International Conference on Business, Economics and Management for Sustainable Development Goals

市務受護學校





2022 International Conference on Business, **Economics and Management** for Sustainable Development Goals

October 17-19, 2022, Taipei, Taiwan

# Proceedings

**Edited by** 

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#### **Co-Organizers**

Technical and Vocational Education SIG, **Research Discipline of Applied Science Education**, Department of Humanities and Social Sciences, National Science and Technology Council **Department of Applied Economics, Fo Guang University** 

**Corporate Management Review** 



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Chihlee University of Technology

#### **Co-Organizer**

Technical and Vocational Education SIG, Research Discipline of Applied Science Education,

Department of Humanities and Social Sciences, National Science and Technology Council

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Corporate Management Review

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#### 2022 International Conference on Business, Economics and Management for Sustainable Development Goals

#### **SCHEDULE - DAILY PLANNER**

Activities	10/17		10/18	10/19
Time	Monday		Tuesday	Wednesday
08:30~09:20 (50 minutes)			Registration	
09:20-09:30 (10 minutes)			Opening Ceremony	
09:30-10:30 (60 minutes)		Keynote Speech Ph.D. Masayuki Sato (Kobe University, Japan) Topic: Urban Ecosystem Valuation under Decreasing and Relocation of Population and Sustainable Development		
10:30-10:50 (20 minutes)			Break Time	
10:50-12:10 (80 minutes)		Room I: Strategy and Competitiveness           Session I         Room II: Economics           Room III: Business Administration		
12:10-13:20 (70 minutes)			Lunch	City Tour
13:20-13:50 (30 minutes)		Poster SessionI: Banking and AccountingII: Sustainable Development and TourismIII: Marketing and Others		
13:50-14:00 (10 minutes)		Break Time		
14:00-16:00 (120 minutes)	Decisteration	Session II         Room I: Marketing           Room II: Economics         Room III: Corporate social responsibility		
16:00-16:20 (20 minutes)	Registration	Break Time		
16:20-17:00 (40 minutes)		Best Paper Award & Closing Ceremony		

nternational Etiquette Classroom (四) (三)  $(\square)$ (—) VIP Women's Discussion Room Discussion Discussion Discussion Room Rooms 4 Rooms 3 Rooms 2 Rooms 1 Elevator Elevator ድ Accessible Corridor Restroom Registration Stairs International Conference Hall Men's Stairs Room Coffee & Lunch

**Deployment layout** 

(Venue : 8<sup>th</sup> Floor of General Teaching Building)

#### Session Schedule (I)

Date: 1	10/18 Tue	sday	Time: 10:50 - 12:10	Oral Presentation in	Room I
Session	n Topic: Stra	tegy and Competitivene	SS		
Session	n Chair: Nic	k Vasiljevic (Nationali	ty: United States) Lecture on <b>E</b>	nglish Taught Program in Inter	national Business,
Shih C	<sup>2</sup> hien Univer	rsity			
1.	Paper Title:	Design and Developm	ent of Gaming Smart Insoles to H	Enhance Exercise Motivation and	<b>Paper ID: 10124</b>
		Improve Health in the	Post-epidemic Era		
	Author(s):	Shu-Yu Chen, Zhi-Jun	n Chen		
Со	mmentator:	Mei-Yu Yang			
2.	Paper Title:	Modeling the Usage In	tention of Robo-advisors in Fin-	tech Services: A MOA	<b>Paper ID: 10130</b>
		Perspective			
	Author(s):	Chieh-Peng Lin, Hui-	Fing Chan		
Со	mmentator:	Shu-Yu Chen			
3.	Paper Title:	What Leads Teams to I	Have Innovative Performance? T	he Role of Team Composition	<b>Paper ID: 10139</b>
		and Shared Leadership	)		
	Author(s):	Mei-Yu Yang, Shu-Ch	en Chen		
Со	mmentator:	Hui-Ting Chan			



#### Session Schedule (II)

Dat	e: 10/18	Fuesday	Time: 10:50 - 12:10	Oral Presentati	ion in Room II
Sess	sion Topic: Ecor	nomics			
Sess	sion Chair: Chi	ristos Michalopoulos (Na	ationality: Greece) Lecture on	Department of Economics	s, Soochow University
1.	Paper Title:	Vertical Structure, Two-	part Tariff and Welfare		<b>Paper ID: 10134</b>
	Author(s):	Chiang-Ping Chen, Min	g-Chung Chang, Yen-Ju Lin		
	Commentator:	Thi Hoang Yen-Nguyen			
2.	Paper Title:	Environmental Regulati	on, Technology Licensing, and I	orter Hypothesis	<b>Paper ID: 10138</b>
	Author(s):	(s): Ming-Chung Chang, Gölcükcü Ayhan			
	Commentator:	Yen-Ju Lin			
3.	Paper Title:	Does the Sustainability	Matter the Corporate Governance	e Performance	<b>Paper ID: 10142</b>
	Author(s):	Kuo-Cheng, Kuo, Thu-	Thao Le		
	Commentator:	Ming-Chung Chang			
4.	Paper Title:	The Moderating Role of	Indulgence and Long-term Orie	ntation on the Relationship	<b>Paper ID: 10143</b>
		between Corporate Soci	al Responsibility and Corporate	Performance in Hospitality	7
		and Travel Industry			
	Author(s):	Kuo-Cheng Kuo, Thi H	oang Yen-Nguyen		
	Commentator:	Thu-Thao Le			



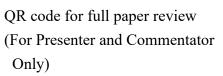
#### Session Schedule (III)

Da	te: 10/18 Tue	sday	Time: 10:50 - 12:10	<b>Oral Presentation</b>	in Room III		
Sea	Session Topic: Business Administration						
Se	ssion Chair: Ch	ia-Ning Chiu (Nationalit	y: Taiwan) National ILan Univ	ersity			
1.	Paper Title:	A Study on User Satisfac	ction of Online Banking: Perspect	tives of Perceived Quality and	<b>Paper ID: 10115</b>		
		Perceived Security					
	Author(s):	Jhong-Min Yang, Mei-L	Ling Wu				
	Commentator:	Jie-Wen Lin					
2.	Paper Title:	The Influence of Chain Coffee's Brand Image and Service Quality on Brand Loyalty –			<b>Paper ID: 10116</b>		
		A Case of Louisa Coffee					
	Author(s):	Jie-Wen Lin, Chih-Chao	o Lai				
	Commentator:	Jhong-Min Yang					
3.	Paper Title:	Increase Care Safety usir	ng Computer Image Detection-A	Physical Data Simulation	<b>Paper ID: 10140</b>		
	Author(s):	Zih-Ping Ho, Ming-Kue	i Yeh, Min-Fei Liao				
	Commentator:	Chien-Hua Tsai					
4.	Paper Title:	A Secure Application Pla	tform Using Blockchain Technol	ogy for Internet Banking	<b>Paper ID: 10141</b>		
	Author(s):	Chien-Hua Tsai					
	Commentator:	Zih-Ping Ho					



#### Session Schedule (IV)

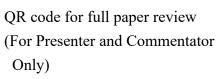
Dat	e: 10/18 Tueso	day	Time: 14:00 - 16:00	Oral Presentation i	n Room I
Sess	sion Topic: Mark	eting			
Sess	sion Chair: Chr	istos Michalopoulos (N	Nationality: Greece) Lecture o	n Department of Economics, S	oochow University
1.	Paper Title:	Understanding Vocation	onal Commitment from a Learn	ing Perspective: Moderation of	<b>Paper ID: 10129</b>
		<b>Emotional Regulation</b>	and Mentor-student Relationsh	ip	
	Author(s):	Hui-Ting Chan, Chie	eh-Peng Lin		
	Commentator:	Chih Ming Tsai			
2.	Paper Title:	The Effects of Electro	nic Word-of-Mouth, Perceived	Value, and Perceived Risk on	Paper ID: 10131
		Purchase Intention: Th	ne Consumption Behavior of Ep	bidemic Prevention Products for	
		Young People During	the COVID-19 Pandemic in Ta	iwan	
	Author(s):	Chih Ming Tsai, Zih-	An Chu		
	Commentator:	Hui-Ting Chan			
3.	Paper Title:	The Effect of Perceive	ed Value, Brand Image, and Ele	ctronic Word-of-Mouth on the	Paper ID: 10132
		Purchase Intention for	Buying Online Affordable Fas	hion Clothes	
	Author(s):	Chih Ming Tsai, Rya	n Hsiao		
	Commentator:	Yin-Ying, Chien			
4.	Paper Title:	Analysis of the Cloud	Invoice Process for Cross-bord	ler E-commerce	<b>Paper ID: 10136</b>
	Author(s):	Yin-Ying, Chien, Chi	a-Wen, Chang		
	Commentator:	Chih Ming Tsai			





#### Session Schedule (V)

Date:	10/18 Tuesda	Time: 14:00 - 16:00	Oral Presentation	ı in Room II
Sessio	on Topic: Econor	nics		
Sessio	on Chair: Chia-	Ning Chiu (Nationality: Taiwan) National ILan V	University	
1.	Paper Title:	The Willingness to Buy Virtual Gifts on Live Broa	dcast Platforms	<b>Paper ID: 10122</b>
	Author(s):	Shih-Chin Lee, Stanley Y. B. Huang, Zong-Han Y	/u, Pei-Jing Chen	
	Commentator:	Mei-Fang, Chen		
2.	Paper Title:	Integrating the Theory of Planned Behavior and the	e Health Belief Model to	<b>Paper ID: 10135</b>
		Understand Consumer Intention to Reduce Sugar-s	sweetened Beverage	
		Consumption		
	Author(s):	Mei-Fang, Chen		
	Commentator:	Edward Gotham		
3	Paper Title:	Irrational Economic Action: An Economic Anthrop	pologist Runs a Median Size	<b>Paper ID: 10125</b>
		Bitcoin Node for Negative Profit		
	Author(s):	Edward Gotham		
	Commentator:	Stanley Y. B. Huang		





#### Session Schedule (VI)

Date	e: 10/18 Tues	day	Time: 14:00 - 16:00	<b>Oral Presentation</b>	in Room III
Sess	ion Topic: Corp	orate social responsibil	ity		
Sess	ion Chair: Chi	n-Yi-Fang (Nationalit	y: Taiwan) National Taiwan N	ormal University	
1.	Paper Title:	Investigating the Imp	acts of ISO 14001 Adoption and	1 ESG Ratings on Firm	Paper ID: 10127
		Performance in the C	ontext of Sustainable Supply Cl	nain Management	
	Author(s):	Thu Huong Tran, W	en-Min Lu		
	Commentator:	Yu-Ming Fei			
2.	Paper Title:	Moderating Effect of	Environmental, Social, and Gov	vernance on The Relationship	<b>Paper ID: 10144</b>
		Between Sustainabili	ty Performance and Corporate F	Performance	
	Author(s):	Kuo-Cheng Kuo, Yul	ianto-Shandy		
	Commentator:	Thu Huong Tran			
3.	Paper Title:	The Use of Linear M	ixed Mode for Assessing Studer	ts' Technological Creativity	<b>Paper ID: 10147</b>
	Author(s):	Yu-Ming Fei			
	Commentator:	Yulianto-Shandy			



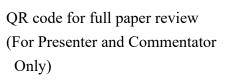
#### Poster Session (I)

Date	e: 10/18 Tue	sday	Time: 13:20 - 13:50	Poster Presentatio	n in Room I			
Sess	Session Topic: Banking and Accounting							
1.	Paper Title:	Balancing Returns and	Royalties of Private Participation project	et: Controlling the	<b>Paper ID: 10137</b>			
		Probability to Loss						
	Author(s):	Fen-may Liou, Bor-Lia	ang Chen					
2.	Paper Title:	User's Emotion Regula	ation and Cognitive Process for FinTech	Chatbots	<b>Paper ID: 10121</b>			
	Author(s):	Dai-Lun Chiang, Yun-l	Hua Cheng					
3.	Paper Title:	Bank Characteristics, C	COVID-19 and Digital Payment Develop	oments: The Case of	<b>Paper ID: 10123</b>			
		Taiwan						
	Author(s):	Hsiu-Hsia Chou						



Poster	Session	<b>(II)</b>
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<b>Date</b> :	: 10/18 <b>Tuese</b>	day Time: 13:20 - 13:50	Poster Presentation i	resentation in Room II		
Sessi	on Topic: Susta	inable Development and Tourism	·			
1.	Paper Title:	The Study on the Crisis Management Practice of Tra	vel Agencies during the Period of	<b>Paper ID: 10113</b>		
		Covid-19 Pandemic				
	Author(s):	Kao-Shan Chen, Yi-Hung Chen				
2.	Paper Title:	The impact of corporate social responsibility on ship	ping supply chain risks: evidence	<b>Paper ID: 10120</b>		
		from the obstruction of the Suez Canal in 2021				
	Author(s):	Wen-Chi Lo, Chen-Yu Kao				
3.	Paper Title:	The Relationship among Festival Satisfaction, Place	Attachment, and Place Word of	<b>Paper ID: 10126</b>		
		Mouth				
	Author(s):	Jiajen Ni, Yangjun Huang, Tom, M.Y. Lin				





**Poster Session (III)** 

Dat	te: 10/18 Tue	esday	Time: 13:20 - 13:50	<b>Poster Presentation</b>	in Room III
Ses	sion Topic: Ma	rketing and Others			
1.	Paper Title:	The Application of Insta	nt Messaging in Organizational Com	munication by NGO -A	<b>Paper ID: 10111</b>
		Study of Taiwan Junior	Chamber		
	Author(s):	Kao-Shan Chen, Hsiang	-Lan Kuo		
2.	Paper Title:	The Study on Consumpt	ion Behavior of Direct Selling Mem	bers of Beauty Care	<b>Paper ID: 10112</b>
		Products			
	Author(s):	Kao-Shan Chen, Huang	, Shu Chin		
3.	Paper Title:	Applications of Fishbon	e Diagram and DEMATEL Techniqu	e for Improving Warehouse	<b>Paper ID: 10114</b>
		Operation- a Case Study	on YMT Overseas Imported Compo	onents	
	Author(s):	Po-Heng Tsou, Hsin-Yao	o Hsu		
4.	Paper Title:	A Moderating Mediation	n Model about the Retention of Atyp	ical Workers in Government	<b>Paper ID: 10133</b>
	Author(s):	Ya-Ti Hsu, Bo-Yu Pan, Y	Yueh-Ying Ho		



### **Keynote Speech**

### Urban ecosystem valuation under decreasing and relocation of population: The case of Japan toward sustainable development

Speaker Dr. Professor Masayuki Sato Kobe University, Japan

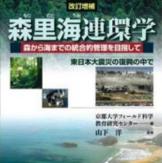
### SELF INTRODUCTION

- Entrance to Kyoto University in 1997. The year of COP3.
- Start researching on Environmental Economics.
- By interdisciplinary approach
  - at Field Science Education Research Center, Kyoto University
  - at Department of Land Economy, University of Cambridge
  - at Human Development and Environment, Kobe University
  - and Advanced Research Institute for Well-Being, Kobe University
- My research interests are
  - Sustainable Development
  - Ecosystem Service Valuation and Conservation





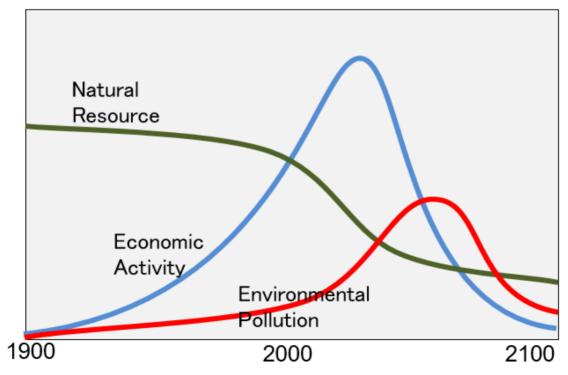






### CHANGING BACKGROUND OF SUSTAINABLE DEVELOPMENT

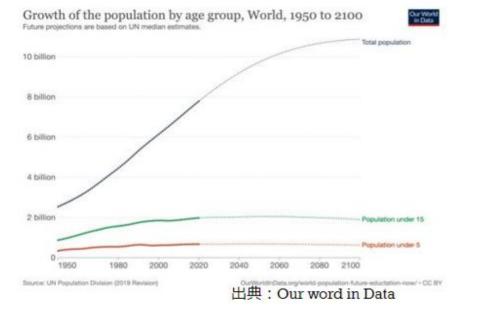
- A seminal report "Limits to Growth" by Rome Club and Oil Shocks in 1970's.
- Sustainability has been concerned from perspectives of resource depletion and environmental burden.

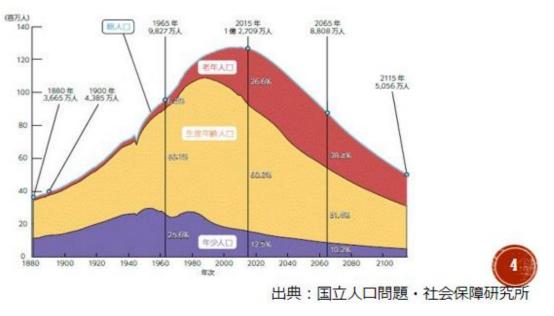




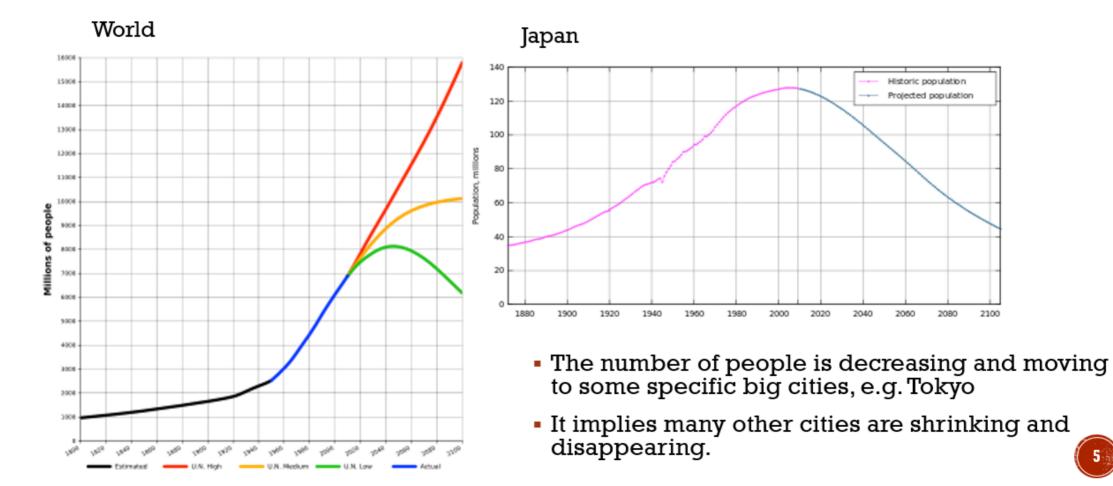
### CHANGING BACKGROUND OF SUSTAINABLE DEVELOPMENT

- "Is it sustainable with a increasing population?" (in 1970's)
  - Consumption of materials and Energy; Emission of gas and waste; Change of land use...
- "Is it sustainable with a decreasing population?" (Today, especially in Japan and several countries)
  - Social institution, disproportionate distribution of population, Abandoned land, collapse of commons(SATOYAMA)...





## **CHANGING BACKGROUND IN SOME COUNTRIES**





# THE PROBLEMS

- The nature in Japan presupposes human intervention (care)
- However, they are losing human

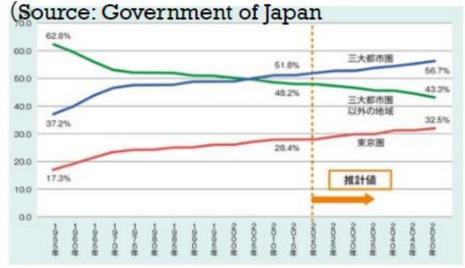




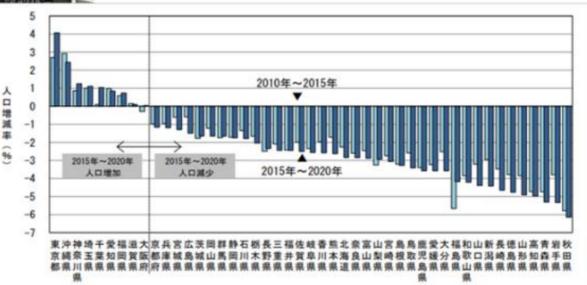
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- Critical change of lifestyle
  - Urban lifestyle implies "Extinction of Experience" (Pyle, 1993)
  - Losing ability to value the nature.
  - Acceleration of abandon of the nature.

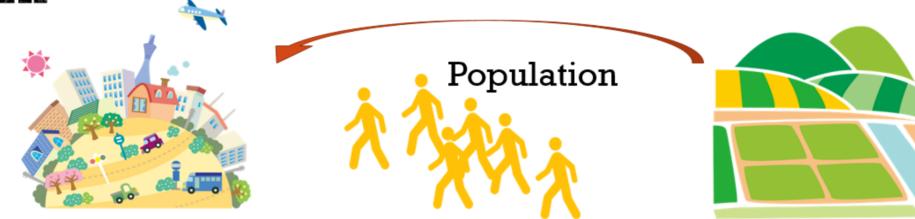
### The changing population in cities



The changing population in each prefecture (Source: NTT Data, Inc)



## TOWARD CO-EXISTENCE OF URBAN AND SUBURB AREA



# Destruction of Nature by too much population

- Deterioration of Green Space and Blue Space
- Loss of Biodiversity and increase of alien species
- Ignoring the functions of nature by preference change

### Destruction of Nature by too much population

- Collapse of SATOYAMA
- Distortion of the ecological pyramid
- Lack of maintenance of the natural capital



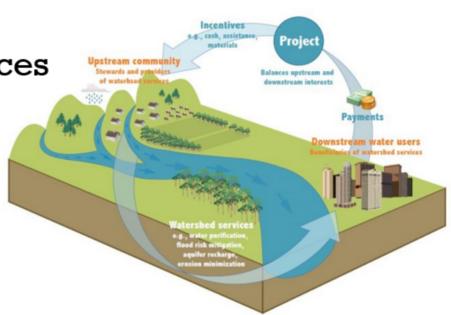
# ECOSYSTEM CONSERVATION AND INSTITUTION DESIGN

### Economic Valuation of Ecosystem Services

- Spatial perspective
  - Possibility of "tragedy of Commons"
  - Inequality to use
- Temporal perspective
  - Sustainable use of stock
  - Intergenerational equity

### • PES (Payment for Ecosystem Service)

- Tax & Subsidy
- Distribution of management cost





### **RECENT INTERNATIONAL STRATEGY FOR CONSERVATION**

- In 2010 COP10 in Nagoya, Aichi, Japan COP10
  - "Aichi Target" (Long vision until 2050, Short target until 2020
  - Realize the Living in Harmony with Nature until 2050.
  - Ten targets in 2020

"Visualization" and "Mainstreaming"



### Aichi Targets

- Enhance resilience Implement Nagoya Prot.
  - Revise NBSAPs



- Improve knowledge
- Mobilize resources

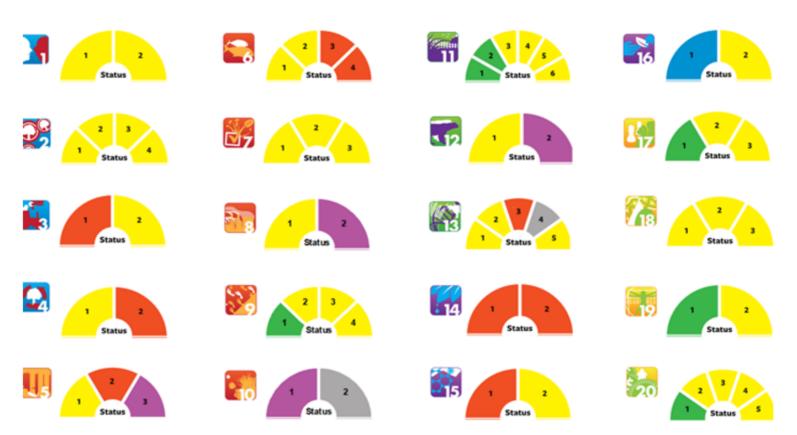




# ACHIEVEMENT OF AICHI TARGET



Post Aichi target Will be discussed at COP15, December 7-19, 2022 in Montreal, Canada. (Very SOON)

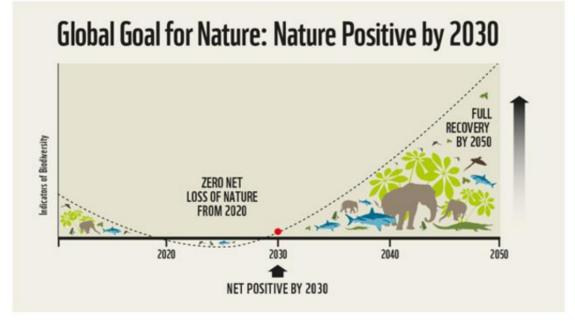


•Blue: exceed, Green: on track, Yellow: some progress, Red: no change, Purple: moving away, Grey: unknown



### POTENTIAL STRATEGY

- Nature Positive agreed in G7 and G20 summit in 2021.
- Kunming Declaration in the first round of COP15, 2021



- Source: IUCN
- By means of 30 by 30 conservation
  - A plan to conserve 30% of Earth's land and sea areas by 2030 through "areabased conservation measures".
  - Japan already started the roadmap before COP 15.
  - In Japan, it is estimated that 20% is achievable by already protected area.

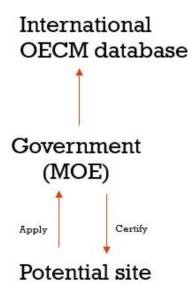
10% remains. How?



# OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES

#### International definition by COP14, 2018

- A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio–economic, and other locally relevant values.
- Need to call for the area from various space, including urban and peri-urban area.



Point

- Finding the potential land
- Valuation of the land
- Incentive design for application
- Consensus for application if the area is owned publicly

Big challenge! But Japan is aiming for more than 100 place registrations



Note! This picture is not an official candidate



# AIMS AND FOCUSES OF ECOSYSTEM SERVICES VALUATION STUDIES

- Recognize and evaluate the forest functions.
  - Understand the economic value.
  - Analyze the multifunctional roles.
  - Consider the institution and planning including tax scheme from 2024, for conservation.
- We focus
- 1. Economic valuation of each ecosystem service.
- 2. Discount rate of future forest ecosystem services



- Different preferences toward ecosystem services
- Different time preferences (long vs short)
- Different characteristics/background

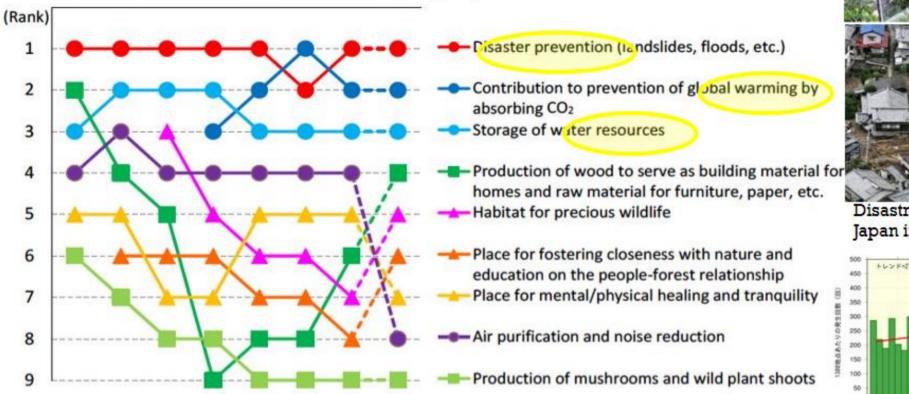
For example "Experience with nature" etc.



### Case of Forests in Japan

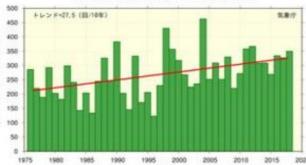
### Public expectation for forest functions (Surveyed by MAFF)

1980 1986 1993 1999 2003 2007 2011 2015 (Year)





Disastrous heavy rain in west of Japan in 2018. Source: Nikkei



Increasing frequency of extremely heavy rain Source: Japan Meteorological Agency

Source: Ministry of Agriculture, Forestry and Fisheries, Japan

### CASE STUDY—— ANALYSIS

Choice Experiments on implementation of forest policy.

- 1. Estimate the preference for each ecosystem service.
- 2. Estimate the preference for timing.
- Data from a social survey conducted as a part of a long-term research project on forest ecosystem stock in Japan.
  - December 2016
    - 6,843 responses, all the 47 prefectures
  - December 2018
    - 5,343 responses, all the 47 prefectures
  - Both samples are proportionally extracted from the population of each prefecture (with regard to age and gender)



# VISUALIZATION OF ECOSYSTEM SERVICE

		Coefficient	Std.err.	MWTP (JPY)
1	Water source recharge	0.0131***	0.0002	143.6
//	Land slide prevention	0.0121***	0.0003	132.2
Important	Ecosystem conservation	0.0084***	0.0003	92.0
services	Timber supply	0.0051***	0.0003	56.0
	Recreation	0.0038***	0.0003	41.0
	Global warming prevention	0.0113***	0.0003	123.9
	Cost	-0.0914***	0.0011	
	Mean Log likelihood	-1.4712	-1.47126	
	Number of Obs.	54,744		

Different function has different weight. Almost consistent with the order found by MAFF.

Sato and Yamaguchi (2021)



## FURTHER INVESTIGATION OF THE VALUE

			Coefficient	Std.err.	MWTP(]	PY)
		Area Size	0.00904***	0.00037	34.8	
ſ	-	Forest age	0.00018	0.00053		
Marginal disutility for		Afforestation	0.09740***	0.02897	374.6	3
delay of		Timing of project	-0.01156***	0.00137	-44.6	5)
implementation		effect			$\neg$	
		Expenditure	-0.00026***	0.000003		
		Mean Log	-24,202	2.55		
		likelihood				
		Number of Obs.	20,60	)5		

- Disutility (negative WTP) of one year delay of implementation: <u>JPY 44.6</u> per household
- JPY 44.6 is 0.6% of annual expenditure for the project (<u>JPY 8,000</u> per household) (JPY 100=USD 0.93)

One year delay of implementation requires 0.6% decrease of monetary burden to be indifferent. (under other conditions are constant)

# SOCIAL DISCOUNT RATE

- The effective (and subjective) discount rate for future value of ES (0.6%) is quite lower than other social discount rates
  - 1.4% for global economic damage by climate change in Stern Review
  - 4% for public project in Japan
  - 5% for non-timber forest ES in Inclusive Wealth Report
- Natural capital may be undervalued by using higher discount rate.
  - If lower discount rate is appropriate, shadow price of natural capital should be updated.
  - It remains controversial whether people have valid and normatively correct discount rate for the future benefit.



# DETERMINANTS OF DISCOUNT RATE

- Individual estimation of discount rate by random parameter logit model.
- Step wise regression of discount rate on available variables.
  - Relation with forest

(Weights on each ecosystem services, Frequency, Access)

Socio-economic characteristics

(Gender, Age, Address, Family structure, Income Education)

	Coef.	Std.Error	p-value	Elder people tend to have low
Gender (1=Female)	-0.0015***	0.0008	-0.0031	<b>1</b> ,
Age	-0.0001***	0.0000	-0.0002	
Habitat of biodiversity	-0.0010***	0.0005	-0.0020	People who consider long-term benefit have low discount rate.
Land prevention	0.0017***	0.0005	0.0007	
Const.	-0.0052***	0.0022	-0.0095	People who consider direct
				benefit have high discount rate

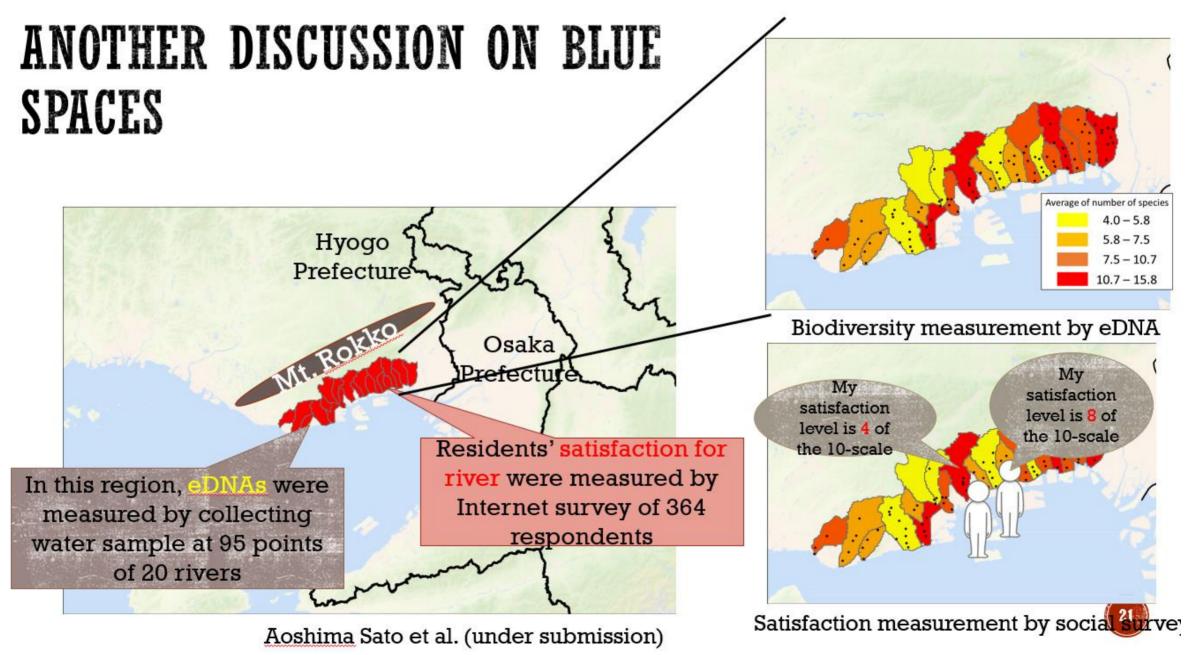
Sato and Yamaguchi (2021)

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### HETEROGENEITY OF PREFERENCE FOR FUTURE ECOSYSTEM SERVICES

- Elder people have lower discount rate for future ecosystem services (ES).
  - The value is not for themselves, but for descendants? Is bequest value of natural capital reflected?
- Female tend to have lower discount rate for future ES.
- Direct and immediate service increases the discount rate.
- Indirect and tardy service decreases the discount rate.
- Altruism seems to be a key effect on the discount rate for ES.

Because the valuation entities are diverse in urban area, the valuation of ecosystem services is also diverse.



# VALUATION OF ECOSYSTEM SERVICE

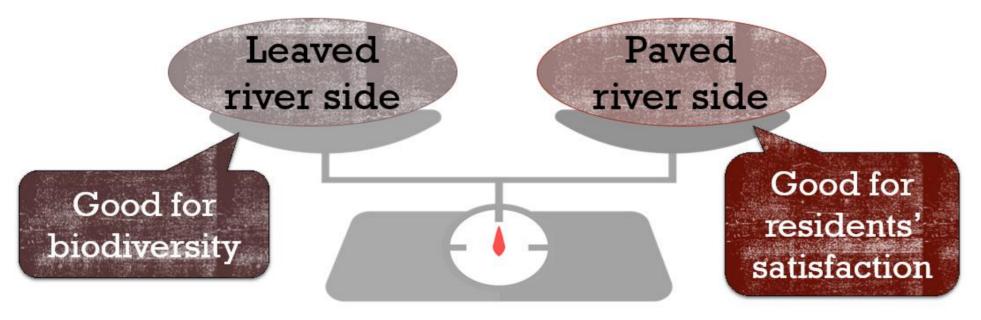
Variable	Coef.	t- value			
Female dummy	0.145	1.31			
Age	-0.002	-0.45			
Frequency of visiting water	0.410** *	5.55			
Level of knowledge on river	0.124	1.62	Pich biodivorgity of urb		
Satisfaction for living convenience	0.141** *	4.48	Rich biodiversity of urb river doesn't contribut		
Distance from river	-0.477	-1.48	people's satisfaction		
Distance from coastline	-0.081*	-1.71			
<b>Average number of species</b> (eDNA)	-0.032*	-1.87			



# Why rich biodiversity decrease residents' satisfaction for recreational water?

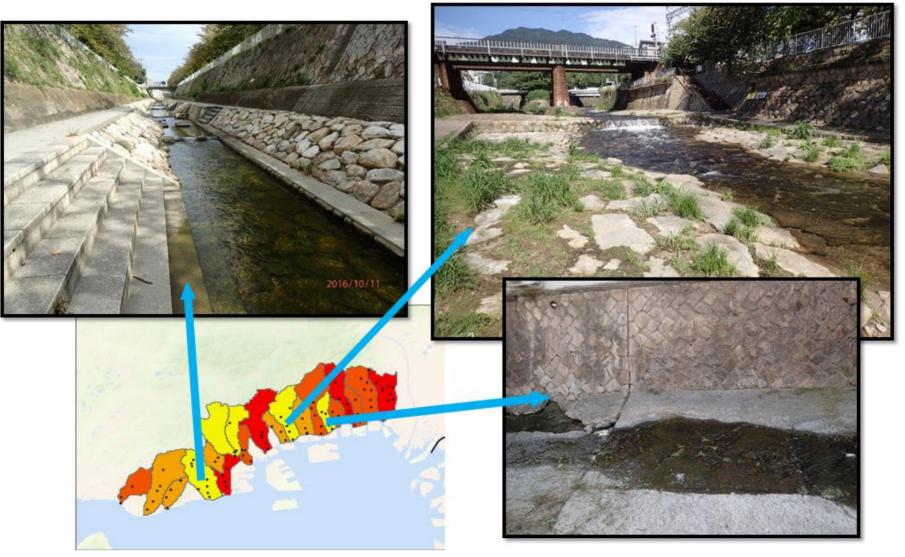


## The <u>trade-off relationship</u> between <u>wilderness</u> environment and artificially paved environment





## Actually, it seems that paved rivers have poor biodiversity



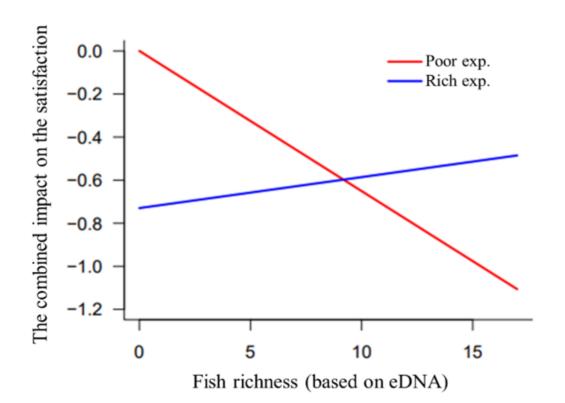
## In contrast, it seems that leaved riverside leads to rich biodiversity



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# EXTINCTION OF EXPERIENCE, AGAIN

## Considering the nature experience in past



Variable	Coef.	Std. Err.	t-value
Fem ale dumm y	0.301033 **	0.133967	2.25
Age	-0.000035	0.004331	-0.01
Income	0.000049	0.000193	0.25
Distance to the river	-0.000638 *	0.000354	-1.80
Distance to the sea	-0.000021	0.000046	-0.45
Frequency of visits (to blue spaces)	0.449328 ***	0.079093	5.68
Knowledge of the river	0.023706 **	0.011687	2.03
Nature experience in the past	-0.729700 **	0.340873	-2.14
River biodiversity (eDNA)	-0.065072 **	0.027126	-2.40
Cross term (eDNAX Nature experience)	0.079457 **	0.036609	2.17

Note: \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

- People of rich nature experience tend to value biodiversity.
- But they are minor as a whole, the biodiversity is not preferred in urban area.



# **CONCLUSION AND FUTURE DISCUSSION**

- Visualization of urban ecosystem service is needed in order to realize the conservation of ecosystem.
- Ecosystem has various functions. Each function has different characteristics.
  - Private benefit vs. public benefit
  - Short-term benefit vs. long-term benefit
  - Certain benefit vs. potential benefit
- Each characteristics is valued depending on:
  - How to consider other's benefit (Altruism)
  - How to consider future benefit (Time preference)
  - How to consider the preparation (Risk preference)
- Especially, Urban area has a lot of people and huge variety of valuators.
  - Valuation might be more complex and dynamic.
  - Valuation parameters are different.
  - There are many important factors. E.g. Experience with nature.
- Especially in Japan and some countries, urban area will be rapidly changing.

There are many challenges out there.



# 感謝您的關注

- 非常感谢你们给我这个机会发言。我急于想知道我是否引起了你们对我工作的兴趣,这基本上超出了我的能力。我只能说,"非常感谢你"。
- Thank you very much for giving me the opportunity to speak. I am anxious to see if I have aroused your interest in my work, which is essentially beyond my capacity. All I can say is, "Thank you very much.

好想直接去台灣。 我們希望有盡可能多的人訪問神戶大學。



**Kobe University** 





Scenery from Kobe University 28

## **PRESENTATION GUIDELINES**

## For oral presentations

## Every presentation room will be equipped with a screen (data) projector and a notebook computer

with the Microsoft PowerPoint. Prepare your presentation file on an USB flash drive or other portable memory device. All speakers should upload your files into the computer and test the projector before the session begins. In each presentation room, one service staff will help you for your preparation.

The following guidelines will help you to ensure a successful presentation.

- 1. Be sure to come at least 20 minutes early to your session.
- 2. Prepare your slides as a PowerPoint file or a PDF and bring them with you to the session.
- 3. Bring your slides files on an USB flash drive or other portable memory device.
- 4. Upload your files to the computer and test the projector.
- 5. Introduce yourself to the session chair and co-chair.
- 6. Each presentation is limited in 15~20 minutes including 5 minutes Q&A.

## For session chair and speaker

The roles of session chair and co-chair are to ensure the smooth execution of the session. They should

- 1. Contact the speakers before the session and prevent any technical problem.
- 2. Keep presentations in the order shown in the program.
- 3. Introduce the speakers and the title of each presentation.
- 4. Ensure the presentations not overstep their time frame.
- 5. Ask for questions, manage discussion and thank the speakers.



## For poster presentations

You may wish to consider a poster presentation as opposed to the traditional oral presentation because posters allow you more time to present to a much larger audience base.

The following guidelines will help you to ensure a successful presentation.

- 1. Authors are responsible for mounting their posters the morning of their presentation and removing them as soon as the session ends.
- 2. Posters should be A1 sized, and the format of poster, please see the template as follows.
- Please email your poster to ICBEM (Mail: <u>ICBEM@mail.chihlee.edu.tw</u>) BY OCTOBER 12<sup>th</sup> while you finish your poster.

PAPER TITLE AUTHORS		SIZE :A1		
INTRODUCTION		GRAPHS &		
		TABLES		
FIGURES &				
EXPERIMENTAL	CONT	ENT	CONCLUSION	
SETUP				

## POSTER TEMPLATE



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Only)

QR code for full paper review

(For Presenter and Commentator

No.10115

## A Study on User Satisfaction of Online Banking: Perspectives of Perceived Quality and Perceived Security

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#### Abstract

To a certain extent, users of online banking are customers of the physical bank, and their demand for using online banking usually comes from business transactions with the bank. From the bank's point of view, online banking is an extension of physical banking services. Customers' satisfaction with online banking reflects their satisfaction with the bank, and customer satisfaction with the bank is an important factor for bank to retain customers. Based on the Expectancy-Disconfirmation Theory and the D&M IS Success Model, this study applies an in-depth discussion on the factors that affect the user satisfaction of online banking. By an online sampling process with the analysis of Structural Equation Modeling method, this study found that system quality, service quality, and perceived security positively affect the perceived overall quality, while the perceived overall quality has a fully mediating effect between the relationship of perceived overall quality and user satisfaction. Practical and academic recommendations derived from the results of the analysis are presented at the end of this paper.

**Keywords:** System Quality; Information Quality; Service Quality; Perceived Overall Quality; Perceived Security; User Satisfaction



## The Influence of Chain Coffee's Brand Image and Service Qualityon Brand Loyalty – A Case of Louisa Coffee

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#### Abstract

Nowadays, coffee has closely connected with our daily life. Every morning, walking into a coffee shop to grap a cup of coffee is a routine for office workers. While the growth of coffee industry in Taiwan at least for a decade, there are more and more coffee shops set up on streets. However, to keep the customers, brand loyalty is one of important elements which has been conducted in marketing field. Therefore, to investigate the Louisa's success, and the interrelationships among the brand image, service quality and brand loyalty, the researcher collected 305 questionnaires by online survey. Moreover, the collected data was analyzed by SPSS to explore Louisa, such as descriptive statistic analysis, regression analysis, factor analysis, reliability test, and SPSS Amos SEM.

In this study, it shows that the results supported the hypothesis that brand image and brand loyalty are positively correlated; service quality and brand loyalty are positively correlated. In addition, it also indicated the potential importance of brand image and service quality as a model for evaluation of brand performance. The research found that each of these variables had significant positive impact

Keywords: chain coffee shop, brand image, service quality, brand loyalty



## The Willingness to Buy Virtual Gifts on Live Broadcast Platforms

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 \* Correspondence: Stanley Y. B. Huang

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#### Abstract

This research investigates the willingness to purchase virtual gifts on live streaming platforms based on Maslow's hierarchy of needs. The idea that users can use virtual gifts to gain social and respectful needs has not been explored in past research. The findings not only open up new directions for online live streaming platforms but also provide a reference for live streaming platform owners to formulate marketing strategies.

Keywords: Live Broadcasters, Maslow's hierarchy of needs, Purchase Intentions, Virtual Gifts.



## Design and Development of Gaming Smart Insoles to EnhanceExercise Motivation and Improve Health in the Post-epidemicEra

#### Shu-Yu Chen<sup>1</sup>, Zhi-Jun Chen<sup>2</sup>

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 2 Biomedical Industry Ph.D. Program, National Yang Ming Chiao Tung University, Taipei, Taiwan,Email: zhijun0524@gmail.com

#### Abstract

Nowadays, people are busy at work and do not have regular exercise habits. Under the requirementof COVID-19 prevention, people are less active outside, especially the silver-haired people whocannot go out for exercise due to their physical strength and mobility problems and the concerns of epidemic prevention and safety. The study developed a gaming smart insole that combines games and exercise so that people can play games and exercise at the same time to achieve family exercise effects and develop exercise habits even under epidemic restrictions and bad weather conditions. Through gaming smart insoles experience activities, we invited people to try on the gaming smart insoles developed by this research and asked them to fill out questionnaires and provide suggestions for optimization. The questionnaires were then statistically analyzed to understand people's sports literacy, their sports participation status before and after the heightenedepidemic prevention measures, and their perceptions of the gaming smart insoles. The results showed that the sensitivity of the single sensor with a simpler circuit and lower cost was quite satisfactory, so the single button was selected as the sensor to trigger the game in this study, which was effective for the purpose of our product design. Since Expo and React Native can support both mobile platforms and provide various libraries, this study used the Expo development tool and React Native development app to record users' exercise data while playing rhythm games. We found that exercise habits changed after the escalation of epidemic prevention, with the average number of exercise days per week decreasing by one day, the average number of exercise minutes per week decreasing by approximately 240 minutes, and the intensity of exercise changing from sweating and shortness of breath to sweating but not shortness of breath. Respondents who had never participated in sports classes, sports teams, or sports clubs were more willing to use the gaming smart insoles for home sports, but most people agreed with the design that combined sports and games, affirmed the fun and health-enhancing function, and were willing to use them for home sports due to upgraded epidemic prevention restrictions or when it is inconvenient to goout.

**Keywords:** smart insoles, sports, health, wearable devices



#### No.10125

## Irrational Economic Action: An Economic Anthropologist Runs a Median Size Bitcoin Node for Negative Profit

## Edward Gotham<sup>1</sup>

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#### Abstract

Bitcoin's layer 2 (L2) solution is a payment channel network (PCN) that has an internal market of its own. Businesses (node operators) compete on a cost basis to maximize use of their locked liquidity by minimizing channel fees. From an economic perspective this is a standard profit maximization problem, however as described in (Béres, Seres, & Benczúr, 2021), profit on node operation is so low that it is economically irrational. Despite this, the number of nodes continues to grow, even as the price of Bitcoin declines. Many node businesses likely operate at a net USD loss, especially when factors such as labor and loss of access to capital are considered. This paper is an economist's account of entering into an irrational market to describe it from the inside. The internal L2 market for routing, and the business balance sheet items are described for a median scale node.

The market for routing is near perfect in terms of internal competition, but sub-optimally arranged. Whether the internal competition creates sufficient cohesion to compete with larger PCN remains to be seen. Operating losses that many node operators face is rationalized as a "fiat only" loss, not a Bitcoin loss, and most node operators exist within a Bitcoin only profit paradigm. Computing the actual mean, median or other fiat profit margin is not possible due to insufficient data regarding the average fiat cost of the Bitcoin deposited to provide liquidity. This paper is the first to describe the on-boarding process of node operation and attempt explain the irrational economic behavior of node operators.

Keywords: Fin-tech, Bitcoin, irrational behavior, Lightning Network, firm theory,



## Investigating the Impacts of ISO 14001 Adoption and ESG Ratings on Firm Performance in the Context of Sustainable Supply Chain Management

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#### Abstract

Global environmental degradation has raised the necessity of environmental management strategies to garner stakeholder support and maximize firm performance. However, research on a causal relationship between the effects of ISO 14001 adoption and ESG implementation on performance remains scarce. Obtaining the three key partnership groups of Microsoft Corp (suppliers, partners, and customers) in the supply chain between 2017 and 2020 as a case study, this study utilizes a new chance-constrained network DEA in the presence of negative data to compute innovation, operational, and profitability performances simultaneously. In the first stage, the result of the DEA model depicts that the customer group outperforms the other two in all three performance categories, giving Microsoft Corp. a competitive advantage. In the second stage, the truncated regression model shows findings as follows: (1) Adopting ISO 14001 standards lower profitability but enhances overall firm performance; (2) ESG ratings have a convex U-shaped impact on both profitability and overall performance, suggesting that firms will benefit when ESG investment reaches a certain threshold; (3) Environmental and Governance components show a nonlinear U-shape, but not Social of the individual ESG; (4) Only specific Social and Governance of subcomponents affect overall performance nonlinearly. A comprehensive examination of environmental challenges and performance in this study will offer managers, investors, practitioners, and policymakers with important insights and practical implications in the sustainable development context.

**Keywords:** Microsoft Corporation, Data envelopment analysis, ISO 14001, ESG initiatives, firm performance, sustainable development.



## Understanding Vocational Commitment from a Learning Perspective: Moderation of Emotional Regulation and Mentor-Student Relationship

Hui-Ting Chan<sup>1</sup>, Chieh-Peng Lin<sup>1</sup>

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### Abstract

Vocational commitment has emerged as a key topic in healthcare human resource development. Drawing on social learning theory (SLT), this study establishes a research model that explains the vocational commitment of nursing interns. In the model, two predictors including learning goal orientation and learning self-efficacy influence vocational commitment directly and indirectly via the mediation of perceived helplessness. At the same time, the relationships between vocational commitment and its determinants are hypothetically moderated by emotional regulation and mentor-student relationship respectively. Statistical analyses are executed using the data from nursing interns in Taiwan. Based on its empirical findings, this study discusses important theoretical and practical implications.

Keywords: Learning self-efficacy, learning goal orientation, mentor-student relationship.



## Modeling the Usage Intention of Robo-Advisors in Fin-Tech Services: A MOA Perspective

## Chieh-Peng Lin<sup>1</sup>, Hui-Ting Chan<sup>1</sup>

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#### Abstract

Drawing on MOA framework, this study establishes a research model that explains the usage intention of robo-advisors. In the model, three predictors that consist of technology relative advantage, technology herding, and technology familiarity influence usage intention of robo-advisors directly and indirectly via the partial mediation of trust. At the same time, the effects of the three predictors on trust are hypothetically moderated by learning goal orientation and perceived performance risk respectively. Statistical analyses are provided using the data of working professionals from insurance industry in Taiwan. Based on its empirical findings, this study discusses important theoretical and practical implications.

**Keywords:** consumer education, technology relative advantage, technology herding, learning goal orientation, perceived performance risk.



## The Effects of Electronic Word-of-Mouth, Perceived Value, and Perceived Risk on Purchase Intention: The Consumption Behavior of Epidemic Prevention Products for Young People During the COVID-19 Pandemic in Taiwan

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#### Abstract

The purpose of this study is to explore the effects of electronic word-of-mouth, perceived value, and perceived risk on the purchase intention of epidemic prevention products for Taiwanese young people between the age of 15 to 25 during the COVID-19 pandemic. 205 valid questionnaires were collected to implement confirmatory factor analysis and structural equation model analysis. Perceived risk is regarded as the level of risk a person feels may contact the virus during the COVID-19 pandemic. The results reveal that electronic word-of-mouth has a positive and significant impact on perceived value, perceived risk, and purchase intention, and perceived value and perceived risk both have positive effects on consumers' purchase intention. However, perceived risk doesn't have significant impact on perceived value. The conclusion reflects the consumer behavior of young people when shopping for epidemic prevention products. EWOM, perceived value, and perceived risk affect each other and young consumers' purchase intentions. During COVID-19, young consumers prioritize purchasing epidemic prevention products that are helpful in protecting them from getting infected. Young consumers' purchase decisions can be closely studied for the purpose of identifying the future trend of the market. The behaviors of young consumers show their preference, perspectives, and perceptions of the products that are available to them.

**Keywords:** Electronic Word-of-Mouth, Perceived Value, Perceived Risk, Purchase Intention, Epidemic Prevention Product



## The Effect of Perceived Value, Brand Image, and Electronic Wordof-Mouth on the Purchase Intention for Buying Online Affordable Fashion Clothes

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#### Abstract

In recent years, E-commerce has been thriving, and people are starting to buy online more. The purpose of this study is to investigate how the perceived value, brand image, and EWOM affects the purchase intention of online affordable fashion clothing in students. In total, 155 valid questionnaires were finished by students who had bought online fashion clothes in the past 6 months. We used the confirmatory factor analysis and structural equation model to analyze the relationship between perceived value, brand image, EWOM, and purchase intention. The results suggest that perceived value has a significant positive influence on brand image. Brand image had a positive influence on the EWOM and purchase intention. EWOM and perceived value had positively influenced on the purchase intention. But perceived value doesn't influence the EWOM. The results in this study may be used in marketing for affordable fashion clothes companies to boost sales profit.

**Keywords:** Perceived Value, Brand Image, Electronic Word-of-Mouth (EWOM), Purchase Intention, Online Affordable Fashion Clothes



## Vertical Structure, Two-part Tariff and Welfare

Chen, Chiang-Ping Fo Guang University

Chang, Ming-Chung Chihlee University of Technology

> Lin, Yen-Ju\* Fo Guang University

Current version: 2021/11/09

### Abstract

The condition that a pro-competitive effect of vertical integration is attainable has attracted widespread attention in the field of industrial organization. In this study, I tryto propose a situation, in which the pro-competitive effect of vertical integration may be eliminated by the downstream customer-rival's strategic incentive of licensing. I consider a framework, in which a downstream firm can alter its marginal production cost of production from outsider innovator through a two-part tariff of a cost-reducinglicensing given its rival integrated (or not integrated) with the input supplier. This study points out that there exists a trade-off between wholesale price and royalty rate after introducing a licensing, which causes different welfare outcomes under different vertical structures. If it is the case, the welfare outcomes may be superior in the caseof VS, which go up against conventional wisdom that vertical integration is superior to vertical separation form society's viewpoint.

Keywords: Vertical structure, Two-part tariff, Vertical integration, Licensing

QR code for full paper review (For Presenter and Commentator Only)



#### No.10134

## Integrating the Theory of Planned Behavior and the Health Belief Model to Understand Consumer Intention to Reduce Sugar-Sweetened Beverage Consumption

### Mei-Fang, Chen

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#### Abstract

How to ensure healthy lives and promoting well-being for all at all ages adopted as Sustainable Development Goal 3 of the 2030 Agenda for Sustainable Development by all United Nations Member States in 2015. The associated targets include reducing mortality from non-communicable diseases and achieving universal health coverage. This study integrated the theory of planned behavior (TPB) and the health belief model (HBM) to investigate the antecedents of college students' attitudes toward regular consumption of sugar-sweetened beverages (SSBs) and their behavioral intention to reduce SSB consumption. A cross-sectional online survey collected 407 valid questionnaires in Taiwan. The structural equation modeling analysis results revealed that perceived susceptibility and perceived barriers determined college students' attitudes toward regular SSB consumption and influenced their behavioral intention to reduce SSB consumption. The determinants of the behavioral intention were perceived benefits of reducing SSB consumption, attitudes, perceived self-efficacy, and SSBs-related health consciousness. This integrated TPB-HBM model explained 40.33% of the variance in attitudes and 73.08% of the variance in behavioral intention. The majority of participants reported that they would not support the sugar tax policy. Among those who supported the sugar tax policy, more than 80% agreed with a 5% sugar tax rate. The results of the study can be used as a reference for prevention intervention formulation for the relevant government bodies and the proactive marketing strategies for the food and beverage firms.

**Keywords:** Sugar-sweetened beverages (SSBs), theory of planned behavior, health belief model, SSBs-related health consciousness



## Analysis of the Cloud Invoice Process for Cross-border E-commerce

Yin-Ying, Chien<sup>1</sup>, Chia-Wen, Chang<sup>2</sup>

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### Abstract

Taiwan's cloud invoice introduction process for cross-border e-commerce is partly different from that of local e-commerce. This research is going to investigate why the difference exists and what kind of problem is caused thereafter. Further, this research is going to discuss whether the obligation exemption is sustainable and what its impacts on the maintenance of Taiwan's unified invoice system. This research will come up with some suggestions as to helping cross-border ecommerce better comply with cloud invoices regulations.

Keywords: Cloud invoice, cross-border e-commerce, unified invoice system, value-added center



## Environmental Regulation, Technology Licensing, and Porter Hypothesis

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 <sup>b</sup> School of Foreign Languages, Süleyman Demirel University, Isparta, Turkey
 <sup>\*</sup> Correspondence: <u>changmc@mail.chihlee.edu.tw</u>

#### Abstract.

The conventional wisdom says that a stringent environmental regulation increases a firm's cost and places a firm at a competitive disadvantage. This viewpoint has been challenged by the Porter Hypothesis, referring to that strict environmental regulations encourage innovations for lowering costs. This paper offers new support for the Porter Hypothesis within a framework of strategic trade, technology transfer model, and environmental regulation. We show that the domestic government's no-commitment or commitment to the emission tax rate induces the foreign incumbent firm to transfer technology to the domestic firm. However, the welfare in the no-commitment case is higher than that in the commitment case. Both cases not only enhance the domestic firm's competitiveness, but improve domestic welfare.

**Key words:** Porter Hypothesis, environmental regulation, technology transfer

**JEL classification:** L11, L51, O13



#### No.10139

## What Leads Teams to Have Innovative Performance? The Role of Team Composition and Shared Leadership

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#### ABSTRACT

Continuous innovation has been recognized as one of the critical survival components for teams and organizations to have competitive advantages. By integrating an Input-Process-Output model and the leadership literature, this study examined how and when team proactive personality and shared leadership are associated with team innovative performance. Specifically, we investigated the relationships among mean level of teams' proactive personality, voice behaviors, innovation performance, and shared leadership. From 103 project teams with 504 members, two waves of data were collected. As hypothesized, teams with a high mean level of proactive personality fostered team voice behaviors and innovative performance. Furthermore, based on situational strength theory, the dependence of team innovation on team proactive personality is low when leading responsibility was shared among team members. Members pushed their efforts to higher level due to shared leadership and that resulted lower effect of proactive personality on team innovation. We conclude by discussing the theoretical and practical implications of these findings.

**Keywords:** Team proactive personality; Voice behavior; Team innovative performance; Shared leadership



## Increase Care Safety using Computer Image Detection-A Physical Data Simulation

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#### Abstract

The Internet of things (IOT), body sensor monitoring, and human decision support systems have become a hot topic. Although a variety of EMD have emerged in the market for many kind of purposes, still there is lack of device for intravenous infusion detection (IID) which is a crucial method for in-patient. Traditionally, a nursing staff comes back to infusion has not been paid too much attention due to the nurse's heavy workload, particularly in Taiwan. Sometime, there is medical dispute between patients and hospital caused by improper intravenous infusion. These are infusion stopped without notice, wrong infusion speed without notice, blood reversing during the process of infusion without notice etc. Therefore, the research of this project is to use a monitoring tool to watch the process of infusion to get some notice in advance for events mentioned above. We hope improving the quality of nursing care and to reduce the staff's workload. In this study, the new math formula would be proposed. The experimental results showed that the theoretical expectation is not identical to real environments. IoT infusion must correct the real condition based on these experimental data. In the future, the research experiment would be applied into human. The research would increase care safety via computer image detection.

Keywords: IV, intravenous infusion detection, IID, alarm system, process management.



#### No.10141

## A Secure Application Platform Using Blockchain Technology for Internet Banking

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#### Abstract

Internet banking has been coming into a crucial part of business operations and offers an agile, easy, and convenient way for financial transaction services. With the Internet connectionthrough multiple devices, Internet banking customers benefit from less time to process transactions and get access the transactional information from anywhere, and financial institutions can also create a cost-effective means of lowering operating expenses and simplifying existing procedures to gain efficiencies and cost savings. Although Internet bankingbrings corresponding benefits and initiatives, it does carry security risks related to critical transaction records and sensitive financial information over the public Internet network. To secure Internet banking services and maintain customers' trust and confidence, many banks have applied to various forms of authentication mechanisms, such as two-factor, multi-factor, and biometric solutions, to prevent identity theft, fraudulent transactions, and unauthorized accesses from cyberattacks. However, deploying factor-related authentication techniques still cannot fully protect customers from security breaches to banking applications apart from maintaining significant investments and costs needed in equipment. This study proposes an alternative model to deal with the status quo of Internet banking authentication processes. By adopting the underlying techniques of blockchain technology as an innovative use through a decentralized application running smart contracts, the proposed scheme can achieve efficient, immutable, transparent, and secure financial services between customers and financial institutions in Internet banking ecosystems.

Keywords: Internet banking, Blockchain technology, Decentralized application, Smart contract



## **Does the Sustainability Matter the Corporate Governance Performance? A Case of Transport Manufacturing Industry**

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#### Abstract

This paper aims to examine how sustainability performance associate with the governance performance of 49 MNEs in the transport manufacturing industry in 2019. In particular, we apply the two-stage range directional measure with undesirable and nonpositive data in this study. According to the result, on average, American enterprises have the best performance in compared with Asian and European enterprises. Additionally, we also investigate how the (i) three individual E, S, and G (IESG) performance; and (ii) subcomponents of the three individual E, S, and G (SIESG) performance are nonlinearly associated with the firm performance. In addition, we also highlight both the costs and advantage of the ESG performance for conducting sustainable development and stakeholder engagement.

**Keywords:** data development analysis; sustainability performance; governance performance; transport manufacturing industry; two-stage range directional measure model.



## The Moderating Role of Indulgence and Long-Term Orientation on the Relationship between Corporate Social Responsibility and Corporate Performance in Hospitality and Travel Industry

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#### Abstract

The two-stage data envelopment analysis (DEA) network model is utilized in this study for examining corporate social responsibility and corporate performance of 18 multinational enterprises from 2015 to 2020 in hospitality and travel industry. The results are helpful for global hospitality and travel companies to improve their performance. The result shows that the indicator of corporate social responsibility, social pillar score has a positive impact on profitability efficiency of MNEs in hospitality and travel industry. Moreover, we found that national cultures indulgence and long-term orientation act as moderators in the relationship between corporate social responsibility and corporate performance. This study found that indulgence has negative impact on relationship between social pillar score and sustainability efficiency while long-term orientation has positive impact on relationship between social pillar score and sustainability efficiency. In other words, firms located in low indulgence and long-term orientation could more successful in turning social activities into sustainability outcomes. Another finding is that indulgence has positive impact on relationship between social pillar score and profitability efficiency while long-term orientation has negative impact on relationship between social pillar score and profitability efficiency. Therefore, firms located in high indulgence and short-term orientation could get more favorable in turning social activities into profitability outcomes. Our last finding is long-term orientation has positive impact on relationship between environmental pillar score and profitability efficiency. The findings of this research recommend managers of multinational enterprises in hospitality and travel industry to consider cultural differences when they make decisions regarding to corporate social activities to help them improve their sustainability and profitability efficiency.

**Keywords**: corporate social responsibility; corporate performance; indulgence; long-term orientation; hospitality and travel industry; dynamic DEA network model



## Moderating Effect of Environmental, Social, and Governance on The Relationship Between Sustainability Performance and Corporate Performance

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#### Abstract

Sustainability Performance (SP) contributions are critical for corporate profit when considering longterm economic growth, but they also impose additional financial constraints for many firms. This paper examines the association between pharmaceutical firms' SP and corporate performance (CP) using data from 150 pharmaceutical listed companies from 2016 to 2020. Furthermore, corporate social responsibility (CSR) is classified as environmental, social, and governance in order to investigate its moderating influence on SP and CP. SP appears to have a favorable and considerable influence on CP in pharmaceutical listed companies. According to the findings, a higher social pillar score (SPS) can accelerate the good effect of SP on CP. Furthermore, in terms of region, the American group surpasses the other groups in terms of sustainability and corporate performance. These findings give theoretical and practical benchmarks for CSR management practices and CP improvement. Industries should actively engage in CSR and maximize their social concern investment.

**Keywords:** corporate performance; sustainability performance; corporate social responsibility; pharmaceutical industry; the two-stage dynamic DEA.



## The Relationship Between Corporate and Sustainability performance and Moderating Role of Environmental, Social, and Governance: Evidence in the Pharmaceutical Industry

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#### Abstract

Sustainability Performance (SP) contributions are critical for corporate profit when considering longterm economic growth, but they also impose additional financial constraints for many firms. This paper examines the association between pharmaceutical firms' SP and corporate performance (CP) using data from 150 pharmaceutical listed companies from 2016 to 2020. Furthermore, corporate social responsibility (CSR) is classified as environmental, social, and governance in order to investigate its moderating influence on SP and CP. SP appears to have a favorable and considerable influence on CP in pharmaceutical listed companies. According to the findings, a higher social pillar score (SPS) can accelerate the good effect of SP on CP. Furthermore, in terms of region, the American group surpasses the other groups in terms of sustainability and corporate performance. These findings give theoretical and practical benchmarks for CSR management practices and CP improvement. Industries should actively engage in CSR and maximize their social concern investment.

**Keywords:** corporate performance; sustainability performance; corporate social responsibility; pharmaceutical industry; the two-stage dynamic DEA.



## The Use of Linear Mixed Mode for Assessing Students' Technological Creativity

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#### ABSTRACT

To assess scorer reliability, the following two approaches are described and compared: Kendall coefficient of concordance and linear mixed model. In this research, ten scorers who are expert at their own fields were invited to appraise 18 teams' creative products, the researcher then used Kendall coefficient of concordance and linear mixed model to assess scorer's reliability. Kendall coefficient of concordance is often used to assess concordance among scorers, but it can not sense if there is scorer grouping phenomenon appeared. Two heterogeneous groups are used to analyze ten judges' responses to 18 teams' creative products: the creative thinking (CT) group and normal achievement (NA) group. For CT group, the Jing-Jyi Wu's Test of Creative Thinking (WTCT) was adopted to determine nine heterogeneous teams. Based on their academic performance, students were divided into nine heterogeneous teams in the controlled group. After a cooperative learning, they presented the project works with creativity. Then, ten judges used consensual assessment technique (CAT) to evaluate the technological creativity of students in the two groups. The study used Kendall Coefficient of Concordance to acquire every judge's score in technological creativity among students' project works. By using Linear Mixed Model, researcher found that scorers from different expert fields have significant difference when they assess product structure that can not be found by using Kendall Coefficient of Concordance. Further, Linear Mixed Model Equation of Nested Design in ANOVA was used to evaluate the performance of technological creativity accurately.

Keywords: : cat (consensual assessment technique); tECHNOLOGICAL creativity; nESTED design



## The Application of Instant Messaging in Organizational Communication by NGO -A Study of Taiwan Junior Chamber

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#### Abstract

This paper mainly explores the relationship between the use of communication tools, willingness to use, communication satisfaction and communication effectiveness by NGOs using instant messaging in organizational communication, and the willingness to use as a moderator to understand its relationship with satisfaction and effectiveness mediating effect. The research subjects took the members of the Taiwan Junior Chamber as a sample, citing and designing appropriate scales for questionnaire testing. A total of 301 valid questionnaires were collected for analysis. The results show that using instant messaging as a communication media has a significant positive correlation with communication satisfaction and communication effectiveness, and the willingness to use can moderate the impact of instant messaging on communication satisfaction and communication satisfaction and communication satisfaction and satisfaction and communication satisfaction will improve the communication satisfaction and effectiveness.

Keywords: NGOs, Instant messaging, Line, Communication Satisfaction, Communication Effectiveness



## The Study on Consumption Behavior of Direct Selling Members of Beauty Care Products

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#### Abstract

In generally, the research on customer satisfaction and customer loyalty of beauty care product is mainly to analyze external customers, and for direct selling members who are both customers and direct sellers, that is, the members of the organization are also customers, lack of scholars have discussed this issue. The main purpose of this study is to explore the correlation between direct selling members' consumption experience, purchase intention, customer satisfaction and customer loyalty through members of direct selling. The results of the study found that there were significant differences in different demographic variables such as region, age, marriage, education, occupation, personal monthly income and other demographic variables of direct selling members in terms of consumption experience, purchase intention, customer satisfaction and customer loyalty. The results of this study also show that consumption experience has a significant positive effect on satisfaction, and satisfaction has a significant positive effect on satisfaction and satisfaction has a significant positive effect on loyalty.

Keywords: Beauty care product, Consumption experience, Purchase intention, Satisfaction, Loyalty



## The Study on the Crisis Management Practice of Travel Agencies during the Period of Covid-19 Pandemic

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#### Abstract

In 2020, when the world was ravaged by the Covid-19 Pandemic, Taiwan was the first to adopt the method of containment to respond to the attack of the virus. Although it has effectively blocked the invasion of Taiwan by the Covid-19 Pandemic, the first-line aviation industry and the business of travel agencies have rapidly shrunk to less than 10%, and travel agencies are facing an unprecedented crisis. The main purpose of this paper is to study the impact of travel agencies' crisis management practices on willingness of employee retention and business operations during the COVID-19 outbreak. The results of the study found that there are significant differences in the different statistical variables on crisis management practice and the effect of crisis management practice. Secondly, crisis management practices have a positive impact on business operations. Fourth, the talent management, labor force and cost control included in the crisis management practice have a positive impact on willingness of employee retention and business operations.

Keywords: COVID-19, travel agency, crisis management practice, employees' willingness to stay, business operation



## Applications of Fishbone Diagram and DEMATEL Technique for Improving Warehouse Operation- a Case Study on YMT Overseas Imported Components

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#### Abstract

A case study on YMT (Yamaha Motor Taiwan Co., Ltd.) overseas imported components was initiated by Yan-zhang Lin who is responsible for efficiently managing warehouse operation to YMT three factories, whose objective was to improve the process efficiency of warehouse operation for supplying overseas imported components. This paper is aimed at describing the improved course of events which include identifying encountered problems in practical works, classifying relative problems of cause-and-effect relationship by Fishbone Diagram, understanding the influential relationships through DEMATEL technique, and improving the warehouse operation of overseas imported components.

The results showed that the crucial factor "process" should be first improved on the supply of YMT overseas imported components. In a sense, the company can gain a better performance in the entire warehouse operation because "process" is the most important crucial factor. In addition, the crucial factors of "environment" and "people," can be taken into consideration for enhancing the "process" performances because they can remarkably influence on crucial factor of "process", and further impact on overall process performance of warehouse operation.

The main contribution is a submission of the six critical factors for improving the process performance by using Fishbone Diagram, as well as including an importance and influential relationships among six critical factors through DEMATEL method. Also, a proposed process will be able to be utilized for improving on YMT overseas imported components of warehouse operation in practice. The research limitation is that due to time limitation, this paper has not taken all problems into consideration. Hence, it is necessary to focus on the other critical factors for improving warehouse operation performance in future studies.

Keywords: Logistics Strategy, Warehouse Operation, Fishbone Diagram, DEMATEL Technique, Influential Relationship.



## The Impact of Corporate Social Responsibility on Shipping Supply Chain Risks: Evidence from the Obstruction of the Suez Canal in 2021

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#### Abstract

This study aims to investigate whether Corporate Social Responsibility (CSR) activities reduce supply chain disruptions by examining the impact of the Suez Canal obstruction on the Ever Given container ship in March 2021. This study conclude that the more responsible companies have higher returns and are less affected by this event than the less responsible companies; the less responsible companies have lower returns. The companies with better CSR have a lower impact on their supply chains when faced with disruptions in the supply chain.

**Keywords:** Suez Canal obstruction, Corporate Social Responsibility, Supply Chain Risks, Event Study, Ever Given container ships



## User's Emotion Regulation and Cognitive Process for FinTech Chatbots

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## Abstract

This research builds an emotion response model based on the framework of stimulus organism response theory to interpret the mechanism. That mechanism describes how emotional cues of fintech chatbots affect the use intention through the mediating role of users' emotional arousal and positive emotions toward fintech chatbots. Former researchers almost take the utilitarian orientation (e.g., ease of use and usefulness) to interpret the use intention of information technology, such as the technology acceptance model, theory of reasoned action, and theory of planned behavior, but few studies apply sociological psychology to interpret the field of human-chatbot-interaction in an emotion response setting. This research proposes a novel framework based on the social response framework to fill the gap and can assist vendors in implementing the use intention to realize a profit.

**Keywords:** Emotional Arousal; Emotional Cues; Positive Emotions Toward FinTech Chatbots; Use Intention of Chatbots; Stimuli-Organism-Response Framework.



## Bank Characteristics, COVID-19 and Digital Payment Developments: The Case of Taiwan

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#### Abstract

This study investigates the determinants of digital payment developments in Taiwan. We examine the effects of bank characteristics, economic performance, and COVID-19 on digital payments. Empirical results show that size effect exists. Banks with bigger financial scale, more effective credit cards, more branches and ATMs serve more customers using digital payments. Impacts of macro conditions, the GDP and confirmed cases of COVID, during the data period are nonsignificant. The results highlight the importance of bank resources when they compete with other banks. Larger financial or operational scales increase banks' competitiveness in developing digital payments.

Keywords: Bank characteristics, COVID, Digital payments, FinTech, Size effect, Taiwan



## The Relationship among Festival Satisfaction, Place Attachment, and Place Word of Mouth

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## Abstract

Recently, many cities would host festivals to develop local tourism and improve local economy. Many studies discussed the impact of festival satisfaction to place attachment on the host city. This study includes place attachment into the structural to discuss the impact on the intention to spread word-of-mouth. Also check the mediating effect of attachment between festival satisfaction and word of mouth. Accordingly, data from 345 tourists on the festival, the results showed that festival satisfaction can affect place attachment, and place attachment would affect place word of mouth. In the last, we try to discuss the mediating role of place attachment between festival satisfaction and place word of mouth.

Keywords: Festival satisfaction; place attachment; place word-of-mouth



## A Moderating Mediation Model about the Retention of AtypicalWorkers in Government

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#### Abstract

Human resources are the most important assets of a company, so this study is based on the Affective Events Theory to explore the impact of the organizational change perception of atypical workers in administrative agencies on intent to stay through job insecurity and work engagement. Perceived organizational support and neuroticism were used as moderator variables to explore whether these two variables would have moderating mediation effects on intent to stay. This study mainly uses structured questionnaires as a tool to collect 389 valid case samples of atypical workers in administrative organizations at all levels. PROCESS is used to test the effects of mediation and mediating moderation. The results are as follows: (1) The mediation effect of Job insecurity on the relationships between organizational change perception and intent to stay is not significant; (2) work engagement mediates the relationships between organizational change perception and intent to stay; (3) perceived organizational support is effective in organizational change perception, job insecurity and intent to stay's mediating moderation is not significant; (4) Neuroticism has significant mediating moderation effect on the relationships among organizational change perception, work engagement and intent to stay. The above results further expand the researchers' understanding of atypical workers and Affective Events Theory in the context of organizational change.

**Keywords:** Organizational Change Perception, Job Insecurity, Work Engagement, Intent to Stay, Perceived Organizational Support, Neuroticism



## Balancing Returns and Royalties of Private Participation project: Controlling the Probability to Loss

## Fen-may Liou<sup>1</sup>, Bor-Liang Chen<sup>2</sup>

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## Abstract

Private participation in infrastructure (PPI) or public-private partnership (PPP) projects confronts uncertainty from planning throughout the transfer stages. The "revenue risk sharing" and "upside revenue sharing" are common approaches for the government to balance risk and return of private participants. This research aims to develop a "fair return" and "upside revenue sharing" analysis model. A real options model is used to define the "upside revenue", which is the base for revenue sharing. In addition, Monte Carlo simulation is used to assess the effect of revenue sharing on the project's probability of loss. Throughout the above-described approaches, we developed a "fair return-probability to loss frontier", which is a valuable reference for feasibility study, planning, and negotiation stages of PPI projects. The model developed by this research is applied to PPI projects.

Keywords: discounted cash flow, real options, valuation



## City Tour

(Bannan line: Sun Yat-sen Memorial Hall)

Sun Yat-sen Memorial Hall

Songshan Cultural and Creative Park



...

(Bannan Line:Ximen)

✗ The Nishi Honggan-ji Temple



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