEAN) as the personality characteristics of the individual.

This approach has received a growing consensus among scholars (since the traits can predict different outcomes of the entrepreneur, both positive and negative. The Big Five personality approach is also used to underline the differences between managers and entrepreneurs.

An extensive body of literature has analysed these entrepreneurial traits to verify the relative behaviours and reactions. These five dimensions are considered the "most comprehensive" to study the entrepreneur's personality and what they predict.

Servitization process analysis; in automotive headrest manufacturing

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Abstract

Few paper have studied with the servitization process at firm level in particular manufacturing. Business model innovation through convergence between products and services is indispensable for firm's sustainable strategy. This paper contributes the understanding of the process of service creation in product service system (PSS) through the single case study. Extending or creation of new value is also archetype of business model innovation. To investigate how new services or service design are created in PSS, as s single case, this paper focuses on the new production process of headrest in automotive parts enterprise. This paper proposes that product service system can be classified into three steps based on findings; (1) service conceptualization; (2) developing the scenario phase; (3) service prototyping and marketization for business model using infusion of technological utilities. Big data played an important role to conceptualize new service concepts. From the findings, we argue that process of servitization can be regarded as one of processes of service design, which is the process of value creation based on synchronization of customer empathy.

Keywords: Product service system, digitalization, discovering of service, Service design, Business model innovation.

Blockchain-enabled Collaboration among Enterprise-related Agents: Progress, Framework and Prospect

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Abstract

The ability and competitiveness of enterprises depend on the two basic attributes of productive forces and production relations-both are equally significant, but most people emphasize productive forces while neglecting production relations. Enterprises can achieve resource coordination and complementary advantages through collaboration among agents, but the traditional collaboration has pain points in trust, consensus, security and other aspects, which poses a severe challenge to the production relations among enterprise-related agents. The blockchain realizes the reconstruction of production relations in the way of tools, and upgrades the cooperative relationship between employees and employees, enterprises and enterprises, enterprises and the public, which is expected to become the infrastructure of collaboration among enterprise-related agents. However, the existing research lacks the systematic understanding of blockchain-enabled collaboration among enterprise-related agents.

This paper uses the methods of literature research, induction, system analysis and case analysis to explore how does blockchain upgrade collaborative relationship and enable collaboration among enterprise-related agents. First of all, review the existing literature to clarify the progress and shortcomings of the research on the blockchain-enabled collaboration among enterprise-related agents. Then, the blockchain-enabled collaboration among enterprise-related agents is analyzed from the process dimension, mechanism dimension and scope dimension respectively, and on this basis, the framework of blockchain-enabled collaboration among enterprise-related agents is constructed. Finally, based on the existing research progress and shortcomings and the framework constructed in this paper, the future research direction is put forward.

This study defines the whole process of collaboration among agents, and on this basis, combined with pain points of traditional collaboration and characteristics of blockchain, analyzes how the blockchain enables collaboration among agents.

Chance and Threat of Digital Transformation on Global Open Regional Innovation System(GORIS)

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Abstract

In Korea, the gap between the metropolitan area and non-metropolitan areas is widening as most of the core value chains of companies, such as the headquarters and research institutes of large companies and emerging innovators, which served as the driving force for industrial innovation. Therefore, this study attempts to approach regional innovation based on regional-led innovation growth through the connection between the innovation system of local industries and GVC and define a new model of GORIS.

Asheim and Coenen (2005) stated that to understand the role and operation of various types of regional innovation systems, it is important to explore governance structures, national and regulatory, institutional framework support issues, and to understand the connection between national innovation systems and the characteristics of regional innovation systems. Joo (2021) showed that the 4th Industrial Revolution or research linking regional innovation and regional innovation has a positive effect on regional innovation growth, mainly from a regional development perspective. Oh and Jung (2021) pointed out the limitations of the existing Korean government's regional balance policy. The existing Korean government has implemented many policies to achieve balanced growth through regional innovation, but it has not achieved great results due to the lack of access to regional innovation systems or industrial innovation systems, such as focusing on securing global competitiveness through regional innovation.

We will define GORIS using existing literatures' theoretical framework and will find chance and threat of DT on GORIS thorough case analysis based on interview and existing literatures.

Propose the 'Global Open Regional Innovation System (GORIS)' theory that compares and analyzes cases of unicorn companies in Korea and abroad and achieves balanced regional development through global open innovation of local industries and companies.

Research limitations/ Implications: Contribution to balanced regional development through digital transformation

Keywords: Regional Innovation, Regional Balancing, GORIS

Implementing circular economy: Experience from Wales

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Extended Abstract

With sustainability orientation and opportunities provided to economic growth, the circular economy is much promoted by the Welsh government, which has planned to be world-leading in reducing, reusing, and repairing. There is evidence of efforts being made to change industry practice with innovation happening in terms of technology, product, and business model. However, such transformation faces challenges: the understanding and priorities of circular economy vary from business to business; barriers exist in terms of mindset changing and technology choices; for SMEs, there is no standard framework to follow. Thus, this paper explores the industry practice ongoing in Wales, aiming to out the activities and processes during the circular economy implementation. Practically, it develops a process-based model, supporting organisations to reduce their carbon footprint whilst moving to a circular economy.

Literature review concerns sustainability-oriented innovation (Liu and Stephens, 2019; Shi et al., 2021), dynamics of open innovation (Yun, 2015) and circular economy. Specifically, circular economy "aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and. designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital", circular economy is based on three principles: 1) Design out waste and pollution, 2) Keep products and materials in use, 3) Regenerate natural system" (Ellen MacArthur Foundation, 2020). In addition, resource coordination, product and process redesign, industry symbiosis can help companies to rethink about their business model and value chain, achieving more efficiency and effectiveness.

As this topic is an ongoing issue underexplored, theory building approach is adopted through case studies (Eisenhardt, 1989; Yin, 2003). In particular, we engage with five organisations in Wales across manufacturing and service sectors.

Punishing or Ignoring: An Evolutionary Game Of Open Source Group Interests Based On License Types

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Abstract

In recent years, there has been a proliferation of open source software usage and derivative innovations that violate open source licenses, undermining the open source public interest and the sustainability of open source platforms. Open source governance has become increasingly important. However, the OSI's promotion of "community voluntarism" inhibits the creation of internal penalties for open source platforms, and judicial remedies are often the only external penalties that open source project owners can seek.

The different open source licenses chosen for open source projects can lead to differences in governance policies. Yet attention is drawn to the sermons, opinion leaders in the open source community, and little is known about the patterns of governance strategies under different license types.

Participants generated strategy combinations for license types and platform governance, resulting in four types of open source participant groups. We use evolutionary games to model the these four groups.

The model explains the evolutionary strategy stability of participant type switching and internal governance mechanisms of the platform.

The study challenges "community voluntarism" and provide a theoretical basis for open source platform governance.

Determinants of Innovative Performance of Knowledge Service Firms

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Abstract

This paper analyses the determinant factors of the innovative performance of service companies, addressing two large groups of companies, taking into account the intensity of incorporation of the production factor: knowledge; namely, knowledge-intensive services (KIS) companies and less knowledge-intensive service (LKIS) companies.

Using secondary data collected from the Community Innovation Survey (CIS) - CIS 2010, a comparative study was carried out applied to 2381 small and medium-sized enterprises (SMEs), in Portugal, and 2535 SMEs, in Norway. Several Binary models of extreme values (Gombit) were estimated, which made it possible to assess the relationship between technological, human competencies and organizational competences, relations with the market and coopetition links with the innovative performance of companies, in terms of product, service, process and eco-innovation.

The empirical evidence now obtained shows that most groups of determinant factors identified in the literature review, have a significantly positive influence on the innovative performance of the KIS and LKIS companies, in both countries, as well as there is a significantly positive influence of coopetition on the innovative performance of the companies under study.

The management of innovation in service companies must consider change and the continuous emergence of challenges arising from the dynamics of environmental change and the strategic thinking of companies, leading to the implementation of coopetition strategies, based on the combination of cooperation and competition (Dagnino, 2014).

Cooperation is one of the most observed relationships among competitors (Bengtson, Hinttu, and Kock, 2003), being targeted to obtain collaborative advantages through the achievement of common goals of the participating companies, resorting to more collaborative attitudes to improve their performances. Companies cooperate to ensure a means to face difficulties, both financial and technological, being this essential to promote a healthy relationship between companies and to provide the creation of solutions that benefit both sides (Vaz, 2010).

A Novel GAN Algorithm and its Application to Technology Valuation

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Abstract

In this study, a novel GAN algorithm named as DEGAN(Discriminator Ensemble GAN) has been introduced. The proposed DEGAN algorithm has a single G(generator) and multiple Ds(discriminators). If the standard deviation of Ds' outputs is high, it is judged that the Ds' inconsistency is high with the weights of G raised. On the contrary, if the standard deviation of Ds' outputs is low, Ds' inconsistency is judged to be low with the weights of G lowered. DEGAN can exhibit superior performances to the vanilla GAN due to cooperation of Ds. Virtual financial data have been generated by using trained G model. Technology values have been calculated with the generated virtual data by using DCF(Discounted Cash Flow) method.

Deep learning is a kind of machine learning methods based on ANNs(artificial neural networks) with feature learning that can be supervised, semi-supervised or unsupervised.[1-3] Recently, deep learning has achieved excellent results in many applications such as image recognition[4-7], speech recognition[8-10], natural language processing[11-14], data augmentation[15-19], etc. In some cases, deep learning went over the skills of human experts such as IBM Watson or Google AlphaGo.

Deep learning architectures include deep neural networks, deep belief networks, recurrent networks, convolutional neural networks, and generative adversarial networks. A GAN(Generative Adversarial Network) is a deep learning algorithm invented by Ian Goodfellow et al. in 2014.[15] GAN is a class of deep learning model where two neural networks are trained simultaneously, with one centered on data generation and the other concentrated on discrimination. The emergence of GAN algorithm has made significant progress in various fields such as data augmentation[20-22], image generation[23,24], super-resolution[25], image-to-image translation[26-28], text-to-image synthesis[29,30], etc.

The Heterogeneity Classification and its Impact on the Customer Churn Management

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Abstract

The customer is the reason for the firm's existence. Firms have continuously evolved to attract customers and maintain them by implementing high-quality service and state-of-the-art technology. These activities are mandatory requirements for the firm it is hard to be considered as a matter of choice. However, as former researchers indicated, customers do not stay with the firm. It seems related to loyalty that produces profit or becomes a consequence of customer loss. In the matured market, competition is high, and gaining new customers demand sizable investment. Under the matured market, customer persistence is critical to the firm's success, though inevitable customer loss remains a risk. How a firm maintains reasonable or higher persistency is a matter of managing customers. The most effective strategy will be the prevention of customer churn. A precisely trained model enables it, and the firm could implement a suitable customer strategy. Though former studies suggested novel methods and approaches, it is rare that view this problem as a multi-class problem. The majority of the research conducted binary classification that was divided into churn or active customers, which is a less considerable approach. We argue that heterogeneity of the churned customer means churn customers are not the same. Their motivation and behavior would differ. We find distinctive churn customer characteristics that are called voluntary and involuntary churn. The former churn group showed less loyalty and fragility to a competitor.

In contrast, the involuntary churn group has unexpected characteristics: high loyalty, constant demand, and inevitable churn due to financial distress. We classified these distinctive churned and active customers, especially in the financial industry. Multi-class classification has been a challenge to researchers. Well-known drawbacks are bias, imbalanced datasets, and lack of algorithms. To mitigate these problems, we adopted a fusion model based on XGBoost. The fusion model provides better performance than the baseline model.

Open Innovation and blockchain technologies: exploring implications in fashion industry.

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Nunzia Capobianco
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Abstract

Over the years, blockchain and open innovation has experienced a continuous increase in academic production. In the wake of this scientific trend, our research aims to review and systematize the existing literature on blockchain and open innovation, with a specific focus on fashion industry. Our work is addressed to filling the emerging gaps related to the challenges and opportunities of Blockchain Technologies (BTs) in stimulating open innovation in the fashion industry. We propose a conceptual framework towards an open innovation perspective, by identifying the drivers that either facilitate or hinder collaborative networks through BT within industry.

BT is a growing trend in the scientific literature and received extensive coverage in a wide variety of academic disciplines (Xu et al., 2019), especially on the internet and digital world (Shinde et al., 2021). Despite being frequently used as a buzzword, the blockchain has rapidly gained the attention of entrepreneurs, practitioners, governments, and financial institutions worldwide (Thees et al., 2020). As an emerging technology, blockchain has the potential to substantially transform management processes in several industries. Since it provides a trustworthy platform to connect firms and customers (Guo et al., 2020), in the fashion context it has the potential to shape the whole industry, leading to a radical disruption of the current business models and marketing practices (Caldarelli et al., 2021). The blockchain changes many activities and transactions within the fashion firms, but also affects the cooperation between them (Guo et al., 2020). There are many reasons behind the establishment of interorganizational collaborations in the textile supply chains (Wang et al., 2020), such as trust, facilitated by the main blockchains characteristics, namely traceability, immutability, security, cost reduction, and decentralization (Kosmarski, 2020). However, the benefits of adopting blockchain in the fashion context have not yet been systematically examined, as well as its role in supporting open innovation. It can be argued that blockchain technology could be a great tool for bottom-up social innovation (Jun, 2018).

SOI & DEMI of UNINA 2023 Conference

July 12(Wed.) ~ 15(Sat.), Conference Days, 2023

Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy

& Online(Zoom)

July 15 (Saturday)

July 15 (Saturday)

Venue: AULA MAGNA(1st Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Poster Session

Chairs: Simone Luongo(University of Naples Federico Ⅱ, Italy) & Choong-Sik Chung (KyungSung University, Korea)

- Paper 1: "Open innovation in converted new industry and regulation conversion" by **JinHyo Joseph Yun*, Xiaofei Zhao, Bo Yang, Zheng Liu**
- Paper 2: "Nudge to motivate matching between technology, and market in open innovation dynamics" by **JinHyo Joseph Yun*, Xiaofei Zhao, Heungju Ahn, KyungBae Park, Sung Deuk Hahm**
- Paper 3: "Exploiting open innovation for improving the concept of quality in the hospitality industry" by **V. Della Corte, Enrico Di Taranto**
- Paper 4: "Museums and open innovation. The role of aspect-based sentiment analysis" by **V. Della Corte, Giovanna Del Gaudio, Vincenzo Moscato, Alessio Botta, Antonio Galli**
- Paper 5: "The Effect of R&D Management Competency on Researchers' Satisfaction from the Perspective of Open Innovation" by **Byung Yong Hwang*, Sung Hun Park, Na Rae Lee, Tae Youn Kim**
- Paper 6: "Analysis of technology trends by technology fields of Korea: With focus on patentees of registered patents" by **Youeil KIM, EuiSeob JEONG***
- Paper 7: "Analysis Open Innovation Trends based on the Transaction Data of Global Bio-companies" by **Jinny Seo, JaeYoung Yoo**
- Paper 8: "Comparing the Perspectives between Humans and AI Chatbots: Water Pollution Solutions Through Open Innovation" by **Yoonseo Jung**
- Paper 9: "Social Arts Market and Open Innovation: Facilitating Community Innovation and Global Collaboration" by **Yoonseo Jung & Risa Bhaumik, Justin Merriman**

July 15 (Saturday)

Venue: SALA A(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Poster Session

Chairs: Giovanna Del Gaudio(University of Naples Federico Ⅱ, Italy), Dongwook Kim(Seoul National Univ., Korea) & Youeil KIM (KISTI, Korea)

- Paper 1: "Do Powerful CEOs Aggravate the Corporate Fraud of Listed Companies?" by **Xianan Li**
- Paper 2: "Comparative analysis of customer usability of mobile food delivery applications-Focused on BaeMin, Hungry Panda" by **JINGZE PIAO, Taesun Kim, Xintong Ma, Hongyuan Zhao**
- Paper 3: "Driving Transformational Change in Digital Healthcarewith Design Thinking" by **HONGYUAN ZHAO, Taesun Kim, Xintong Ma, JingZe Piao**
- Paper 4: "Importance of News Media Branding in a Contemporary Media Environment" by **Linda Saulīte, Deniss Ščeulovs**
- Paper 5: "Artificial Intelligence Application for Business Needs: Challenges and Opportunities" by **Deniss Ščeulovs, Dace Vanaga, Ilja Afanasjev**
- Paper 6: "The impact of open innovation activities on the innovation outcome : According to the development phases of Small and medium companies" by **Daeyu Kim, Seunghoo Jin**
- Paper 7: "A study on the knowledge flow and transformation mechanism of open source platform based on SECI model" by **Chaonan Yi, Zheng Liu, Lei Ma, Kaitong Liang, Bao-Qing Zhu**
- Paper 8: **"**An Introduction to Data Valuation" by **Jongtaik Lee, Hun Park, Hyunwoo Park**
- Paper 9: "Managing and innovating business models in Social Purpose Organizations (SPOs): the role of social robots." by **Valentina Della corte*, Fabiana Sepe, Anna Prisco**

July 15 (Saturday)

Venue: SALA B(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Poster Session

Chairs: ENRICO DI TARNTO(University of Naples Federico Ⅱ, Italy) & Euiseob Jeong(KISTI, Korea)

- Paper 1: "Measures and practices for digital transformation in SMEs of Japan" by **Yuri Sadoi, Sergei Shaposhinikov**
- Paper 2: "Challenges and Opportunities in Human Resource Development of Myanmar Engineers Working in Japan-" by **Than Than Aung, Yuri Sadoi**
- Paper 3: "Knowing what kind of open innovation and Who am I, it goes to succeed" by **HeaJoo Wang, Changhyeon Song; Kwangsoo Shin***
- Paper 4: "Developing on the interface design of Time Bank web-side based on user experience" by **Xintong Ma, Taesun Kim, Hongyuan Zhao, Jingze Piao**
- Paper 5: "Biomedical innovation strategy for catching-up with leading companies: A case of pre-clinical test industry" by **Harry Jeong; Beom Mo Gu, Kwangsoo Shin***

- Paper 6: "Linking HR's entrepreneurial orientation and networking capability to innovation performance: From the strategic perspective" by **Ryu Dongwoo, Yoon Junghyun**
- Paper 7: "Towards Sustainable Manufacturing: Understanding the Key Determinants of Pro-environmental Behavior in Manufacturing Firms" by **Sangjae Pyo, Seung Gun Chung, Hyoung Ryul Ma, Dong Hoon Oh***
- Paper 8: "Would collaboration make research team to less depend on their leaders? Analysis on the performance of single and multiple leadership" by **Eungdo Kim*, Sunmi Jung**
- Paper 10: "Open innovation and digitalization at service of senior citizens" by **V. della Corte, G. Del Gaudio, Anna Crisci**

July 15 (Saturday)

Venue: SALA C(Ground Floor), Conference Centre of Univ. of Naples Federico II, Via Partenope, 36, 80121 Naples, Italy, 09:30~11:00

Poster Session

Chairs: FABIANA SEPE(Univ. of Naples Federico Ⅱ, Italy), KwangHo Jung(Seoul National Univ., Korea) & SungYong Choi(Hanyang Univ., Korea)

- Paper 1: "Big Data analytics predicting Chinese tourists intentions to choose Latvia as a tourism destination to visit" by **Yuan Yuan LIU*, Natalja LACE, Konstantins Kozlovskis, Lu Lu CHEN**
- Paper 2: "Technological acceptance modelling for promoting tourism destinations with METAVERSE" by **Yuan Yuan LIU*, Natalja LACE, Konstantins Kozlovskis, Lu Lu CHEN**
- Paper 3: "Sustainability Condition of Post-Capitalism:-Finding evidences from the roots of modern capitalism in Italy Mediterranean regions such as Genova, Milano, and Naples" by **JinHyo Joseph Yun*, Xiaofei Zhao, Valentina Della Corte*, Giovanna Del Gaudio**
- Paper 4: "Open Data and Citizen Participation: The Case of South Korea" by **Seung-Yoon Shin & Joowon Jeong**
- Paper 5: "Knowledge flow mechanism for platform innovation ecosystem enabled by digital technology: multiple case studies on IP operation platforms in China" by **Lei Ma, Ben Zhang*, Kaitong Liang, Zheng Liu, Yang Cheng**
- Paper 6: "Competing Theories in Explaining the Evolution of Electronic Vouchers in Korean Social Services" by **Kwangho Jung**
- Paper 7: "Circular Economy Model: Sustainable Fashion Industry" by **Seung-Hee Lee**
- Paper 8: "Evaluating Determinant Priority for Successful Strategic Alliance" by **Eungdo Kim**

Open innovation in converted new industry and regulation conversion

JinHyo Joseph Yun
(DGIST and SNU, (Corr.)
Xiaofei Zhao
(DGIST)
Bo Yang
(Swansea University)
Zheng Liu
(Cardiff Metropolitan University)

Abstract

This study aims to find out the way to accelerate converted new industry such as telemedicine in the context of digital transformation. It answers the research question, "How can government motivate the growth of new industries such as telemedicine, through deregulation or regulation conversion?" International comparative studies with interview methods are conducted between Daegu, South Korea, and Cardiff, UK in telemedicine industry, and for-profit hospital. Main findings are: First, different policies are required for the same telemedicine industry, 1) regulation conversion to create industry in South Korea, and 2) deregulation to expand market in UK. Second, in the converted new industry under the context of its innovation system, regulation conversion policy can create new industry with the expense of existing industry. In a converted new industry, customers may transfer from existing industry to the converted new industry. In this situation, the regulation conversion policy can be powerful to create new industry. Third, different policy can be required according to difference innovation systems even though these policies may have similar effects like additional market creation by the regulation of UK for-profit hospital, and a little more market expansion by the deregulation of UK telemedicine.

<Keywords>
regulation, regulation conversion, deregulation, telemedicine, for-profit hospital, open innovation

Business Model Nudge - Matching Between Technology, and Market in Open Innovation Dynamics

JinHyo Joseph Yun

(DGIST, Korea)

Xiaofei Zhao, Heungju Ahn,

(DGIST)

KyungBae Park

(Sangji University)

Sung Deuk Hahm

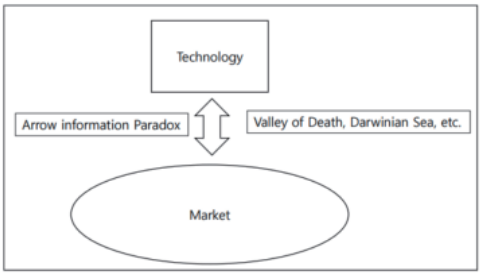
Gyonggi University

Abstract

The creative way which can connect the valuable technology and market creatively, is receiving higher attention right now than before with digital transformation, and appearance of diverse general-purpose technologies such as AI, 3D, Big Data, 5G, IOI, etc. We want to answer to the following research question; How can we decrease the connecting cost between technology, and market, and increase market size and diversity from the connecting? To answer to this research question, first, the theorems on the relation between technology and market are defined from literature review. Second, by developing the mathematical model of BM nudge, 2 factors are found as following; 1) the Chesbrough point from which the cost of BM nudge model is smaller than technology-market model, 2) the long-term effect of BM nudge which make huge additional market. Third, by the analogies like the technology patent with BM patent as reference, and the BM concept and components, the existence and function of mathematical model of BM nudge are analyzed. Fourth, by expanding the value of BM nudge from the causal loop modeling of BM nudge, the architecture design of well operating BM nudge to link between technology, and market is proposed.

Keywords: Business Model, Nudge, Matching, Open Innovation, Market Design, Economics Engineering

The relation between Technology and Market (1)



Exploiting open innovation for improving the concept of quality in the hospitality industry

Valentina Della Corte*

Full Professor, University of Naples Federico II, Italy

Enrico Di Taranto

PhD, University of Naples Federico II, Italy

Abstract

Many scholars highlight the importance of innovation in the hotel Industry with reference to customers, entrepreneurs and human resources (Campo, Díaz, & Yagüe, 2014). Particularly, this paper aims to explore important aspects of innovations and how Italian Hotel industry appliesthe variables of innovation.

Many scholars (Schmidt, Cantallops, & Dos Santos, 2008) identify innovation as the effective implantation of information technologies, exploring the link between ICT and the potential benefits for hotels (Hwang et al., 2018; Bea et al., 2017). They find that hotels do not efficiently use ICT since, in the era of social networks, companies exploit the technological tools to be in touch with the network (many-to-many marketing), rather than the single guest (one-to-one marketing).

Other scholars (Sparks, So, & Bradley, 2016; Hua, Morosan, & DeFranco, 2015; Koseoglu, Rahimi, Okumus, & Liu, 2016; Della Corte, 2018) study the role of ICT not only to catch new customers but also for customer retention strategies, since ICT tools can support the managers during and after customer experience. For examples, managers have the opportunity to respond to both positive and negative reviews, giving the right voice to the company vision.

"Innovation, then, is not necessarily the creation of a new technology and can arise more frequently in the expression of entrepreneurial behavior that manifests itself in unexpected ways and unexpected but welcome from the market" (Valdani, 1996). Innovation, and creativity, in this optic, are bound to and require knowledge: this aspect is often misunderstood or skipped in the literature. However, knowledge is important since it helps the heuristic process of exploration beside exploitation in innovation and dynamic capabilities can help this process.

This vision requires the adoption of open innovation in the hotel industry, that explains the transition from closed systems to open systems (that are the systems that interact dynamically between them and with the external environment) and that has changed firms‟ strategic paths, more and more based on relationships with other companies in the context of creative management, through the development of common ideas, strategies and policies in processes and services‟ implementation.

Museums and open innovation. The role of aspect-based sentiment analysis

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Giovanna Del Gaudio

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Vincenzo Moscato

Professor, Federico II University of Naples

Alessio Botta

Professor, Federico II University of Naples

Antonio Galli

Phd, Federico II University of Naples

Abstract

The purpose of this paper is to examine the role of artificial intelligence for elderly in the light of open innovation.

The dynamic world of ICT and its tools are nowadays of paramount importance in numerous industries. The growing opportunities, caught by the firms, can influence their financial results. This is particular true for firms operating in the service sector, such as the museums where the digital transformation can be supportive at different levels of the organization. While numerous works concentrate the attention on the importance of digital technologies, during the museum experience able to facilitate the engagement (Kidd 2014; Patel et al., 2015), this paper aims to use big data analytics approach in order to understand the museum visitor experience and satisfaction. The utility of big data analystics has been extensive studied in the tourism industry with particular reference to the hotels, but little works have explored the topic of big data analystics in the museum industry (Chae & Goh, 2020).

Big data stream of research has gained a growing attention in different fields and sectors of social and business life. As regards the tourism sector, literature has showed particular attention on the hotel while little focus has been found in the museum industry.

The importance of real time data mining is connected with the strength of online tools and platforms (i.e. Facebook, Twitter, Google, etc.) which allow to gain the competitive advantage through the exploitation of online users reviews and activities.

The Effect of R&D Management Competency on Researchers' Satisfaction from the Perspective of Open Innovation

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2 National Research Council for Economics, Humanities and Social Sciences, Sejong-si 30147, Korea;

3 School of Business, Hanyang University, Seoul 04763, Korea;

Abstract

Today's managers and administrators need knowledge and experience of open science, equality and diversity, ethics and public engagement — as well as of more conventional areas such as accounting, project management and research policy.

In the case of Korea, R&D management competency evaluation has been conducted from 2020 to improve the R&D management competency and service level of the researchers' in non-profit institutions overall research activities.

The purpose of this study is to suggest various ways for improving the evaluation system based on the survey and analysis of the R&D management competency evaluation results in 2020.

This study focuses on three questions: First, is the non-profit institutions' R&D management competency efficient? Second, is R&D management competency evaluation contributing to the enhancement of the R&D management competency and service level of non-profit institutions? Third, how can the efficient operation of the R&D management competency evaluation system be improved?

This study aims to present policy implications for the improvement of the evaluation system through a survey of R&D management competency evaluation results and hypothesis verification through statistical analysis.

As for major literature reviews, first, from the perspective of Open Innovation (OI), domestic and foreign prior research related to 'creativity of scientists and engineers' and 'creation of autonomous research environment to promote creativity' was examined.

For example, Wang-dong Kim(2008) argued that research funding, research organization, research cooperation, and research culture are important factors that affect the creativity of scientists and engineers, and the designing of an administrative organization that maximizes their creativity.

Analysis of technology trends by technology fields of Korea: With focus on patentees of registered patents.

Youeil KIM

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EuiSeob JEONG(Corr.).

Ph. D., Seoul Capital Areal Area Branch, Korea Institute of Science and Technology Information, South Korea

Abstract

Using registered patents in Korea, technology trends related to patentees were analyzed time-sequentially. The period of analysis of registered patents was limited to 2001 to 2020. Looking at the number of registered patents and the number of patent holders by year, the number of registered patents increased 3.9 times and the number of patent holders increased 4.0 times during the period, showing a similar overall trend. Looking at the distribution of the number of patentees per patent for the corresponding period, the lowest was 1.077 and the highest was 1.133. According to the analysis, the average number of patentees per patent was constant from 1.08 to 1.09 until 2007, and then it remained constant at 1.12 from 2009, showing a change from 2008 onwards. Next, the distribution of the number of patentees by technology field was analyzed. The technology field classification used at this time followed the technology area classification proposed by WIPO. According to the result, the number of patentees per patent by technology field ranged from a minimum of 1.046 to a maximum of 1.290. A linear regression analysis of the number of patents per technology field and the number of patent holders per patent shows a negative correlation. That is, as the number of patents increases, the number of patentees decreases. This can be interpreted as a tendency to share patent rights less in the technical field that pursues the exercise of industrial rights more. However, However, there was also a field (Civil Engineering) that showed a tendency to deviate from the result. Civil Engineering had a higher number of patents than the average by technology field, but the number of patentees per patent showed the highest value (1.290), showing a different appearance. Excluding this field, the maximum number of patentees per patent is lowered to 1.216.

Keywords: Technology Trends, Registered Patents, Patentees Distribution, Time Series Analysis, Linear Regression Analysis

Reference:

1) JinHyo Joseph Yun, EuiSeob Jeong, Xiaofei Zhao, Sung Deuk Hahm and KyungHun Kim, Collective Intelligence: An Emerging World in Open Innovation, Sustainability 2019, 11(16), 4495; https://doi.org/10.3390/su11164495 - 19 Aug 2019

Analysis Open Innovation Trends based on the Transaction Data of Global Bio-companies

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JaeYoung Yoo

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Abstract

In the business environment, there are limits to continuing innovation in business activities with only internal resources, so open innovation that utilizes external resources has emerged as a new paradigm. An innovation platform was developed as a strategic alternative for efficient promotion of open innovation and performance management. In this process, companies create various types of trading relationships for business activities and form a value chain.

Companies must also secure a structural advantage within the industry by identifying and analyzing market conditions so that they can seize a sustainable competitive advantage and maximize their profits. Various relationships such as customers, suppliers, competitors, and partners based on transaction data consisting of direct and reverse relationships, including purchase and sales relationships between companies of global companies that can understand the industry structure of companies. By analyzing the types, the characteristics of the company's trading activities were examined. In particular, we analyzed the characteristics and trends of companies in the bio field, which are attracting attention as future industries.

Using the network analysis methodology between companies, the relationship between companies that have secured structural superiority in the industry was identified and the related status was analyzed. These analyzes can also be used as reference information necessary for establishing strategies for SMEs and mid-sized companies in the industry. In the network analysis, the structure and characteristics of the entire network, the properties and relative meaning of each node were calculated as data using indicators such as network density and centrality. Network indicators such as degree centrality, betweeness centrality, and closeness centrality in the network were presented, and various characteristics of the industrial structure were derived by identifying the current status of relationship superiority in the industry, and the relationship between companies securing industrial structural advantage and relationships between companies was analyzed.

Keywords: global company, transaction data, network analysis, statistical analysis, degree centrality, betweeness centrality

Comparing the Perspectives between Humans and AI Chatbots: Water Pollution Solutions Through Open Innovation

Yoonseo Jung

Carbondale Community High School, IL, USA

Abstract

Human-biased decision-making prevents ideal optimal solutions to complicated environmental issues due to competing values and interests. Humans often lack a holistic viewpoint because humans are susceptible to bias and lack knowledge and information. On the other hand, the recently developed AI Chatbots have much more power of knowledge and less politically biased perspectives compared to humans. AI chatbots based on big data rational analysis and massive data sources may provide more diverse and balanced objective views than humans. Comparing and combining the humans and AI perspectives provide more holistic and less biased views than human perspectives alone.

The purpose of this research is to compare and combine human and AI chatbot perspectives on water pollution. This study analyzes differences and similarities between human and AI chatbot perspectives on environmental issues, particularly water pollution in Illinois. Recent water pollution incidents in Illinois highlight the need for a comprehensive and unbiased approach to reveal hidden aspects and competing biases. Comparing human and AI chatbot responses may highlight the need for an unbiased, comprehensive approach. This comparative approach can identify areas of agreement, disagreement, and potential biases and foster constructive stakeholder dialogue for balanced environmental solutions. The study utilizes Q-method and AI-based inquiry to uncover hidden neglected opinions on water pollution in Illinois.

Prior studies focused on environmental stakeholders, education, and campaigns from a human perspective. However, empirical research on the differing perspectives of humans and AI chatbots on complex environmental issues is scarce, despite recent interest in AI chatbots' potential for providing environmental information. Comparative research on the differences and similarities between human and AI perspectives is essential. A Q-method approach utilizing AI chatbot responses can reveal hidden views that exist in human judgments due to bias, with AI judgments free from human environmental perspectives. Q-methodology is a useful tool to identify both similarities and differences among viewpoints on complex environmental issues. It helps in developing effective interventions that consider diverse perspectives and uncovers hidden and various views through a comprehensive understanding of environmental issues.

Social Arts Market and Open Innovation: Facilitating Community Innovation and Global Collaboration

Yoonseo Jung & Risa Bhaumik (rising seniors), Justin Merriman (History faculty)

Carbondale Community High School, IL, USA

Abstract

Open innovation and community innovation can be harnessed through the social arts market. To facilitate idea exchange and collaboration, global NGOs can partner with community organizations and high schools to promote innovation in African countries. Auctions and festivals featuring community artist groups can also be leveraged to create connections with global NGOs. This approach offers novel opportunities for open innovation, enabling diverse stakeholders to collaborate and address real-world challenges more effectively. By embracing open innovation in the social arts market, we can promote community innovation and create a more connected and equitable global community.

Our case study approach yielded two key findings. Firstly, auction festivals and social markets can influence consumer behavior and preferences. Participants were more willing to bid higher for items perceived to have higher value and social status. This insight sheds light on the dynamics of the social arts market and the role of auction festivals in promoting community innovation. Secondly, collaborative learning networks can facilitate knowledge sharing and the exchange of best practices among participants, leading to innovative social market solutions. This finding highlights the importance of collaborative learning networks in fostering community innovation and promoting social impact.

Further studies utilizing network analysis can provide deeper insights into the dynamics of the social arts market and the factors that contribute to community innovation. By leveraging open innovation and community innovation approaches, we can continue to advance the social arts market and create positive change on a global scale.

Keywords: Social Market, Arts Market, Global Collaboration, Community Innovation, Open Innovation

Do Powerful CEOs Aggravate the Corporate Fraud of Listed Companies?

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Abstract

Companies not only generate profits but also undertake certain social responsibilities and contribute to social development. However, financial scandals such as that of Lehman Brothers, Enron, and WorldCom, have shocked the world, considerably harming the interests of stakeholders and hurting public confidence in the stock market (Giannetti & Wang, 2016). By undermining investors' confidence in financial markets, corporate fraud reduces household investment in risky financial assets. Thus, corporate fraud may cause a profoundly negative externality to the entire financial system (Niu, Yu, Fan, & Zhang, 2019).

In the first half of 2019, a total of 195 corporate fraud cases were detected in the Shanghai and Shenzhen Stock Exchanges. The corporate fraud categories mainly include disclosure, major omissions, and false records (misleading statements). Some scholars believe that the phenomenon of listed-corporate-fraud occurs frequently and continues unabated. In recent years, corporate fraud has emerged intensively, harming the interest of investors (R. Lu & Chang, 2018). Corporate fraud damages investor confidence, reduces shareholder value, causes the irrational allocation of capital, and increases financial market instability. This situation has led scholars to research the factors influencing the possibility of fraudulent acts and their detection (Khanna, Kim, & Lu, 2015). When corporate fraud occurs and is detected by a regulatory agency, such as the China Securities Regulatory Commission, the stock prices of the fraudulent company, as well as other companies in the same group, fall significantly (Liu, Xu, Rao, & Chen, 2019). Therefore, exploring the factors influencing factors listed-corporate-fraud is vital to prevent corporate fraud, protect stakeholder interests, and regulate company behavior.

The three elements of the fraud triangle theory are motivation or stress, opportunity, and attitude or rationalization. This theory was first developed by Sutherland (1949) and Cressey (1950, 1953). Cressey hypothesized three criteria for criminal violations of trust: 1) a non-shareable financial problem; 2) knowledge of the workings of a specific enterprise and the opportunity to violate a position of trust; and 3) the ability to adjust one's self-perception such that violating this trust does not constitute, in one's mind, criminal behavior (Dorminey et al., 2012).

Comparative analysis of customer usability of mobile food delivery applications -Focused on BaeMin, Hungry Panda-

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Taesun Kim

Corresponding author: Prof. Researcher, Hanyang university, South Korea

Xintong Ma

Master, student, Hanyang university, South Korea

Hongyuan Zhao

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Abstract

The number of mobile apps has begun to grow as a result of the quick adoption of smartphones as an integral element of daily life. One of them is the O2O form of operation of the Delivery app, which has gradually increased. In order to increase the product's competitiveness, many people, types of food, modes of operation, and other subdivisions of foreign cuisine based on foreign Delivery apps were also launched, and these apps have now become a modern young person's fast-paced life necessities.

With a market share of 57.7%, Baemin is among the most competitive delivery apps in Korea. Half of Koreans, on average, utilize the program, according to some estimates. The site of Hang Lei Panda's product is distinct from Baemin's, though. It is a Korean delivery app with a considerably smaller user base than BAEMIN that specialized in Chinese cuisine and offers services there.

There could be certain challenges using Delivery software due to the various types and characteristics of the program as well as the diverse users. Therefore, the goal of this study is to evaluate the usability of the niche foreign Delivery app (HUNGRY PANDA) in Korea in comparison to the mainstream Korean Delivery app (BAEMIN), as well as to find solutions to the issues that users run into in order to make a niche app like HUNGRY PANDA competitive in the market.

Purpose/ Research Question:

1. Which software, HUNGRY PANDA or BAEMIN, is preferable to use?
2. How do HUNGRY PANDA and BAEMIN appear to users psychologically?
3. How do HUNGRY PANDA and BAEMIN users differ from one another?
4. Are there any features in either app that could be improved? If so, what particular characteristics?

Driving Transformational Change in Digital Healthcarewith Design Thinking

Hongyuan Zhao

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Taesun Kim

Corresponding author: Prof. Researcher, Hanyang university, South Korea

Xintong Ma

Master, student, Hanyang university, South Korea

Jingze Piao

Master, student, Hanyang university, South Korea

Abstract

The rise of the information age and the wave of digital information are altering how people live and work. The way people live is also being impacted by digital technology in numerous additional ways. The healthcare service experience is changing as a result of the digitization wave. Many nations and areas have already begun experimenting with digital healthcare before COVID-19. Information interoperability is a new trend in the evolution of healthcare that aims to make people's consultation and treatment more practical, intelligent, and effective. Additionally, digitization will improve the efficiency and intelligence of the medical environment.

In this paper, we will discuss the application of design thinking in the healthcare industry from the perspective of experience design, service design, and inclusive design and explore the digitization of healthcare. Increasingly, healthcare is delivered through digital applications instead of physical facilities, such as mobile applications, health data software, and wireless medical devices. This paper examines the potential of design thinking in digital health care by inviting medical experts, designers, health industry practitioners, and patients to explore the possibilities of design thinking in digital health care from the perspective of stakeholders, including medical experts, designers, and health industry practitioners.

Design Thinking, a theory first developed by the Hasso-Plattner Institute of Design at Stanford University. Design thinking emphasizes the need to design systems around the needs of people by observing the way they do things and thus their real needs.(Meinel, Leifer 2018, P.13) Design thinking is a continuous cycle of understanding user needs, challenging existing assumptions, redefining the problem based on new knowledge and experience, and finding more solutions to the problem. Design thinking aims to gain a deeper understanding of our target users and help us build empathy.

Importance of News Media Branding in a Contemporary Media Environment

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Abstract

The media industry is experiencing the most extensive transformation in its history due to digitalization. Academics and professionals in various fields, such as media economics and management, sociology, and marketing, have widely studied the implications of digitalization in the media sector. However, academics' interest and focus on digitalization's impact on the media vary. Still, there is consensus among academics that the media has been transformed, and a media environment of the 21st century has emerged. In well-established media and audience relationships, the third participant entered the 21st-century – platforms, becoming a significant channel of media content distribution and consumption. Both practitioners and academics agree that significant changes in how media content is produced, distributed and consumed are behind the most substantial changes in the media environment. Platforms, such as social media platforms, play a crucial role. The introduction of platforms and rising multi-platform content distribution tactics also created a previously unheard-of media content consumption pattern: technological advancements let audiences consume whatever they want and on the platform they prefer. In literature, it is defined as on-demand content consumption. Today's media environment promotes deluding news media brand attributes, weakening the news media brand. The significance of the brand of news media is undeniable, with many confirmed positive effects on news media outcomes – credibility, audience loyalty, and financial performance. Brand uniqueness and strengths are mandatory in oversaturated and highly competitive news media environment. Consequently, it is reasonable to suppose that news media confront both difficulties in brand attribution and a growing need to sustain and establish strong brands in the media environment of this century. The younger the audience, the more their news consumption habits are on-demand, social media platforms oriented. The younger audience is even more content consumption- experience oriented, caring less about the media brand that produced and distributed news. The research shows that news consumption depends on the moment, platform and person for the younger audience. The transition from a media environment dominated by direct discovery to one increasingly defined by distributed news consumption has several potentially essential effects on the flow of communication.

Artificial Intelligence Application for Business Needs: Challenges and Opportunities

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Abstract

Nowadays, the use of "smart" ("intelligent") technologies and solutions (Internet, automated databases, apps, sensors, virtual reality, artificial intelligence, etc.) can be observed in several industries and fields. They increasingly replace human work, sometimes it is possible to achieve the desired result faster, easier, and more efficiently without even lifting a finger. All this can be done thanks to technologies that have reached such a high level of development that they are able to predict our actions even several steps ahead. This is possible with the help of artificial intelligence, which is increasingly entering our lives and is no longer just a phenomenon observed in science fiction films.

The purpose of the paper is to to identify the most significant factors which impacts application of AI for business needs and to identify potencial business areas for what AI can be useful.

The term "artificial intelligence" (AI) was first mentioned in the 1950s, although the idea arose much earlier. Today, it has evolved to a state where software can perform many human tasks. People have different views and definitions of AI; one view is that artificial intelligence is an extension of human intelligence and machine learning is like human learning [1]. Russell and Norvig (Peter Russell, Stuart Dz. Norvig) in their book Artificial Intelligence, a Modern Approach divided the definition of AI into four categories. They mention that these categories are based on two main dimensions, thought process and behavior. Two definitions are based on contrasting a machine with a human - systems that think like a human and systems that act like a human [2]. There are several definitions of AI, but they can be combined into one: artificial intelligence is an artificially created system of information technology, the basic purpose of which is the reproduction of various or all abilities of human intelligence, such as planning, learning, reasoning, problem solving, operations with data, perception of objects, control, and manipulation and to a much lesser extent social intelligence and creativity.

The impact of open innovation activities on the innovation outcome : According to the development phases of Small and medium companies

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Abstract

The purpose of this study is to analyze the positive ESG image factors of start-ups using big data analysis technology in the era of the 4th industrial revolution to provide positive solutions for education and preparation of prior learning. In terms of ESG (Environmental-Social-Governance), we provide a stable management solution based on the results of big data cloud word analysis through Python coding of ESG start-up related data that management activities should contribute to the continuous development of society. As a result of the research, the main keywords of the MZ generation preparing to start a business are identified in the order of company, support, business and society, investment, management, etc., suggesting careful consideration in preparing for starting a business. For MZ generation members preparing to start a business, we will minimize failures and contribute to solving employment, which is a major social issue, through big data technology management. In the future research direction, it will be necessary to prove the positive impact of ESG start-ups by specifying key keywords as variables, correlation of adjustment and mediating effects, factor analysis, reliability analysis, and regression analysis.

With the development of information and communication technology, the boundaries between industries have become blurred, and convergence is emerging as a new paradigm for technological innovation. As the fourth industrial revolution, represented by digital transformation based on ICT technologies such as artificial intelligence (AI), big data, blockchain, and industrial Internet of Things (IIOT), is drawing attention and the development of technologies for the fourth industrial revolution is underway, companies are expected to experience various new business opportunities and are making various strategic decisions for continuous growth, including entry into overseas markets, M&A for related and non-related diversification, direct investment in new businesses, investment in new technologies, and securing innovation capabilities. The start and notification of the 4th Industrial Revolution was prepared and started at the Davos Forum, the 46th World Economic Forum, in January 2016. All similar innovations declared that as a starting stage, they were close to the starting point of growth in developing each field based on technology and safety convergence in the fields of physics, analog to digital change, and biology.

A Study on the Knowledge Flow and Transformation Mechanism of Open Source Platform Base on SECI Model

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Abstract

As a typical knowledge sharing platform, there is a lot of knowledge and extensive knowledge sharing in the open source platform (Nobuyuki,2021). Information technology and internet tools play an important role in knowledge management. Grasping clear knowledge flow and transformation process is very significant for open source platform knowledge management and the development of "industry-university-research cooperation".

1.SECI Model. SECI Model was developed by Nonaka and Takeuchi in their book The Knowledge-Creating Company in 1995. Nonaka believes that knowledge can be divided into explicit and tacit, that tacit knowledge and explicit knowledge can be transformed into each other, and proposes the SECI knowledge transformation model, which suggests four ways of knowledge transformation. Socialization, is a way of transforming shared experiences into tacit knowledge. Externalization, a way of expressing tacit knowledge as explicit knowledge, such as concepts or diagrams. Combination, is a way of assembling new and existing explicit knowledge into systematic knowledge. Internalization, is the embodiment of explicit knowledge into tacit operational knowledge.

2. Open source platform and basic operating mechanisms. As a typical group software development platform, developers from different countries and backgrounds join the platform and cooperate with other developers for mutual benefit, emphasizing free and open source code to attract more people to become platform participants, and the accumulated software data and products will become the shared resources of the platform. Lee (2017) studied the staff allocation strategy and organizational structure of open source project organizations in the GitHub platform from the perspective of resource allocation.

An Introduction to Data Valuation

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Abstract

As the importance of data is emphasized, the need to create economic value from data and create a foundation for the development of the data industry is being emphasized. Data with economic value generated by data producers with a significant investment should be protected, and it is critical to clearly valuate the related economic value from this perspective. However, there is no advanced data valuation methodology tailored to the characteristics of the data yet. Therefore, this paper presents a model of data valuation to utilize to measure the economic value of data.

General approaches to obtaining a technology valuation include an income approach, a market approach, and a cost approach. Although market approach models are recommended methods since they are the models that reflect the current status of the actual technology market, it is somewhat difficult to apply the market approach models in practice since it is not so easy to find similar technology transfer or deal cases. Due to the above circumstances, the DCF-based income approach model and the royalty payment saved model are the most frequently used models among several valuation models. These are methods of calculating the value of the technology by taking into account the cash coming in such as sales and cash going out such as investment during the economic life of the technology, adding the present-valued cash flows for each year, and multiplying the technology's contribution. When valuating data other than 'general' manufacturing technology, data valuation can be performed based on the three main approaches. [1-3]

Figure 1 shows an equation of data valuation. In the DCF-based technology factor method, technology values are calculated by multiplying the sum of present-valued future cash flows to be generated through technology utilization by technology contribution. This paper introduces a concept of data contribution variables instead of technology contribution variables with applying the logic of the DCF-based technology factor method to data valuation. It is premised that the number of data utilization years (the economic life of data), expected sales and costs during the economic life of data are reflected, using the business plan of the commercialization entity.

Managing and innovating business models in Social Purpose Organizations (SPOs): the role of social robots

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Abstract

Up to date, social purpose organizations (SPOs) and particularly those embedded in the cultural heritage sector, operate in a hyper-competitive environment and are likely to introduce and develop a Business Model Innovation (BMI) to increase their ability to satisfy social/economic objectives (Choi, 2020). Cultural organizations started to integrate the arising digital technology into the BM to intensify cultural inheritance and development. Even if there have been several studies on the application of Industry 4.0 (I4.0) tools in the cultural heritage sector (Peñarroya-Farell & Miralles, 2022), there emerges a gap in how I4.0 tools may favor BMI and how these technologies may be effectively enforced in the cultural heritage domain, in terms of creating value, adding competitiveness and revenue. Starting from these considerations, this paper advances research on BMI towards the use of digital technologies in the cultural heritage sector, by building a conceptual framework aimed at identifying the major antecedents to BMI (environmental complexity, internal drivers, and systemic networks), the substance of BMI (digitalization), and the outcomes of BMI (increasing customer value and new value creation).

Starting from these premises, to study the BMI within the SPOs context, we deepened the theoretical approach related to the dynamic capabilities view (Teece, 2007). Dynamic capabilities refer to a subset of capabilities directed toward strategic change, both at the organizational and individual level (Helfat & Raubitschek, 2018). According to Teece (2007) dynamic capabilities are viewed as the ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Prior research has highlighted that capabilities allow managers to modify the use of resources and activities to create a higher value (Eisenhardt & Martin, 2000). Through the new configurations of capabilities best suited to exploit both resources and activities, companies can evolve and implement their innovation competencies. Furthermore, Teece (2018) argues that dynamic capabilities can enable firms to create and capture value by designing appropriate BM.

Measures and practices for digital transformation in SMEs of Japan

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Abstract

Keywords: digital transformation; Japan; SMEs

Digital transformation is a driving force for global economy as well as for Japan's growth. Japanese government has adopted a gradual approach to form a digital society and in 2000 enacted the Basic Act on the Formation of an Advanced Information and Telecommunications Network Society for forming an advanced information and telecommunications network society to transform and build a common foundation for a digital society.

However, in Japan, the progress of digital transformation in industries varies depending on the industries and companies. What are the problems to hinder the progress of the digital transformation?

This paper aims to analyze the practices of digital transformation on sustainability of business in Japan and discuss about the problems to hinder the progress especially in SMEs by showing empirical surveys.

Digital transformation (DX) is the process of disruption caused to an organisation by digital technologies, the impact of which is enormous on the value creation, strategy and structural mechanisms of the organisation (Vial, 2019).

According to the analysis presented by Maier (2017), the countries where SMEs have been most successful in adopting new technologies have coherent government strategies in place to support them, for instance, Germany (Industrie 4.0), China (Made in China 2025), and the USA (America Makes).

Braettel (2014) and Dallasega (2017) pointed out, how digital integration and real-time data monitoring can be realized in practice.

Productivity improvement and other reforms through the use of ICT, which contributes to higher labor productivity, has been gaining momentum in various countries over the past few years. In 2010, Germany introduced "Industry 4.0," and various concepts and keywords have been presented in various countries. In Japan as well, Industry 4.0 and other concepts and keywords have been used.

Challenges and Opportunities in Human Resource Development of Myanmar Engineers Working in Japan

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Abstract

This paper aim to investigate the Human Resource Development of Myanmar Engineers Working in Japan. Especially, analyze their challenges and opportunities. It adopted a qualitative approach purposive sampling strategy to target key participants. The findings show that most respondents need to provide training before work to Japan. They realized difference social, educational environment system. Some Japanese companies have long-term HRD practices have seen an impact on their organizational performance as well as increased engineers' skills.

Keywords: Skilled migrant, Entrepreneurship, Myanmar engineer

Purpose

To analysis the challenges of working in Japan.

To present the preparing before working in Japan

To analysis the expectation of personal improvement and future development of Myanmar.

Research Question

Do you think it is better to work in Japan?

- F. Docquier, 2007 pointed that skilled emigrants continue to affect the economy of their original country. Such possible feedbacks include migrant's remittances, return migration after additional skills have been acquired abroad, and the creation of networks that facilitate trade, capital flows and knowledge diffusion.

- Innovation is the successful exploitation of new ideas (department of innovation universities and skills 2008), and involves both ideas generation and commercialization (Fagerberg 2005).

- Skilled migration may also have wider, indirect effects on innovation. If migrant entrepreneurship leads to significant new firm entry, this may lead incumbents to innovate.(Max Nathan, 2013)

- Education System of Myanmar (Ministry of Education)

Knowing what kind of open innovation and Who am I, it goes to succeed

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Abstract

The open innovation strategy is significant to the bio-pharmaceutical firms (Dougherty, 2017). In the biopharmaceutical industry, corporate open innovation is no longer an option, but an essential strategic option. Existing studies related to open innovation in the biopharmaceutical industry have focused mainly on 1) strategic aspects, 2) operational management aspects, and 3) structural and design studies of open innovation. In addition, the existing studies related to open innovation of pharmaceutical bio companies have been conducted in various ways, the studies conducted so far are fragmented and do not present an integrated result.

Therefore, this study examines the performance factors of biopharmaceutical companies through open innovation. It intends to present a performance creation model for the Korean biopharmaceutical industry and its managerial and policy implications by empirically analyzing Korean cases based on the performance factors.

In the biopharmaceutical industry, corporate open innovation is no longer an option, but an essential strategic option. Deloitte (2015) analyzed 281 global biopharmaceutical companies from 1999 to 2012. As a result, the probability of success in the final drug development of companies using an open innovation strategy was more than three times higher than that of companies using a closed innovation strategy (Deloitte, 2015) The purpose of open innovation is "to accelerate internal innovation and expand the market for external use of innovation by properly utilizing the knowledge flow inside and outside" (Chesbrough, 2006). Open innovation includes 1) producing and marketing technologies developed within the enterprise, 2) developing technologies that can be commercialized by external organizations, or 3) developing technologies that can be commercialized by absorbing them internally.

Developing on the interface design of Time Bank web-side based on user experience

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Abstract

With the rapid development of mobile network technology, users' demand for mobile network products is also increasing. The development of smart phone functions is also becoming more and more recognized by the majority of users. app is connecting people with everything in society in more and more diverse forms. the reason why app has become the theme of today's society is inseparable from people's habit of using cell phones, and the operation and development mode of app. The use of time banking as a practical solution for App interaction design is based on the inability to find a reasonable way to balance and solve the contradictions and problems brought about by today's rapidly developing society and economy. As a tool system, its purpose and meaning is to remind people to cherish their time and plan and use it wisely. Then the development and design of the app must take the human behavior habit as the starting point. Although as of now time banking utilizes web technology, the lack of flexibility in managing web-based time banking transactions is addressed by taking advantage of the unique features of smartphones and their appeal to users.

In recent years, the rapid development of information network technology and the popularity of smartphones have accelerated the development of mobile Internet (He Xinzhou 2015), and as of January 2021, the size of the world's Internet users reached 5 billion, and the Internet penetration rate reached 59.5%. The size of mobile Internet users reached 1.695 billion, with growth rates exceeding 10% for three consecutive years. The usage rates of desktop computers and laptops are declining, and cell phones continue to crowd out the use of other personal Internet access devices (Global Internet Information Center 2021).

Biomedical Innovation Strategy for Catching-up with Leading Companies : A case of Pre-clinical Test Industry

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Abstract

Korea's pre-clinical test industry has a short history, however it has potential for growth. To create a pharmaceutical industry ecosystem, Korean government has selected 'fostering of the pre-clinical test industry' as a key policy for their growth. Nevertheless, there are a few studies on the development of the pre-clinical test industry. Therefore, this study provides managerial implications for the development strategy of the pre-clinical test industry and contributes to suggesting practical strategies.

A phenomenon in which latecomers catch up with first-movers has been observed in most industries (Lee and Malerba, 2017). Their study and many follow-up studies (Lee et al., 2018; Lee et al., 2021; Krishna, 2022) show that this shift in industry leadership is observed in almost every industry. However, it does not make sense in the field of biotechnology. In particular, pharmaceutical companies in the US and Europe have maintained a leadership position over a history of about 150 years (Cooke, 2003). Recently, the pharmaceutical industry in Asia is growing based on generics and biosimilars, but the leadership in the industry is not expected to change much compared to other industries.

From a catch-up perspective, the pharmaceutical industry has the following characteristics. First, the pharmaceutical industry is a science-based industry, not an engineering-based industry. It takes a lot of time and money in the R&D stage. Since it is difficult to secure competitiveness without long-term intensive investment in basic science, new entrants rarely occur (Schilling, 2002). Second, since technology in the field of pharmaceuticals is not an aggregation of various stages of know-how, but a product of scientific discovery, protection by intellectual property rights is essential. Third, the pharmaceutical industry has high initial investment costs and the domestic market is not sufficient, so government support is essential.

Society of Open Innovation Technology, Market & Complexity

Linking HR's entrepreneurial orientation and networking capability to innovation performance: From the strategic perspective

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Abstract

This study examines the effects of HR's entrepreneurial orientation on networking capacity, focusing specifically on the moderating effect of strategic orientation.

1. Knowledge-based HRM practices

KM refers to the act of strategically utilizing stocked knowledge assets through the creation and share of knowledge by the employees of the firm (Alavi and Leidner, 2001). Given the human and their interactions on the basis of knowledge-related processes in firms, knowledge management can be shaped by HR practices. (Ozbag, Esen and Esen, 2013; Sung and Choi, 2018; Swart and Kinnie, 2013; Wright et al., 2001). HRM practices focus on people's ability (A), motivation (M), and opportunity (O) as a source of sustained competitive advantage (Lawler, 1992), and emphasize individual human capital ability, commitment, and voluntary motivation (Lepak, Liao, Chung and Harden, 2006). From an organizational learning theory perspective, HRM practices improve organizational performance by influencing knowledge creation, transfer and sharing, and feedback process (Shipton, West, Dawson, Birdi and Patterson, 2006).

HRM practices enable innovation through the creation of knowledge through processes such as training, participation, and others (Collins and Smith, 2006). HRM practices are seen as complementary practices that work to create a process that supports knowledge stock and flow (Chuang, Jackson and Jiang, 2016). Previous studies have established knowledge stock and flow as the core factor between core competencies of the firm, such as human management practices and innovation capabilities (Makela and Brewster, 2009; Sung and Choi, 2018; Tallman and Chacar, 2011). In this study, knowledge-based HRM practices are classified as stock-building and flow-facilitating practices based on these previous studies.

2.1 Stock-building HRM practices and absorptive capacity

The knowledge stock, which comprises the pool of human capital, consists of the knowledge, skills, and abilities of employees (Rupietta and Backer-Gellner, 2019; Wright et al., 2001).

Towards Sustainable Manufacturing: Understanding the Key Determinants of Pro-environmental Behavior in Manufacturing Firms

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Abstract

As the global economy has rapidly developed in conjunction with the competition among manufacturing companies, economic growth through manufacturing has brought material prosperity. However, it has also created environmental problems such as an increase in harmful waste and changes in abnormal climate due to global warming, which are recognized as serious threats to human society. To date, research on environmental policy or behavior in Korea has mainly focused on residents' acceptance and evaluation of environmental policies, as well as factors influencing policy participation. However, there has been little research on environmental behavior among Korean companies, particularly in the manufacturing sector. Therefore, this paper aims to analyze the factors influencing pro-environmental behavior intention among small and medium-sized enterprises (SMEs) in the manufacturing industry. We conducted a survey targeting the CTOs and executives of 517 Korean SMEs and analyzed the survey results using structural equation modeling. The validity, discriminant validity, and model fit of the structural equation model were confirmed. The results showed that Awareness of Consequence and Ascription of Responsibility had a positive and significant effect on Personal Norm. In addition, Personal Norm, Extrinsic Motivation, and Realistic Value had a positive and significant effect on Pro-environmental Behavior Intention, while Subjective Norm did not have a significant effect. This study contributes to the establishment of environmental protection policies and sustainable manufacturing strategies by analyzing the factors influencing pro-environmental behavior intention among SMEs in the manufacturing industry.

Would collaboration make research team to less depend on their leaders? Analysis on the performance of single and multiple leadership

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Abstract:

Collectivistic approach to leadership became an intriguing subject of study in the field of organizational behavior, as interorganizational research consortium settled as a common form of research team in public R&D projects. A public R&D consortium requires to have Principal Investigators (PI) for each organization, yet this consortium often contains multiple organizations from different sectors calling upon an issue for how to distribute their leadership among PIs. This study aims to expand understanding of the literature in the leadership by investigating how characteristics of PIs differentiated with the presence of a single and multiple leadership in the context of interorganizational research projects. In this regard, this study analyzes public biomedical R&D programs in South Korea, where the practice of shared leadership can be observed through close relationship between hospitals and enterprises as they aim to share and acquire knowledges for product development. This study found that that collaborative projects with multiple leaders are less dependent on PI's capacity than non-collaborative projects with a single leader in terms of academic performance. Also, PI's characteristics make different impact on academic quantity and quality. These findings can expand knowledge in innovation studies and improve research quality in the literature of interorganizational shared knowledge.

Keywords: Shared Leadership; Public R&D; Innovation quantity and quality; Principal Investigator; Collaboration

1. Introduction

Collectivistic approach to leadership became an intriguing subject of study in the field of organizational behavior, as interorganizational research consortium settled as a common form of research team in public R&D projects. A public R&D consortium requires to have Principal Investigators (PI) for each organization (Rossi, 1976), yet this consortium often contains multiple organizations from different sectors calling upon an issue for how to distribute their leadership among PIs. Although not many, previous studies in the literature of interorganizational multiple leadership have contributed to conceptual work (Endres and Weibler, 2020), case study (Lindgren and Packendorff, 2011), and even to empirical analysis (Gu et al., 2016; Martin et al., 2009; Müller-Seitz, 2012).

Open innovation and digitalization at service of senior citizens

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Abstract

The purpose of this paper is to examine the role of artificial intelligence for elderly in the light of open innovation.

Knowledge about elderly needs may help to find solutions satisfying the most disparate requests in healthcare. These solutions, of course, have to be affordable for everyone. Indeed, accessibility in terms of price, availability and easy-to-use are of fundamental importance to offer equal opportunity. However, due to the presence of some barriers, healthcare services and products have represented and, in some cases, still represents a mismatch between supply and demand. These barriers are basically due to labor issues such as labor shortages and increasing cost of labor in healthcare. Firstly, labor shortage of doctors and nurses in this field is labelled as universal, underlining the global geographical extension of this issue. High turnover level, constant retirement of medical staff and fewer entrance, lower availability of skilled workers in specialized fields of healthcare represents the main critical points of labor shortage both in short-run and in long-term (Lee et al, 2019). Secondly, the payroll growth, the high labor cost of human resources involved in the sector since their work is high knowledge and experience-based and the outcomes are measured through the performance of care as well as the satisfaction of the elderly patients and the members of the staff (Dudnik et al, 2021).

Thirdly, what appears to be common across countries are the strategies of restraint in the field of public healthcare. This has led to the establishment of alternative models that marked the transition from a more state-sponsored to a customer satisfaction–oriented model where orientation is towards market (Chae & Goh, 2020). These represent the real challenges in this sector but, at the same time, the impetuous for innovation.

Findings will contribute to shed more light on artificial intelligence for ederly's use in the light of open innovation.

Big Data analytics predicting Chinese tourists' intention to choose Latvia as a tourism destination to visit

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Abstract

The tourism industry has the characteristics of comprehensive and information-intensive. By integrating resources, the tourism industry can achieve more long-term development. However, the analysis of the current development of the tourism industry shows that there is an increasingly obvious problem of information asymmetry, coupled with the considerable amount of tourism information data, which makes data management more difficult. The implementation of big data analysis can enable Chinese tourists to share the motivation information of choosing Latvia as a tourism destination to a greater extent, and relevant tourism enterprises and governments can obtain the information in time, thus effectively reducing the operation cost and improving the operation efficiency. It is very beneficial to the healthy development of tourism industry to collect and integrate tourism motivation with the help of big data technology and to customize tourism programs for tourists according to their personalized needs.

The global events of the third decade of the 21st century prove that the specter of humanitarian problems caused by health and military crises is real, and even very probable. Contemporary tourist entities, however, are not doomed only to a destructive reaction, but can also assume a significant social role for humanitarian aid (Szromek & Polok, 2022). In recent years, the proliferation of web and social media platforms, as well as mobile, wearable, and sensor-equipped devices that make up the Internet of Things (IoT), has made possible the vision of living in a smart environment. Among the technologies that serve to support smart living, Big Data Analytics (BDA) has been identified as an essential building block for the creation of smart solutions (Zeng, et al., 2020). China is actively promoting the reform of its economic structure and industrial upgrade, and inbound outbound tourism constructs the high-quality development of China tourism (Zhou et al., 2020).

Technological acceptance modelling for promoting tourism destinations with METAVERSE

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Abstract

In tourism practice, METAVERSE uses the way of "space+technology+integrated innovation" to achieve integrated innovation of cultural and tourism scenes through the support of XR, blockchain, cloud computing and other technologies, to help the new experience of smart tourism, and to provide users with richer cultural and tourism, social, entertainment, consumption and other multiple application scenarios. Zhangjiajie builds an XR METAVERSE application platform based on the international standard XR+5G+T.621, which is stable, efficient, low latency, high-fidelity, full real-time, accessible to the Wulingyuan Cultural Tourism METAVERSE space at any place and any terminal device, and forms an open platform through integrating interactive play and mountain authorisation, so that tourists do not need to download. Through the website, you can start a "natural culture+technology" Qifeng flight. Taking Zhangjiajie METAVERSE Research Center as an example, by introducing the technology acceptance model, the article deeply studies how to use the METAVERSE to develop tourism industry, accurately grasp the development of Meta Universe tourism, provide theoretical and technical support for the digital transformation of tourism, and realize the digital transformation of tourism economy. We will better promote the new results of digital and intelligent development of tourism and create a "meta space" for tourism.

It is well known that technological change causes social change, and vice versa (Phillips, 2022). The choice of influencer marketing as an endorser for promoting products and services is becoming a more and more effective communication strategy of open innovation. Their use of social media platforms, such as Instagram, allows them to be reached by millions of followers all over the world (Ingrassia, et a., 2022). Smart hospitality has become an attractive project in tourism. Currently, research has studied smart technology as a contingency, but has neglected to conceptualize smartness and investigate its consequences.

Sustainability Condition of Post-Capitalism: -Finding from as Genova, Milano, and Naples where are roots of modern capitalism

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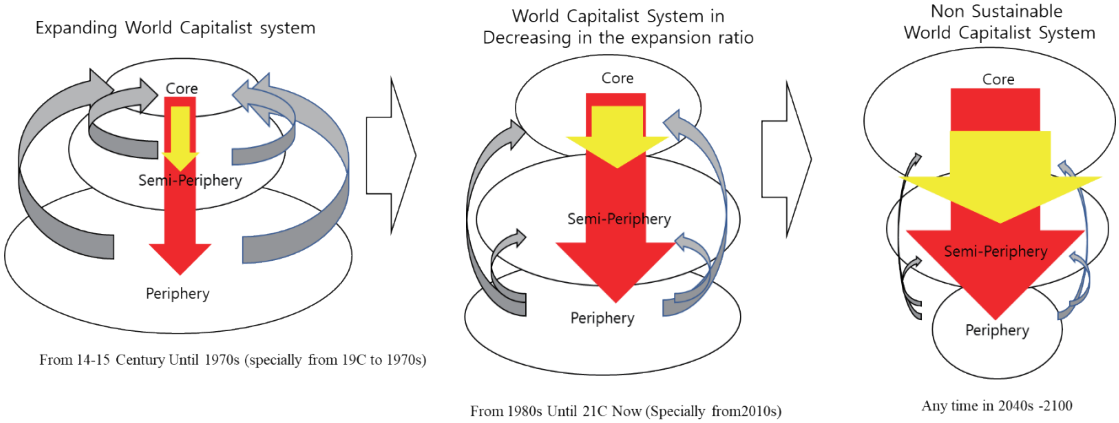
1. Research Question

- What is the sustainability condition of post-capitalism?
- How do we maintain the capitalism without capital with the rise of the intangible economy ?
- Where are our post-capitalism going to in this digital transformation which is based on a lot of platforms including sharing platforms?

2. Change of World Capitalist System



Open Data and Citizen Participation: The Case of South Korea

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Abstract

This study examined whether opening government data increases citizen participation, with a focus on the conditions that strengthen this relationship. Citizen participation and democratic accountability are often discussed as core benefits of open data (Janssen et al., 2012; Ruijer et al., 2017), and considerable research has inquired into the determinants of such data (e.g., Grimmelikhuijsen & Feeny, 2017; Kim & Eom, 2018; Schnell & Jo, 2019; Yang et al., 2015; Wang & Lo, 2019). However, empirical investigations of the effects of open data remain at the very initial stage. To address the gaps in the literature, the current work illuminated the following questions: Can open data foster citizen participation? Is this relationship moderated by the quality of an educational environment?

The open government paradigm, which has transparency, participation, and collaboration as its main conceptual pillars (McDermott, 2010; Moon, 2020), assumes the active participation of citizens in governance. Such participation has therefore been regarded in previous studies as one of the outcomes of open data. An example is the study of Jassen et al. (2012), who conducted interviews to determine the benefits and adoption barriers of open data and suggested that increased involvement and self-empowerment among citizens are the primary social advantages of open data. Ruijer, Grimmelikhuijsen, and Meijer (2017), who focused on the relationship between open data and democracy, argued that opening government data and allowing for their use enhance the monitoring of government behavior (monitorial democracy), the stimulation of public debate (deliberative democracy), and the advancement of joined action (participatory democracy) (Ruijer et al., 2017: 50). Despite these discussions, however, no empirical evidence on the open data–citizen participation relationship has been accumulated. Meanwhile, the quality of education has been explored as a powerful predictor of citizen participation (Crenson & Ginsberg, 2003; Yang & Callahan, 2007). Glaeser et al. (2007) claimed that better-educated citizens are more likely to engage with social and political issues in general. In an empirical study, Schnell and Jo (2019) discovered that educational attainment is positively associated with civil liberties. On the basis of the extant literature, the present study verified the aforementioned relationship and the conditions that reinforce it.

Knowledge Flow Mechanism for Platform Innovation Ecosystem Enabled by Digital Technology: Multiple Case Studies on IP Operation Platforms

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Abstract

The embedding of digital technology and the fuzzy organizational boundary have caused changes in the operation of platform innovation ecosystem (also defined as Platform-Based Digital Innovation Ecosystem, PDIE). Specifically, as an important energy of platform innovation ecosystem, the internal logic of knowledge flow needs to be reconsidered in the context of digital age, which will be of help to select the cultivation and governance strategy of platform innovation ecosystem. Therefore, a multiple case-analysis is applied to attempt to open the "black box" of knowledge flow in the platform innovation ecosystem from the perspective of Enabled by Digital Technology.

Digital empowerment was defined as digital technology empowering users to acquire corresponding abilities or skills and achieve personal development (Makinen, 2006). As the application of digital technology becomes more and more extensive, researchers point out that digital empowerment can rapidly improve the digital capability of enterprises, in order to search out business demands in a dynamic business environment (Lenka,2017; Brodny et al., 2022). According to the different use of digital technology during the innovation process, digital empowerment can be divided into two aspects: one can be called connectivity empowerment, which means the connectivity and interoperability of time and space in organizations using digital technology (Agostini et al., 2020). The other can be called scene empowerment, which means digital technology has been used to change the centralized mode of traditional scenes and enhance the value co-creation ability of platform participants (Steiber et al., 2021).

Issues of Innovation Expert Support for Business Decision-Making: Prioritizing the key factors of commercializing innovations

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Abstract

The paper aims to define the key factors in the commercialization of innovation to provide sound recommendations to business professionals. To this end, we have set three objectives: i) using thematic overview of scientific literature, to highlight the most significant factors of innovation commercialization; ii) to supplement the set of innovation commercialization factors using results of in-depth interviews with organization leaders experienced in the implementation of innovations; iii) on the base of experts double interview, using analytical hierarchy process (AHP) and Relative Importance Index (RII), to analyze factors of innovation commercialization by priorities.

The innovation process encompasses and integrates scope of the components, one of which is innovation commercialization (Seclen Luna, 2020). Innovation commercialization refers to a set of decisions, activities and actions aimed at bringing an innovation to market and has specific challenges due to its nature. The effectiveness of solutions in commercialization emerges over time (Slater & Mohr, 2006). Therefore, credible knowledge is extremely important in to properly assessing the need for innovation commercialization's solutions and predicting their outcome. According to Shcherbachenko and Kotenko (2022), the factors of innovation commercialization are insufficiently examined in the literature. Researchers distinguish different factors of innovation commercialization, but the priorities are discussed in a minority of publications (Datta, et al., 2013; Mawaddah et al., 2020). Literature lacks a more generalized, conceptual approach on how to apply knowledge about innovation commercialization. This gap has consequences. Many innovative products fail in the market due to poor commercialization, however, neither management theory nor practice provides clear recommendations for commercialization decisions (Chiesa & Frattini, 2011). Moreover, a lack of relation between university research and industry determines relatively weak results of innovation commercialization (Daneshjoovash et al., 2021). Recommendations from researchers can help businesses to reduce risks in decision-making.

Society of Open Innovation Technology, Market & Complexity

Competing Theories in Explaining the Evolution of Electronic Vouchers in Korean Social Services

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Abstract

This study investigates the introduction and evolution of electronic vouchers for social services in Korea, including debates among the government, service providers, and academia. It examines the role of administrative scholars, the uniqueness of social services and implications for voucher-based delivery, and concerns surrounding voucher market principles. The evolution of the delivery system of social services in South Korea has been the subject of debates surrounding the uniqueness of social services compared to traditional welfare services, the suitability of voucher-based delivery systems and quasi-markets, and the use of electronic vouchers as welfare engineering. The study also investigates the consequences and lasting effects of the diffusion of the voucher delivery system, including the conflicting principles of social citizenship, neoliberalism, and social solidarity in the non-profit sector, and the actual meaning of social services inherent in discussions about institutionalizing them. The study employs multiple theories, including rational choice theory, political economy theory, institutional theory, and electronic managerial perspectives, to review the evolution and rapid diffusion of the system in public service delivery in Korea. These theories highlight the cost-reduction benefits, influence of political and economic factors, role of organizations and institutions, and reduction of administrative burden and errors.

Keywords: Electronic voucher, social services, public service delivery system, demand-side financing

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Circular Economy Model: Sustainable Fashion Industry

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Abstract

The Circular Economy Model (CEM) is an economic system that seeks to reduce waste and maximize the use of resources by keeping them in use for as long as possible. The Circular Economy Model (CEM) is a framework for production and consumption that emphasizes the sharing, reusing, and recycling of existing materials and products. It also provides economic, environmental, and social benefits such as reduced resource dependence, decreased waste and pollution, job creation, and increased competitiveness. The goal of CEM is to move away from the traditional linear economy model, which is based on a "take-make-dispose" approach and has led to significant waste and environmental degradation. Due to the significant negative environmental impact of the fashion industry, examining examples of sustainable fashion industrial districts in the US that have effectively applied CEM is essential. Therefore, this study aims to investigate fashion industrial districts cases that have adopted CEM in the US and what factors have led to the successful sustainable fashion industry in the US share.

Keywords: Circular Economy Model, Sustainability, Fashion Industry

Society of Open Innovation Technology, Market & Complexity
DGIST

Evaluating Determinant Priority for Successful Strategic Alliance

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Abstract

A strategic alliance is a short-term voluntary contract signed by two or more partners that promise to share resources towards achieving a goal that are commonly agreed on (Anand & Khanna, 2000; Gulati, 1998). While firms enter into strategic alliances for different goals that range from exploring new opportunities (e.g., co-developing a new technology) to exploiting existing capabilities (e.g., accessing novel markets) (Harzing, 2002; Kale & Singh, 2009; Koza & Lewin, 1998), firms engage in strategic alliance because it is considered as an essential element of firm strategy (Gomes et al., 2016; Wassmer, 2010). Given such growing importance of strategic alliances as a way for firms to gain access to external resources (Hagedoorn, 2002; Rothaermel & Boeker, 2008), its frequent adoption as an organizational form is not surprising (Anand & Khanna, 2000). What is more, as participating firms are required to commit considerable resources into achieving the predetermined goal in the interfirm cooperative relationship, achieving alliance success is an important strategic goal.

Firms participating in alliances with other partner firms, however, often face a paradox that question the validity of adopting such a strategy in the first place (Kale & Singh, 2009). Specifically, strategic alliances tend to exhibit a high failure rate despite the number of anticipated advantages that it seems to offer (Dyer et al., 2001). This suggests that firms entering into a contractual relationship with a partner firm cannot always realize the anticipated outcomes in the long term. Not only do partners fail to achieve the alliance goal or individual goal such as learning from the partner (Park & Ungson, 2001), they also waste consumed resources in case of unexpected dissolution or termination of the strategic alliance (Bakker, 2016; Lunnan & Haugland, 2008). Even more problematic is that a failed strategic alliance can even lead to a decline in performance for participating firms (Varadarajan & Cunningham, 1995).

As a result, many researchers from diverse fields have sought to investigate why firms enter into alliances despite the high likelihood of failure and the various factors that lead to positive outcomes in strategic alliances (Gomes et al., 2016; Gulati, 1999; Rothaermel & Boeker, 2008). Earlier studies focused on understanding the motivations for committing to the collaborative relationship (e.g., access to external resources or capabilities) (Rothaermel & Boeker, 2008) or the selection criteria used for selecting partner firms (Doz, 1996; Doz et al., 2000; Glaister & Buckley, 1998; Parkhe, 1993).