



**EXTENDED
ABSTRACTS BOOK**

ASIAN SOCIETY FOR INNOVATION AND POLICY (ASIP)

SCHOOL OF BUSINESS

Editors

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Extended Abstract Book

Extended Abstract Book
Asian Society for Innovation and Policy (ASIP)

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FOREWORD

The 13th Asian Society for Innovation and Policy (ASIP) Conference on 'Entrepreneurship and Digital Society' has been hosted by Asia Pacific University of Technology and Innovation (APU). Our main aim has been to provide a platform for discussion, to facilitate networking, and to bring together practitioners, researchers, and students from across Asia and the rest of the world. The conference was held over two days, from 22nd to 23rd September 2023 in Kuala Lumpur, Malaysia. The conference included more than 15 parallel sessions with national and international presenters covering topics on 'Technopreneurship and Start-ups', 'Societal Capital and Social Entrepreneurship', 'Science and Technology Innovation and Policy', 'The Innovation of Production, Distribution and Consumption', and 'Globalisation and Value Chain'. We would like to thank the presenters, speakers, moderators, reviewers, panel chairs, committee members and supporting staff and students who contributed to the success of the conference. Special thanks go to Emerald Publishing and the International Institute of Innovation and Sustainability. Without your individual and collective support this conference would not have been so fruitful, with this book of abstracts the culmination of efforts and a reflection of its success.

We wish all attendees of the ASIP Conference 2023 the very best, and we look forward to working together in the future.



*Dr Jason Turner
On behalf of the Organising Committee
Conference Chair*



*Dr Ko Young Joo
President ASIP*

Special Thanks to All Abstract Contributors!

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The Political Economy of Science, Technology, and Innovation in China

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Abstract

Purpose –This book seeks to achieve an understanding of China’s development in science, technology, and innovation (STI) from an institutional or a political economy perspective.

Design/methodology/approach –We were not that satisfied with the existing literature as STI are more than a market or an enterprise’s behavior in Joseph Schumpeter’s sense but involve politics, institutions, and the role of the state. Indeed, behind China’s innovation is the undeniable role, or the “visible hand” of the Chinese state. Of particular interests for our purpose are institutional structure behind four functions of the central government – policymaking, funding, talent-attracting, and organization (PFTO). We introduce new sets of data and analyze the data to provide new evidence for exploring internal structures of the state.

Findings and Conclusion – Our book is China focused and takes science, technology, and innovation in China as the research topic but our findings go beyond China. As

the coordination and cooperation between different government agencies are challenges facing all countries in the world, the empirical findings from the Chinese practice are of enlightened values to other countries.

Originality/value –The book contributes to the literature of China’s science, technology, and innovation studies from the perspective of political economy, which is the first of its kind to our knowledge.

Keywords STI, Political Economy, China, Institutional Structure.

Initiatives from DOST Philippines to encourage Innovation & Entrepreneurship in Universities

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Abstract

Purpose – The presentation delves into DOST's strategies and initiatives to cultivate innovation in universities. These encompass knowledge generation, technology transfer, commercialization and business incubation. Additionally, the initiatives also involve enhancing capacity, cultivating an entrepreneurial mindset, and providing support for policy development. As the global landscape grows more demanding, comprehending the crucial impact of DOST's support initiatives becomes imperative for universities, policymakers, and stakeholders who are united in their aim to leverage innovation and entrepreneurship for sustainable advancement.

Design/methodology/approach – Both quantitative and qualitative secondary data were sourced from activities/events documentation, actual experiences of DOST-MIMAROPA, and the national development plan. These data sets were utilized to pinpoint challenges and gaps in the promotion of innovation and entrepreneurship in universities.

Findings and Conclusion – DOST-MIMAROPA's extensive support programs have gained interest and recognition from innovation stakeholders. The office's success in nurturing innovation and entrepreneurship in

universities, is evident in the increased Intellectual Property Rights (IPR) applications, research output commercialization by adopter-investors, and the creation of university-based technology business incubators (TBIs). These efforts collectively enhance academic advancement and socio-economic growth.

Originality/value – DOST's key role in fostering innovation and entrepreneurship, aligned with the national agenda, highlights the importance of collaborative work among government, academe, and industry. These joint efforts drive innovation and open pathways for progress. This involves leveraging existing innovation centers, establishing specialized facilities like Niche R&D centers, optimizing incubation processes through the establishment of ITBI Program, facilitating seamless research-to-application transition via TransDI, and ongoing consultation with RDI stakeholders to align with market demands and technology trends.

Keywords - Entrepreneurship, Innovation, Research and Development, Academe-Government-Industry collaborations

Paper type – Case Study

Humanising Artificial Intelligence: Fairness and Sustainability

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and Innovation

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Purpose: This keynote highlights and elucidates two crucial issues with using artificial intelligence. The first is fairness, the ethical and equitable treatment of individuals or groups when developing or deploying machine learning systems. Awareness of fairness issues is critical to ensure legal compliance and prevent negative social impacts. The second is sustainability. Good AI models typically require training with large data sets, consuming large amounts of energy to train and operate. There is a need to explore more efficient training methods using smaller training data sets.

Methodology: The study will first explore the definitions of fairness in machine learning and then move on to representative examples of bias in machine learning applications. We will see that a significant cause of these issues is the inherent bias in data. The complexity of AI models, such as deep neural networks, necessitates extensive computational resources, leading to substantial power consumption. We illustrate these concerns around energy consumption with several examples.

Findings and Conclusion: The interventions to mitigate biases in machine learning at three points along the machine learning pipeline; pre-processing – using metrics to quantify bias in data and then correcting them, algorithm development – design mechanisms to change

the way algorithms learn, post-processing – adjust decision thresholds to reduce disparate impact.

Originality/value:As AI applications in businesses proliferate, leaders and entrepreneurs will now need to thoroughly understand the impact of using AI. This need is also driven by heightened commitments to the ESG (Environmental, Social and Governance), whether voluntary or regulatory. It is hoped that this talk will kick-start the participants' journey towards responsible use of AI.

Innovative Strategies in Strengthening Technopreneurship in the Academe

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Abstract

Purpose – The purpose of this paper explores the innovation in Palawan State University through the establishment of the Master of Science in Technopreneurship program and integrating the Palawan International Technology Business Incubator (PITBI) as the learning laboratory.

Study design/methodology/approach – MS Technopreneurship is a pioneer program in the Philippines in support to growing technopreneurship ecosystem of the university as well as the region and the country. The approach used was the review of the curriculum of the MS Technopreneurship and an evaluation of the first batch of enrollees and assessing their progress in their academics and how they would apply it to their thesis.

Findings – The curriculum of the MS Technopreneurship is being revised to add more practical immersion in the TBI vis-à-vis the theoretical learnings in the lecture. PITBI will serve as the learning laboratory for MS Technopreneurship students, fostering a dynamic ecosystem for aspiring technopreneurs to develop their startup ideas and ventures.

Practical implications – This paper delves into the key objectives and initiatives undertaken by PITBI, including its role in providing essential mentorship, access to

resources, and networking opportunities to nurture the growth and success of startup ventures.

Originality/value – This paper investigates the impact of this innovative venture on the development of a thriving entrepreneurial culture within the university and the broader community. This underscores the significance of such initiatives in advancing innovation and technopreneurial excellence within academic institutions.

Keywords – MS Technopreneurship, Learning laboratory, University TBI, Startup ecosystem

Paper type - Conceptual paper

Artificial Intelligence Researcher Network Centrality Analysis Research

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Abstract

Purpose : In this study, through analysis of co-author networks of papers produced as national R&D research tasks, The purpose of this study is to analyze the characteristics of the centrality of the national R&D researcher network.

Study design/methodology/approach: In this study, the papers produced as national R&D research projects were analyzed through co-author network analysis. Researcher centrality was analyzed.

Findings: In the field of artificial intelligence, collaboration between institutions and countries is taking place in various ways, showing the characteristics of convergence studies. Collaboration is taking place around major institutions with high research productivity, and large-scale international collaborative research is taking place around advanced countries in the field of artificial intelligence, such as the United States and Germany. This shows that the influence of the institution is important to overcome the partner's uncertainty in collaboration, and it can be confirmed that the partner's expertise and reliability are key collaboration factors for successful task performance, especially in the case of national R&D projects.

Originality/value: The originality of the research is that there is no research in the field of artificial intelligence centered on domestic R&D research papers.

Keywords: Research Network Analysis, AI, network centrality

Research Type: Research paper

The Role of Bandung Techno Park in Strengthening Entrepreneurship in Telkom University

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Abstract

Purpose: The vital role of Bandung Techno Park (BTP) in promoting entrepreneurship within the Telkom University environment is reviewed in this case study. The study focuses on the partnership's dynamics, strategies, and outcomes as well as how the Techno Park promotes entrepreneurship among academics and students.

Study Design/Methodology/Approach: The study adopts a comprehensive approach by analyzing the practical implementation of BTP within Telkom University and conducting a literature review on entrepreneurship in academic contexts.

Findings: BTP functions as an innovation hub, creating a setting where fresh concepts are generated. It offers students and entrepreneurs a supportive ecosystem that develops early-stage enterprises, delivering mentorship, resources, and direction, through its incubation programs. BTP also serves as a catalyst for the creation of intellectual property and dedication to research and development (R&D). Furthermore, BTP is essential to the commercialization process since it enables the conversion of research findings into commercially viable goods and services, bridging the gap between academia and the market. In conclusion, BTP serves as a crucial pillar of Telkom University, promoting innovation, incubation, the

development of intellectual property, R&D, and the implementation of commercial initiatives.

Originality/Value: The insights gleaned from this study offer valuable lessons for other educational institutions seeking to promote entrepreneurship through technology parks. This study emphasizes the transformative role of Bandung Techno Park in nurturing the next generation of entrepreneurs within Telkom University.

Keywords: Bandung Techno Park, Telkom University, entrepreneurship, innovation, incubation, commercialization

Research Type: Case study

Implementing Business Plan as a Program for Entrepreneurial Practicum

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Abstract

Purpose: The purpose of the study was to assist entrepreneurs in the province of Oriental Mindoro, Philippines in acquiring the knowledge, principles, and practices that will improve their chances of success. It evaluated the Business Plan Implementation as part of the Entrepreneurial Practicum Program of the Bachelor of Science in Entrepreneurship offered by Mindoro State University. Within two to five years, program graduates will launch, run, and manage a business or take on management responsibilities in the business sector.

Study Design/methodology/approach: Using descriptive research design, the study assessed the implementation of the practicum program to 30 student-respondents. Frequency and percentages were presented to describe the variables under study.

Findings: According to the study's findings, the most well-understood organizational, leadership, and staffing themes among the selected student-respondents were cooperation and unity, or everyone's involvement.

Practical implications: The program's high point can be widely described as the responsibility of starting the business. For it, each student-respondent is responsible. In order to achieve proper implementation, it is essential to clearly communicate goals and expectations and to support strategies with enough business-supporting resources.

Originality/value: In order to become innovators and leaders who can effectively convey their ideas and who desire to envision a better society and economy, the student-respondents in this study still had knowledge, values, and talents that they needed to develop and improve.

Keywords: Business Plan Implementation, organizational, leadership, staffing

Paper type: Research paper

**An overview of building entrepreneurial capability
in Hanbat national university, South Korea**

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Abstract

Purpose: This presentation will outline and explore how, as a technology-focused institution, we have encouraged an entrepreneurial culture among students and developed start-up skills both on and off campus. We have constructed an ecosystem with a procedure for finding start-up businesses and building them up, identified and trained potential entrepreneurs, and established an academic system that is conducive to start-ups.

Design/methodology/approach: (Networking)
Building a network for startup education, startup incubation, and real startups while collaborating with regional organizations that assist startups. (Education)

Creating an entrepreneurship management department and creating extracurricular activities. (Facilities) Establishing infrastructure for prototype creation, teamwork, and information sharing to support startups.

Findings: More than 7,300 students have enrolled in 77 courses over the previous three years as part of our track record for running start-up-friendly courses. In addition, 160 start-up clubs were established, and we have 7 times organized start-up contests and camps. The assistance for faculty start-ups and neighborhood entrepreneurial firms, however, stands out as having the most noticeable real outcomes.

Originality/value: With the help of the Ministry of SMEs and Startups, 10 million USD over 10 years were acquired for the Graduate School of Entrepreneurship, helping to develop the best entrepreneurial tradition in South Korea's central area. The Minister of SMEs and Startups Award (2020) was given to L-greentech Co., Ltd., a professor startup firm, for its contribution to the creation of a startup incubation center. ANP, a Kosdaq-listed business founded by Prof. Park, has increased its market worth by \$2 billion while creating battery materials.

Keywords Entrepreneurship, Start-up, Academy-Industry collaboration

Entrepreneurial Mindset and Innovation in Higher Education: The Role of Design Thinking

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Abstract

Purpose – The purpose of this paper is to examine the role and relevance of Design Thinking in fostering entrepreneurial mindset and thus innovation within institutions of higher education.

Design/methodology/approach – conceptual paper based on review of literature and case studies across the globe.

Practical implications – Entrepreneurial pursuits within higher education e.g., start-up weekends, bootcamps, hackathons etc. can benefit from DT sessions as a precursor to ideation and testing of commercial viability of innovative concepts/processes/products.

Findings and Conclusion– The paper posits that Design Thinking (DT henceforth) fosters a growth mindset within organizations. The five stages of DT— viz. Empathy, Define, Ideation, Prototyping, and Testing, are interconnected with Dwek’s core dimensions of cultivating a growth mindset. This in turn, influences the ability of individuals and teams to think strategically and innovatively. Growth mindset ideals are crucial to foster innovation and entrepreneurial traits in higher education.

Originality/value – Focusing on linking DT to enterprise innovation initiatives in higher education—

with a growth mindset perspective at the fulcrum of such interventions.

Keywords – Design Thinking, Growth Mindset, Innovation, Attention, Higher Education.

Paper type – Conceptual Paper.

Relating Academic Disciplines Of The Korean Scientists With Their Scientific Productivity

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Abstract

Purpose: The university type, ranking and research funding along with national and regional R&D priorities (budgets), and sectoral competitiveness have had a role in scientific productivity of academics. However, it is less known how the disciplinary or interdisciplinary scientific and technological knowledge is associated with their scientific productivity. This paper will explore how the disciplinary and interdisciplinary focus of South Korean academics has played a part in their scientific productivity in terms of numbers of KCI and SCI publications.

Design/methodology/approach:

An analysis of the scientific outputs of Korean scientists has been conducted to explore the associations of their KCI and SCI publication numbers with their disciplinary engagement along with a few control variables including location and age. A dataset has been acquired on individual characteristics and performances of more than 33000 Korean academics in science and engineering spread over a number of years. It has

been curated to define specific academic disciplines. Regression analysis was employed to calculate the associations between the academics' disciplines and their scientific outputs.

Findings and Conclusion: We expect to find that deeper (singular) disciplinary focus leads to higher scientific productivity of Korean scientists in KCI publications but interdisciplinarity has played a significant part in higher number of SCI publications. We also expect to find academics KCI publications are more aligned with national and regional priorities (disciplines earmarked for R&D funding/budgets) but SCI publications are relatively more aligned with global disciplinary agendas. Lastly, we also expect to find a role of location of academics in terms of being at a metropolis or regional university on their disciplinary scientific outputs.

Originality/value: The research provides critical insights into R&D and scientific productivity management in the wake of emerging multidisciplinary and interdisciplinary research agendas. It could also have a role in guiding S&T policymaking process and aligning research agendas at the regional and national levels with the industrial policy for competitiveness.

Keywords: Science and technology policy, R&D management, Interdisciplinary

Assessing The Matthew Effect On Science And Technology Research Grants At The Institutional Level

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Abstract

Purpose: The current study examines whether the Matthew effect, often described as “The rich get richer and the poor get poorer,” exists at the institutional level for science and technology research grants in South Korea. Network analysis employed to identify any positive feedback loops or self-reinforcement mechanisms associated with the Matthew effect at the institutional level.

Design/methodology/approach: Utilized integrated data on research grants subsidized by governments, including information about recipients, institutions, grant amounts, and research periods spanning from 2010 to 2021. Descriptive and inferential statistics, including analysis of variance, were performed to present the trends in research grant distributions and regional disparities. Co-occurrence network analysis was also employed to discern network structures and the positions of institutions in research grants.

Findings and Conclusion: Research grants have been concentrated in the top 20 universities and research

institutions, accounting for approximately 60% for the whole research period. Regional disparities in research grants have been exacerbated by the fact that about half of the prestigious universities and institutions are located in the capital region.

Originality/value: This paper explored the Matthew effect in science & technology research grants at the institutional level rather than the individual level. The observed concentration of research grants into a number of universities and institutions and regional inequality. The results have prompted discussions about appropriate practices of research grant distribution.

Keywords Research grant, network analysis, Science & technology

Does Network Enhance the Productivity of Scientists? The Case of South Korea

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Abstract

Purpose: This study explores the rarely explored relationship in earlier research between network features and scientific productivity. Both individual traits (such as gender, age, and disciplines) and environmental factors (such as locations, funding levels, and institutional reputation) have an impact on scientific production.

Design/methodology/approach: We examine the general properties of the research network (such as node distribution, density, and mean distance) and investigate whether network centrality is associated with scientific productivity using a special dataset from the Korean Citation Index (KCI) and SCI (Science Citation Index).

Findings and Conclusion: First and foremost, we anticipate discovering a scale-free network in the academic collaboration network of Korean scientists and engineers. Second, there can be a disciplinary difference seen in these research networks. Thirdly, a substantial correlation between their disciplinary differences and the relationship between the researchers' network positions and scientific productivity could be seen. The best predictor of scientists' productivity, in particular, may be their degree of centrality.

Originality/value: First, since the research community has been shown to be a small one, science policy needs to

be revised. The position in the collaborative research has to be measured and tracked by a variety of network indicators, next. Thirdly, the government must exert greater effort to foster inter-disciplinary research in areas where collaboration is weaker.

Keywords Social Network, Research Collaboration, Centrality, Scientific Productivity

The Evolutionary Trajectories of Knowledge Spillovers: The Role of Intermediary Basic Research Networks in the Early Stage of Development

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Abstract

Purpose: This research explores the evolutionary trajectories of knowledge spillovers and unveils the pivotal role played by intermediary basic research networks. We investigate how government-funded basic research triggers the co-evolution of other relevant fields, specifically in the earlier stage of scientific development.

Design/methodology/approach: This study captures knowledge spillover by constructing research networks based on research contracts, co-authorships, and partnerships. We measure the influence of the basic research network by employing network analysis and categorizing the bridging roles using Gould and Fernandez's typology. The impact of basic research on other research networks is assessed using GVAR (Global Vector Autoregression) models.

Findings: The research uncovers significant patterns in how knowledge spillovers efficiently spread over time across other research fields, shedding light on the research fields that contribute to the overall promotion of research.

The research might also reveal the mechanisms through which interdisciplinary research policies promote the dissemination of knowledge across sectors, potentially identifying factors that enhance their effectiveness.

Originality/value: This study empirically addresses the dynamics between knowledge spillovers and R&D policy, suggesting that the presence of intermediary basic research networks and their impact over the early developmental stages of states could potentially lead to accelerated progress and growth.

Keywords: Knowledge spillover, research network, research policy, GVAR analysis

How MSMEs can Grow and Thrive Innovatively?

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Abstract

Purpose – The purpose of this paper is to examine how the community and environment can be part of a strong support system for MSMEs to grow and thrive innovatively.

Design/methodology/approach – An advisory firm-based private company conducting an entrepreneurship program in which a particular angle of perspective focuses on MSMEs to look for an approach for business to grow and thrive using an innovation angle as the base. Sessions of business advisory are conducted in groups and individual sessions. The outcomes of such programs are upskilling business acumen skills and business education for micro and small businesses in Malaysia.

Findings: Throughout running over 36-50 programs in a year with a majority of micro and small businesses from different sectors, sizes, and localities since the year 2018, the result of observations through visits and interviews shows that understanding the types of innovation helps these enterprises gain more insights and practical action plan to focus on their business growth. Furthermore, by supporting MSMEs in understanding the focus, helps them move at ease. This is enhanced by the 3 main elements found in the majority of business founders.

Originality/value –The value of these findings lies in their practicality and understanding of the root of the business objectives and their capacity as micro and

small enterprises in Malaysia. The originality and value of this fieldwork is the number of samples, which provides opportunities to analyze outcomes accurately.

Keywords Innovation, micro and small enterprises, leadership in business, collaboration and partnerships, technology adoption

Paper type Research paper

Does Cronyism Matter In Grant Competition? Evidence From South Korea

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Abstract

Purpose: This paper aims to examine the impact of personal ties on the assessment results of peer-reviewed national R&D projects in South Korea, to see if the current peer review processes guarantee fair competition among applicants.

Design/methodology/approach: Analyze assessment results of more than 100,000 research proposals that were assessed under national R&D schemes administered by 11 research coordination agencies in Korea between 2012 and 2022, using linear regression. Focus is particularly on the diverse personal relationships between reviewers and applicants. Cases were sorted according to their research fields to enable the field-by-field comparison.

Findings: Evaluators tend to assign relatively high scores to research proposals submitted by people from the same university. Other personal ties, such as regional affiliation and alma mater have little impact. This crony relationship got worsened over time, as the time-series data reveal. The proportion of projects funded is higher when the reviewers include people from the same university than when they do not.

Originality/value: Based on a vast amount of undisclosed individual data regarding grant proposals and peer review, this paper analyzes how the personal ties between

reviewers and applicants affect the grant success of individual proposals. The results suggest that R&D administering agencies in South Korea may wish to strengthen research ethics regulating reviewers' conflicts of interests.

Keywords cronyism, peer review, R&D, conflict of interests, personal ties

**The Matthew effect: Divided Research Funding of
the ScienceFields of Korean Universities from
Competing**

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Abstract

Purpose: This study aims to suggest policy implications and reflect on the policy implications and characteristics of university majors, focusing on the academic outputs and research resources as a competitive reward system in the scientific sector of university society.

Design/methodology/approach: To achieve the suggested purpose, the following research questions are explored: 1.How does the nature of structural inequality in the science research sector support in Korea manifest, and how does this disparity evolve over time? 2. How can the socio-structural inequality in the science research sector support be explained through specific socio-structural mechanisms? 3. What are the implications of the structural characteristics of the science sector support on the development of universities and the broader direction of Korean society?"

Design/methodology/approach: We perform a critical test of the Matthew effect in the academic funding in Korea. For this, the primary data for the analysis is based on the university support project data from the Ministry

of Education's science and engineering sector over the past 10 years. We measure the Gini coefficient and present the results and implications.

Keywords: Matthew effect, Korean Universities, Inequality, Research Productivity

Scientometric Approach and Science Policy

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Abstract

Purpose: The purpose of this presentation is to underscore how Scientometrics has emerged as an important analytical approach to obtain a quantitative assessment of the conduct of science and research enterprise and its impact. The presentation builds on this to show its valuable contribution for evidence based decision making, identify policy gaps and developing policy.

Design/methodology/approach: The study draws from analytical examination of varied policy documents to show the usefulness of Scientometrics to capture the latent variables of scientific activity (for example productivity, collaboration, quality etc.), construct Science-Technology-Innovation indicators, etc. The new tools and techniques such as Social Network Analysis in this context will be highlighted.

Practical implications: The practical implications will be demonstrated through case studies showing how in different contexts this approach has been applied.

Originality: Importance of scientometric approach for providing policy signals, developing policy and advocacy needs strong articulation for building up collaborative research and innovation networks, identifying research priority and alignment to national

and global challenges, strengthening triple helix linkages, refocusing R&D resources of a country/company and translational research. The potentiality of this approach is not realized to that extent. The presentation contributes in this direction to demonstrate how useful this approach is for science policy.

Keywords: Scientometrics, Science Policy, Social Network Analysis, R&D Strategy

Paper type Conceptual paper

**BGI - The Solution For Urban Flood Risk
Reduction In Climate Change Context**

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Abstract

Purpose: Blue Green Infrastructure (BGI) is a network of interconnected green spaces and infrastructure, in which drainage system is important; the BGI could be large scale ones as wetlands, retention lakes, carbon forests, green industry buffers, etc to smaller scale ones as porous infiltration parks, roadside ponds along wide roads, pavements, retention tanks, rain gardens, green roofs, etc. The purpose of this paper is to clarify the theoretical principles and the practical experiences of BGI as natural ecosystems for water management to reduce the risk of urban flood in the context of climate change nowadays.

Study design / methodology / approach: Desk research methods and analysis - synthesis method are used to carry out this study.

Findings and Conclusion: While hard solutions (for example: dikes, dams, pumping stations, etc) shows many weaknesses in recently, the BGI, which is a soft solution, is considered more suitable for urban flood risk reduction which happen more often and severely due to climate change. In addition, the BGI could create urban

landscape and open space in order to improve quality of urban dwellers.

Originality / value This study suggests to integrate the BGI into urban planning and development in the climate change context, and recommendation how the BGI could be of integrated into urban planning and development in Ho Chi Minh city of Viet Nam, one of the most vulnerable cities to climate change.

Keywords: Blue Green Infrastructure, BGI, urban flood risk reduction, urban development, Ho Chi Minh city, Viet Nam.

Paper type: Conceptual paper.

Assessing The Opportunities For Accepting Green Technology And Climate Innovations In Uzbekistan

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Abstract

Purpose – The purpose of this paper is to examine and analyze opportunities for accepting green technology and climate innovations as a potential for green economy development of Uzbekistan with a particular focus on identifying needs for green technologies and climate innovations;

Design/methodology/approach – Research on assessing the opportunities for accepting green technology and climate innovations in Uzbekistan was conducted by taking a survey and compile responses from local government and businesses. Exploratory factor and multiple regression analyses were used to test the hypothesized relationships among a sample of 60 entities and organizations.

Findings and Conclusion– the result of the research made it possible to determine the level of adoption of green technologies and climate innovations in Uzbekistan. The study also identified which sectors and regions in the country are most likely to adopt green technologies and climate innovations.

Practical implications: The scientific results and conclusions obtained as a result of the research can be used in the development of national and regional green economy and renewable energy programs to meet the need for green technologies and climate innovations in Uzbekistan, as well as in the assessment of Uzbekistan's needs for green technology cooperation with the leading countries in the field (South Korea etc.).

Originality/value – To date, there has not been a large number of scientific studies on determining the possibilities and levels of adoption of green technologies and climate innovations in Uzbekistan. Some of the conducted studies mainly focused on the issues of green economy and green energy development. A special aspect of this study is that the level of adoption of green technologies and climate innovations in the country was studied based on a specially designed survey (questionnaire), which allowed us to determine the real situation regarding the problem.

Keywords: Climate innovations, green technology, green economy, strategy of Green Economy

Paper type: Research paper

**Developing An Integrated Simulation Tool of
Society-Economy-Climate-Policy And Technology
Evaluating SDGs Toward AR6-Based Climate
Change Adaptation Society**

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Abstract

Purpose - The purpose of this research is to develop a simulator and evaluation tool based on an integrated scenario that includes social, economic, climate, and political perspectives. Additionally, it aims to establish a cross-ministerial cooperation system for the assessment of integrated scenarios and their alignment with the Sustainable Development Goals (SDGs), based on the AR6 scenario.

Design/methodology/approach - System dynamics are utilized to connect the social, economic, climate, and political components. The indicators used to describe the human and ecological systems include population and social factors (age, number of households, school-age population, etc.) and economic factors (the number of job positions, value-added production, number of firms, trade, etc.). Environmental system indicators encompass weather factors and coastal erosion information. Furthermore, carbon emissions data were collected at the

building level to establish the model and scenario for city expansion and new industry growth.

Findings - Based on the established model, a system dynamics model that allows for scenario integration is designed. This model can project future emissions and system changes on a decade-by-decade basis up to 2050.

Practical implications - It can be expanded into a simulator capable of assessing SDGs target technologies and the policies of local governments. By considering local and technical characteristics, the model can be optimized to provide ideal assessments for specific regions or technologies.

Originality/value – The designed model can respond to climate change more flexibly based on comprehensive scenario. In addition, this can support the decision-making procedure of various carbon neutrality policies by applying to national and local carbon neutral scenarios.

Keywords Integrating SECP scenarios, spatial analysis, Climate policy of government, System Dynamics, SDGs Goal.

Paper type Research paper

Small Scale Industrial and Permaculture Development In Indonesia

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Abstract

Purpose – This research addresses development and well-being challenges faced by Indonesia's isolated Pulau Banyak archipelago community. The research identifies these hurdles, proposes actionable plans for local government and community, and involves stakeholders for effective implementation. It aims to support sustainable development against carbon emissions, food imports, and geographical constraints, while valuing biodiversity and ecosystem services.

Design/methodology/approach – Through qualitative and quantitative community interviews and household analysis, this study explores occupations and regional development. Nutritional patterns in selected households reveal factors impacting health and life expectancy.

Findings – Stakeholder collaboration identifies two main community development paths. Leveraging existing coconut plantations for higher value-added products like Virgin Coconut Oil (VCO) or Middle Chain Triglyceride (MCT) enhances employment, reduces transportation cost. Reintroducing small-scale community farming mitigates food dependency through permaculture principles.

Practical implications – Proposed plans for VCO and MCT oil facilities engage stakeholders and investigate secondary production lines for residual byproducts. Permaculture principles introduced to the community serve as a sustainable model, followed by village community gardens.

Originality/value – This study challenges the fishing-dependent community's traditional mindset, emphasizing food dependency's significance and necessary shifts. Stakeholders recognize the research's importance and commit to implementation.

Keywords – Permaculture, Sustainable development, Climate change mitigation, Small-scale industry, Sustainable coconut plantations, Food security, Nutritional diversity.

Value Ascertainment Through Business Model Canvas

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Abstract

Purpose: A business model elaborates the process and need for startups to create, deliver, and capture economic value. The business model canvas demonstrates how all the pieces of a business interconnect to arrive at the ultimate goal of optimally delivering customer value. Technology startups often tend to miss this essential step in an urge to deliver the best of their product and service offerings.

Study design/methodology/approach: This study addressed a specific objective on whether tech startups utilized the benefits of implementing Business Model Canvas during their gestation period. Primary data was gathered from 151 cofounders (101 who have experienced failure and 50 who are successful and continuing their operations) from six of India's leading startup hubs.

Findings: It was observed that deficiencies in planning the critical elements of a business plan resulted in tech startup failures. An emotional quotient influenced major decisions of cofounders, while ideally the focus should have been the economic value being delivered to their customers.

Originality/value: The need to establish customer desirability, economic feasibility and financial viability can be ascertained through business model canvas. It is an

essential element which should not be missed out in value delivery of the tech startups.

Implications: This empirical study has practical implications for cofounders and helps them plan their value delivery holistically using Business Model Canvas.

Keywords: Entrepreneurship, Business Model Canvas

Research Type: Case study

The Effect of ESG Scores on The Relationship of CVC Investments and Corporate Performance

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Abstract

Purpose: This study addresses the gap in understanding the interaction between corporate venture capital (CVC) investments, corporate performance, and the moderating role of environmental, social, and governance (ESG) factors. While previous research has extensively explored the relationship between corporate social responsibility (CSR) and financial performance, the role of ESG factors in shaping the connection between CVC investments and corporate performance is insufficiently investigated. The main argument is that ESG factors play a crucial moderating role in this relationship, influencing the outcomes of CVC investments and corporate performance. This research is essential due to the growing significance of ESG considerations in today's corporate landscape.

Study Design/Methodology/Approach: The study adopts a quantitative research approach, utilizing financial and ESG data from various sources. CVC investment data and corporate performance metrics are collected, and ESG scores are assessed. Statistical analyses, including regression models and correlation analyses, are employed to examine the relationships and moderation effects between these variables.

Findings and Conclusion: The study identifies a

significant relationship between CVC investments and corporate performance, demonstrating their potential impact on financial outcomes. Moreover, ESG factors are found to moderate this relationship, indicating that companies with stronger ESG performance tend to experience enhanced effects of CVC investments on corporate performance. The findings confirm the hypothesis that ESG factors play a crucial role in shaping the outcomes of CVC investments.

Originality/Value: This study contributes to the literature by shedding light on the nuanced interactions between CVC investments, ESG factors, and corporate performance. The identification of ESG factors as moderators enhances our understanding of how sustainability considerations impact the effectiveness of CVC investments. The findings hold relevance for practitioners, policymakers, and investors, providing insights into optimizing the outcomes of CVC investments while considering ESG aspects.

Keywords: Corporate venture capital, corporate performance, environmental, social, governance, ESG factors, moderation, sustainability.

Research Type: Empirical Research Paper

Innovation By or With Artificial Intelligence: Implications For The Management of Technology And Innovation

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Abstract

Purpose: Artificial Intelligence has been out there for a long time. But recently, it has gained momentum. With the rise of many Generative Artificial Intelligence applications and tools, revolutionary new ways of completing routine and creative tasks have emerged. At the same time, the way of managing technology and innovation has also changed dramatically. Throughout all corporate departments, opportunities and challenges arise.

Study design/methodology/approach: For this keynote presentation, selected research articles and other secondary data have been included. The goal is to give an overview of the status quo of the potential of Artificial Intelligence in corporate technology and innovation management.

Findings and Conclusion: Along the established process chain of managing technology and innovation, it is shown which applications with artificial intelligence are already possible. In addition, it is shown that potential is still there for future revolutions in how companies can manage technology and innovation. This presentation includes various examples of successful implementations and limitations.

Originality/value: These days, a plethora of papers have

been published on Artificial Intelligence and its implications. However, most of them cover specific aspects only. This is an approach to give an overview of the state-of-the-art, limitations, and future potentials in technology and innovation management.

Keywords: Artificial Intelligence, Generative Artificial Intelligence, Technology Management, Innovation Management

Research Type: General review/ keynote presentation

Developing Green Techno Sociopreneur Framework Through Waste to Value Innovation

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Abstract

Purpose – This research aims to develop a comprehensive green techno sociopreneur framework for enhancing organic and inorganic waste processing rates that positively impact economic growth, environment conservation, and community empowerment.

Design/methodology/approach – The systematic layout planning approach and sustainable value stream mapping tool were adopted in designing the infrastructure facility for waste processing. In contrast, sustainable product design and the green business concept were utilized for developing entrepreneurship.

Practical implications – This research can inspire stakeholders to implement the proposed framework that combines a green business concept with technology innovation and contributes to achieving Sustainable Development Goals.

Findings and Conclusion– This research contributes to the waste processing field by providing the potential concept of integrating technology innovation, entrepreneurship, and environmental considerations in waste processing activities. This green techno

sociopreneur framework provides empirical evidence that the waste processing rate has impacted the achievement of Sustainable Development Goals related to decent work and economic growth.

Originality/value – This research focuses on developing a green business model with technology innovation to enhance the effectiveness of material resources (waste-to-value innovation) to achieve a circular business model that empowers the community.

Keywords Circular business model, Community empowerment, Entrepreneurship, Green, Sustainable product design, Sustainable value stream mapping

Paper type Research paper

**Promoting Multilateral Collaboration For Research,
Innovation, Technology Transfer And Community
Services - Case of CAN THO University**

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Abstract

Purpose: Research, innovation, technology transfer and community services are of important missions of the university in the new context. To promote these activities, there is important need for strong effort in setting strategy and solutions with different investment and activities, especially multilateral collaboration of national and international partners. This presentation aims to provide the above information with case of Can Tho University.

Study design/methodology/approach – This study reviews statistically the activities and achievement of research, innovation, technology transfer and community services of Can Tho University during 5 recent years of 2018-2022; and to indicate foundation and reasons for the achievement.

Findings and Conclusion: During the last 5 years, Can Tho University has implemented 2099 national and international research projects, including 165 international projects; 304 national, ministerial, provincial and district projects; 14 projects with companies; and 1616 University research projects. There are totally 7369 papers including 1974 ISI/Scopus papers were published. A total of 69 new technologies were

transferred to the communities with totally 3863 participants trained through short courses. Innovation and start-up for university and high-school students are very dynamic. To obtain the above achievement, there has been strong efforts from Can Tho University in setting strategies for implementation, strengthening human resources and facility capacities, especially in promoting multi-collaboration with international, national and local partners with important stakeholders of University – Industry – Government – NGOs.

Originality/value: This case study is expected to contribute as one of approach strategy for other universities in development, and promoting multi-collaboration is one of the key solutions.

Keywords: Multi-collaboration, research, innovation, community service, University

Research Type: Case study

Open Innovations By Traditional Non-IT Corporations Are The Key For Growing Startup Ecosystem Rapidly

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Abstract

Purpose – The purpose of this paper is to examine how the digitalization of traditional companies and startup growth can happen at the same time.

Design/methodology/approach – A corporate-based accelerator program is a program in which a particular corporation looks for a potential partner in startups to solve their issues and create new business opportunities. Each program is about six to eight months long. The outcomes of such programs are investment, a business alliance, and M&A between traditional companies and startup companies.

Findings and Conclusion - Throughout running over 350 accelerator programs with many traditional companies from different sectors, sizes, and regions in the last 11 years, the result shows digitalization of traditional companies impacts the growth of the startup ecosystem a lot. In addition, the success of those programs falls into several patterns.

Originality/value – There are many accelerators that initiate accelerator programs all over the world, however, the average number of programs run is about two programs a year while this fieldwork has done more than 30 programs a year for 11 years. The originality and value of this fieldwork is the number of samples, which provides opportunities to analyze outcomes

accurately.

Keywords Open innovation, Startup ecosystem, Digitalization, Accelerator.

Paper type Research paper

Analyzation of The Sustainability of Wind Energy Resources Using Fuzzy Decision Making Approach

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Abstract

Purpose: Sustainable environment adheres to the need of renewable energy sources. The purpose of this paper is to determine the essential measure for the sustainability of wind energy based on the pros and cons of wind energy with the assistance of the proposed framework.

Study design/methodology/approach: Multi-criteria decision-making (MCDM) methods are becoming increasingly popular in solving energy selection problems because these problems involve multiple and often conflicting criteria. The common pros and cons of wind energy were evaluated through an analytical hierarchy process (AHP), an MCDM method, to determine the essential measure for the sustainability of wind energy.

Findings and Conclusion: Based on the eight common pros and cons of wind energy considered, the most

essential measure involved in the sustainability of wind energy is determined according to their criteria weights.

Originality/value: This study assists us in determining the vital measure for the sustainability of wind energy based on the proposed framework. This measure could be considered the crucial one in wind energy sustainability.

Keywords: Sustainability; Wind energy; Multi-criteria decision making; Analytical hierarchy process.

Paper type: Research paper

Social Innovation in Indian Universities: Fostering Change for a Brighter Tomorrow

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Abstract

Purpose- In recent years, Indian universities have emerged as vibrant hubs for fostering social innovation – a transformative force that addresses societal challenges through creative solutions. The purpose of this article is to explore the burgeoning landscape of social innovation within Indian universities and Higher Educational Institutions with a focus on the measures undertaken by these universities to take it forward effectively.

Approach- A study of social innovations in the top 10 reputed Indian Institutions like IITs, NITs, IIMs and major private universities along with IISc were carried out based on their published work over a period of last five years. The measures employed by these universities to foster social innovations and the support provided were also studied. A total of 40 institutions were studied.

Findings and Conclusion- IITs and NITs have demonstrated significant strides in social innovation over the last five years. Their initiatives encompass a wide spectrum of sectors, from healthcare and education to sustainability and rural development. Through a combination of student-led efforts, research-backed solutions, and collaborations, these institutions are contributing to India's journey towards a more inclusive, sustainable, and innovative future. Measures such setting up of incubation and accelerator units, adopting

innovative teaching learning methodologies, establishing collaborations with industry and NGOs, alumni engagement etc have enabled these institutes to support social entrepreneurship within their campus.

Originality/Value- The study revealed that Tier-II institutions can take away the key factors from these premier institutions and adopt these measures to nurture social innovations in their institutions thereby creating an eco-system to nurture social entrepreneurs.

Keywords- Social innovation, social entrepreneurship, Sustainable development, Technology development.

Paper Type-General Review

**An IDOCRIW and CoCoSo Decision Science
Perspective For Selecting Electric Vehicle Battery
Recycling Techniques**

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Abstract

Purpose – The transition to electric transportation accelerates recycling responsibilities for the end-to-end processing of batteries for electric vehicles. The increasing number of e-vehicles has caused lithium-ion battery waste generation. This study identified high-performance e-vehicle lithium-ion battery recycling methods.

Design/methodology/approach – An enhanced stratified MCDM strategy, The Entropy and CILOS methodology were fused as IDOCRIW approach to evaluate the weightage of attributes. The CoCoSo approach ranking EV battery recycling process as pyrometallurgical, hydrometallurgical, and direct recycling alternatives are ranked as per 11 attributes. The methodology of data

collection gathered through the q-rung orthopair picture fuzzy set-in uncertainty environment.

Findings and Conclusion – Reliability and energy utilization were the highest priorities among the attributes. Hydrometallurgical reclamation is the most effective alternative.

Practical implications – The finding alternative provide more recovery material than other processes, with low cost and high advantages. The implementation of this process in the EV industry provides low-waste EV battery production with re-using process.

Originality/value – The proposed algorithm is validated through comparative and sensitivity analyses using various parameters and methods.

Keywords: e-Vehicle, Fuzzy Decision making, Battery.

Paper type: Research paper

A Comprehensive Decision Framework For Analyzing The Sustainable Fuel Options For India

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Abstract

Purpose – The transportation industry accounts for 13% of total carbon emissions in India, with the government urging a change to low-carbon fuels to address sustainability concerns. The main focus of the research is to create an enhanced decision model that incorporates fuzzy logic for discovering alternate fuel sources for road transportation.

Design/methodology/approach- The framework proposed employs the linear diophantine hesitant fuzzy-based Simultaneous Evaluation of Criteria and Alternatives (SECA), a multi-objective non-linear programming model for analysing significant criteria and ranking alternatives via functional mapping of criterion

sub-intervals into a single interval (RAFSI) method for determining the optimal fuel choice.

Findings and Conclusion-Hydrogen is regarded as the best option for vehicles among the options under consideration. Sensitivity and comparison assessments were performed to demonstrate the method's applicability.

Practical implications – The study will help decision-makers understand the state of alternative fuels in light of technological, economic, socio-political, and environmental constraints and choose the most suitable option.

Originality/value – The development of a novel integrated approach based on linear diophantine hesitant fuzzy sets for tackling the alternative fuel selection problem in India.

Keywords Low carbon footprint, cleaner fuels, Renewable energy, sustainability, MCDM, integrated model.

Paper type Research paper

Digitalization of Medical Supply Chain Using Integrated MCDM Techniques

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Abstract

Purpose - The purpose of this research is to discover the most effective intelligent technology for digitalizing the Medical Supply Chain (MSC).

Methodology - We used the Multi-Criteria Decision Making (MCDM) approach in the present research, incorporating the Best Worst Method (BWM), a subjective weight finding method for determining the relative weight of the considered criteria, and the CoCoSo method for ranking the alternatives in a hybrid spherical fuzzy environment.

Research implications - The current study's data was gathered entirely from Elsevier, and no other databases

were used. As a result, data from other databases can be used to re-examine the study.

Practical implications -For the purpose of digitalizing the MSC, the research offers managers an abundance of beneficial suggestions. The eager researchers will determine the gaps in the current body of knowledge and work on potential future lines of enquiry.

Finding and Conclusion- The medical industry is one among the most vital sectors due to its significance in managing public health. The productivity and effectiveness of the workflow in MSC have been decreased by conventional procedures during pandemics such as COVID-19. As a result, this research emphasizes how the MSC can be digitalized utilizing a fuzzy system that assists with decisions with ambiguity and vagueness.

Originality/value - To the authors' knowledge, this is the first paper that integrates T-Spherical Fuzzy Set with BWM-CoCoSo to identify the optimal intelligent technology in digitalizing the MSC. To check the robustness of the system, a sensitivity analysis was also carried out.

Keywords MCDM, MSC, Digitalization, Fuzzy sets, BWM CoCoSo

Paper type Research paper

Selection of Effective Hydropower Renewable Energy Sources: A Fuzzy MCDM Analysis

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Abstract

Purpose - The scope of hydropower renewable energy technologies is an important factor for sustainable development, but choosing them from among many alternatives is a difficult task. The evaluation of the corresponding criterion is detection.

Methodology - In this paper, we propose a new hybrid neutrosophic fuzzy set (NFS) as an extension of the weighted aggregated sum product assessment (WASPAS) method for multi-criteria decision making as an approach to the selection of the most effective hydropower source plant.

Research implications - Hydropower generation is not entirely emission-free, as dammed reservoirs release greenhouse gases due to the decomposition of dead plants

and organic matter, releasing methane and carbon dioxide into the atmosphere. Finally, this research offers insightful advice for decision-makers in other sources of energy.

Finding and Conclusion- Based on the NFS-Analytical Network Process (ANP) findings and the applicable options, an empirical case study is conducted in five prospective criteria: “Simplicity and robustness”, “Efficacious economics”, “Technical efficiency”, “Energy consumption”, “Environment impact” and “High quality wave form”. The result of this analysis provides an innovative perspective on the social sustainability assessment of pumped-storage hydropower.

Originality/value - The concept of ANP, which is fundamental to information theory and telecommunications, is a measure of ambiguity in fuzzy sets, as shown in the reviewed case study literature. Data availability determines the uncertainty model.

Keywords: Fuzzy -MCDM, Hydropower renewable energy, ANP, WASPAS

Paper type : Research Paper

Warehouse Inspection Automation for Inventory Process in Supply Chain Operation

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Abstract

Purpose – The purpose of this study is to explore the warehouse automation inspection practice in Mali West Africa through the use of highly automated tools to ensure inventory accuracy, create safer workplaces, and identify damaged or expired products to alert the management of potential safety hazards. This study examines the relationship between warehouse employees, organizations attributes, and automation tools toward warehouse automation practice. Additionally, this study investigates the effect of warehouse characteristics on the three

Design/methodology/approach – A quantitative research approach was employed, and a self-administered questionnaire was used to collect data from 384 warehouse managers and employees involved in the inventory in seven geographical warehouse operations of

the peacekeeping mission in Mali, West Africa. A Microsoft FORMS survey was utilized for this purpose. The collected data was analyzed using Smart PLS4 software, additionally, Power BI software was employed to examine the demographic profile of the respondents.

Practical implications -This study will add to the body of knowledge by exploring the adoption of warehouse-automated inspection in West Africa; moreover, past research has not yet explored automated warehouse inspection in Africa, specifically in different warehouses, employees, and organizations in Mali.

Findings and Conclusion- The findings showed that the proposed automated tools would help organizations and employees achieve sustainable warehouse automation practice for worker safety, faster verification, and accurate reporting. The research focused on the impact of sustainable warehouse management, technology, and Automation tools on the relationship between organizational attributes and warehouse employee attributes in top condition and warehouse characteristics.

Originality/value- This study focuses on developing materials and programs that can assist in achieving critical success factors in warehouse automation. This technology will enable warehouse managers and employees to optimize operations and achieve objectives seamlessly.

Keywords: Automation, Employees, Organization, Warehouse, West Africa

Paper type: Research Paper

**The Stratified Decision-Making Method For
Investigation And
Evaluation of Innovation Policy Factors In Emerging
Technologies**

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Abstract

Purpose: The purpose of this research is to study and analyze national research and development (R&D) investment of future and emerging technologies (FET) in South Korea using stratified decision-making technique. Since, this stratified target approach helps planning commissions to evaluate the indicators priorities, influences and their performances to improve its efficiency.

Design/methodology/approach: An enhanced stratified multi-criteria decision-making process and validated through a case study. This method considers the nations targets as stratified events. The stratified network mappings gives a clear understanding of each alternatives performance efficiency level and criteria importance. It explores possible and inefficient states and their transition probabilities.

Findings and Conclusion: The transition probabilities of each states are determined, the criteria weights, the influential level of each criteria and the ranking values of alternatives are evaluated. The overall results identifies that strategic innovation policy, research and development (R&D) expenditure, invention patents, overall performance, and societal developments are the key criteria for innovation planning in emerging technologies.

Originality/value: Thus, we analyzed innovation policy factors in emerging technologies and enhanced the efficiency of the research. The theoretical implication of stratified targeted approach helps to rank alternatives, identify influencing criteria and improve the performance level of alternatives.

Keywords: Research and Development Policy; Future and Emerging Technologies; Stratified Target Analysis; Performance Evaluation; Hybrid Decision-Making Methods.

Research Type: Research Paper

The Intention To Adopt Parcel Lockers As A Last-Mile Delivery Services: A Bibliometric Analysis

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Abstract

Purpose:The purpose of this research is to undertake a bibliometric analysis of parcel lockers as a last-mile delivery service. The study examines papers over the last one decade and performed performance analysis, co-citation analysis, bibliographic coupling and scientific mapping.

Methodology:The study examines 128 documents retrieved from the Scopus database using bibliometric analysis, performance analysis and thematic clustering. The study looked at the scientific productivity of papers, prolific authors, most influencing papers, institutions and nations, keyword co-occurrence, thematic mapping, co-citations and authorship and country collaborations.

VOSviewer was employed as a tool in the research to conduct the performance analysis and thematic clustering

Research implications:It informs and directs researchers on the current state of study in the field of parcel lockers as a last-mile delivery service literature. It also outlines future research directions in this field.

Findings and Conclusion:The most productive year was 2022 with 25 publications and the most impactful institute and countries are the Loughborough University, UK and Politecnico di Milano, Italy, respectively. Similarly, the most influential journal is “Transportation Research Part E logistics and Transportation Review” and the most productive journal is “Transportation Research Procedia”. Furthermore, the most cited article is “Innovative solution to increase last-mile deliver efficiency in B2C e-commerce: A literature review”. The authors also identified five thematic clusters of digital marketing research in SMEs.

Originality/Value:This is the first study which provides the performance analysis and scientific mapping of the parcel lockers as a last-mile delivery service.

Keywords: Parcel locker, last-mile delivery, Bibliometric analysis, Co-citation analysis, Bibliographic coupling

Research Type: Literature review

Factors Affecting Non-Performing Loans: Empirical Evidence From Commercial Banks In Uzbekistan

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Abstract

Purpose – The purpose of this paper is to examine the main factors affecting the non-performing loans (NPL) in commercial banks because NPL are a critical issue for banks as they can lead to financial instability and economic downturn.

Design/methodology/approach - The study employs an empirical approach, utilizing a dynamic panel dataset from 35 commercial banks operating in Uzbekistan from 2020 to 2023 on quarterly data. This study explored the relationship between NPL and bank-specific as well as macroeconomic factors using random effects (RE) estimators and generalized method of moments approaches (GMM). The results indicate that current loan-to-deposit ratio (LDR) and leverage have positive impact on NPL ratio while higher GDP growth rate is associated with lower rate of NPL. However, lagged LDR and leverage ratios have shown negative relationship with NPL.

Practical implications - These findings have important implications for policymakers, regulators, and commercial banks in Uzbekistan. Stakeholders can design effective strategies to prevent and manage credit risk, thereby enhancing the stability and resilience of the banking sector.

Originality/value - The empirical evidence generated from this research can contribute to the existing body of knowledge on NPL in emerging economies. While there have been studies on the determinants of NPL in other countries, research specifically focused on Uzbekistan or Central Asia may be limited. Therefore, this research can fill a gap in the literature and expand our understanding of the unique factors influencing NPL in the Uzbekistani context.

Keywords – credit risk management, non-performing loans, Uzbekistan, Central Asia

Paper type - Research paper

Effect of Digital Enabling Technologies and Employees' Engagement Towards Sustainable Logistics Practices

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Abstract

Purpose: This study endeavours to empirically investigate the relationship between digital enabling technologies, employee engagement, and sustainable logistics practices adoption within the logistics sector in Malaysia. Grounded on the Technology Acceptance Model and Diffusion of Innovation theory, the study aims to enhance the comprehension of how digital enabling technologies (IoT, BDA, CL, AI and BCT), employee engagement, and sustainable logistics practices within the logistics sector.

Methodology: Data were collected through a survey questionnaire responded by 216 Malaysian logistics companies. The relationships proposed in the developed conceptual framework were represented through four hypotheses and partial least squares structural equation modeling (PLS-SEM) were used to test the hypotheses.

Research implications: This research contributes significantly to the field of logistics and technology adoption.

Findings and Conclusion: The findings revealed that IoT, BDA, CL, AI and BCT are significantly related to sustainable logistics practices. On mediation analysis, it

confirms that employee's engagement fully mediates the association of digital enabling technologies and sustainable logistics practices.

Originality/Value: It provides empirical evidence of the pivotal role played by digital enabling technologies in shaping sustainable logistics practices. Additionally, by identifying the mediating role of employee engagement, it offers a nuanced understanding of the 'black box' of logistics practices.

Keywords: digital technologies, logistics, sustainability, employee engagement

Research Type: Research paper

How Does A Lockdown Shock Impact Research Collaboration Partnerships? Case Study of A Korean Research Institution

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Abstract

Purpose – This study seeks to investigate the effects of the COVID-19 pandemic on research collaboration patterns and the stability of research performance networks.

Design/methodology/approach – Focusing on a national research institution, this study classifies collaboration into three distinct patterns: active in-person groups, paper-based collaboration groups, and balanced groups. The study employs the network similarity index (DeltaCon) to compare the collaboration patterns before and after the pandemic in 2020.

Findings and Conclusion – The analysis reveals that a few dominant groups tend to collaborate more exclusively with narrower groups, leading to an increase in the clustering index. Additionally, the results indicate that the balanced type of collaboration demonstrates greater resilience to the pandemic's influence, highlighting the significance of adopting a complementary research strategy that combines both human-based and paper-based collaboration.

Originality/value – By shedding light on the underlying mechanisms of research collaboration, this investigation contributes valuable insights to the field of research strategy.

Keywords : Pandemic impact, research collaboration pattern, collaboration network, research performance

Paper type Research paper

Assessment of Influencing Factors of Internal and External Risks: Investigating the Path of Start-ups in Incubators In The Greater Bay Area by csQCA

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Abstract

Purpose – By analyzing the characteristics and internal and external risks of incubated enterprises in the incubators under the policy of the Greater Bay Area, this paper explores the potential influencing factors of risks caused by start-ups and provides certain reference standards for the selection and support of enterprises by incubators.

Study design/methodology/approach – This study would collect secondary data of startups within government-led incubators with internal or external risks from official enterprise record agencies in China. And we would adopt the method of csQCA to conduct the data analysis.

Practical implications – Since startups face many challenges in the early stage of entrepreneurship, how to seek suitable partners to explore the road to development according to their own development needs is also a problem that the incubator where the enterprise is located needs to help solve.

Findings and Conclusion – This paper analyzes startups within the incubators from the characteristics of bidding experience, the number of IP patents and non-patents,

whether it is based on technology, the attributes of domestic and foreign enterprises and internal and external risks. csQCA method is used to analyze the combinations of factors are relevant to internal and external risks of enterprises.

Originality/value – This study hopes to provide some reference for start-ups to understand themselves for risk avoidance and provide experience for incubators to screen and incubate enterprises.

Keywords csQCA; risk; startups; Greater Bay Area

From Incubator to Ecosystem: How Can Government Promote Economic Activities of More Entities in Entrepreneurship Incubation

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Abstract

Purpose – This paper takes the government-led incubation mechanism as an example to explain the mechanism and problems of entrepreneurship incubation, and how the government incubation mechanism solves the existing challenges of entrepreneurship incubation. Besides, the study investigates the purpose and outcomes of incubation.

Study design/methodology/approach – This study selects Tianhe district, the pilot area of Guangzhou city, where has the developed different sectors and entrepreneurs, which is qualitative research with grounded theory.

Practical implications – The mechanism extracted in this paper not only solves problems such as the effectiveness and flexibility of government-led incubation, but also provides experience for the overall development of entrepreneurship incubation.

Originality/value – This study fills the gap in both reality and theory in incubation.

Findings and Conclusion– As a place and tool for entrepreneurship incubation, the function of incubator is selection, business support and mediation. For startups,

their need for different resources is numerous, but their stage or the nature of the enterprise limits its accessibility. The Tianhe government created service centers working for different incubators. Through this mechanism, the government mobilized more stakeholders and contributed to the generation of more economic activities, thereby contributing to economic and social development.

Keywords Government-led; economic activities; Greater Bay Area; Incubator

Collaboration With Competitors: How Technology Coopetition Affect Firms' Scientific Research And New Product Development?

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Abstract

Purpose: The purpose of this study is to examine how collaboration with competitors in the technology field (technology coopetition) affects firms' scientific research and new product development (NPD), and the moderating effects of regional technology market prosperity and regional intellectual property rights (IPRs) protection.

Methodology—This study uses a longitudinal dataset collected in the Chinese pharmaceutical manufacturing firms from 2008 to 2020, and a panel negative binomial model to test our proposed research hypotheses.

Practical implications—Firms need to establish broader collaborative networks with multiple organizations to prevent over-reliance on competitors, they also build formal and informal mechanisms to safeguard proprietary knowledge when they collaborate with competitors.

Originality— This study classifies firms' R&D output and challenges the assumption of institutional isomorphism, indicates that the findings on scientific research output cannot be easily generalized to NPD, region-specific institutions within same country are heterogeneous.

Findings and Conclusion—We find that technology coopetition has a significantly negative effect on focal firms' scientific research output, however, there is a U-shaped relationship between technology coopetition and

focal firms' NPD. Regional technology market prosperity strengthens the above negative relationship, and the above-mentioned U-shape relationship is flattened by regional IPRs protection even in single country.

Keywords: Technology coepetition, Collaboration with competitors, Scientific research output, New product development

Research Type: Research paper

Analysis of National R&D Status for Small and Medium-sized Enterprises (SMEs) in Korea

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Abstract

Purpose – The national R&D funding allocated to small and medium-sized enterprises (SMEs) in South Korea has shown a consistent upward trend, aligning with the government's efforts to bolster the technological capabilities of SMEs (KISTEP, 2022). To better support SMEs, it is essential to comprehensively assess the current state of SMEs' research and development (R&D) and devise appropriate strategies for service enhancement.

Methodology – This paper aims to analyze the R&D projects undertaken by South Korean SMEs over the past ten years (2013 to 2022) using the National Science and Technology Information Service (NTIS) data.

Findings – Over the past ten years, SMEs accounted for 22.5% of the total number of R&D projects and 15.6% of government-invested R&D expenses. Notably, the Ministry of Trade, Industry, and Energy and the Ministry of SMEs and Startups provided substantial support, contributing to 75.2% of SME research projects and 72.3% of government-funded R&D expenses.

Remarkably, significant investments were made in research related to energy technologies.

Originality/value – This research endeavor yields valuable insights to optimize R&D support services, particularly tailored for SMEs, with the aim of fostering technological advancement and innovation.

Keywords NTIS, Small and Medium-sized Enterprises (SMEs), data analysis

Research Type Research paper

Intellectual Property Protection of Virtual Objects in Virtual Space - Based on Japanese Law

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Abstract

Purpose – As the current intellectual property laws and international treaties concerning intellectual property are established with the assumption of protecting and utilizing intellectual property in the physical world, there are growing concerns about how to handle intellectual property in virtual spaces due to the rapid proliferation of virtual space technologies. This paper aims to contribute to the examination and establishment of international rules for intellectual property protection in virtual spaces. As part of a preliminary investigation, it focuses first on the protection of intellectual property for virtual objects in virtual spaces, narrowing down the scope to Japanese law.

Design/methodology/approach – This paper will conduct academic literature research, case law analysis, and surveys targeting technological developers and platform operators in Japan.

Findings and Conclusion– By conducting these investigations, this paper aims to elucidate the issues within Japan's copyright law, design law, and trademark law, as well as the unfair competition prevention law. Furthermore, it seeks to build hypotheses based on the findings from the research.

Originality/value – This paper is distinctive in its approach of examining the methods for "legal system

convergence" from the standpoint of conflicting perspectives in multinational legal systems. This will be achieved by incorporating insights from interviews with technological development companies and platform operators, among other research methods.

Keywords Intellectual Property Protection, Virtual Objects, Virtual Space

Research type General review

Security Enhancement of “National Science and Technology Information Service” based on Zero Trust Security

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Abstract

Purpose – The purpose of this paper is to improve the security level by verifying the effectiveness and applicability of the security system of “National Science and Technology Information Service” based on the Zero Trust Guidelines 1.0 recently released by the Ministry of Science and ICT of Korea.

Design/methodology/approach – Study the basic concepts, principles, and major requirements of Zero Trust security, and verify effectiveness and applicability by applying the security model presented in the Zero Trust guidelines.

Findings and Conclusion– Searching for Zero trust-based security requirements and security enhancement measures applicable to applications, data, systems, and networks of “National Science and Technology Information Service”.

Practical implications – Zero Trust security is a cybersecurity concept that is suitable for cloud environments. The concept of Zero Trust security is not to continue to trust an already authenticated user or device, but to verify the user/device with various information and monitor and record the user/device's activity under the

premise that there is no trust at all times. In addition, they can be integrated and used to authenticate the user/device again. Zero Trust security must be applied to public information systems and services that are preparing to move to a cloud center or become cloud-native.

Originality/value – The security system reinforcement of the zero trust-based for “National Science and Technology Information Service” prevents various and intelligent cyber threats and prepares for the national zero trust introduction plan.

Keywords Zero trust security, Zero Trust guidelines, Security Enhancement, Insider threats, Security awareness.

Paper type Research paper

Emergence Or Non-Emergence of Tech Start-Ups In India. What Are The Distinctive Features?

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Abstract

Purpose: Tech start-ups are the engines for innovation and job creation and the biggest contributor to the GDP. This opens the research question, to identify the attributes that impact emergence of the tech start-ups. This study aims to understand attributes contributing to the emergence and non-emergence of tech start-ups.

Study design: Primary data was collected from 312 tech start-ups from 9 major start-up hubs across India employing a random sampling technique. A structured questionnaire is used to collect responses. Binomial regression and Kruskal–Wallis tests are used to analyse determinants of the tech start-up emergence.

Findings: Findings indicate education and prior start-up experience in entrepreneurial profiles, Patents, STEM employees in the enterprise profile and external funding, incubation facilities and Government grants in the ecosystem are the attributes for the emergence of start-ups the start-ups with experienced founders, employees with good knowledge of the technology and the support

extended by the ecosystem are the determinants of the start-up emergence.

Implications: The study results facilitate the budding technopreneurs for better equipping themselves and avoiding mistakes leading to the non-emergence of the start-ups. The study was limited to tech start-ups that originated in India.

Keywords: Emergence, Non-emergence, Tech start-ups, Entrepreneurship

Paper type: Research paper

**Research Data Sharing and Analysis Platform For
Supporting Open Data Research Activity: DataON**

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Purpose – The purpose of DataON is that collects research data and provides reusable research materials such as data, related report, publications, software and so on.

Design/methodology/approach – Recently, as the problems of solving global social problems such as COVID-19 and abnormal climate have become hot issues, efforts to solve common problems through data sharing are increasing. To solve this global problems, it needs many kinds of data and its analysis tools. For satisfying the requirements, DataON integrates research data from the multi-disciplinary scholarship based on elastic search engine. To make index, the metadata scheme including elements defined by doublin-core is designed. Also, DataON provides analysis environment called DataON CANVAS. It provides isolated a virtual analysis environment by using Kubernetes which can make compose of lightweight containers.

Practical implications – DataON helps to find research data by the institution through keyword and map searches. There are multi-disciplinary research datasets such as weather/climate, sensors, scientific images, and so on. DataON CANVAS provides virtual analysis environment for analysis of research data such as virtualized workflow and jupyterlab so that researchers can make their

Originality/value – DataON supports the entire data life cycle of research data activities from collecting to analysis of research data. That is to say, DataON contributes to support activities related to open data-driven research and to provide reusable research data and virtual analysis environment for reusability and reappearance.

Keywords Research data, open science, data analytics, multi-disciplinary data, data platform.

Paper type Research paper(KISTI special session)

**Entrepreneurship Education through Design
Thinking Bootcamp: Nurturing Entrepreneurial
Mindset through Collaboration**

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Abstract

Purpose: The research aims to explore the boot camp's impact on entrepreneurial mindset i.e. creativity, collaboration, critical thinking, problem-solving, and communication.

Design/Methodology/Approach: This study employs a quantitative technique to access individual students' experiences in an entrepreneurial design thinking boot camp. A total of 189 students participated in the study. Throughout the boot camp, students were exposed to the design thinking process, which involves empathizing, defining, ideating, prototyping, and testing. Data collection occurred through an in-depth structured

questionnaire administered upon the boot camp's completion.

Findings: The findings indicated that the student's learning process has taken place during the bootcamp. There was strong and statistically significant positive correlation between the bootcamp and creativity, collaboration, critical thinking, problem-solving, and communication. The data also revealed that collaboration serves as a bridge between entrepreneurial mindset and the outcomes of boot camps.

Originality/Value: Collaboration played an important role in getting the students to work together in improving their soft skills. By shifting the mindset of working alone with one's limitations to the concept of collaboration necessitate new team members, different learning strategies and evaluating techniques.

Keywords: Entrepreneurship Education, Entrepreneurial Mind-set, Collaboration, Design Thinking, critical thinking, problem-solving, creativity and communication

Research Type: Research paper

Automatic Fish Species Identification System From Fish Images Using Deep Learning Techniques

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Abstract

Purpose :The goal of this project is to design and develop a mobile application to identify the fish species in the local market of Coimbatore district of Tamilnadu, India from just the photograph of the fishes. Many people are unaware of the type of fish they were consuming and such a knowledge would be helpful to know the ecosystem. This can be later used for deeper analysis of fishes.

Methodology :The scope of this project was identifying the 15 fish species native to Tamilnadu region. In order to identify the name of the fish species from just its images pre-trained deep learning model Densenet-121 was used. There are no datasets available currently in the public domain and hence the photographs of the 15 fish species such as Mackreal, Sardine, Rohu, Catla, Tilapia, Threadfin, Pomfrets, Seer Fish, Barramundi etc were collected, with the ultimate goal of creating a user-friendly mobile application. The images were collected and annotated and the training and testing dataset was created. Since labeled data was limited, image

augmentation techniques were strategically employed to increase the dataset size and prevent overfitting. By applying various transformations such as rotation, shifting, and brightness adjustments, additional training samples were artificially generated. The Densenet model were implemented successfully on the training dataset. The interface for the mobile application was built to demonstrate the use of the model.

Findings and Conclusion :The proposed model exhibited promising results in fish species classification, providing a solid foundation for the development of the intended mobile application. The prediction accuracy was more than 80% with the trained dataset. This system can be used by both the fish vendors and the consumers to know about the fish species at a click of a button.

Originality :There was no such dataset available in the public domain. And also, it paves way for more deeper analysis for identification of contamination of fishes in future.

Keywords: Image Classification, Pre-trained Model, Deep Learning, Transfer Learning and Mobile Application.

Research Type: Research Paper

**Next Step of The University In Entrepreneurship
System: A Case Study of University Venture Capital
In Japan**

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Abstract

Purpose: This paper aims to deliver a comprehensive analysis of University Venture Capital (UVC) institutions in Japan, focusing on their organizational structure, investment team profiles, investment policies, and portfolios.

Study design/methodology/approach: Utilizing a comparative case study methodology, the study evaluates and contrasts a diverse array of different UVC institutions in Japan.

Findings: There is a significant diversity among UVC institutions affiliated with different universities, noticeable in their investment sectors, targets, stages, funding scope, and external industry collaborations. These differences are intricately linked to factors such as the parent university's overall strength, whether it is a national or private university, its academic strengths, alumni network, and industrial connections.

Practical Implication: The organizational set-ups, investment strategies, and business models of UVC institutions need to be tailored according to the university's inherent resources and strengths.

Originality/value: Despite UVCs being operational in Japanese universities for decades, public policy research on this innovative mechanism enabling universities to fulfill their third mission is scarce. This study, for the first time, provides a comprehensive review of UVCs in Japan, comparing the performance of different types and attempting to understand the reasons behind their varied success. This paper ultimately seeks to offer policy implications for the establishment of UVCs in other Asia-Pacific regions.

Keywords: University Venture Capital, Venture Capital, Third Mission, Entrepreneurship

Research Type: Research paper

Kidney Stones Detection and Diagnosis System Using Deep Learning Models

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Abstract

Purpose: Kidney stones are a common health problem affecting millions of people worldwide. Early detection of kidney stones can prevent complications and improve treatment outcomes. Application of AI technology would aid the doctors for early detection. This project aims to develop a web-based system that aid the clinicians to detect early-stage kidney stones disease using deep learning models from 3D scan images.

Methodology: The ultra sound images for building the training model were taken from the public domain. The dataset was already annotated. This dataset comprises 2000 non-contrast CT images of kidney stones, with 1000 images each for normal and affected kidneys, providing valuable information for diagnosing and studying kidney stone conditions. Inception V3 architecture was used to extract features from ultrasound images with a high degree of precision. Various pre-trained models such as Resnet and Inception V3 were implemented and their performance were analysed before selecting the best one.

The web interface was developed to integrate this deep learning model and made into a complete application.

Findings: The Inception v3 model showed strong performance over other pre-trained models. And the accuracy achieved is remarkable, exceeding over 85%. This achievement substantiates the system's potential for real-world medical applications, highlighting its role in facilitating the timely and accurate diagnosis of kidney stone conditions. The developed model achieved high accuracy on the validation and test sets, indicating its potential for use as a detecting system in real-world scenarios.

Originality: There are many such similar studies but an AI enable detection system that could be used by the Radiologists in India is not very common. The developed detection system has the potential to assist radiologists and clinicians in the early detection and diagnosis of kidney stones very efficiently.

Keywords: Transfer learning, medical image analysis, InceptionV3 architecture, Deep Learning

Research Type: Research Paper

The Adoption of Globalization and Value Chain in Small Medium Enterprises (SMEs) in Developing Nations

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Abstract

Purpose: The Small and Medium-Sized Enterprise (SMEs) sector is driving the economy of the future. SMEs are essential for attaining more general development objectives, like the eradication of poverty and economic expansion. SMEs contribution to the manufacturing industrialization may be seen when viewed from the perspective of the changing globalization scene. In order

to share knowledge and understanding of the value chain, this study aims to determine how globalization influences the development and adoption of SMEs in developing countries. SMEs in developing countries must understand the principles of globalization and value chain. Globalization has increased cross-border trade in the connected world of today, making it simpler for SMEs to engage in international trade.

Design/methodology/approach: The study used a systematic literature review which includes the review of journals, articles and conference papers.

Findings and Conclusion :The study findings show that with the adoption of globalization there are opportunities such as job creation, access to global markets, technology transfer and innovation, knowledge transfer and improved efficiency and competitiveness. However, there are also challenges that include, capacity and skills, access to finance, logistics and infrastructure.

Practical implications: It can help SMEs leverage on the benefits of globalization, such as sources and capital and access to new markets.

Originality/value: Our study is significant to SMEs in Africa and how they can benefit from globalization and value chain.

Keywords Globalization, Value chain, Small Medium Enterprises (SMEs), Developing nations, Adoption

Paper type Research paper

**Powering Up Collaboration In Technology
Commercialization Using The Market Readiness
Levels (MRLs) Framework**

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Abstract

Purpose: The Intellectual Property (IP) commercialization rate of Malaysian public universities is very low at 5-10% compared to the successful public universities in Europe, the United States and Asia Pacific of 30-60%. In addressing the issue, the study began with studying the gaps in market readiness based on the commercialization framework and Technology Readiness Levels (TRLs) used. The study seeks to understand how the Market Readiness Levels (MRLs) could be designed to close the said gaps and power up collaboration in technology commercialization.

Design/methodology/approach: Systematic literature review validated by interviews with key stakeholders, was conducted on the approach towards market readiness based on current commercialization framework and TRLs used by Malaysian public universities and successful universities in Europe, United States and Asia Pacific. Based on the gaps found, the MRLs was then developed using components derived from the analysis.

Findings and Conclusion: Overemphasis on technology readiness and not market readiness, and misalignment

between Malaysia's higher education policy and commercialization policies has collectively affected technology market.

Practical implications: The MRLs can be used by the policy makers to align their policies and government support. The MRLs can be used by the TTOs to calibrate their market readiness support.

Originality/value: Framework for market readiness based on the IP strategy used.

Keywords: *Market Readiness, Technology Readiness, MRL, TRL, Commercialization, Collaboration*

Paper type: Research paper

**Unravelling the Principal-Agent Tango In The
Chinese National Integrated Circuit Industry
Investment Fund: A Case Study**

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Abstract

Purpose: The purpose of this paper is to explain the backfire incurred by China's National Integrated Circuit Industry Investment Fund: The Fund deviated from its primary goal of boosting strategic industry development and overperformed in achieving the secondary goal, state-owned asset appreciation.

Design/methodology/approach: Single-case analysis is adopted. We apply the multi-layered principal-agent model and multi-principal agent model to study the Fund's mechanism design along its operating framework which led to principal-agent problems, i.e., its deviation from fulfilling strategic industrial goals.

Findings and Conclusion: The Fund presents multi-layered and multiple-principal problems. At every layer, the agent acts to pursue the interests of multiple principals while also functioning as the principal in the lower layer. When different principals impose different intensities of incentive constraints on goals, the agent is more motivated to achieve the goals with stronger constraints. Moral hazard problems arise due to the heterogeneity in incentive intensity and incentive incompatibility between multiple principals and agents. The involvement of local government distorts the incentive structures, further backfiring the Fund from pursuing its strategic goals.

Originality/value :We offer a timely and compelling case to examine the effectiveness and challenges of national approach in developing semiconductor industry, which now prevails across major economies worldwide. The paper sheds light on the challenges facing China’s “New Whole-nation Approach”. The paper enhances comprehension of the principal-agent problem under the Government Investment Fund by incorporating local government into the analysis.

Keywords: Chinese semiconductor industry, industrial policy, principal-agent problem, central-local government relation, CHIPS Act

Paper type: Research paper

A Cost-benefit Approach to Patent Strategy

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Abstract

Purpose : The purpose of this paper is to examine the costs and possible benefits of patenting and to explore strategies for patent value enhancement.

Design/methodology/approach: Cost-benefit analysis and case studies of patenting strategies have been used to explore the strategies for improving the value of patents.

Findings and Conclusion: This study proposes a patent strategy to enhance the benefits of patents. First, a company must have an accurate technology forecast to predict the new product roadmap of its main competitors in a few years' time; second, the company must invest sufficient R&D resources to achieve a lead on this technology path. Finally, the company must file patents on this roadmap before its competitors do, and write patent specifications and claims based on the new products its competitors are likely to develop.

Practical implications:In terms of the draft patent specification, it is not always better to have a wider range of patent claims. This study suggests that the scope of patent claims should be moderate. If the scope of the patent is too broad, an invalidation action can be brought by finding prior art to challenge the novelty or inventive step of the patent. There will be no benefit at all if the patent is invalidated. The scope of the patent should also

not be too narrow, otherwise it will not be possible to claim infringement and obtain royalties or damages.

Originality/value: This study suggests two important indicators of patent quality: The patent must not be invalidated and it must be enforceable.

Keywords: patent, cost-benefit analysis, patent scope, patent validity, enforceability

Paper type: Research paper

GradeQuest: An AI Based App for Automatic Coconut Grading for Quality Assessment

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Purpose – The state of Tamilnadu is one of the largest producer and exporter of coconuts in India. It is important to assess the quality of coconuts before they undergo further processing. This project aims to build an AI based web application to automatically classify coconuts-in-shell into four distinct quality grades in accordance with the Indian Agmark standards for coconut-in-shell. The

primary objective is to design and develop a mobile app for quality assessment of coconuts through an innovative classification system using Deep learning models.

Design/methodology/approach – To achieve this classification goal, a diverse dataset of coconut images was collected from a coconut farm at Pollachi, a district in Tamil Nadu, India and meticulously annotated. Subsequently, a Mask RCNN (Region-based Convolutional Neural Network) model was fine-tuned to accurately detect and segment coconuts in images, facilitating precise size calculation. In parallel, OpenCV library was utilized to analyze the color attributes of the coconuts. A web interface was developed which integrated this classification mode.

Practical implications – The developed classification system combines size and color information to effectively categorize coconuts into four grades. This research introduces a practical solution for enhancing the accuracy of coconut grading, which is an important process in quality assessment, price fixing and future processing of coconuts. thereby enabling the quality organization to automatically grade the coconuts in a faster and efficient manner.

Findings and Conclusion–This web application would be a very useful product for the quality officials to automatically grade the coconuts with an accuracy greater than 88%. The integration of size and color features enhances the accuracy and robustness of the classification process.

Originality/value – This study advances the field of agricultural quality assessment by integrating size and

color features for coconut grading. There is no such previous AI based system in the Indian market right now. The proposed approach demonstrates promising results, offering valuable insights for future developments and applications.

Keywords- Coconut grading, Agricultural quality assessment, Mask RCNN, OpenCV, Multimodal classification.

Paper type- Research paper

Smart Spectacles: A Device To Make Our Life Easier

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Abstract

Purpose - Among the recent inventions, smart glass is one of the wearable devices that can be switchable to a usual glass that can handle a wide range of computing activities that humans cannot perform. Smart glasses are used to be one of the modern computing devices that combines humans and machines with the help of information and interaction. It is made up of an optical head-mounted display or embedded wireless glasses with invisible heads-up display. It can be used be used in the medical,

gaming and education sector. This report mainly focuses on smart glasses, it is expected to be a big market in recent years. It may collect information from internal or external sensors. Smart glasses devices also have features found on a smartphone.

Design/methodology/approach – First an OLED display is attached to the spectacle which displays the screen of the notifications, calls, messages etc. Then the light ray of the screen is made to fall onto the mirror which is kept at an angle of 45° facing the side of the spectacles. Thus, light rays fall on to the mirror and get reflected on the convex lens which is also attached to the spectacles. This convex lens magnifies the light rays and displays the image/calls/messages/routes/ etc. in the lens of the spectacles. With the help of microprocessors (Arduino) and other components, we managed to make the model and performed testing by simple demonstration of clock in the lens.

Practical implications- This device can be used while driving for navigation, so that the drivers need not look at the mobile for the route each time. Similarly, it can be used in various sectors.

Originality/value - A spectacle which looks like the same as the usual one but contains some advanced features like it will display the notifications, calls, messages, routes, and many more in the lens of the spectacles. Information can be conveyed to the user without interrupting their work. It offers the way to bring the functionality, imaging and wireless connectivity found in smart phones and computers in to eye wear.

Keywords Wearable smart glass, head mounted display, challenges in the smart glass.

Paper type Research paper

T-BOT: Revolutionizing Theatrical Bot with AI-Powered Automation

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Abstract

Purpose: The theatrical mobile bot prototype is a groundbreaking solution aimed at addressing the challenges associated with conventional food delivery systems at theatre. This report provides a comprehensive overview of the prototype, highlighting its functionality, and potential benefits. In today's urban environments, the serving of foods through human is not much effective and labour cost may shoot up if there are multiple screens in a single theatre. The purpose of this report is to provide a

comprehensive overview of the theatrical mobile bot prototype, highlighting its functionality, and potential benefits.

Design/methodology/approach: Process and Methodology of Theatrical Bot for Improved Concession Services. The Theatrical Bot introduces an advanced way of making sure people get their snacks smoothly at the movies by a) Ordering Snacks b) Getting Snacks Ready c) Moving to the Seats d) Matching Seat Numbers e) Picking Up Snacks f) Lifting Up g) Finding Seats h) Delivering Snacks and i) Serving Rows

Finding and Conclusion: The Theatrical Bot presents a tech-savvy solution that reshapes cinema experiences by optimizing concession services. This integration of technology and operation reduces wait times, labour costs, physical contact, and adapts smoothly to various theatre events, enhancing the overall cinema experience.

Originality/value: The Theatrical Bot offers swift and convenient order placement, reducing wait times and maximizing movie enjoyment. Its automation potential could lead to cost savings in labour.

Keywords: T-bot, RFID, QR code, FIFO, reducing time, safety, adaptation.

Paper type: Research paper

Enhancing Soil Microbial Activity through Indian Traditional Farming Methods: Insights on Sustainable Agriculture

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Purpose - The modern practice of intensive cropping with artificial fertilizers has led to a decline in soil microbial life. This paper examines the effectiveness of Indian traditional farming methods in improving soil microbial activity. By borrowing from traditional practices, we can slow this process of soil degradation.

Design/methodology/approach - An experiment was conducted using dry red soil, and traditional Indian methods such as mulching, cover cropping with Indian cereals, and bird guano fertilizing were employed.

Findings and Conclusion- An increase in the presence of earthworms, springtails, and isopods in the soil followed by improved fluffiness and water-holding capacity, resulting in lusher plant growth.

Originality/value - Focusing on often-overlooked indigenous practices, offering valuable insights into sustainable agriculture and potential economic benefits while considering implications and limitations for widespread adoption.

Keywords Indian traditional farming methods, soil microbial activity, sustainable agriculture.

Paper type Research paper

**Open Innovation In The New Generation of
University Incubators:A Comparative Study of
HKUST, Tsinghua University, and NUS**

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Abstract

Purpose –University incubators have been instrumental in supporting this growth by nurturing innovative ideas and providing resources for their development. The rapid development of innovation and technology has led to a paradigm shift in the way university incubators operate and manage. As the global landscape of innovation and entrepreneurship evolves, traditional university incubators face new challenges, necessitating the emergence of the new generation of university incubators.

Design/methodology/approach- A comparative case study of three regional leading university. We adopted a qualitative approach through the use of bibliographical, documental, and field research, with in-depth interviews, providing valuable insights into their operations and challenges.

Findings and Conclusion– The preliminary findings reveal that the new generation of university incubators has adopted open innovation principles to address the challenges faced by traditional university incubators. These principles include greater collaboration between academia and industry, strategic partnerships with governments, and improved access to resources and

support for entrepreneurs through global networks and entrepreneurship competitions.

Practical implications – This study has significant implications for policymakers, university administrators, and incubator managers in Asia, as they seek to develop strategies that can enhance the performance and impact of university incubators.

Originality/value – This study is the first attempt of analysis on university incubators through open innovation approach.

Keywords- university incubators, open innovation, innovation and entrepreneurship.

Paper type -Research paper

Assessing Tertiary Education Providers' Proficiency in Engaging With Open-Learning Environments: A Comparative Study in A Transitional Post-COVID-19 Context

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Abstract

Purpose: This research paper aims to assess the proficiency of tertiary education providers in engaging with online learning environments, especially in the context of the post-COVID-19 transition. The COVID-19 pandemic accelerated the adoption of online learning platforms, it is essential to understand how educational institutions have adapted and evolved in their approach to virtual education.

Study design/methodology/approach: A comparative study was performed, comparing data collected during the COVID-19 pandemic with post-pandemic data from higher education institutions in Uzbekistan. In-depth interviews were conducted with 15 education facilitators representing both public and international educational

institutions. This purposive sampling approach allows for a holistic exploration of the experiences, challenges, strategies, and preparedness of these facilitators during the transition to online learning. The research used Nvivo for qualitative data classification and content analysis to understand themes in respondent experiences and identified actions.

Findings and Conclusion: The study highlights the significance of continuous professional development, robust technological infrastructure, and effective support systems in enhancing the proficiency of tertiary education providers in engaging with online learning environments. The research provides valuable insights for educators, policymakers, and students, informing decision-making processes in academia and guiding the development and implementation of effective online teaching strategies.

Originality/value: This study contributes to the existing literature by providing an in-depth understanding of the adjustments education facilitators make in response to the pandemic. It emphasizes the importance of ongoing preparation for online learning and highlights the role of digital workplace capabilities in ensuring successful interaction in virtual educational environments.

Keywords: Online Learning Readiness; Tertiary Education Providers; Uzbekistan Academics; Online Learning; Digital Workplace.

Research Type: Research Paper.

Factors Affecting Non-Performing Loans: Empirical Evidence From Commercial Banks In Uzbekistan

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Abstract

Purpose – The purpose of this paper is to examine the main factors affecting the non-performing loans (NPL) in commercial banks because NPL are a critical issue for banks as they can lead to financial instability and economic downturn.

Design/methodology/approach - The study employs an empirical approach, utilizing a dynamic panel dataset from 35 commercial banks operating in Uzbekistan from 2020 to 2023 on quarterly data. This study explored the relationship between NPL and bank-specific as well as macroeconomic factors using random effects (RE) estimators and generalized method of moments approaches (GMM). The results indicate that current loan-to-deposit ratio (LDR) and leverage have positive impact on NPL ratio while higher GDP growth rate is associated with lower rate of NPL. However, lagged LDR and leverage ratios have shown negative relationship with NPL. Size, bank ownership type and exchange rate have not exhibited any significant impact on NPL.

Practical implications - These findings have important implications for policymakers, regulators, and commercial banks in Uzbekistan. By understanding the determinants of NPL, stakeholders can design effective strategies to prevent and manage credit risk, thereby

enhancing the stability and resilience of the banking sector.

Originality/value - The empirical evidence generated from this research can contribute to the existing body of knowledge on NPL in emerging economies.

Keywords – credit risk management, non-performing loans, Uzbekistan, Central Asia

Paper type - Research paper

**Effect of Emotional Intelligence, Spiritual
Intelligence and Social Intelligence on Employee's
Engagement and Retention**

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Abstract

Purpose: This study investigated the influence of emotional intelligence, spiritual intelligence, and social intelligence on employee engagement and retention in the Malaysian services sector after the pandemic.

Study design/methodology/approach: The philosophy of positivism was used in this investigation. Based on a cross-sectional time horizon, a questionnaire was used to obtain primary data. The target population was employees in the services sector and data was collected from 170 employees. SPSS and Smart PLS were used to analyze the data and present the results.

Findings: The findings showed that emotional intelligence, spiritual intelligence, and social intelligence had a significant effect on employee engagement. Emotional intelligence had the greatest impact on

employee engagement. Employee engagement was the strongest predictor of employee retention.

Originality/Value: To the knowledge of the researcher, this was one of the first studies that investigated the effect of emotional intelligence, spiritual intelligence, and social intelligence on employees' engagement.

Keywords: Emotional intelligence; Spiritual intelligence; Social intelligence; Employee engagement; Employee retention

Paper Type: Research Paper

Critical Success Factors of Large Urban Construction Projects In Djibouti After The Pandemic

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Abstract

Purpose: Large urban construction projects in Djibouti have been identified as critical drivers of economic growth and development. However, these projects often face challenges in meeting their objectives, which can result in delays, cost overruns, and even project failure. Therefore, the identification of critical success factors (CSFs) for such projects is essential for achieving project success. This research aims to determine the CSFs for large urban construction projects in Djibouti, with a focus on five key factors: project planning and scheduling, project risk management, project communication and stakeholder management, contract competency, and project team commitment.

Methodology: This was a quantitative study where the target population were project team members of construction projects in Djibouti. Convenience sampling was used. A survey method was used to collect data from 165 respondents. Data analysis was done using SmartPLS.

Findings: The findings of this study revealed that contractor competencies and project team commitment are the key determinants of project success in Djibouti.

Originality/Value: The results of this study will help project owners and project managers prioritize their efforts and allocate resources towards ensuring the selection of the right contractors and improving the commitment of team members.

Keywords: Project Planning and Scheduling, Project Risk Management, Project Communication and Stakeholder, Contract Competency, Project Team Commitment, Project success.

Post Pandemic Study: Investigation on Career Development, Work Life Balance And Workplace Design Towards Millennials Work Engagement In India

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Abstract

Purpose : The purpose of this paper is to examine the relationship between career development, work life balance and workplace design, with a particular focus on millennials work engagement. This study aimed to examine factors that engages millennial employees, who work in the private sector in India during post pandemic phase. Quantitative research design was used in this study and primary data were gathered using online survey questionnaire. Random sampling method was adopted for data collection and 133 respondents were gathered. Findings revealed that while there is a positive relationship of millennial employee engagement with career development and workplace design, the association between work-life balance and millennial employee engagement was found to be insignificant. As the subject of study is still new, this study would contribute to the existing literature and the theories of millennial employee engagement in the Indian setting.

Design/methodology/approach: Quantitative research design was used in this study and primary data were gathered using online survey questionnaire. Random sampling method was adopted for data collection and 133 respondents were gathered.

Findings and Conclusion: Findings revealed that while there is a positive relationship of millennial employee engagement with career development and workplace design, the association between work-life balance and millennial employee engagement was found to be insignificant. With greater involvement of the millennial employees in the workplace, augmented levels of employee engagement are imminent for any organisation. It is only when organisations have engaged employees, will they remain competent, effective, and sustainable on the corporate deck. India is one of the emerging economies of the world with majority of millennials entering the corporate arena and revolutionising the marketplace.

Practical implications: As the subject of study is still fairly new, this study would contribute to the existing literature and the theories of millennial employee engagement in the Indian setting. It is however, essential to note that the findings are based on limited responses and hence there cannot be any generalisation.

Originality/value: Focusing on developing strategy to promote engagement amongst employees at workplace, especially after post pandemic amongst the millennials in order to enhance their work engagement.

Keywords: Work Engagement, Career Development, Work Life Balance and Workplace Design,

**Flexible Working Arrangement and Employee's
Contextual Performance. A Study Among Working
Mothers in Services Sector in Malaysia**

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and

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Abstract

Purpose: The purpose of this study is to assess the impact of flexible work arrangements on employee's contextual performance, with a particular focus on working mothers in the services sector in Malaysia. Specifically, this study examined the relationship between flextime, telecommuting, job sharing, and compressed workweek and their effects on the contextual performance of working mothers.

Design/methodology/approaches: A quantitative survey was conducted using self-administered questionnaires to test the hypothesized relationships among a sample of 132 respondents. The target population were working mothers.

Findings and Conclusion: The results show that a shortened workweek has a significant and positive impact on employees' contextual performance, while flextime shows a moderate level of significance in terms of its impact on employees' contextual performance.

Implications/Originality/Value: The results of this study can assist human resource managers and executives in companies in designing and developing flexible work

arrangements. In addition, the findings from the study can inform the development and implementation of work-life balance policies and address the specific needs of working mothers in the service sector in Malaysia.

Keywords: flexible work arrangements, flextime, telecommuting, job sharing, compressed workweek, contextual performance, working mothers.

**Determinants of Intention To Invest In
Cryptocurrencies. A Quantitative Study Among
Undergraduates In Malaysian Universities.**

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Abstract

Purpose:The purpose of this research was to look at the factors that influence students' intentions to invest in cryptocurrencies at Malaysian universities who have previously invested or want to engage in cryptocurrencies.

Design/Methodology/Approach:A self-administered questionnaire was used by the researcher to obtain 106 respondents. This study used the philosophy of positivism and a deductive approach with the aim of empirically analyzing the results.

Findings:The results of the study showed that financial literacy, social norms, and perceived confidence significantly influenced the intention to invest in cryptocurrencies among the surveyed students. However, it was found that perceived behavioral control does not have a significant impact on their intent to invest in cryptocurrencies.

Practical Implications: Implications and value of this study lies in the insights it offers to stakeholders in the

cryptocurrency industry, including marketers, educators, and companies involved in cryptocurrency exchanges, cryptocurrency development and non-fungible token (NFT) creation.

Originality: The findings of this study contribute to the understanding of investment behavior among undergraduates and offer practical implications for stakeholders in the cryptocurrency industry.

Keywords: Cryptocurrency, Financial Literacy, Social Norms, Perceived Behavioral Control, Perceived Trust, Intention to Invest

The Relationship Between Entrepreneurial Intention And Commitment, A Systematic Review

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Abstract

Purpose: The purpose of this study is to investigate the crucial relationship that exists between entrepreneurial intention and commitment, thereby enhancing our understanding of the psychological and sociocultural aspects of entrepreneurship. In addition, it emphasises the importance of a strong entrepreneurial spirit in nurturing innovation, economic development, and job creation.

Methodology/design/approach: The research employed a systematic literature review, retrieving 56 articles from Emerald, ProQuest, Academia, Research Gate, Science Direct, Scopus, Google Scholar, Taylor and Francis, and Web of Science databases over the period 1981 to 2023. The literature was processed through PRISMA before conducting a thematic analysis which revealed 5 themes. These themes identified as factors, which mediate the relationship between entrepreneurial intention and commitment, were self-efficacy, passion, creativity, social norms, and entrepreneurial education.

Findings and Conclusion: The findings emphasise the significance of these moderating variables in shaping the entrepreneurial commitment of individuals by mediating the transition from intention to commitment.

Originality/value: This SLR contributes to the existing corpus of knowledge by synthesising current research and providing insights into the mechanisms that drive the

transition from intention to commitment in entrepreneurial behaviour. Based on the identified themes, further research and implications for theory and practise are discussed.

Keywords: Entrepreneurial intention; Entrepreneurial commitment; Entrepreneurial behaviour; Systematic Literature Review; PRISMA.

Research type: Literature review

**Factors That Affect Levels of Entrepreneurial
Commitment and The Relationship to
Entrepreneurial Performance: An Analysis of
Malaysian Youth**

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Abstract

Purpose: A review of the literature shows that entrepreneurial passion, values, personality, righteousness and responsibility, internalised norms, investment (side-bets), and a lack of alternatives are the most impactful antecedents. The relationship between these antecedents and commitment and entrepreneurial performance provides the context to this research with an aim to examine the factors that influence levels of entrepreneurial commitment and performance among Malaysian youth.

Methodology/Design: Using a survey-based approach of 60 young Malaysian entrepreneurs based in Kuala Lumpur, the research revealed a positive significant relationship between the identified antecedents of commitment and entrepreneurial performance.

Findings and Conclusion: The research uncovered specific strategies that include networking, mentorship programs, access to funding, and integrating entrepreneurship education, employed by young Malaysian entrepreneurs that contribute to higher levels of commitment and entrepreneurial performance.

Originality/value: The results consolidate the existing body of knowledge on youth entrepreneurship and take

research forward in the field of compatible infrastructure for aspiring entrepreneurs and the relationship between commitment and performance. The research will prove particularly insightful for policymakers, educators, and practitioners involved in fostering entrepreneurial development.

Keywords: Entrepreneurial commitment; entrepreneurial performance; Malaysia; Young entrepreneurs.

Research type: Research paper

Digitalization and its Impact on Small and Medium-sized Enterprises (SMEs): A Exploratory Study of Challenges And Proposed Solutions

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Abstract

Purpose: This research identified the innovative changes that SMEs should embrace. In addition, this study highlighted the challenges and proposed solutions that result from digitization.

Design/Methodology/Approach: This was a qualitative study based on the philosophy of interpretivism and the inductive approach. Based on a targeted sample, data was collected from six participants. The study uses an exploratory research design based on interviews with six SMEs. Thematic analysis was used to identify the themes.

Findings and Conclusion: Changes to be adopted include improving business processes, improving customer experience, transforming the business ecosystem, and improving customer experience. The biggest challenges include financial difficulties, intense competition, and cybersecurity issues. Solutions included additional government support, good security practices and a clear roadmap for the digitization strategy.

Value/Implications: By examining the digitization and innovation challenges faced by SMEs and the proposed solutions, this research provided valuable insights to

SMEs owners and stakeholders in embracing the change and devising strategies to overcome the challenges by leveraging on digital technologies and innovation to sustain competitive advantage.

Keywords: Digitalization, Business model, innovation, Challenges, SMEs

Research type: Research paper

**Price, Promotion, and Quality of Product: A
Quantitative Study On Shopee's Users In
Purchasing Decisions In Indonesia**

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Purpose – The purpose of this research is to examine the relationship between price, promotion and quality of product on purchasing decisions among users of Shopee in Palembang, Indonesia.

Design/methodology/approach – This study is quantitative study and primary data were collected using survey. The data, which consisted of 103 respondents, were analyzed using IBM SPSS Statistic. The respondents have been collected using convenient sampling method.

Findings and Conclusion – The analysis's findings confirmed that price, promotion, and quality of product were discovered to have a significant impact on purchasing

decisions among Shopee users. The Theory of Planned Behaviour (TPB) is used in this study to explain the framework.

Practical implications – This study provides a reference for the organization (Shopee) to focus on the factors that were important for increasing the purchasing decisions of their users. From the results, product quality has the highest impact on the customer purchasing decision. So, the organization was suggested to focus on this variable in terms of improvement and strategies.

Originality/value –The findings enrich the literature on price, promotion and quality of product which are important factors of Shopee users purchasing decisions. It will become a valuable reference to future researchers performing similar studies of determining factors affecting purchasing decisions.

Keywords Purchasing Decisions, Product Price, Product Promotion, Product Quality

Paper type Research paper

Influence of Perceived Usefulness, Effort Expectancy, and Subjective Norms on Purchase Intention in M-commerce

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Abstract

Purpose : The purpose of this paper is to examine the relationships between perceived usefulness, effort expectancy, and subjective norms towards purchase intention in mobile commerce among young adults in Klang Valley, Malaysia.

Design/methodology/approach: The study was quantitative, and questionnaire was used to collect primary data from 100 young adult. The data was analyzed using SPSS.

Findings and Conclusion: The findings show that there is positive significance relationship between the perceived usefulness, and subjective norms towards purchase intention in m-commerce. In contrast, effort expectancy has no relationship towards purchase intention in m-commerce.

Practical implications: The study's findings have practical implications for businesses in the mobile commerce industry, enabling tailored marketing strategies based on factors influencing customer purchase intentions. The insights can also serve as a foundation for further research in mobile commerce and allowing better comprehension of customer behavior.

Originality/value : The study provides valuable insights into the mobile commerce behavior of this particular demographic. The findings of this study can serve as a foundation for future research in the field, driving further exploration of customer behavior in the rapidly evolving landscape of mobile commerce.

Keywords: Purchase Intention in M-commerce, Perceived Usefulness, Effort Expectancy, Subjective Norm

Paper type: Research paper

Smart Wings to Urban Governance:A Comparative Analysis of Digital Twin City Projects in Guangzhou and Shenzhen

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Abstract

Purpose : This research paper aims to conduct a comparative analysis of digital twin city projects in Guangzhou and Shenzhen exploring their impact on urban governance. By studying their development path, governance mode, technical level, performance, and policy design, the study seeks to understand the contribution of digital twin city projects to smart and sustainable urban governance.

Study design/methodology/approach: The research adopts a case study approach to analyze digital twin city projects in Guangzhou and Shenzhen. It investigates operation mechanisms, path analysis, effect evaluation, and policy impact to gain comprehensive insights into the role of digital twin technology in promoting efficient urban governance.

Findings and Conclusion : The comparative analysis reveals that digital twin city projects significantly enhance transparency, convenience, and intelligence in urban governance. These projects integrate cutting-edge technologies to digitally represent physical urban spaces, facilitating effective city management. Key success

factors and innovative policy approaches are identified, providing valuable references for other smart governance initiatives.

Originality/value: This research paper offers a comprehensive analysis of digital twin city projects, contributing to the understanding of their potential in modern urban governance. The findings showcase how digital twin technology can drive sustainable and livable cities, benefiting other smart governance projects and international cities.

Keywords: Urban governance; Digital twin city; Case study; Technology and policy innovation.

Research Type: Case study

**Entrepreneurial Success and Sub-National
Traditions: Perspectives of Malaysian
Entrepreneurs**

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Abstract

Purpose: This research explores, from the perspective of entrepreneurial stakeholders, the factors which impact success, and the role sub-national traditions play in driving that success. Previous studies have focused mainly on a single stakeholder perspective, identifying a need to extend the research scope to other stakeholders.

Methodology: Using 20 in-depth, face-to-face interviews with entrepreneurs, entrepreneurial facilitators, and entrepreneurial academics the research explores the antecedents which contribute to entrepreneurial motivation, the challenges, the opportunities, and sub-national traditions that make up the entrepreneurial activities in Malaysia.

Findings and Conclusion: The findings highlight the entrepreneurial gap between stakeholders' perspectives, the lack of a coherent programme of support services in the start-up community, and the importance of informal, sub-national networks that can link entrepreneurs to mentors, finance, and collaborative engagement(s). The findings consolidate existing research with regards to the need for entrepreneurs to have the appropriate skill set and capabilities before embarking on their respective

entrepreneurial journey and take research forward by providing insight into the role of sub-national traditions within the context of entrepreneurial activity.

Originality: Such findings will assist policymakers in developing their entrepreneurial blueprint and how to network with the various stakeholders to create a supportive and successful framework to engender an increased number of entrepreneurial success stories in Malaysia.

Keywords: Entrepreneurship; Triple Helix; entrepreneurial community; sub-national traditions; Malaysia.

Research Type: Research paper

Impact of Mindfulness Dimensions on Work Engagement among White-Collar Employees during the new normal in Malaysia.

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Abstract

Purpose: This study examined the effects of four facets of mindfulness on employee engagement.

Methodology: In this quantitative study, data were collected from 227 employees holding white collar jobs in the private sector in Malaysia. A self-administered questionnaire was used to collect the primary data using a survey strategy.

Findings and Conclusion: The results of this study show that the four facets of mindfulness are positively and significantly related to work engagement. Specifically, the dimension of acceptance of mindfulness had the greatest impact on work engagement, followed by the dimension of mindfulness awareness.

Implications: Implications were provided for both

employers and employees in terms of organizational programs to increase mindfulness and enhance work engagement amid new work trends such as remote work culture.

Keywords Mindfulness, Attention, Present Focus, Awareness, Acceptance, Work Engagement, Remote Work Culture.

Entrepreneurial Success Factors During Disruptive Times: Scale Development And Validation

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Abstract

Purpose: With the acceleration of business digitalisation showing no signs of abating, this research aims to develop and validate a scale to measure entrepreneurial success during a time of digital disruption.

Methodology: A total of 310 business owners and managers from Sri Lanka participated in the study. Using exploratory factor analysis, the structure of the entrepreneurial success factors (ESF) was identified. Subsequently, a confirmatory factor analysis was performed to assess the construct validity of ESF and confirm the results obtained from EFA.

Findings and Conclusion: The findings reveal that ESF is a reflective construct with six dimensions. The ESF scale showed good internal consistency (Cronbach's alpha ranges from 0.722 to 0.912), and good construct reliability (composite reliability (CR) between 0.712 to 0.917, maximal reliability (MR) ranges from 0.798 to 0.926, McDonald's omega between 0.730 to 0.913). While the average variance extracted ranges from 0.443 to 0.553, convergent validity of the scale was still established when CR is greater than 0.6. These dimensions can be further categorised into two major groups, namely internal and external resources.

Originality: This study is beneficial to entrepreneurs, universities and business communities in predicting entrepreneurial success factors and crafting pertinent programmes to support entrepreneurship.

Keywords: *Entrepreneurship; Entrepreneurial Success Factors; Internal & External Resources; Scale Development; Marketing Technology*

Paper type: Research paper

Entrepreneurial Barriers Among Rural Women In Badin Pakistan

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Abstract

Purpose: Main purpose of this research is to explore the barriers to a woman's intention to starting a new business in the rural context.

Design/methodology/approach: Using a quantitative approach, primary data is to be collected through self-administered questionnaires from a sample of 385 women from two administrative districts of rural Sindh, Pakistan.

Findings and Conclusion: For aspiring women entrepreneurs this research has the potential to provide insights into the opportunities and obstacles that women business owners in Pakistan encounter, as well as for policy makers and NGOs, it can provide direction for the development of specific interventions to overcome these obstacles.

Originality/value: This paper focuses on examining the relationship between the four barriers, family support, patriarchal culture, entrepreneurship education, and financial barriers, and

entrepreneurial intention of rural women of Badin, Pakistan, with mediating effects of self-efficacy and moderating effect of marital status, which have not been studied before, making it original and valuable to the existing literature.

Keywords: Women Entrepreneurship, Family Support, Patriarchal Culture, Entrepreneurship Education, Financial Barriers, Entrepreneurial Intention, Self-Efficacy, Marital Status

Paper type: Research paper

Employee' Engagement in Businesses' Digital Transformation:

A Systematic Literature Review

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Abstract

Purpose: Digital transformation has become a priority area for many business organisations, with the expected returns of unlocking business value, increasing productivity, and improved customer care. As businesses (particularly SMEs) adopt digital technologies to undergo transformative changes, it is essential to consider the impact of these changes on one of the most valuable assets of any organisation- its employees.

Study design/methodology/approach: Using relevant tools for systematic review, fundamental concepts related to organisational change and digital transformation will be explored. The key link between employee engagement and digital business transformation in SMEs will be presented to ascertain their inter-relationship.

Findings and Conclusion: Employee engagement plays a crucial role in the digital transformation of SMEs. The use of digital frameworks and technologies can converge to create an enriching employee experience, if done right. In addition, clear communication of business transformation objectives and inviting employee

feedback are likely to positively impact employee engagement during the digital transformation process.

Originality/value: This systematic literature review seeks to explore the factors that influence employee contribution towards digital transformation and identify strategies to enhance employee engagement during this period of uncertainty and change.

Keywords: employee engagement, SMEs, digital business transformation

Research Type: Literature review

Beyond the Hype: A Closer Look at The Realities of Digital Transformation in Enterprises

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Abstract

Purpose: Digital business transformation (DBT) happens when businesses incorporate technology into their business strategies to accelerate productivity and efficiency. Despite large investments in DBT (and counting), enterprises generally consider their transformation attempts unsuccessful. This write-up presents a viewpoint on the contribution of employee engagement towards DBT.

Study design/methodology/approach: Deriving key concepts from core literature on businesses' digital transformation, some common themes related to employee engagement in digital business transformation will be derived to formulate a viewpoint.

Findings: While various reasons potentially contribute to lack of success in digital transformation, an under-researched area connect to "human" factors such as employee engagement, to sustain the interest and energy throughout the technology implementation process.

Originality/value: The bulk of literature on digital transformation and organisational change focuses on system implementation to meet strategic business objectives and serving the consumer market, with limited

discussion of employee engagement, and leadership's role in communicating effectively with employees. Given the significant cost and effort spent by organisations to implement technology, an inquiry into employees-leadership synergy is worthwhile.

Keywords: digital business transformation; digital inertia; digital maturity; business strategy; employee engagement; SMEs

Research Type: General review

**Faculty Adaptation to Online Learning during the
Pandemic:
A Study of Leadership Approaches in Higher
Education**

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Abstract

Purpose: The COVID-19 pandemic in our recent collective memory threw the higher education landscape into turmoil. Various leadership strategies were implemented by universities to navigate the “new normal”. Undoubtedly, higher academic institutions the world over faced significant challenges and had to adapt quickly to manage the crisis and ensure continuity of education. This research aims to identify key leadership strategies that assist business faculty members to navigate uncertainties. Research builds on the underpinning that leadership extends beyond social exchange between leaders and employees, requiring additional reinforcement to motivate employees. This study aims to investigate the faculty members' adaptation process to

online learning during the COVID-19 pandemic within higher education institutions, with a particular focus on the leadership strategies that facilitated successful transition.

Study design/methodology/approach: This research will adopt a qualitative research design. Via semi-structured interviews with business faculty members in higher education institutions, their experiences, challenges, and perceptions of leadership support during the transition to online learning will be ascertained. Key patterns will be identified using thematic analysis.

Originality/value: By focusing on faculty members' adaptation to online learning and the role of leadership in supporting this process, this research will provide valuable insights into the dynamics of effective leadership during times of crisis in higher education. The findings will highlight the challenges faced by business faculty members and the leadership strategies that proved successful in aiding their transition to online teaching. This research will offer practical recommendations for academic leaders and administrators to better support their faculty members in future disruptions, foster a positive online teaching environment, and promote continuous improvement in online pedagogy within higher education institutions.

Keywords: Leadership; Higher Education; Online Learning; Pandemic; Faculty Adaptation

Research Type: Qualitative Research paper

Identifying the Red Flags: A Study on Recognising Toxic Workplace Culture Amongst Gen Z

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Abstract

Purpose: Toxic workplace culture, characterized by disrespectful, non-inclusive, unethical, cutthroat, and abusive behaviour can have detrimental effects on individuals and organisations alike. Recognising and addressing toxic workplace culture is crucial for promoting employee health, engagement, and organisational success.

Study design/methodology/approach: This study adopts a quantitative research approach, considering five dimensions of toxic workplace culture, based on the work of Sull and Sull (2022). Surveys will be conducted amongst Gen Z employees across various industries and organisations in Malaysia, allowing for a broader representation and understanding of the prevalence and impact of toxic workplace culture.

Findings: The findings of this research will provide valuable insights for organisations, human resource professionals, and policymakers to develop evidence-based interventions and policies aimed at fostering healthier work environments. Additionally, individuals will benefit from increased awareness of toxic workplace culture, enabling them to recognise the red flags and make

informed decisions about their own well-being and professional growth.

Originality/value: Research on Gen Z's ability to identify toxic workplace cultures may assist organisations to create inclusive, healthy, and productive work environments to attract and retain top talents while ensuring employee well-being and overall professional success.

Keywords: Gen Z; Toxic Workplace; DEI

Research Type: Quantitative Research paper

A Comparative Study of Public and Private University Students' Perspectives on Generative AI Utilisation for Academic Work

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Abstract

Purpose: The use of generative artificial intelligence (AI) has become more prevalent in recent months, especially with the introduction and reportedly high adoption rate of chat gpt™. Some students may view generative AI as useful and convenient, while others may feel threatened by it. This research contains a preliminary inquiry on Malaysian university students' perception of using generative AI for their academic work.

Study design/methodology/approach: Via a survey involving undergraduate and postgraduate students from Malaysian public and private universities, quantitative data will be gathered to measure students' familiarity of generative AI tools, frequency of use, and perceived effectiveness.

Findings: The research findings will provide valuable insights into how students from public and private universities perceive the utilisation of generative AI for academic work. The study is likely to reveal differences

in the attitudes, motivations, and concerns between the two groups. It may uncover variations in the level of familiarity and acceptance of generative AI technologies among students, as well as the frequency and purposes for which they use AI-powered tools in their studies. The research may also highlight any specific concerns related to academic integrity, ethics, and potential biases associated with using AI-generated content.

Originality/value: The research holds significant implications for various stakeholders in the education and AI sectors, namely educators and academic institutions, as well as policymakers and AI developers. Findings may also contribute to the ongoing discourse on the responsible generative AI usage for academic purposes. Better understanding of generative AI's role in academia will be helpful to facilitate responsible and effective integration of such tools, to enhance students' learning experience in both public and private universities

Keywords: generative AI; academia; students' perception; ethics

Research Type: Quantitative Research paper

**Knowledge Transfer For National Progress:
Academia and Industry's Quest For Valuable
Intellectual Property**

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Abstract

Purpose: Various benefits may be expected from university and industry collaboration, particularly in creating new intellectual property (“IP”). Multiple grants are equally available from government and industry players to welcome knowledge creation for national benefit. However, this path is fraught with challenges, hence explaining the limited number of IP emerging from academic institutions, and even less are taken up by industries for commercialisation.

Study design/methodology/approach: This paper delves into the discussion of challenges faced by university-industry collaboration and attempts to unmask the quandary: despite the support and interest by both parties, why are there not more IP commercialisations forthcoming.

Findings and Conclusion: Despite both parties’ best efforts, this collaboration leaves much to be desired. While both parties agree and believe in the value of collaboration and IP creation, cultural differences, bureaucracy and differing expectations (among others)

create real stumbling blocks on the pathway to commercialisation.

Originality/value: This research gathers the viewpoint of parties involved in university-industry commercialisation efforts and moots the idea of possible liberalising of the process, to accelerate IP identification, registration, and commercialisation.

Keywords: University-Industry Collaboration; Intellectual Property; IP Commercialisation

Research Type: Conceptual paper/ General review

Work-from-Home Policy Post-Pandemic: Into the Unknown?

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Abstract

Purpose: The objective of this paper is to inquire into the Work-from-Home policy preparedness amongst Malaysian firms in the private sector, post-pandemic. During the recent pandemic, many Malaysian firms offered work-from-home options to their employees out of necessity. Post-pandemic, employees have expressed their preference for flexibility in work hours and some employers have reciprocated by allowing flexible or hybrid work schedules. WFH options have been said to increase productivity and improve retention. Recent amendments to the EA1955 also appears to provide support towards flexible work hours. Despite these developments, many companies may not have clear policies for flexible work/ work from home. This paper

aims to shed some light on the recommended policy areas for adoption by the private sector.

Study design/methodology/approach: Interviews will be conducted to glean the insight from HR Practitioners to ascertain the “good-to-have” work-from-home policy terms amongst the private sector employers. From the responses, common themes will be identified and used as the basis to formulate WFH policies in the private sector, particularly connected to three main areas: “hours of work”, “workspace” (*location of work*) and “nature (*scope*) of work”.

Findings and Conclusion: There appear to be varying levels of preparedness amongst organisations interviewed, in the implementation of work-from-home policies post-pandemic.

Originality/value: Findings present a mix of opportunities and challenges for the employees and the organisations alike. This research provides a starting point for discourse on the form of policy that may be customised and implemented for organisations, based on their culture and practice.

Keywords: work-from-home; work-from-home policy; private sector; psychological contract

Research Type: Research paper/ Preliminary Inquiry

**Why Research Is Needed In Women
Entrepreneurship In Malaysia: A Viewpoint Paper**

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Abstract

Purpose – This study evaluates developmental programs and barriers facing women entrepreneurs in Malaysia to inform effective policies maximizing women's economic participation.

Design/methodology/approach –Data on women entrepreneurship is examined to highlight impacts warranting further research.

Findings and Conclusion –Urgent need for further research is underscored, calling attention to areas requiring substantial improvement in bolstering efficacy of existing programs and policies supporting women entrepreneurs.

Practical implications – Studying developmental barriers and programs aims to evaluate Malaysia's progress advancing women's entrepreneurship roles and propose evidence-based solutions overcoming obstacles disproportionately impacting women. Maximizing inclusion benefits broader economic and social objectives.

Originality/Value – This research provides a framework for reorienting women entrepreneurship programs and policies in Malaysia. Findings influence effective implementation of economic development initiatives. An improved understanding of policy implementation geared towards reforms encouraging women entrepreneurs in emerging economies results.

Keywords women entrepreneurship; Madani Economic Narrative (MEN); social cultural barriers; educational barriers

Paper type Viewpoint paper

The Impacts of National Cultures on Corporate Cultures of Japanese and Malaysian Multinational Corporation

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Abstract

Purpose- This study aims to identify how national cultures affect corporate cultures in Japan and Malaysia.

Methodology- This study collected keywords in visions, missions, and values of 90 multinational corporations in Japan and Malaysia from their corporate websites as secondary data. By analyzing the frequency of certain words that came up, this research tried to see the characteristics of corporate culture in the countries.

Findings and Conclusion- The findings show the effects of national cultures on corporate cultures. The result matched with many past research about national and corporate culture relationships.

Practical implications- For international corporations, the importance to share and explain their corporate cultures to employees from different cultural backgrounds to meet corporate objectives as one team and organization was showed in this study.

Originality- The significance of this study is using secondary data to measure corporate culture, since cultural studies with primary data such as interviews and surveys would be affected by individuals' perspectives easily and sample sizes are usually too small to represent a social group like a company or a country.

Keywords: National culture, Corporate culture, Multinational corporation, Context

Paper type: Research paper

**An Elucidation In Knowledge And Practical Gaps In
Climate Change Impact On Young Children's Health
(SDG 3) Using
PESTLE Analysis And TOWS Model**

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Abstract

Purpose: To address this gap in the literature, we conducted a scoping review from January 2000 to June 2021.

Study design/methodology/approach: Our review included studies that explicitly linked changes in exposure to risk factors for child health to climate change. Out of 2650 original articles and documents identified, the study analysed 170 and included 98 in our final data extraction and narrative account stages.

Findings and Conclusion: The findings revealed that the effects of climate change on child health operate through direct and indirect pathways, with implications for

determinants of child health as well as morbidity and mortality from a range of diseases.

Originality/value: It is essential to identify population adaptation capacity gaps and implementation gaps, and interdisciplinary research efforts are needed to fill these gaps. Given the position of climate change and child health within the UN Sustainable Development Goals, it is imperative to take action to prevent future generations of children from bearing an unacceptably high disease burden from climate change.

Keywords: Children's Health, Climate Change, SDG3, Scoping Review, Sustainable Development Goal

Research Type: Research Paper

Automatic Fish Species Identification System From Fish Images Using Deep Learning Techniques

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Abstract

Purpose The goal of this project is to design and develop a mobile application to identify the fish species in the local market of Coimbatore district of Tamilnadu, India from just the photograph of the fishes. Many people are unaware of the type of fish they were consuming, and such a knowledge would be helpful to know the ecosystem. This can be later used for deeper analysis of fishes.

Methodology: The scope of this project was identifying the 15 fish species native to Tamilnadu region. In order to identify the name of the fish species from just its images pre-trained deep learning model Densenet-121 was used. There are no datasets available currently in the public domain and hence the photographs of the 15 fish species such as Mackreal, Sardine, Rohu, Catla, Tilapia, Threadfin, Pomfrets, Seer Fish, Barramundi etc were collected, with the ultimate goal of creating a user-friendly mobile application. The images were collected and annotated, and the training and testing dataset was created. Since labelled data was limited, image

augmentation techniques were strategically employed to increase the dataset size and prevent overfitting. By applying various transformations such as rotation, shifting, and brightness adjustments, additional training samples were artificially generated. The Densenet model were implemented successfully on the training dataset. The interface for the mobile application was built to demonstrate the use of the model.

Finding and Conclusion: The proposed model exhibited promising results in fish species classification, providing a solid foundation for the development of the intended mobile application. The prediction accuracy was more than 80% with the trained dataset. This system can be used by both the fish vendors and the consumers to know about the fish species at a click of a button.

Originality There was no such dataset available in the public domain. And also, it paves way for more deeper analysis for identification of contamination of fishes in future.

Keywords: Image Classification, Pre-trained Model, Deep Learning, Transfer Learning and Mobile Application.

Research Type: Research Paper

Unveiling NGOs Impeding Challenges, and Recommendation in Pursuing Sustainable Development Goals (SDGs)

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Abstract

Purpose: The global pursuit of Sustainable Development Goals (SDGs) is a crucial responsibility to tackle urgent environmental initiatives. Despite of many sustainable resources and facilities available, past studies indicated resources capacity is inadequate, for instance lack of management support, knowledge, commitment, and competencies. This slow SDG implementation requires SDG stakeholders to scale up the effort, including non-governmental organizations (NGOs). NGOs are widely acknowledged as influential agents in the SDG endeavour due to their considerable contributions and distinct capacities. However, NGOs encounter various challenges

that impede their efforts and effectiveness of scaling up sustainable development.

Study design/methodology/approach: This is a case study on SDG collaboration between Asia Pacific University of Technology and two NGOs. Qualitative research conducted a group interview with key NGO personnel to explore external factors and challenges and expound on their perception, and recommendations in undertaking SDG initiatives.

Findings: The analysis outcome shows that four main underlying challenges, namely operational capacity, management direction, stakeholders, and government. The result shows lack resources capacity and competence, individual resistance, stakeholders' silo direction, weak government, and international bodies intervention have led to ineffective SDG implementation. The NGOs revealed that funds sourced by crowd funding to initiates SDG activities. Furthermore, weak SDG alignment in their organization's operation direction.

Originality/value: This research used integrated strategic framework (ISF) themes to guide the research findings which considering the management direction, operational capacity, government and stakeholders' interventions to effective SDG strategy.

Keywords: Sustainable Development Goals, Non-governmental Organizations, SDG challenges

Research Type: Research

Integrated Strategic Framework for Mitigating Climate Change and Environmental Threats in the Asia-Pacific Region

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Abstract

Purpose: The research aims to create a comprehensive integrated strategic framework (ISF), a combination between PESTLE analysis and TOWS Matrix of the effects of climate change and environmental risks on the overall well-being and development of young children of Asia Pacific Region. Additionally, it examined pertinent external factors, strength, weakness, opportunities, and threats of environmental efforts.

Study Design: This study analyses the desk studies from diverse published data derived from Asia Pacific Region reports. The research thoroughly examines the connections and discrepancies between Early Childhood Care and Education (ECCE), policies, national adaptation plans, financing, and programs. The research utilizes a comprehensive strategic framework to highlight identified issues and maximize potential opportunities, which consistent with the principles of the Theory of Change.

Findings: This research contributes to a paradigm shift which moving away from a focus on recognizing existing conditions to a more action-oriented perspective by

emphasizing the "how-to" aspect, decision-makers can enact effective SDG interventions.

Originality/Value: The research novelty is rooted in its utilization of an integrated strategic framework, which enables comprehensive approach to tackling the identified gaps, optimizing strengths and opportunities that provide essential insights and recommendation.

Keywords: Sustainable Development Goals, SWOT analysis, TOWS matrix, integrated strategic framework

Research Type: Research paper

Securing Smart Living: Assessing Climate-Related Risks and Their Impact on Projected Mortality Rate in Malaysia

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Abstract

Purpose: This paper aims to investigate the impact of climate-related risks, specifically temperature and seasonal precipitation, on Malaysia's projected mortality rate. With an increase in climate-related events, the study explores potential risks to safety and mortality, emphasizing the criticality of understanding climate change's implications on various industries and mortality rates in Malaysia.

Study design/methodology/approach: The Lee-Carter forecasting method was utilized to project Malaysia's mortality rate, focusing on the influence of climate-related risks, temperature, and seasonal precipitation. The analysis involved studying data on climate-related events and mortality rates to assess potential risks to safety and mortality. The results were validated using the General Additive Model, with particular emphasis on its effects on the projected female mortality rate.

Findings and Conclusion: Findings revealed that temperature had a notable influence on the projected mortality rate, considering the interaction effects of other factors. The results of the General Additive Model

analysis demonstrated significant effects on the projected female mortality rate.

Originality: The study's results highlight the urgency of implementing proactive measures to address climate-related risks and protect public health and wellbeing in Malaysia. Future research may explore additional variables that contribute to mortality rates within the context of changing climate patterns.

Keywords: Climate related risk, mortality

Research Type: Research Paper

Resilience and Sustainability in Internationalization: A Case Study of a Three Generational Japanese SME

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Abstract

Purpose: This study explores the case of Nakajima Jukyudo Co. Ltd ("Jukyudo"), a long-standing Japanese family-owned enterprise that has been operating for 90 years. Jukyudo specializes in the production and distribution of a sharpener. The objective of this study is to investigate the elements that have played a role in the notable achievements during its process of internationalization. Study examined the resilience displayed by this three-generational small and medium-sized enterprise (SME) based in Japan.

Methodology: This study adopted a qualitative research methodology to collect comprehensive data regarding the business's strategies, experiences, and decision-making processes during its global expansion. The primary approach of data collecting entails the use of a questionnaire incorporating semi-structured inquiries to Junya Nakajima, the third Chief Executive Officer (CEO) of the company. Furthermore, secondary data obtained

from pertinent websites are utilized to supplement the research findings.

Findings and Conclusion:The findings shed light on the strategies, practices, and decision-making processes that have demonstrated exceptional resilience in maintaining a robust global presence despite the various hurdles associated with internationalization, hence promoting long-term corporate sustainability. The result of this study serves as a helpful resource for both scholars and professionals in the global business environment.

Originality/Value:The novelty of this study resides in its investigation of the determinants of success for a three-generational Japanese small and medium-sized enterprise (SME) operating in the global marketplace. The study's distinctiveness lies in its contribution of useful insights into the realm of family-owned heritage.

Keywords:Internationalization, Family-Owned Business, SME, Entrepreneurship, Business Sustainability

Research Type: Case Study.

**The Perception of English As The Lingua Franca
In An AI-Powered Business Community:
Preliminary Findings**

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Abstract

Purpose – The purpose of this paper is to explore the perception of English as the lingua-franca among the young generation of business students who are highly adept at using technology to facilitate communication with people with diverse linguistic backgrounds.

Design/methodology/approach – The participants were nine university students who completed their 16-week industry attachment. The preliminary study data was collected during a focus group discussion.

Findings and Conclusion– Initial results suggest that the student exhibited increased confidence in communicating in diverse environments and actively took initiative during their interactions with foreign customers. Overall, they perceived themselves as being productive throughout the 16-week period.

Practical implications –Companies and managers shall consider offering AI-powered language tools

training programs to enable their employees to expand their career opportunities and foster a proactive work attitude.

Originality/value – With the aid of AI-powered language tools, employees can surmount language barriers and establish effective communication with colleagues and clients across the globe. These advanced tools empower businesses to operate in diverse markets, cultivate a global workforce and reinforce international collaborations.

Keywords AI-powered tool, English, language, lingua-franca.

Paper type Research paper

A Cost-benefit Approach to Patent Strategy

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Abstract

Purpose – The purpose of this paper is to examine the costs and possible benefits of patenting and to explore strategies for patent value enhancement.

Design/methodology/approach –Cost-benefit analysis and case studies of patenting strategies have been used to explore the strategies for improving the value of patents.

Findings and Conclusion – This study proposes a patent strategy to enhance the benefits of patents. First, a company must have an accurate technology forecast to predict the new product roadmap of its main competitors in a few years' time; second, the company must invest sufficient R&D resources to achieve a lead on this technology path. Finally, the company must file patents on this roadmap before its competitors do, and write patent specifications and claims based on the new products its competitors are likely to develop.

Practical implications –In terms of the draft patent specification, it is not always better to have a wider range of patent claims. This study suggests that the scope of patent claims should be moderate. If the scope of the patent is too broad, an invalidation action can be brought by finding prior art to challenge the novelty or inventive step of the patent. There will be no benefit at all if the patent is invalidated. The scope of the patent should also not be too narrow, otherwise it will not be possible to claim infringement and obtain royalties or damages.

Originality/value – This study suggests two important indicators of patent quality: The patent must not be invalidated and it must be enforceable.

Keywords patent, cost-benefit analysis, patent scope, patent validity, enforceability

Paper type Research paper

Influence of Individual Entrepreneurial Orientation On Cyberpreneurship In The Context Of Digital Free Trade Zone

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Abstract

Purpose- The purpose of this study is to investigate the influence of Individual Entrepreneurial Orientation (IEO) on cyberpreneurship intentions in Malaysia, paying specific attention to the potential moderating role of the Digital Free Trade Zone (DFTZ).

Methodology- The research employed a sample of 473 final-year university students to investigate the impact of

various aspects of IEO (such as innovativeness, risk-taking, proactiveness, visionary, Self-efficacy, opportunist, and creativity) on the intention to engage in cyberpreneurship. Age and education level were used as control variables.

Findings and Conclusion-The study found that IEO has a robust and significant impact on cyberpreneurship intentions among final-year students in Malaysia. However, the anticipated moderating effect of DFTZ was found to be non-significant. Furthermore, the control variables, age and education level, did not display a noteworthy influence on cyberpreneurship intentions.

Practical Implications- These findings have important implications for educators, policymakers, and government initiatives in Malaysia aiming to enhance cyberpreneurship growth. The absence of DFTZ's moderation highlights the need for further policy alignment, investigation, curriculum design, and strategic development within the realm of digital entrepreneurship.

Findings and Conclusion-This research offers original insights contextual factors that influence cyberpreneurship in a digitalized economy, supporting ongoing Malaysian government initiatives and providing potential directions for future research and development in the field of digital entrepreneurship.

Keywords-Cyberpreneurship; entrepreneurial orientation; innovativeness; risk taking; proactiveness; visionary; self-efficacy; DFTZ;

Paper type- Research paper

An Analysis of Key Drivers of Successful Startups in University-Based Incubators in China: A Case Study

Approach

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Abstract

Purpose - While many startups have been established, only a few of them are successful. The purpose of this study is to analyse the key drivers of successful startups in university-based incubators in China.

Study Methodology - This study employs a qualitative research approach by collecting the data through semi-structured interviews with nine informants from three public universities in China, including three incubator managers and six student startup founders. The audios are

transcribed, and the data is then analysed using the software Nvivo for thematic coding.

Findings and Conclusion– There are three drivers that emerged as crucial to the success of startups by informants. The key drivers are the availability of university services and support, market environment and funding accessibility, and the capacity of R&D and uniqueness of technology. Availability of university services and support significantly contribute to successful student-founded startups due to the sufficient networks, mentorship, incubation services, and training programmes offered to develop startups. Market environment and external funding accessibility drive the up taking of products and services by startups while the capacity of R&D and uniqueness of technology by the startups are fundamental to its success. National policies and incentives also play an important role.

Outcomes/Recommendations - From the insights gained from this study, universities with an incubator are recommended to improve its services and support towards student-founded startups' development. Government and funding agencies are further recommended to support startups in China.

Keywords: Key Drivers, University-Based Incubators, Successful Startups

Research Type: Research paper

The Role of Brand-Image, Style, Care And Peer-Pressure On Eco-Fashion Consumption The Quantitative Study Among Young Customers In Thailand

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Abstract

Purpose: Due to the rise of social media, fashion companies and eco-fashion marketers are promoting sustainable consumption. The aim of this study is to analyze the influence of brand image, style, care and peer pressure on eco-fashion consumption among young consumers in Thailand.

Methods: This was a quantitative study based on a positivist philosophy. The target population group was young consumers in Bangkok. Data was collected from 175 respondents using a self-administered questionnaire. In this study, SPSS and SmartPLS software was used to generate descriptive and inferential statistics to assess reliability, validity, and hypothesis testing.

Findings and Conclusion: This research found that only style and care had a significant association with eco-fashion consumption among young consumers in Thailand.

Originality and Implications: The results of this study provided marketers and retailers with a better understanding of the determinants of eco-fashion

consumption. This information will help them find better ways to increase their sales. To the researcher's knowledge, this was the first study of its kind in Bangkok.

Keywords: Eco-Fashion Consumption, Brand-image, Style, Care, Peer-pressure.

Demand For Digital Skills, Skill Gaps And Graduate Employability In IR4.0

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Abstract

Purpose – A major workforce inadequacy and the change in skill demanded have been observed due to the digital transformation. This study aims to identify the current versus future digital skills demanded by the employers, with particular focus on exploring the skills gaps among the graduates that impact on the graduate employability.

Design/methodology/approach –376 responses were collected by mean of online survey. Descriptive analysis on mean scores of the employers' perceptions to identify the digital skills demanded for graduate to perform their current and future tasks. Pair sample t-test was performed to explore the skill gaps between the demand versus competencies of the graduates' digital skills in the workplace.

Findings and Conclusion– The findings show that current top three digital skills in demand are “information

and data literacy”, “problem solving” and “digital content creation”. Whereas the top digital skills for future demand are “problem solving”, “safety” and “communication and collaboration”. In addition, the most significant (digital) skill gap is found in problem solving skills followed by communication and collaboration.

Practical implications – These findings provide insights into the digital skills demanded by the employers in IR4.0, allowing HR practitioners, education service providers and policymakers to make better planning on human capital management and training development.

Originality/value – Focusing on identifying the current and future demanded digital skills, while exploring the digital skill gaps among the graduate, may provide insight into the employability skills required by the graduate before entering the job market.

Keywords: Digital skills, IR4.0, Skill gaps, Graduate employability.

Paper type Research paper

**The Immersive Augmented Reality Mobile
Application in Furniture Shopping: Effects on
Customer Brand Engagement and Purchase
Experience**

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Purpose – The increasing popularity of augmented reality mobile applications in furniture shopping have contributed to seamless customer experience. The aim of this paper is to investigate the immersive augmented reality mobile applications in furniture shopping in the context of interactivity, vividness, and information quality. Drawing on the extended Technology Acceptance Model (TAM), interactivity, vividness and information quality factors are examined towards perceived ease of use and perceived usefulness. Subsequently, both perceived ease of use and perceived usefulness are hypothesised towards customer brand engagement and purchase experience.

Design/methodology/approach – Samples were obtained from 450 consumers who have experienced

augmented reality mobile applications in furniture shopping in Malaysia. Structural equation modeling (SEM) was applied to test the hypotheses.

Findings and Conclusion – The results concluded that interactivity, vividness and information quality have positive effects on the perceived ease of use and perceived usefulness. Subsequently, both perceived ease of use and perceived usefulness have positive effect on the customer brand engagement and purchase experience.

Practical implications – The findings will assist furniture retailers in strategic marketing planning and formulation to improve the augmented reality mobile applications.

Originality/value –The study contributes to the extension of TAM by adding interactivity, vividness, and information quality as antecedents to perceived ease of use and perceived usefulness. This research validated customer brand engagement and purchase experience as the new dimensions representing behavioural intention to use and actual usage respectively in the TAM.

Keywords Augmented Reality Mobile Application, Customer Brand Engagement, Purchase Experience, Technology Acceptance Model.

Paper type Research paper

The Impact of Search Engine Optimization on the Online Purchase Intentions of University Students in Malaysia

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Abstract

Purpose: The objective of the study was to determine the impact of search engine optimization on online purchase intent and to provide companies with an overview of how they can improve their offerings through a search engine that meets the expectations of online users.

Study Methodology: This was an explanatory study based on a deductive approach in which hypotheses were developed and tested. A quantitative methodological approach was appropriate for this cross-sectional study. The target population was university students in Kuala Lumpur. Using a survey strategy and random sampling, primary data were collected from 102 qualified respondents. Self-administered questionnaires were used, and the collected data were analysed using SPSS software.

Findings and Conclusion: The results showed that two of the three predictors, meta tags and online reviews, were predictors of online purchase intention. The results also

showed that meta tags had the greatest influence on online purchase intention.

Value and Implications: It is expected that the results of the study will provide marketers and businesses with a better understanding of the consumer perspective. The results will also add to the current body of knowledge.

Keywords: Digital Marketing, Meta Tags, Online Reviews, Search Engine Optimisation

Introducing Explicit Rough Set Decision Model

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Abstract

Purpose- In this study, we put forth the explicit rough set (ERS). The limitations of the rough set and its extensions are overcome by the explicit rough set. We created, probabilistic explicit rough sets (PrERS), variable precision probabilistic explicit rough sets (VPPr-ERS), and fuzzy VPPr-ERS, ERS-based decision models.

Study design/methodology/approach- We developed a decision-theoretic rough set (DTRS) model using ERS and named it decision-theoretic explicit rough set (DTERS). The ERS helps to classify the objects according to their actual membership values.

Findings and Conclusion- The introduced new ERS helps to effectively deal with the ambiguity of the information and overcomes the shortcomings of various extended rough sets. Introduced fuzzy ERS to deal with uncertainty. The ERS divides the set roughly into five regions: the positive region, the bounded-positive region, the bounded region, the bounded-negative region, and the negative area. With ERS, we presented the decision-theoretic rough set (DTRS) model. The

fuzzy VPPr-ERS and DTERS models are illustrated by the industrial robot selection problem.

Originality/value- Introduced decision model with the fuzzy ERS and DTERS to solve uncertainty and vagueness of the decision making problem. The fuzzy ERS and DTERS decision models illustrate the industrial robot selection problem. In future work, exploration of the integration of ERS and MADM methods is promising. The proposed ERS make more sense in the data clustering analysis, feature selection, investment problems and decision making problems.

Keywords- Rough set, Explicit rough set, Fuzzy, Industrial robot selection

Research Type: Research paper

Whither Labour in the Digital Society?

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Purpose: This keynote reviews debates about the end of work and contradictions over the war for talent and job losses through automation. The title is a deliberate play on words: ‘whither’ as in where is it going and ‘wither’ as in to shrink. The review presents these debates in the spatial and historical contexts of global economic shift and Kondratieff cycles.

Study design/methodology/approach: The review offers a critique of the past decade of McKinsey reports predicting the impact of automation on work. It revisits debates from the beginning of the microprocessor revolution and reports on research into restructuring of coal mining, garment manufacture and aerospace.

Findings and Conclusion: The key argument is that quantitative and qualitative changes in the nature of work, in part due to adoption of new technologies, require educational institutions to offer access to learning for those most at risk of social exclusion.

Originality/value: The originality of this analysis is that it leverages on decades of research into actual technological changes and combines this with a critical review of broader debates on the changing nature of work. There is a need for further sector studies of the profound changes underway since the global financial crisis to enable education providers to support worker transitions.

Keywords: automation, artificial intelligence, restructuring, job losses, skills mismatch, work organization

Research Type: General review

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