

**ICTIS  
2023**



**Middlesex  
University  
Dubai**

**2ND INTERNATIONAL  
CONFERENCE ON**

**TECHNOLOGY,  
INNOVATION, AND  
SUSTAINABILITY IN  
BUSINESS  
MANAGEMENT**

**BOOK OF ABSTRACTS**

**MIDDLESEX UNIVERSITY DUBAI  
MAY 3-4, 2023**

# **CONFERENCE CHAIRS**

Dr. Sreejith Balasubramanian  
Dr. Supriya Kaitheri

# **PROGRAMME COMMITTEE**

Professor Cody Morris Paris  
Professor Ajit Karnik  
Rory McConnon  
Dr. Nitin Poluru  
Dr. Fehmida Hussain

# WELCOME FROM THE PRO-VICE CHANCELLOR



It is my pleasure to welcome you to the 2nd International Conference on Technology, Innovation, and Sustainability in Business Management (ICTIS 2023) at Middlesex University Dubai. This conference comes at a right time as it coincides with the announcement of the D33 economic initiative by the Government of Dubai, with the goal of doubling the economy of Dubai by 2033. The D33 initiative relies largely on innovation and technology reshaping all aspects of the economy. This conference serves as an excellent platform for academics and practitioners to address future challenges and promote a resilient, sustainable post-COVID-19 society. The themes align with Middlesex University's Strategy for 2031, emphasizing knowledge creation and application to foster equitable, healthy, and sustainable communities.

This year's conference features over 110 presentations and more than 200 presenters and speakers from 20 countries, reflecting the high quality of submissions received. I am pleased to note the participation of several faculty and students from our Dubai and London campuses, demonstrating the expertise of our international faculty, who are leading researchers in their respective fields. Our student research has garnered recognition at conferences and competitions both locally and globally.

I thank the Organizing Committee, led by Dr. Sreejith Balasubramanian and Dr. Supriya Kaitheri, for curating an impressive program. I sincerely hope the conference proves intellectually stimulating, and I wish all participants the very best. I look forward to welcoming you to the University and hope you have a memorable and enlightening conference experience.

**Professor Cedwyn Fernandes**

**Pro Vice-Chancellor, Middlesex University & Director, Middlesex University Dubai**

# WELCOME FROM THE CONFERENCE CHAIRS



On behalf of the Business School, we are delighted to welcome you to Middlesex University Dubai's 2nd International Conference on Technology, Innovation, and Sustainability in Business Management (ICTIS 2023). Building on the success of the inaugural 2019 edition, this conference unites researchers and practitioners from diverse industries to explore the influence of technological advancements, innovation, and sustainability on business models and practices. It also discusses how organizations can harness these developments to maintain relevance and competitiveness in the post-COVID-19 landscape. Over 100 oral presentations will be featured, alongside a poster session and demo sessions aimed at showcasing student research. Furthermore, the conference will host three distinguished keynote speakers.

We are amazed with the exceptional interest and caliber of submissions received from the multidisciplinary and international community of academics and practitioners. This two-day conference assembles 200+ professionals and scholars from over 20 countries across various disciplines, fostering discussions and sharing of impactful, use-inspired research aligned with the conference theme.

Organizing an event like ICTIS requires extensive teamwork, planning, and preparation. We express our gratitude to Professor Cedwyn Fernandes, Pro-Vice Chancellor of Middlesex University and Director of Middlesex University Dubai, and Professor Cody Paris, Deputy Director of Academic Planning and Research, for their unwavering support and guidance. Our heartfelt thanks go out to all contributors, including the Research Committee, Programme Committee, and Marketing and Finance Team, as well as our keynote speakers, session chairs, and oral and poster/demo presenters.

We wish you an unforgettable and insightful conference experience and hope this event encourages interdisciplinary collaborations and partnerships.

# KEYNOTE ADDRESS

# BASHAR KILANI



Bashar is Managing Director at Accenture based in Dubai and a member of the Growth Markets leadership team focusing on Digital Economy market making trends that accelerate growth, transform operations, and enable organizations to build their digital core.

A seasoned Corporate Executive (Accenture & IBM) & Advisory Board Member with a track record of engaging new markets and leadership positions in general management, sales & marketing, consulting & services, and driving operational excellence. His international career spans the Middle East, Europe & the USA.

# KEYNOTE ADDRESS

# PROF BALBIR BARN



Balbir is Professor of Software Engineering at Middlesex University. Following a PhD in Computer Science from the University of Bath, Balbir embarked on an industrial research career of over 15 years working in the various research labs at Marconi, Texas Instruments and Sterling Software where he was involved in the research and design of leading software products such as the IEF. Balbir joined Middlesex in 2008 as Associate Dean for Business in the School of Engineering and Information Sciences after an earlier academic role as Head of Department and Professor of Computing at the University of West London. Balbir has been a principal investigator on research projects totalling over £1.5M. He has also provided consultancy to prestigious clients such as JP Morgan Chase and JISC.



# KEYNOTE ADDRESS

# DR. JAN YA CHAN CHAICHUJIT



Dr. Janya Chanchaichujit is an Associate Professor in Logistics and Supply Chain Management, Director, Center for Sustainable Logistics and Supply Chain Management in the faculty of Environmental Management and Assistant President for Promoting of Foreign Affairs at Prince of Songkla University in Thailand. Dr. Chanchaichujit has over 20 years of experience in logistics and supply chain management in industry and academic. She is also actively providing consulting services on green and sustainable operations, technology transformation, feasibility study and business model to public and private organization varies from freight and transportation, to manufacturing and agricultural in Thailand and GMS region.

DAY

01

Access the programme schedule [here](#)



## Impact of First and Second Wave of Covid-19 on the Stock Market

*Dhanraj Sharma, Ruchita Verma,  
Shiney Sam and Prince Godara*

The present study tries to evaluate the impact of first and second wave of Covid-19 on the major global stock markets. Further the study also analyzed the effect of Covid-19 on the sectoral indices of India during first and second wave. In order to achieve the objective, the event study methodology has been used and abnormal returns are computed around the event dates. The findings of the study reveals that major stock markets in the world adversely affected during the first wave of Covid-19 and highest abnormal loss was observed in Toronto Stock Exchange (7.55%) on the event date. The impact of second wave of Covid-19 was not as severe as first wave and highest abnormal loss (2.37%) was observed in Moscow Exchange of Russia. The Indian sectoral indices also showed the high volatility during the both waves of Covid-19.

# What Drives the Indian Equity Market on a Festival Day? A Microstructural Analysis of Muhurat Trading

*Anand Krishnan V K and Meera Davi Chalissery*

India, a land of diversities, is also well known for its socio-cultural landscape and traditional beliefs and how it affects the financial decision of retail investors. Muhurat Trading, a one-hour trading window open outside the regular trading hours only on the day of Diwali, is considered one of the auspicious days to make investments. This occasion, perceived as an opportune day to make investments, will likely attract numerous transactions too. Literature also supports the claim that emotions can drive a retail-dominated market. Emerging markets are known to be driven by emotions and information asymmetries.

Moreover, the retail-dominated market is a suitable sample to understand the same. The Indian equity market is both a retail-dominated and an emerging market. So, Muhurat trading in India provides a natural experiment to study whether emotions and religious beliefs drive the equity market in an emerging and retail-dominated market. Using a novel matrix, by combining the DPIN, a measure of Information Asymmetry and the Order imbalance, which measures the market's liquidity, we intend to examine what drives the Indian equity market on the lucky day of Diwali compared to normal trading days.

# A Bibliometric Analysis of Green Banking Research

*Kartik Bhati and Dr. Akansha Tyagi*

With the increase in awareness about the climate change & global warming, the whole world has aligned their functioning around the Sustainable Development Goals, one of them being “Go Green” as much as possible. Banking and finance has not been left untouched by this movement, hence this paper aims to study the recent advances in the field of Green banking and green lending also referred as climate finance .It uses a bibliometric analysis approach to summarize this concept's development trend, explaining the existing past, present & future research options.

## Gender Gap in Financial Inclusion - Visualization of Academic Literature

*Shivani Arora, Meera Mehta and Aagam Jain*

The purpose of the article is to examine studies on the financial inclusion of women in order to comprehend the gender gap that exists in financial inclusion initiatives. By evaluating the 1166 publications from the Scopus and Web of Science databases, this research attempts to compile the diverse literature in the topic. The Biblioshiny application of R-studio is used to synchronise and analyse the collected publications. There have been several bibliometric techniques utilised, including publishing trends, citation analysis, word mapping, trend analysis, and theme mapping. The research provides information on the hot topics and new trends in research. The study's growing patterns will give academicians and decision-makers the chance to comprehend the gender-based disparities in the financial system and plan their next work.

# Share Market Response under the Ambit of Buyback Policy during COVID-19 for Indian Corporates

*Aafreen Khan, Ritika and Ashu Khanna*

Share buybacks are a popular corporate payout practice that involves large sums of money being distributed to the investors. Corporates indulge in this practice mainly to boost their stock prices and it has been empirically examined in past literature. However, during the pandemic, when nations were announcing lockdown, economies were going through severe downturn, and stock markets across the nations were dropping. Despite this, several corporations announced share buybacks. Hence, the present study is a modest attempt to capture the market reaction to the buyback announcement in the pre and post covid phase in India. For investigating short term announcement effect, the analysis was performed using event-study tool based on standard market model. Further, sample was divided in pre and post pandemic period after the government announced lockdown. When compared with the normal market conditions, the results reports the abnormality in market returns before the announcement, in the pandemic phase. The findings support the signaling hypothesis, as the buyback were successful in increasing stock-price and generating abnormal return to the investors during pandemic phase. The anomalous returns before the announcement suggests that insiders might be using inside information to their advantage at the expense of investors. This also indicates the worsening in corporate governance norms. As a result of these findings, policymakers can concentrate on refining and implementing robust policies during times of crisis.

# Virtual Try-On Technology Affecting Consumer Purchase Intention, Brand Loyalty and Attachment in the Cosmetic Industry in the United Arab Emirates

*Sabnam Imtiyaz*

The COVID-19 outbreak and the tremendous changes that have occurred in the beauty industry over the past year, aided by today's digitally savvy beauty consumers, have led to an increase in the application of Augmented Reality technology in the personal care sector. The major brands have launched virtual try-on, AR advertisement, navigation, in-store displays and more. The purpose of this research is to assess the Impact of attributes of Web AR (Virtual try-on) on consumer's purchase intention, user experience, brand loyalty and attachment in cosmetic (make-up) industry in the UAE. This study has established the conceptual framework based on SOR model.

The Research Objectives of the study are as follows:

- 1: To examine the role that the attributes of Augmented reality play in telepresence, trust in virtual try on and consumer purchase intention.
- 2: To discover if Online consumers' attitudes towards Web AR (Virtual try-on) have an influence on user experience, brand loyalty, and brand attachment.
- 3: To examine barriers influencing consumers' use of Web AR technology.

The findings state that the attributes of AR such as vividness, interactivity, have a moderate impact on telepresence and aesthetics have a stronger impact, indicating that there are other factors that affect telepresence. The study identified that with the use of telepresence, customers may gain confidence in both the technology and the products which further increases decision comfort, hence boosting purchase intention. It has been identified that by providing customers with more product information than non-AR products, augmented reality (AR) improves user experience (UX) by lowering users' anxiety and facilitating decision-making. Additionally, AR offers users enhanced product

data obtained both digitally and physically. Moreover, online consumers' attitudes towards virtual try-on have moderate positive effect on brand loyalty explaining around 26% of the variance in brand loyalty. Findings show that online consumers' attitudes towards virtual try-on have a weak positive impact on attachment towards the individual's existing favorable brand. Study also demonstrates that the awkwardness of using virtual try-on in public does not negatively affect consumer attitudes toward virtual try-on. Also, this study finds that the impact of privacy concern on consumer attitudes toward virtual try-on is not statistically significant based on the analysis. Which is contrary to the literature that states that the perception of a technology's trustworthiness is impacted by privacy concerns, which increases risk that involves fragility and ambiguity and lowers people's desire to adopt new technologies (Connolly & Bannister, 2007).

Implications - First, in the perspective of purchase intention, technology adoption and brand-related constructs, researcher examined the application of augmented reality, in the beauty product industry, thereby filling a gap in the literature about virtual try-on and brand constructs. Research focusing on the AR in the cosmetic industry discussed how it contributed to the cognitive response such as purchase intention, user experience, brand-related constructs, and adoption of technology. The results offer further opportunities and theoretical support for using Web AR in marketing.

Second, the SOR model in beauty product industry is examined in this study. This study incorporates interactive, vividness, and aesthetic AR service characteristics. The organism aspect of the SOR model is developed through the emotional response to a process with telepresence and consumer attitude. Technology professionals must drive resources on further enhancing augmented reality characteristics that appeal to consumers the most, such as aesthetics. With the aid of this technology, marketers can provide customers with more detailed and vibrant online purchasing experience. Marketing professionals need to understand the significance of AR and design e-marketing strategies in light of how the use of AR in the retail sector has improved customers' overall shopping experiences.



# From Double-Taps to Sustainable Acts: Role of Consumer Mimicry in the Social Media Influencer Community Towards Promoting Sustainable Consumption - A Guiding Framework and Future Research Propositions.

*Mahima Yadav and Prof Ruchi Gupta*

**Purpose:** The behaviour, expectations, and mere presence of others can have a significant impact on consumer behaviour. Social factors have been identified as a primary driver of change in sustainable consumer behaviour. However, the role of social media communities in encouraging sustainable consumption behaviour is an emerging field of study, with research efforts still in its infancy. The study addresses this issue by developing a conceptual framework of the interplay between social media influencer community and consumer mimicry to guide effective interventions and encourage sustainable consumption.

**Study design/methodology/approach:** The study's essential focus is to develop a conceptual framework by analyzing extant secondary data and theoretical models.

**Findings:** The study uncovers the role of consumer mimicry within the social media influencer community in promoting sustainable consumption through mediation and moderation variables rooted in theoretical models and approaches.

**Originality/value:** There is a dearth of studies that have explored the role of consumer mimicry in promoting sustainable consumption. It not only gives a conceptual framework but also outlines key theoretical propositions and directions for future research.

**Practical implications:** The study offers novel insights to design social media policies and innovate sustainable products resulting in social proofing.

## Green Purchasing Behaviour in Apparel Industry: A Review

*Emad Rashid*

Textile industry is a major contributor to the Indian GDP. From an economic point of view, the industry plays an important role. Ecologically the industry has a downside as this is a major contributor to pollution. This problem has been recognised and efforts are being made to make the textile industry more sustainable. With millennials as major participants in the Indian consumer market, it is important to understand the factors which affect buying behavior in terms of sustainable apparel. For this study, more than ninety research papers that have been published globally were reviewed. Twenty-five papers that were found relevant to the study were shortlisted. A funnel approach (International studies to India-specific studies) was used to narrow down the discussions and findings. Based on the existing literature it is observed that the Structural equation modeling approach is the most commonly used statistical technique. Models like the Knowledge-attitude-behaviour model, Attitude-behaviour-context theory, and several environmental and non-environmental predictors have been identified during the review process. Various certifications which primarily focus on environmental impact in the apparel industry were also identified. Based on the existing literature recommendations for industry practitioners are provided. Possible future research directions for sustainability in the apparel industry have been given.

## Understanding the Impact of social media and Word of Mouth on Purchase Intention in Full-Service Restaurants in Dubai post-Covid

*Tamunomieibim Samuel Longjohn and  
Cody Morris Paris*

The aim of this study was to understand how social media advertisements and word-of-mouth (WOM) recommendations influence consumer purchase intention in full-service restaurants in Dubai post-Covid. This work is pertinent as existing research has primarily considered the role of WOM and social media in influencing purchase intention in restaurants independently. The findings of this study provide practical insights for leveraging social media advertisement and WOM in restaurant marketing in the post-Covid era. Based on the established literature, a hypothetical model was proposed with six hypotheses to address the objectives of the research. The hypotheses explored the influence of perceived relevance, informativeness and perceived image of WOM recommendations and social media advertisements on purchase intention. A quantitative survey was administered online using purposive non-probability sampling between July and November 2022, and the survey had 148 valid responses. Overall, the findings indicated that while WOM recommendations and social media advertisements have a positive impact on consumer purchase intention to dine in full-service restaurants in Dubai, WOM has a stronger impact than social media advertisements. Another important finding from the survey was that a desire to try a new type of cuisine is the most important factor considered by respondents when deciding to dine at a restaurant in Dubai for the first time, followed by discounts and special offers available.

## Construction and Validation of Influencer Information Credibility Scale

*Ngawang Lhamo and Ruchi Gupta*

**Purpose** –Various studies have taken two or three factor to measure information credibility of the influencer. At present there is no validated scale that combines various factors that have been found to be effective in case on influencer marketing. The main purpose of our study is to propose a new influencer information credibility scale and validate the scale, and to access on which specific aspect should be given higher consideration while marketing manager select an effective influencer endorser for their products/brand.

**Design/methodology/approach** –Questionnaire was filled by 151 respondents. 7-point Likert scale questions were used, where 1 was “strongly agree” and 7 was “strongly disagree”. EFA was used to check the construct validity of the constructs. To determine sampling adequacy, the Kaiser Meyer Olkin (KMO) test was employed. The model’s validity (convergent and discriminant) and reliability were assessed using CFA.

**Finding** - The results validate ten dimensions of influencer information credibility. The study suggests that when selecting one, consideration should be given more to the influencer's argument quality than to other influencer endorser features. This is followed by likeability, endorsement product brand fit, and trustworthiness in order of importance.

**Practical implication** - The current study gives marketing managers a valid and reliable scale they can use to choose the right influencer. The study also provides marketing managers with advice on which specific aspects should be given more weight when making a selection in terms of rank.

**Originality** - The study constructs and validates an important scale for measuring the information credibility of the influencer, such as trustworthiness, attractiveness, expertise, endorser brand-product fit, argument quality, likability, homophily, inspiration, and enjoyability.

## Balancing Prosperity and Sustainability: The UAE's Approach to Achieving Ambitious Targets through Circular Economy and Responsible Practices

*Afseer Majeed*

This article examines the United Arab Emirates (UAE) approach to a circular economy to balance economic prosperity with sustainability. The UAE has set ambitious sustainability targets, including reducing greenhouse gas emissions and increasing the share of clean energy. The UAE has implemented various economic incentives to achieve these targets, such as carbon tax and subsidies for renewable energy investments. Business guidelines, such as the Emirates Green Building Council's rating system and Dubai Sustainable Industry Platform, have also been introduced to encourage sustainable practices among companies. The research shows that the UAE's excellent approach to a circular economy has helped promote sustainable development and keep economic growth strong. The country's efforts have led to more industries using renewable energy and environmentally friendly practices. However, the study also identifies some challenges that need to be addressed, such as the need for more awareness and implementation of circular economy principles in some sectors. The research comes to the conclusion that the UAE's approach to a circular economy is a good way to find a balance between economic growth and environmental protection. It shows how important, ambitious goals, economic incentives, and business guidelines are for encouraging businesses and people to act in a sustainable way. The study suggests that the UAE can continue to lead the way in the circular economy by addressing the challenges and promoting circular economy principles more widely.

## India's Transition to Circular Economy and its Impact on the Indian Economy and Responsible Practices

*Rajeev Kumar Upadhyay*

The world is coping with many challenges including hunger, malnourishment, poverty, inequality and climate change etc. However, among all the problems, the issue of climate change has turned into the biggest problem for the whole world as its impact on the whole world is multifaceted. There hardly is any area of socio-economic life which is not being negatively affected by the problem of climate change. In such times, it has become very important to find a sustainable economic growth and development model which not only addresses the problem of climate change but also can accelerate economic growth across the globe so that all the other problems can be tackled. In such a time when the economies of the world, particularly developing economies, are struggling to find it difficult to find the right model for sustainable development which helps in addressing the climate issues as well as accelerates economic development so that issues like hunger, malnourishment, poverty and inequality etc. can be addressed.

India, like other developing economies, faces several daunting challenges including hunger, malnourishment, poverty, population growth, inadequate health and educational infrastructure, and rising pollution across the country. To achieve the goal of sustainable growth and development, India has taken many initiatives for the transition of the Indian economy from a linear economy to a circular economy. This article assesses and evaluates the efforts and impacts of the Indian government and corporate sectors' initiatives and activities on the transition from a linear to a circular economy.

# The Narrative of Sustainability and Circular Economy - A Critical Analysis of Fashion Industry

*Dr Ruchi Gautam and Shiwani Singh*

Circular economy forgoes the traditional linear model and instead demands the industry to be responsible in manufacturing, alternative usages, and increasing shelf-life for every product made. Materials and production are carefully considered, stressing the value of utilizing a product right to the end, then going one stage further and repurposing it into something useful. Fashion industry in particular involves a very extensive and complex supply chain. This in turn is linked with large consumption of water, energy and chemical substances, water and air pollution, waste production and eventually microplastic generation.

This industry is in dire need of a considerate redesign. As global polluters, the fashion industry has a long list of environmental allegations to address. This industry also has a significant impact on the achievement of the various Sustainable Development Goals (SDGs) proposed by United Nations.

This paper attempts to understand the relationship and contribution of circular economy (CE) to sustainable development (SD). The purpose of this paper is to examine the challenges of applying the principles of circular economy in fashion industry. A systematic analysis of literature review was carried out in the first phase. Various Scopus and Google Scholar Journals from 2014 till 2022 were analysed using keyword search. Finally, a total of 81 Journals were part of our study. In second phase, various big conglomerates in fashion industry were also studied and analysed with respect to their operations, supply chain management, standards and policy with respect to sustainability and how they intend to make fashion industry circular.

This study highlighted some helpful insights with respect to current state of circular economy in fashion Industry. The research also highlighted that in order to apply CE principles, into current business models, redefining prevailing value propositions and transforming several business model elements is imperative.



# Exploring the Impact of “Carbon Neutralization” on Electric Vehicles Stock Plate: The Case of Chinese BYD Company

*Zhiyuan He*

At the beginning of the 21st century, environmental issues such as resource shortages and climate change have seriously affected the living standards of millions of people in China. To address the impact of climate change on humanity, China proposed the "carbon neutrality" goal in 2020. According to this goal, carbon dioxide levels will peak in 2030 and reach carbon neutrality by 2060. To achieve the challenging goal of reducing carbon dioxide emissions, China has proposed promoting new energy vehicles driven by electricity or other sources, such as hydrogen and natural gas, which can reduce harmful pollutants. Implementing the carbon-neutral policy has also had a significant impact on the new energy vehicle stock market plate. This study uses the event study method to study the effect of carbon neutrality on BYD Company's stock price to understand the implications of this critical environmental policy on BYD's financial performance. To achieve the purpose of this study, the thesis used a sample of 170 trading days before and after the announcement of BYD's carbon neutrality policy on September 22, 2020, in order to test the short-term stock price effect of the carbon neutrality policy on BYD and the short-term impact of the carbon neutrality policy on the long-term performance of BYD.

## Talking Smart Cities towards Sustainability and Circular Economy

*Dwi Taniel and Judhi Prasetyo*

There are wealthy amounts of data available from a city, which can be utilised to construct cumulative information for sustainability and circular economy. This research highlights the collective data shared amongst cities, which could be unified into standard communication protocols or specifications.

The benefit of having such collective data would help provide insights into collaboration between cities to achieve sustainability, resiliency, and opportunity to name a few. Those factors can contribute towards a circular economy in relation to climate change mitigation, better living conditions, standards, and the well-being of the city's residents and visitors.

This research proposes an approach to sharing smart city data streamed from the source into a collective data platform. The collaboration outcome and in-depth processing samples are demonstrated in simulated data for illustrating the possible circular economy cycle towards sustainability.

## Smart Technology in Tourism

*Ruchi Gautam, Swati Yadav, Prince Kumar  
Sharma and Sam Sajan*

Tourism is important for the success of numerous economies around the world. Smart tourism is described in terms of the technological prowess of a specific location, a particular attraction, or the Traveller themselves. Many places are in the process of updating their operations to make significant use of smart technology, from payment systems to interactive events. Various devices, systems and applications that use artificial intelligence, internet connectivity and advance technologies are part of smart technologies. They are used to improve and automate various tasks in various fields such as transport, tourism, education, healthcare etc. United Nation World Tourism Organization (UNWTO) also emphasizes the overwhelming role of smart technological innovation in attracting more tourists towards various destinations worldwide.

For Indian cities to be on world map with respect to smart tourism, there is a need to exhibit a strong pledge towards technology and innovation following the principles of sustainability.

This paper attempts to understand the correlation between smart tourism technologies (STTs) attributes and their influence on tourist satisfaction. The paper also attempts to understand the factors attributing to the growth of smart tourism in India.

A systematic analysis of literature review was carried out in the first phase. Various Scopus and Google Scholar Journals from 2014 till 2022 were analyzed using keyword search. Finally, a total of 51 Journals were part of our study. Studies published by UNWTO were also analyzed. In second phase, a survey was conducted to understand the factors contributing to use of smart technologies in tourism using Technology Acceptance Model (TAM).

## Examine the Relationship Between Observed Smart Tourism Technology Experience, Travel Experience and Future Revisit Intentions

*Suneel Kumar, Varinder Kumar, Isha Kumari  
Bhatt and Nisha Devi*

Smart tourism technologies have a significant impact on tourists' intention to return to a tourist spot. The purpose of this study is to examine the relationship between observed Smart Tourism Technology (STT) experience, travel experience and future tourist return intention. This study develops a conceptual model to assess hypotheses related to how tourists observe STT experiences, travel experiences, and tourist intentions for future return, based on a review of the STT and travel experience literature. To test the conceptual model, 250 online samples were collected from famous tourists' spots (such as Dharamshala, Kullu & Manali, Shimla and Mandi) in Himachal Pradesh. The conceptual model was tested using Structural Equation Models (SEM), and the results show that the perceived STT experience had a significant impact on tourists' travel experience and the tourists' travel experience had a significant impact on future return intention. The impact of the study could also provide meaningful information for managers, government organizations and companies involved in the tourism industry. In addition, the rise of STT and the aspects of smart site image are examined from the perspective of sustainable development. The main limitation of the study is the location of the survey. The questionnaire was filled out by tourists visiting such Dharamshala, Kullu & Manali, Shimla and Mandi, however, there are many other tourist spots in Himachal Pradesh (such as Lahaul Spiti, Chamba etc).

## Personalized Tourist Destination Prediction and Recommendation System based on Personal Traits Using Machine Learning

*Arthur Mwang'Onda, Chiedza Hwata and  
Teleza Kanthonga*

Tourism has become a significant and expanding sector of the global economy, benefiting numerous nations. Due to the growing popularity of travel, several systems have been developed that offer customers individualized travel recommendations. Several frameworks have been used to recommend tourist attractions to travellers based on popularity, personality tests, personal preferences, and several other metrics. In this work, we suggest a system for recommending vacation spots based on personality attributes. The suggested system creates a personalized list of suggested vacation spots by taking into consideration the user's personality traits, interests, and preferences. To learn from the user's previous data and produce recommendations that match the user's personal attributes, we used a machine learning approach, namely a collaborative filtering algorithm. Using a real-world dataset of travel destinations and individual personality attributes, we assessed the suggested approach. The outcomes of our tests show that the suggested system performs better in terms of personalization and recommendation accuracy. These findings imply that the suggested approach for personal trait-based suggestions of travel destinations has the potential to increase the efficiency and customization of travel recommendations. In conclusion, this study offers a novel method for providing customized travel recommendations that considers user preferences. The suggested system is simple to integrate into current tourist platforms and has the potential to improve the visitor experience, boost user happiness, and encourage the expansion of the tourism sector.

## The Role of Business Analytics for Local Economic Growth in MENA Countries

*Aftab Ara and Dr. Muna Alyusuf*

The MENA area faces urgent issues with job creation, low levels of education and skills, gender inequality, and new technology according to Ismail (2018). In the region, unemployment has increased since 2011, when it was 14.6% before the Covid19 crisis, and twice as high for youth (ILOSTAT, 2020). These issues have caused a ripple effect of economic and social instability in several countries throughout the region. The implementation of business analytics in the MENA region is a business strategy gaining increased attention and interest. MENA region should invest in business analytics tools and skills to improve business performance and competitiveness. Business analytics (BA) can provide many advantages such as improved decision-making, cost savings, better customer service, and more effective business operations. This research study is based on identifying the needs and opportunities in the job market in MENA countries to support local economic growth by using business analytics. The aims of the study are twofold: firstly, to identify the needs of local economies in the MENA region; secondly, to find out how business analytics can be used as a tool for growth. Our study is based on collecting primary data from companies in the region. To gain further insights into the issue impacting the region, interviews will be conducted with key business leaders and experts in the region. Additionally, the findings would be incorporated in our findings from secondary sources such as reports, statistics, and publications on major economic trends that could be useful for understanding local economies. This study has significant consequences since it will give a more thorough picture of the regional needs in the MENA region by contributing to the region's growth and stability.

## Generative AI: A Boon to Artisanal Economy

*Emad Rashid*

The handicraft sector of India is a rich and diverse industry that has been a source of livelihood for many generations. The skills and knowledge required for handicrafts vary across geographies and are often concentrated in rural areas. This comprises of what is referred to as the informal or unorganized sector. The artisans have specialized skill set which is passed over generations. With industrialization these small scale industry and artisans suffered due to unfair business opportunities and lack of resources. ChatGPT a Generative Artificial Intelligence tool is a bright spot which can give these artisans a platform to compete with mass produced goods. The paper explores the possibility of using ChatGPT on two very niche industries of Aligarh (applique work) and Bulandshahr (ceramic pottery) districts of Uttar Pradesh, India. It is seen how Generative AI can act as a bridge between Industry 4.0 and traditional industry. The tool generated business strategies for the artisans. It also crafted social media content strategy for these two products. A feedback mechanism by using the tool as a chatbot can also be very helpful in automating customer support, answering common questions, and engaging with customers in real-time. Based on the feedback the artisans have the ability to analyze customer feedback and generate insights. This can help businesses to better understand their customers needs and preferences, and make data-driven decisions. The paper also focuses on the challenges in adoption of this technology. Future research is needed on developing novel ways by which these open AI tools can provide a leveled playing field for the artisanal economy.



# The Growth of Fintech: The Impact of FinTech and Blockchain Technologies in Socio-Economic, Banking and Finance Services

*Anisah Mohammed*

Purpose: This paper aims to review the emergence of new technologies revolving around social and economic services around the world. The precipitated and rapid development of information technology, cryptocurrency, smartphones, and internet connectivity has admittedly had an immense influence on the economic, social and banking and financial sectors.

The association of financial technology (FinTech) and blockchain are intentionally transforming digital banking and financial services while also deliberately causing a shift from traditional methods to more advanced and digitalised methods in the social and economic sectors.

This study investigates the intervention and presence of FinTech and blockchain technologies and its impact on social, economic, banking and financial services.

Current studies reveal that FinTech and blockchain technologies have a strong influence on digitalisation trends as this research will focus on the impacts of the influence of the technologies in the socio-economic and banking and finance sectors.

## Credit Card Fraud Detection

*Oluwaseun Omonuwa*

Credit card fraud has become a common problem with a devastating effect on e-commerce, merchant, retail, consumer, and financial sector. Credit card fraud has increased in recent years, causing devastating financial losses to several organizations, businesses, and government entities. By the end of 2023, there will be over 1 billion credit card users worldwide. However, using machine learning methods makes it easy to detect and intercept fraudulent transactions from a stream of data by extracting fraudulent patterns from historical data with the aim of spotting these patterns in the flow of new incoming transaction data. This project addressed card-not-present (CNP) fraud, a common type of credit card fraud, amount to about 70% of the overall credit card fraud. This project used modern machine learning methods to address credit card fraud, using two days credit card transaction records used by European cardholders in September 2013. There are about 284,807 transaction records in the dataset, with only 492 fraudulent records. The goal is to apply machine learning methods to perform predictive analysis on credit card transaction datasets, and to filter fraudulent transactions from the given dataset, and to use predictive models to determine whether a transaction fall under normal class or a fraudulent class. To determine whether a transaction is fraudulent or not, various resampling techniques have been combined with predictive models like logistic regression, XGBoost, and random forest. The performance of the models was assessed and compared using various metrics, including recall, precision, f1-score, confusion matrix, and AUC score. According to the confusion matrix, xgboost with oversampling and stratified k-folds correctly classified all the legitimate classes as legit but misclassified 40 legitimate classes as fraud. In terms of fraudulent classes, the model correctly classified all the fraudulent classes as fraud without any misclassification. The combination of XGBoost with oversampling and stratified k-fold, performed extremely well in classifying both the negative and positive classes. Similarly, when random forest was combined with oversampling and stratified k-fold, the performance was quite good; however, the combination of oversampling and stratified k-fold on XGBoost produced the best results. This is to emphasize that oversampling with XGBoost works better on imbalanced datasets.

## Technology Driven Banking: An Empirical Analysis of Usage Intention using TAM

*Dr. Ravi Kant, Prof. Subhash Chand  
and Himani*

This research aimed to examine the factors influencing users' intentions toward using technology-driven banking. For this, the study employed a conceptual framework to identify the most critical factors influencing user intention toward technology-driven banking. Google form was created to collect data for this study. The statistical analysis and measurement model were performed using SPSS and AMOS. The data has been analysed using exploratory factor analysis (EFA) in SPSS 26 to create constructs and assess factors influencing users' intentions. This study assumed a link between PEOU, SI, PU, and the usage intention toward technology-driven banking. The most crucial antecedent in this regard was PEOU, followed by PU. The study did not find social influence to be a significant predictor of users' intention to use technology-driven banking. The current study has some limitations also but provides direction for future research. The respondents in this study represent a relatively small subset of the population. The demographic variable could also be evaluated as a moderator to see whether it affects usage intention. Similarly, upcoming studies may conduct a more thorough evaluation of usage intention by incorporating variables such as the consistent use of technology-driven banking services and their impact on user behaviour. This study did not use any negative factors such as psychological and social risk while using new technology for banking transactions.

# Drivers and Impact of ICT Investment by the Indian Banking Sector

*Gulam Goush Ansari and Rajorshi Sen Gupta*

This study examines the influence of various organizational and market factors on the ICT investment process and analyzes the impact of investment in ICT on a bank's performance. For this, a longitudinal dataset consisting of 222 banks from 2000 to 2020 has been used. The study employs a two-step system generalised method of moment (GMM) on sub-samples to mitigate the issues of endogeneity and self-selection bias.

The results indicate that lagged ICT investment is a significant determinant of current ICT investment across all the sub-samples. Financial leverage for most banks has a positive implication on their ICT investment. There exists a complementarity between the number of branches and ICT investment for co-operatives and public sector banks. Size has emerged as a significant driver that positively influences ICT adoption by public and private banks. Whereas age has an ambiguous implication on banks' adoption of technology. Market share as an external factor has a significant influence on the ICT banks by most of the banks. The impact of cumulative ICT investment is examined on the performance indicators such as returns on asset (ROA), return on equity (ROE), and profit after tax (PAT). Results show that cumulative investment in ICT has a positive impact only on foreign banks' ROA, whereas, for other sub-samples and indicators, it is either negative or insignificant. This indicates that the maximum number of banks face a 'productivity paradox' and this paradox is quite vigorous in the Indian banking sector.

# Interlinkages between Investor Classifications and Drivers in Sustainable Investments: A Systematic Review and Future Research Agenda

*Kumar Manaswi and Priyanka Aggarwal*

The purpose of this study is: first, to systematically review articles on SI; second, to identify and classify investors in SI; third, to map out linkages between investor classifications and drivers of SI and fourth, to provide future research directions in the underlying domain. To this investigation, the PRISMA methodology was utilised to choose 81 publications that were published between the years 2014 and 2022 from the Web of Science database. These articles were then analysed using VOSviewer software. Thematic analysis was conducted to assess the state of research in field of Sustainable investments (SI). Furthermore, a mapping exercise was conducted by authors to assess the linkages between types of investors and SI drivers. This exercise can help identify opportunities for collaboration between investors, policymakers, and NGOs to achieve common sustainability goals. The study revealed that the number of published research articles on sustainable investments has exponentially grown in the last 8 years. A total of three clusters based emerged from the network analysis that was conducted on the selected set of research papers. The study identified a total of seven drivers and eight investor types of Sustainable Investments. Policymakers can draw inferences from this study and investigate the different barriers, ways to get around them, and opportunities that come with successfully implementing sustainability practises. Future researchers and scholars can conduct a comparative study of developed and developing economies regarding the integration sustainability practices like ESG in investor decisions in order to get a comprehensive outlook.

## Demystifying Indian SME's Data-driven Business Model for Sustainability

*Animesh Ghosh, Prabha Bholá, Debraj  
Bhattacharjee and Sankar Sivarajah*

Small and mid-size enterprises (SMEs) are showing an inclination to data-driven goods manufacturing and business in India. Handmade product-producing SMEs using natural fiber face stiff competition from counterfeit cheap artificial products in the market. As natural fibers are biodegradable, they are eco-friendly too and meet the principles of Circular Economy (CE) applying regeneration and restoration principles. However, artificial fiber-made products do not meet the CE principles and pollute the planet. In the current scenario, the digital market platform which is growing fast leaves little space for handmade mat producers to draw the attention of consumers toward the original natural fiber products over cheap artificial fiber products. This study is an attempt to explore possibilities of using review and rating data to draw the attention of consumers and influence them to convert their purchase intention of artificial fiber products to purchase of natural fiber products. The study here demonstrated how specific information about a product can influence the perception of customers and facilitate a customer to make an informed purchase of real natural products over counterfeit products. The study also generated possible adoption strategies to be considered for natural fiber-based mat sellers using SHapley Additive exPlanations analysis on the review and rating data set. For the considered study data was extracted from natural fiber mat and artificial fiber mat products sold in a renowned e-commerce platform. Apart from quantitative analysis of secondary e-commerce website data to understand the sentiment of consumers towards sold products, qualitative data analysis using Fuzzy TOPSIS (Technique for Order Preference by Similarities to Ideal Solution) on interview data of natural fiber mat producers was also considered to present the strategies. The findings of the study contribute to data-driven business strategization for SMEs to drive sales in e-commerce besides sustaining competition.

## Urgent Need for Green Entrepreneurship for SMEs in the Digitalization Era

*Sonia Mukherjee and Reeta Tomar*

Entrepreneurship is said to be a driving force for an economy. The ability to innovate and take risks lies within an entrepreneur. Over time, Entrepreneurship have been playing an important role especially in the context of Small Micro and Medium Enterprises. SMEs have been playing a vital role in terms of contribution to export earnings and livelihood opportunities to a larger section of the population especially in the context of the developing countries. Over time, there have been numerous climate agreements asking for reduction in the Green House Gases and emission levels to prevent further global warming. In addition, the developing countries need to adhere to the Sustainable Development Goals by the year 2030. SMEs have been drivers of economic growth and have been contributing to the pollution and global warming. Hence, a switch to cleaner and green technology is a mandate in this present time.

Against this background, green entrepreneurship has been a necessary tool to adhere to the environmental standards. Green entrepreneurs have the potential to lower the greenhouse gas emissions and further propagate innovative green technologies and solutions. Green Entrepreneurship encompasses the development and deployment by new start-ups of green products, services and processes that either- reduce or prevent any type of environmental damage and help in emitting less pollution and waste. In addition, it is more resource efficient than similar types of normal products, services and process. Green entrepreneurship is a term which have emerged as a field of interest in a world confronted with the need to achieve rapid economic growth while making optimal use of natural resources and reducing the level of pollution (Potluri and Phani, 2020).



Against this backdrop, the study intends to examine the need for green entrepreneurship, the challenges and barriers and how green entrepreneurship can abate the problem of climate change and help in adhering to the sustainable development goals. The study will be using secondary data from International Reports. Further, tables and graphs will be used to portray the need for green entrepreneurship for SMEs. Lastly, suggestions and policy recommendations will be used to highlight the policies needed for green entrepreneurship in the present era.

# Cyberloafing: A Contemporary Form of Employee Withdrawal Behaviour

*Himanshu Gupta and Rajib Lochan Dhar*

The advancement of Information technology has not only benefited organisations but has also presented them with new management challenges when it comes to managing their workforces. Withdrawal and cyberloafing behaviour are two types of employee on-the-job behaviours that are occasionally considered deviant or counterproductive work behaviour, CWB. This paper examines how these behaviours relate to or differ from each other and how they signify a management challenge in the digital era. Based on scientific literature and psychometric analysis of both constructs, the study found that cyberloafing is a contemporary form of employee withdrawal, and organisational managers must take adequate measures to handle and control these kinds of employee contemporary production deviance. The study discusses what steps management can take in order to control and manage these types of behaviours. The study also provides theoretical contributions and suggests avenues for future research for organisational researchers.

# Exploring the Applicability of Digital Freight Matching for Agile Agri-Food Supply Chains: Insights from Retail Industry

*El Mehdi El Bhilat and L. Saadia Hamidi*

For the past few years, agri-food supply chains have shown numerous sources of vulnerability especially when it comes to distribution and retailing. This state of affairs has been accentuated by the health crisis of Covid-19 which has revealed the significance of a supply chain agility and responsiveness in such critical periods. Moreover, due the sensitivity of the cold chain regarding the perishable nature of goods, time-consuming global exports supply chains may lead to severe risks of goods waste, shipment delays, hence market share loss. In addition, with the increase in logistics activities outsourcing, designating the right logistics provider PL is of paramount importance for the success of every value chain. Therefore, the recourse to new information technologies and digital platforms become a necessity for executives and policymakers to withstand global disruptions and achieve better service quality. In this study the authors investigate the potential contributions of digital freight matching (DFM) platforms on firms' agility and responsiveness in Moroccan retail industry considering that such AI based technology offers assistance regarding supply chain agility by improving capabilities to cope with market fluctuations. That is to say, the aim of this study is to scrutinize the influence of web-based technologies such as DFM in solving shipment and deliveries problems by ensuring visibility and transparency from quoting through delivery. For that, we conduct exploratory research among retailers in the Moroccan agrifood context through which we provide insights to researchers but for managers as well on the contributions on digital platforms in enhancing downstream logistics and operation management performance.

# Examining the Enablers of Cold Chain Logistics Infrastructure in the Medical Sector – A Framework and a Case Study

*Dina Awad*

This study examines the impact of effective logistics and transportation in the cold chain infrastructure in the UAE's medical sector, aiming to identify solutions for improvement. The COVID-19 pandemic highlighted the need for efficient cold supply chain logistics for vaccine distribution. The UAE's hot climate poses challenges for temperature-sensitive medical supplies, emphasizing the importance of efficient cold chain logistics in the region. The research employs qualitative methodology, focusing on four objectives: 1) identifying the efficiency and effectiveness of the cold chain transportation network, 2) exploring cold chain storage infrastructure, 3) identifying cold chain handling efficiency, and 4) recommending strategies for improvement. Findings show that cold chain logistics are essential in the UAE's medical sector, but challenges remain, such as ineffective policies, high maintenance costs, and supplier issues. Future research using quantitative methods could offer a more in-depth understanding of the impact of logistics and transportation on cold chain infrastructure.

## Benchmarking Capital Structure Efficiency for MSMEs Employing Machine Learning Model

*Saurabh Chadha and Deepak Kumar Tripathi*

Small firms are crucial for both developed as well developing economies. One problem they face is the efficient management of Capital structure. This research is segregated into two parts. The first section calculates Capital structure efficiency using a novel non-radial DEA model utilizing 578 samples of Indian MSMEs. In the secondary examination, the study established the relationship among various endogenous variables and the Capital structure efficiency score obtained by DEA using the machine learning approach. The results reveal that Micro enterprises are better at managing their Capital structure efficiency level when contrasted with Small and Medium firms. The average efficiency of Micro, Small as well Medium firms are 56%, 35%, and 33%, respectively. The research also explores MSMEs' region-wise Capital structure efficiency, where again, the Micro firms were most efficient in every region. At last, the study employed sensitivity analysis to establish the importance of every model where we get varying results.

# A GA Optimized Route Finder Based on Artificial Neural Networks

*Chiedza Hwata, Arthur Mwang'Onda and  
Teleza Kanthonga*

Modern transportation systems face a basic challenge with optimal route finding, and a variety of statistical, machine learning, and deep learning methods have been created to solve this issue. In this paper, we suggest an enhanced route finder built on artificial neural networks and optimized with genetic algorithms. To help tourists find their way around a tourist attraction on their own, the suggested algorithm learns from previous route data and predicts the best route for a given origin and destination. Real-world transportation data were used in the development and evaluation of the suggested method. The outcomes of our tests show that the suggested algorithm works better in terms of accuracy and efficiency than the currently used route-finding methods. In particular, the suggested algorithm found the best path with a higher rate of success. Additionally, we compared the proposed approach to several well-known machine learning algorithms and discovered that it beat them in terms of accuracy and efficiency. These findings imply that the proposed machine learning-based route finder has the potential to increase the effectiveness and precision of route finding in transportation systems. This study offers a novel method for route discovery that integrates machine learning strategies with established methods, enhancing efficiency and accuracy. The suggested method is simple to implement in already-in-use transportation systems, and it may significantly impact traffic flow, travel times, and overall transportation efficiency.

# ChatGPT: A Natural Language Processing- Based Chatbot for Educational Research and Ethical Considerations

*Aftab Ara and Anisha Thomas*

ChatGPT is a natural language processing-based chatbot that can generate open-ended conversations on any given topic with its wide range of pre-trained models for research content. It is trained on millions of conversations to create personalized, conversational responses for every user, regardless of their background or knowledge. By leveraging Generative Pre-trained Transformer (GPT), ChatGPT can generate humanlike answers and better understand the context, allowing it to respond in a more natural way than traditional chatbots. It also provides researchers with a rich source of data for research which could be utilized to revolutionize research in education. Further research is needed to fully understand ChatGPT's capabilities within this field and its implications for its effectiveness in research, and ethical concerns. This study aims to determine the influence of chatbots like ChatGPT in research and ethical implications. Qualitative data will be collected through interviews with education professionals to explore their opinions on the use of ChatGPT in research. Additionally, a survey questionnaire investigating the effects of ChatGPT usage on research methodologies and ethical considerations will also be conducted. Finally, case studies exploring different scenarios using ChatGPT in educational research settings will be conducted to better understand and evaluate the effects of using ChatGPT in educational research. This data will be used to better understand the potential implications of using chatbots in education research. In this study, we evaluate the performance of ChatGPT for educational research purposes. We used two different datasets: a corpus of conversations between teachers and students with varying levels of expertise; and a dataset consisting of questions related to educational content from online forums. The results of this study could help to inform decision-making related to the use of chatbots in education and provide guidance for future applications, policy decisions, and ethical considerations.



# AI-Driven Healthcare: Leveraging Data Analytics for Accurate Diagnosis of Medical Conditions

*Favour Emmanson*

The rapid advancement of data analysis and analytics has opened up new opportunities for improving healthcare outcomes through the development of artificial intelligence (AI)-driven healthcare systems (Topol, 2019). In this research, I aim to develop an AI-driven healthcare system that diagnoses illnesses based on symptoms specified by the user while also continuously analysing medical data and customer health history for accurate diagnoses.

To achieve this, I will use a combination of machine learning algorithms and data analytics techniques to train the AI system to accurately diagnose a wide range of illnesses based on user-specified symptoms. I will use publicly available healthcare datasets, such as the National Health and Nutrition Examination Survey (NHANES) and the Healthcare Cost and Utilization Project (HCUP) database, to train and test the AI system (Xu et al., 2018).

Additionally, I will develop a user-friendly interface that allows users to input their symptoms and receive an accurate diagnosis within seconds. The AI system will continuously analyse medical data and customer health history to improve its accuracy over time, thereby providing personalised diagnoses and treatment recommendations to each user.

The development of this AI-driven healthcare system has the potential to revolutionise how healthcare is delivered, particularly in areas where access to medical professionals is limited. It could also significantly reduce healthcare costs by providing accurate diagnoses and treatment recommendations at a fraction of the cost of traditional healthcare services (FitzGerald & Hurst, 2019).

This research will contribute to the growing body of literature on AI-driven healthcare systems and data analytics in healthcare, while also addressing an important societal need for accurate and accessible healthcare services.

# Assessment of the Impact of Technological Innovation on Longevity: Leverage of Potential Gains and Losses for Health

*Giedre Kvedaraviciene, Violeta Pukeliene and  
Tomas Ruzgas*

The speed and scope of technological innovation in modern economies and its impact on health outcomes make economic research of technological innovation phenomena very important for governments and private sector across the world in their pursuit of sustainable and effective innovation fostering.

By focusing on the role of technology in determining health outcomes, our study uses fourteen countries' data for the period of 2008-2014. We use five medical and non-medical technologies' indicators and five indicators for the level of the economy's innovativeness and welfare distribution, such as balance of payments and receipts for intellectual property and Gini index. Using structural regression, we identify the impact of ten independent variables on life expectancy at birth.

Main results of the paper confirm positive impact of medical technologies and negative impact of non-medical technologies on changes in life expectancy at birth. The role of other economic factors indicates the importance of context in determining the level and direction of the technological innovation's impact on population's health and longevity.

The results of the empirical research support the argument that technological innovation fostering should be analyzed in conjunction with its adoption in healthcare and consumer markets. Discussion of the empirical evidence, validity and limitations of the model used for this paper contributes to the developing field of empirical knowledge on the role of technological innovation on public health and how its impact is moderated by other factors. The results also suggest further venues for economic research on technological innovations.

# The Intersection between Sustainability and Competition Law – Collaborative ESG initiatives – Trends in India, European Union and United Kingdom

*Dr Vinay Sharma*

Business Enterprises are considered to be critical components of the social system and are accountable to their shareholders from revenue and profitability perspectives, but also to the larger society which is also its stakeholder. Adoption of responsible business practices requires every business to comply with environmental, social and governance (ESG) factors of standards on a regular basis. Enterprises of the day have tried to promote these ESG norms through their workers, customers, shareholders and society in India, adopting holistic ESG which create value for business enterprises in the long run.

At the 2021, United Nations Climate Change Conference (COP-26) India has made an enhance commitment towards ESG. To achieve these broader ESG goals and a direction towards sustainability, alarm bells have risen from a competition law perspective on cartelization or anti-competitive behavior from the Competition Commission of India (CCI).

That Dutch Competition Regulator along with Greece and United Kingdom have published guidelines in the application of competition law to sustainability agreements, paving the way for collaboration between competitors for societal benefits. Guidelines were issued to Green-light competitor collaborations as a clear evidence of sustainability benefits which was by allowing direct competitors like Shell and Total Energies to collaborate. The CCI has not reviewed ESG principles in its decisional practices and hence the endeavor of this paper is to analyze the intersection between competition law and ESG collaboration in India and compare the same with the European Union and the United Kingdom through policy and legal decisions and to suggest the right mix between competition law and sustainability.

## How Do Interdisciplinary Leaders Perceive Learning Environments in Higher Education?

*Mashaal Hooda*

The needs of the contemporary higher education ethos are evolving and stem from the paradigm shift of student-centered and technology-oriented learning and the development of 21st-century skills to prepare individuals for the modern knowledge society. Such modern learning necessitates effective learning environments in higher education and has researchers and interdisciplinary leaders invested in this nascent field. Gaps in the literature concerning learning environments in higher education were identified and led to the development of the overarching question of this study: 'How do interdisciplinary leaders perceive learning environments in higher education?'. Moreover, this study uses Radcliffe's (2008) Pedagogy, Space, and Technology framework that aligns these three aspects in establishing an effective learning environment complementary to the needs of 21st-century learners. The expanding competitive higher education landscape rationalises the rationale for conducting this research in the UAE, wherein the need for effective learning environments is also increasing. Thus the research was conducted at Rose University, Dubai, with six interdisciplinary leaders through a small-scale case study approach. The triangulation of semi-structured and photo-elicitation interviews revealed two predominant perspectives of this research. Firstly, the leaders unanimously perceived innovative learning environments comprising flexible design, infrastructure, and ICT tools conducive to knowledge construction in higher education. Secondly, the leaders argued the perceived pedagogical relevance of active and interactive learning environments in higher education. Therefore, this qualitative study revealed space's significant influence on pedagogy and technology use in higher education learning environments. The study recommends the development of more innovative learning environments at an institutional level and creating research advocacy pertaining to the influence of learning environments on the holistic higher education experience. Further recommendations at the local and national levels are also discussed.

## UAE-Based Children's and Adults' Gender- Assigned Bias toward Robots and how to Deal with Gender Stereotypes in an Early Years Setting.

*Faareha Salman*

This study is taking inspiration from Okanda and Taniguchi's (2021) study, which focused on identifying the origins of gender stereotyping by investigating Japanese children and adults' tendency to assign a gender to robots. This research will see if the results will be replicable as the focus will be on children (aged 5-7 years) and adults (university students aged 18 to 25) based in the UAE. The aim is to investigate the current experiences of children and adults' gender assigning bias towards robots. Also, to explore what influences adults' gender attribution bias towards robots. Furthermore, it is to see the Head of Foundation Stage (FS) 's view on avoiding gender stereotypes in the early years setting. The method of this study will consist of an observation done on a group of children of Foundation Stage 2. With the adult participants, an interview method of photo-elicitation will be used by showing pictures of several objects including robots. Finally, an interview with the Head of FS will give insight into avoiding gender stereotyping in the early years. The findings showed that children and adults had a higher tendency to attribute a boy bias towards robots as well as media might have an influence on the adults' gender assigned bias. Also, the Head of FS suggested a solution to dealing with gender stereotypes is by promoting gender equality in the early years setting. For future research, researchers can look at how culture might impact children and adults' gender assigned bias toward robots.

## Cultural Uncertainty, Anxiety, and Low Employee Empowerment Conflict with Adopting the Latest Knowledge to Attain Positive Corporate Performance.

*Sabir Malik and Kennedy Modugu*

Culture is critical in developing organisations into competitive businesses. Successful organisations have created a sustainable corporate culture to increase operational effectiveness by acquiring continual knowledge to enhance employee performance. Organisations operating in culturally diversified environments avoid uncertainty by applying strict codes of conduct. Reducing empowerment at a lower level to take control of their operations, usually categorised as culturally rigid organisations. Uncertainty and a lack of authority in the workplace limit employees' capacity to take the initiative and be exposed to new trends and approaches to attain the desired performance.

The current study analysed the presence of Power Distance (PDI) and Uncertainty Avoidance (UAI) culture to assess the level of employee empowerment and organisational support to gain the latest knowledge to tackle business challenges successfully. The study used an online questionnaire to record employees' opinions of organisations listed on the Abu Dhabi Stock Exchange (ADX) and Dubai Financial Market (DFM). The study finds a significant relationship between cultural values and corporate performance. The robust analysis further confirms that organisational learning is essential in determining future progression despite substantial cultural implications.

The research implies the need for corporate leaders to determine the ideal environmental and cultural conditions that assist in adjusting to learning new trends and breakthroughs to achieve sustainable growth. The research contributes to the body of knowledge by providing unique insight to academia to focus future research on emphasizing the importance of cultural Implications to promoting positive learning and growth in the corporate world.

## The Significance of Eco-innovation for Global Innovation

*Christopher J Moon*

This paper reviews the significance of eco-innovation in the design and delivery of entrepreneurship and sustainability education. Examples are provided of national statistics on eco-innovation in the context of global eco-innovation, what eco-innovation means and how eco-innovation can be developed in education and practice. The paper includes a discussion of the digitalisation of eco-innovation, eco-innovation trends, policy support for eco-innovation, and examples of eco-innovation in practice. The author is a multi-award-winning eco-entrepreneur with ten years-experience in the private sector including as Head of Sustainability for two companies, and 25 years in higher education. The author has published over 100 papers including ABS 3\* and recently was co-editor of the book by Jones et al (2021) *Universities and Entrepreneurship*. He has presented at national and international conferences including keynote speeches and is judge of several entrepreneurship competitions including the F Factor (the UK's premier competition for 14-25 year-olds), the National Enterprise Educator Awards (UK), and the international Innovation and Entrepreneurship Teaching Excellence Awards. He was awarded an Outstanding Teacher Award in 2019, is University Adviser for Enactus (the world's largest experiential learning platform for entrepreneurship in relation to the UN Sustainable Development Goals) and is associate editor of the *International Journal of Management Education*. Recently he delivered all the entrepreneurship and sustainability sessions for over 30 local micro businesses and SMEs in the local community.



# Supermarkets' Marketing Peculiarities in Social Networks

*Jekaterina Kartasova and Hanna  
Zhykhareva-Tolstik*

Social Media Marketing (SMM) is a new and promising way of promoting goods and services using all social media channels available today (social networks, blogs, forums, etc.), which aims to increase sales volume. The correct and reasonable use of SMM allows you to introduce the target audience to the brand (product, service), and draw attention to the company's activities, including increasing visits to the company's website.

The relevance of this study is to highlight that with the spread of the Internet and the increasing popularity of social media, new various methods of promoting goods and services in the network are being created and actively used. The aim of the study is to investigate the influence of marketing in social networks on the development of trade in supermarkets in Europe.

The study discusses the relevant trends in retail marketing: eliminating delayed gratification, optimizing online and offline opportunities for hyper-personalization, customer-centric artificial intelligence, socially integrated visual search, and social shopping.

Based on these results, it is possible to conclude that running a promotion on social networks is a promising way to get new clients and increase sales, however, the success directly depends on the correctly chosen strategy (both dynamic and constantly updated according to the constantly changing users experience and habits) and should meet the requirements of modern competition for the effective operation of the company.

# Comparative Analysis of Determinants of Bank Profitability - Malaysia and Australia

*Duvia Babu and Mariam Aslam*

The present study compares bank profitability determinants between an upper-middle-income economy with a predominantly Islamic-faith-based banking system (Malaysia) and a high-income economy with conventional banking (Australia) by deploying a country-wise panel data analysis over 22 years (2000 to 2021). Additionally, since both economies were not affected severely by the great financial crisis, a short analysis is done at a descriptive statistics level for this period. Malaysia and Australia have portrayed similar trends during this phase, with a notable net increase in Return on Assets after a turbulent variation.

Empirical results show that both economies were insensitive to the financial freedom score. While corruption scores were negative and significant for Australia, Malaysia was negatively influenced only by the monetary freedom score. Liquid reserves to capital ratio at the industry level were insignificant for both economies. All bank-specific variables such as total revenue, bank size, operating expenses, lending ratio and non-performing loans ratio were significant for Australia, while only operating expenses were for Malaysia. GDP growth was significant and positive for both countries, while inflation was significant only for Malaysia.

The results from this research are multi-fold and may benefit banks in understanding factors influencing long-term value creation. In addition, central banks and governments can use this research to analyse the impact of their decisions on the banking sector and learn from each other chiefly due to the contrast in the predominant form of banking. Islamic Banks are more robust than Conventional Banks due to their solid asset backing. Australia may consider increasing the number of IBs to strengthen its financial system.

Furthermore, the economic and business cycles provide a learning opportunity and a framework for the rest of the world economies to immunize themselves for the next financial storm proactively, should it happen.

## Application of Simulation as an Industry 4.0 Technology to Detect the Bottleneck in Production Process

*Arish Ibrahim and Dr.Gulshan Kumar*

Simulation is an integral part of Industry 4.0 and is used to optimize production processes, increase efficiency, and reduce costs. It involves the use of software tools to create digital models of real-world systems and processes, allowing for testing and experimentation without the need for physical prototypes. Simulation can be used to test various scenarios, identify bottlenecks, and improve processes, enabling companies to make informed decisions about how to optimize their operations. This paper focused on the impact of simulation as an Industry 4.0 tool to identify the bottleneck in a production process. A case study also presented in this paper which examines the production process of cable tray pieces in a fabrication workshop and analyzes the process during an 8-hour workday. The study uses simulation software to model and simulate the entire production process, including the cutting, bending, drilling, and grinding of the cable tray pieces. The study identifies a bottleneck in the production process, which is caused by the longer setup and processing time of the bending machine. To address the bottleneck, an extra cutting machine and bending machine are added with operators to the current setup. The simulation results show that the addition of equipment is successful, and the production rate achieves 100%. The study provides valuable insights into the cable tray production process and demonstrates the effectiveness of simulation in optimising manufacturing processes.

## Factors Affecting the Number of Backers in Reward-based Crowdfunding

*Ritika, Aafreen Khan and Ashu Khanna*

Crowdfunding, a relatively new concept, has revolutionized how companies traditionally raise funds. It involves getting the funding necessary to start a business from a large pool of small investors—typically regular people—rather than more traditional financial sources. Funders or supporters can get information about the project or product when they decide to invest by visiting the platform website, which has various data available. Backers have a crucial role in the success of the project. It is essential to have a significant number of backers in the campaign. This study mainly includes those factors that affect the number of backers. For this purpose, we have included the hand-collected data of 173 projects from the Kickstarter website. We developed the model in which the number of backers is the dependent variable, and the independent variables are the gender of the entrepreneur, the number of backed and created projects & number of updates and comments. Here, we applied the multiple regression model to show their relationship. The result shows that the gender of the entrepreneur, the number of updates, and comments significantly affect the number of projects. Whereas the number of created and backed is not significantly related to the number of backers, the number of created projects is negatively associated with the number of backers. The results benefit aspiring business owners asking for money on reward-based crowdfunding websites. It assists the entrepreneur in identifying those factors which affect the number of backers—focused on those factors in the future for their fundraising.

## Project Success in Online IT Outsourcing Projects: A Systematic Review on Current Dimensions

*Kabir Pary and Sukanya Kundu*

Industry 4.0's growth has boosted the demand for Information Technology (IT) outsourcing services, which has opened up new potential for the gig economy. This demand is fueled by the COVID-19 pandemic and its offshoots like great resignation, moonlighting, and quiet quitting. The main difficulties in managing online IT outsourcing projects are task management, quality assurance, and communication. The criteria for judging a project's success in the IT sector have changed over time, moving from more traditional metrics like meeting requirements, delivering on time, and staying within budget to metrics like stakeholder satisfaction, customer satisfaction, business value, and agility. DevOps and Continuous Delivery, which place an emphasis on delivering high-quality software rapidly and consistently, are the current trends in projects. Traditional as well as newer metrics that concentrate on quality, delivery time, budget, client satisfaction, team effectiveness, and the competence of the online workers are required for measuring project success in online IT outsourcing parlance. The paper briefs a systematic study to analyze project success in online IT outsourcing. It contains the identification and screening methods including inclusion and exclusion criteria. This systematic review's aim is to present a thorough and unbiased assessment of the state of knowledge on dimensions of project success to identify patterns that may be used to guide future research. The identified papers were analyzed, and specific patterns and dimensions are summarized.

# Investigating Enhancement of Factors Affecting Mobile Government Services Adoption in Egypt

*Sherif Elbatanouny, Georgios Dafoulas  
and Noha Saleeb*

This research intends to identify the research approach suitable to measure mobile government acceptance, recognize the main mobile government acceptance factors (UTAUT2 and TRI), this main aim was tested through the moderating role of age, experience, and gender between mobile government factors on Egyptian intention to adopt mobile government application. Therefore, the main objectives could be stated as follows; the first objective is to critically review prior studies to identify factors that impact mobile government acceptance. The second objective is to identify the research approach suitable to measure mobile government acceptance. The third objective is to recognize further insights on the challenges that exist in the Egyptian context. The fourth is to identify the main mobile government acceptance factors (UTAUT2, and TRI). The fifth is to recognize the moderating role of age, gender and experience between mobile government factors on Egyptian intention to adopt mobile government application. Data was collected through conducting an interview with open-ended structured questions that targeted 13 interviewees with a total number of 13 questions covering the factors affecting implementation of mobile application in Egypt then the questionnaire will be handled for two stages of pre and post intervention, a sample size of 400 valid questionnaires will be targeted for each stage of them. Thus, a number of 400 customers will be asked before the intervention of the application (Pre-Intervention) and another 400 customers will be asked after the intervention of the application (Post-Intervention).

# Transforming 'Information Search' Using the Metaverse: Understanding the Effect of System Design, User Experience, and Perceived Information Quality on Behavioral Intention

*Dharun Kasilingam*

The metaverse is regarded as the future internet for searching and sharing information. Businesses in the tourism and hospitality sector have made an early move in listing their physical properties on the metaverse as publicly accessible phygital non-fugitive tokens (NFT). Individuals, before making bookings, can experience these properties firsthand on the metaverse through virtual reality devices. Study I (n = 453) seek to understand the influence of technology system design parameters on the perceived information quality and how this in turn affects the intention to physically visit the phygital property. Study II (n = 237) pursues to understand how user experience in using the metaverse for information search interacts with the information quality variable to cause a magnifying effect on the visiting intention. Results indicate social presence to be a critical variable directly influencing perceived information quality, followed by telepresence, while vividness and interactivity have an indirect influence. Pleasure, arousal, and dominance interact with the perceived information quality to cause a magnifying impact on the visiting intention. Theoretical and managerial implications are discussed.



## Exploring the Relationship Between Environmental, Social, and Governance (ESG) and Corporate Financial Performance (CFP): A Systematic Review using TCCM Approach

*Priyanka Aggarwal and Kumar Manaswi*

Although research on Environmental, Social, and Governance (ESG) is dispersed across numerous areas and dimensions of management, there is a paucity of reviews that synthesize the knowledge holistically in the context of its impact on Corporate Financial Performance (CFP). Using the Theory, Context, Characteristics and Methodology (TCCM) paradigm, this study employs a systematic review of 57 research articles published over a 10-year period (2014-2023) to resolve this gap. Consequently, the study seeks to address the following questions: (i) In order to explain the connection between ESG and CFP, what different theories or ideas have been considered? (ii) In what contexts has the underlying research been conducted? (iii) What characteristics have been explored (i.e., independent, moderating, mediating, and dependent variables)? (iv) What methodologies were used to comprehend the underlying study topic? Our study reveals that these studies rely heavily on Corporate Governance theories to explain the impact of various factors on the ESG-CFP link. However, these theories are unable to explain the relationship between corporate ESG-CFP decisions. Therefore, further collaborations across management, finance, accounting, marketing, sociology, psychology, philosophy, anthropology, economics and political science theories have the prospects to enlarge our understanding of the complicated trade-offs arising from undertaking ESG activities. Furthermore, we believe that "Innovation" is a significant factor in shedding light on the connection between ESG and CFP. As a result, the findings of our study give a conceptual framework in which the mediating role of "Innovation" must be investigated with respect to ESG-CFP. The study's findings are useful for academics, managers, and policymakers due to a dearth of comprehensive research in the ESG-CFP field.

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Access the programme schedule [here](#)

# Effect of Intellectual Property Rights (IPR) on Flow of Cross-Border Mergers and Acquisitions (M&As)

*Sameer Shaikh and Debasis Patnaik*

Extant research finds effective intellectual property rights (IPR) protection encourages firms to initiate mergers and acquisitions (M&As) deals. IPR strengthening positively affects firms' research and development activities and thus their innovative ability. Consequently, acquirer firms can improve their innovation quotient by pursuing target firms in regions undertaking IPR protection and enforcement measures. The present study examines the impact of IPR protection on inbound M&A deals engaged in 25 countries between the years 2014 to 2019. Differing from the use of conventionally employed Ginarte and Park (1997) index available in a five-yearly interval which evaluates only Patents, this paper proxies IPR strengthening through a more comprehensive annual intellectual property (IP) index (covering other intellectual assets like copyrights, trademarks, etc. besides patents) annually constructed by Global Innovation Policy Center, U.S. Chamber of Commerce. Estimates from panel regression, including country and year fixed effects, indicate that reforms that improve IP protection in a target country are positively and significantly associated with increase in inbound cross-border M&As.

Besides, the impact is significant mainly for target firms from emerging countries. This study sheds light on the effect of IPR protection on corporate decision-making. In particular, the acquirers look forward to regions undertaking efforts to improve their IP ecosystem, either to protect their intellectual capital transmitted through technology transfer or to acquire targets high on innovative quotient. Our results further emphasize the enduring literature on the role of IPR strengthening in attracting foreign capital that contributes to achieving economic development motive.

# Impact of Corporate Social Responsibility on the Performance of the Banking Sector: Case of United Arab Emirates

*Pallavi Kishore and Vijaya Kumar*

An enormous body of literature has suggested a contradictory relationship between Corporate Social Responsibility (CSR) and a firm's financial performance in the developed countries, but the link between the two is yet to be explored in emerging economies. However, there is no consensus on the measure of CSR in the extant research available. Therefore, the purpose of this study is to suggest a scale for CSR measure which encompasses a holistic approach and to establish a link based on the scale developed between CSR and financial performance of the Banking Industry in the United Arab Emirates (UAE) from 2012-2019. Findings suggest that both CSR expenditure and CSR commitment have a significant relationship with bank profitability. While CSR expenditure has a negative relationship, the latter is positively related to profitability.

# Modeling the Challenges in Audit of Cryptocurrencies

*Prince Doliya and Monika Dhochak*

The global cryptocurrency acceptance has experienced significant growth in recent years, with the total market capitalization has reached approximately \$806.40B on December 17, 2022. Every day, a growing number of institutions—from ordinary businesses to payment processors to hedge funds and beyond—accept, trade, and invest in cryptocurrencies. However, there is still a lack of guidance for auditing of these cryptocurrencies. As most of these cryptocurrency works on a peer-to-peer payment system, traditional audit planning and audit evidence-gathering process may not be sufficient to handle their audit. This paper attempt to assist the auditors through the identification and prioritization of challenges in the digital currency audit.

In this paper, we have utilized Analytic Hierarchy Process (AHP) as the methodology to for the prioritization and comparison of multiple criteria and alternatives. AHP is a structured decision-making process that allows for the prioritization and comparison of multiple criteria and alternatives. To conduct this study, we gathered data from 30 auditors, including respondents from big 4 and non-big 4 audit firms, through one-hour interviews. The auditors were asked to identify and rate the relative importance of various challenges associated with auditing digital currencies. The results of the study can help auditors in developing appropriate audit strategies and techniques to address these challenges effectively.

## Does Categorisation of Risk Factor Disclosures Affect IPO Underpricing – Study of Indian Capital Market

*Pritpal Bhullar, Dyal Bhatnagar, Krishan Lal Grover and Ranjit Tiwari*

The current study intends to bridge a substantial existing gap and studies the likely influence of risk factor disclosures in the prospectus and initial return of initial public offerings (IPO) across financial sectors and non-financial sectors enterprises in India. The research looks at 201 different companies, 167 of which are non-financial and 34 of which are financial, all of which have conducted an initial public offering (IPO) between the years 2015 and 2021. The purpose of the content analysis was to investigate the information contained in the IPO prospectuses of the companies that had issued IPOs during the time frame of the study in order to accomplish the objective of the regression analysis. The results of the study demonstrate that in the financial industry, underpricing is most strongly influenced by technological and competitive risk factors, whereas on the other hand, the most significant influences on underpricing in the non-financial sector are operating risk and compliance risk.

## Credit Lending Channel of Indian Banks

*Ankita Prabhakar and Prasenjit Chakrabarti*

The financial sector is among the most heavily regulated sector of an economy and financial intermediaries, particularly banks, are an important source of funds for any economy. Researchers have argued that the delivery of credit, which is the most fundamental activity of the banking sector, is crucial to uplift economic activities and it can enable the capabilities of the existing resources (Sen, 2000). Therefore, efficient banking regulations are a prerequisite for efficient economic growth. In India, the ratio of credit lending to GDP remains low as compared to similar emerging markets (Acharya and Rajan, 2020). Yet, as per the RBI Report of June 2022, Gross Non-Performing Assets (GNPA) stand at 5.9%, which is the second highest in the world after Russia at 8.3%. Existing studies like Jorda et al., 2020 have linked the cause of the poor performance to the poor regulation mechanisms. The study talks about the bank credit channel and studies the impact of change in creditors' rights through the implementation of the Insolvency and Bankruptcy Code(IBC) on lending. The study argues that banks have reduced credit lending post-IBC. Also, public sector banks have reduced credit lending as compared to private sector banks and Undercapitalized banks have also reduced credit lending as compared to adequately capitalized banks. Also, it argues that overall distress lending is reduced by banks post-IBC. However, there is no evidence to say whether public sector banks have reduced distress lending as compared to private sector banks or undercapitalized banks have reduced distress lending as compared to adequately capitalized banks.



# Insights into the Multifaceted Causal Association between Intellectual Property Rights, Foreign Direct Investment, Entrepreneurship & Economic Growth amongst the States of India

*Melba Judieth Fernandes and Sunil Kumar A.*

The global system of intellectual property rights (IPRs) has been changing profoundly. Many developing countries have undertaken significant strengthening of their IPRs regimes while the developed countries have examined areas of infringements thus making IP Policy more stringent. Domestic or International trading arrangements today address questions of regulatory convergence, particularly in IPRs. Under TRIPS, WTO members must adopt and enforce strong and non-discriminatory minimum standards of protection for intellectual property. The movement toward much stronger global IPRs is consistent with processes of economic globalization, or the successively closer integration of national and regional markets through the reduction of barriers to trade, investment, and technology flows in the domestic markets thus fostering entrepreneurial initiatives and bringing in investments to pay its largest rewards to workers. This in itself lays a strong foundation for a sound economic structure with a balanced growth and development. To infer strong IPRs alone are not sufficient incentives for firms to invest in a country. This analysis points out that, in theory, investment and technology transfer do not necessarily expand with stronger intellectual property rights. Trade integration be it domestic or international, particularly with developed economies that could be the source of additional FDI, could assist in this process. This paper tries to understand the relationship if there exists between IPR, FDI and Entrepreneurs in India and do they have any impact on the growth of the states using theoretical and empirical analysis.

## Does Risk-Return Tradeoff Exist in the GCC Stock Markets

*Chinmaya Narayany Satish Kumar and  
Faisal Nazir Zargar*

This study aims to test the market efficiency and explore the risk-return tradeoff in the GCC stock markets. The GCC stock markets include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE. Using the daily data from June 2009 until February 2021, we first use different variance ratio tests such as Lo and MacKinlay Variance Ratio Test, Multiple Variance Ratio Test, Automatic Variance Ratio Test, Joint Variance Ratio Test to check whether the GCC stock markets are informationally efficient. We also explore the risk-return tradeoff using different risk measures. The study finds that the GCC stock markets are informationally inefficient. Also, the study shows that there is a persistence of strong risk anomaly. The results are robust to different dimensions of risk such as standard risk measures, downside risk measures and tail risk measures. The findings of the study have implications for investors and policymakers in the GCC countries. Policymakers need to focus on improving market efficiency by attracting more investors and boost the liquidity in the stock markets.

# Neural or Brain Implants Obviating the Need for Foreign Language Learning, or for Human Language, or for Learning Altogether: A Transdisciplinary, Transhumanist, Literary and Linguistic Analysis

*Konrad Gunesch*

Technology entrepreneurs have recently claimed that brain chip implants will probably very soon make human language obsolete. Considering neural implants and the future of language learning, and of learning in a wider sense, intersect with reflecting on the human-machine interface, and of artificial and human intelligence, culminating in transhumanist positions of advancing or even outgrowing the human condition. This research discusses language learning versus brain chip implants in transdisciplinary perspective, centering on literary and linguistic arguments with a comparative literature methodology. Reference works are Dan Brown's novel 'Origin' (2017), in which an avant-garde transhumanist has designed a supercomputer mimicking the human brain, connected to every protagonist, and by analogy, to every human on the planet, and Robert Pinsky's Poem 'Death and the Powers: A Robot Pageant' (2010), in which a recently deceased person's disembodied brain is fully integrated into the residence, interacting with his family members in all but physical presence. Brown's and Pinsky's argue, via their nonhuman protagonists, that human-machine integration is already part of everyday reality, to transform and soon to transcend the human condition. Their human protagonists argue for unalienable human qualities such as ethics, emotions, or physical experientialism. We focus on brain implants and their repercussions for language learning only, but in all possible physical, psychological, philosophical and political repercussions, from professional to private, educational to entertainment, scholastic to societal realms. The objective of this narrow activity but broad applicability is supporting students', teachers' and learners' future technology positions, while encouraging their current study and practice.

# Embedding Reflective Learning through Online Discussion Sessions: A Case Study of International Students

*Ajrina Hysaj*

Higher Education has been facing the dilemma of including the needs of multicultural students in the curriculum design for decades (Chaisuwan, et al. 2021). Covid-19 and the widespread of online learning has created additional challenges for international students, hence, it should be taken into consideration when applying changes to the curriculum design and delivery to ensure a fair playing field for all our students (Grice, Rebellino et al. 2017). The focus of this study was to explore ways of developing reflective learning and critical thinking in multicultural students in academic writing skills' classes in the online platform. Two different classes participated in the study and they were both taught by the same lecturer. The lecturer utilized topics related to culture and identity to encourage students' active involvement on online forums and breakout sessions. The aim of the process was to encourage multicultural students desire to explore, research, present, challenge their worldviews and most importantly reflect on their accumulated information, on those of their group members and reflect on the academic and social experience. A sample size of 30 undergraduate students who took academic study skills classes in spring semester was used to collect data. They presented their findings and negotiated their worldviews in breakout sessions and in discussion forums. Progression of ideas, vocabulary used and the negotiation of thoughts were analysed in the start of the semester and in the end to analyse the development of reflective learning. Finally, recommendations for future research were presented.

# The Parallel between Acting and Teaching in Higher Education – Learning from Acting: A Focus on Stage Performance

*Claudia Maher*

Everyday living can be compared to 'an actor's life on stage' (Walsh-Bowers, 2006).

Teachers report a crisis emerging from 'a fear of missing out' and an overload of information impacting students' attention span in the classroom. Pedagogical theories have not significantly changed over the years, but teaching methods have. University educational development programmes train academics in best practices and pedagogy, curriculum and learning outcome processes, but they do not teach them how to perform in the classroom to engage students in learning. Many publicists believe that the role of the teacher can be identified as a role of performer. And as a result of this phenomenon, there is a benefit in faculty in higher education learning how to modify their teaching methods, by acquiring knowledge of effective acting techniques within their university professional development programme to improve their pedagogical performance in the classroom.

This presentation will report on an exploratory sequential mixed methods study that was conducted for my MA in Higher Education thesis, examining the relationship between acting and teaching, and whether acting techniques training, with an emphasis on stage performance that can develop teaching practices and encourage student engagement.

Through qualitative research of performing arts and educational literature, including extracted theory from Stanislavski (1936, 2008), Lev Vygotsky (1978) and Thomas Guskey (2020), four emerging themes were revealed:

Playback theatre, Stage presence, Ritualistic dimension, and Diverse teaching methodologies to enable quantitative measurement. 173 faculty working at international universities participated in the questionnaire, identifying certain pedagogical practices they simulate before they go into the classroom and during their lessons. The findings of this study identified that there is a perceived relationship between teaching and acting, that teacher performance may influence student engagement, and that there is the potential to incorporate acting skills into teacher education programmes to improve teaching pedagogy. The respondent's own experience of teaching impacted their comments on factors, and the theoretical and educational implications of these findings are discussed.

I am working to publish this thesis in the upcoming months.

## Exploring Factors Influencing the SET in Context of E-Learning Solutions' Introduction in Educational Institutes

*Anupama Sharma*

As a result of digital transformation occurring across different sectors throughout the world specially after the recent pandemic caused by Covid-19 virus, educational institutes have also adopted digital solutions at various levels. Institutes and universities have started to not only teach on digital platforms, they have also started to interact and engage with students for routine tasks through learning management systems (LMS) such as Moodle, TalentLMS, Google Classroom etc. In addition, educational institutes have also started to administer Students' Evaluations of Teaching (SET) instruments in digital mode. Introducing such digital solutions both for students and faculty although can bring in convenience, efficiency, and transparency in the overall functioning but it can also pose some challenges in front of various users of these digital solutions.

With this context, the aim of this research paper is to investigate those challenges that can influence SET. SET instruments were adopted by various educational institutes across the globe to provide their faculty members with the feedback received from the students in order to improve their teaching effectiveness. However, they are generally seen to be used as a basis for determining faculty merit, promotion, and tenure. And, thus, over the time faculty have become more concerned about the SET received for the courses they taught.

Through this paper we want to explore those aspects which have the potential to impact SET results in the context when digital platforms have



been introduced to impart the education and engage with the students. We aim to explore the factors which negatively or positively affect the SET results after the introduction and adoption of various digital platforms/solutions by the educational institutes at various levels.

The findings of the paper can guide the teachers and educational leaders about the effective ways of introducing and working with the digital solutions that do more benefit to the important stakeholders i.e. students and faculty.

# Transformational Change in the University and Transformative Pedagogy: Horse and Carriage, or Cart before the Horse?

*Jeremy B Williams and CJ Davison*

This paper explores the relationship between transformational change in the higher education sector and transformative pedagogy. Universities everywhere have come under pressure in recent times to adapt to changing societal and economic needs and to produce graduates who are prepared to meet the demands of the modern workforce. This trend has put the concept of transformational change in the spotlight but, as the authors of this paper argue, the prospects of transformational change are likely to be significantly reduced unless systemic priority is given to the transformative pedagogies required to lead such a change. Through a critical analysis of the literature, we argue that transformative pedagogy and transformational change in universities are not separate entities but mutually reinforcing. We further argue that the need for universities to prioritize transformative pedagogy as a core component of transformational change has never been more acute, in the wake of recent developments in generative AI (artificial intelligence) which seriously threaten the validity of many traditional assessment methods relied upon by higher education institutions. We discuss some of the barriers that universities face in integrating transformative pedagogy, before proposing a framework that can assist in the facilitation of the desired transformational change.

# A Collaborative Inquiry into Integrating Artificial Intelligence into Curriculum Design: An Institutional Autoethnography

*Stephen King and Judhi Prasetyo*

This study aims to explore the experiences of higher education faculty in redesigning an undergraduate program to incorporate Artificial Intelligence (A.I.) and social robots such as ChatGPT4 and Dall-E. The study examines how faculty integrate A.I. into the curriculum while navigating issues of academic integrity and assessment, and how this impacts graduate employability. The study proposes the concept of "technocapital" as a way to measure the impact of A.I. on students' digital literacy and media and information literacy. The study also examines the emerging concept of computational literacy in relation to A.I. The study presents an autoethnography that explores the institutional texts, policies, and ruling relations that impact program design and reaccreditation. Ultimately, the study seeks to provide insights and recommendations for institutions looking to incorporate A.I. into their curricula while addressing issues of academic integrity, assessment, and graduate employability.

# Technology Integration of Elementary School Teachers at Private International Schools in Dubai, UAE: Barriers, Self-Efficacy, and the Relevancy of the Community of Inquiry Framework

*Alison Burrows*

Teachers at private international schools in Dubai often face barriers to technology integration that interrupt their ability to teach meaningfully with technology. A review of the literature identified both first-and second-order barriers to technology integration in elementary school classrooms. After identifying the barriers, a needs assessment was conducted that asked participants to what degree they experienced four barriers to technology integration: technology self-efficacy, pedagogical beliefs, quality of professional learning, and amount of time to experiment and plan with technology. Based on the findings of the needs analysis, an intervention was developed that aimed to adopt the Community of Inquiry framework (Col; Garrison, Anderson, and Archer, 2001) to fit into the context of elementary school classrooms and train elementary school teachers how to integrate it. However, due to complications from Covid-19, the intervention was altered into a pilot study to examine the challenges elementary school teachers faced when integrating technology into hybrid and online instruction during the pandemic. Elementary school teachers attended five online coaching sessions about the Col framework. The coaching sessions were aligned with Bandura's (1986) social cognitive theory and included the four sources of self-efficacy development as a mechanism to increase teachers' technology self-efficacy. Four of the five coaching sessions provided participants with opportunities to learn about

and practice using teaching presence, social presence, and cognitive presence (the three presences of the Col) when teaching with technology. To determine if the coaching sessions increased teachers' technology self-efficacy and if teachers perceived Col framework to be relevant to their instructional practice, a mixed-methods data collection process was implemented. The findings from this small sample (N = 4) of elementary school teachers suggest that the technology self-efficacy beliefs of participants increased because of the coaching sessions. In addition, data showed that teachers perceived the Col framework to be relevant to their instructional practice when teaching with digital tools. Findings suggest that the Col framework can be adapted into the elementary school context and elementary school teachers' technology self-efficacy may increase as a result of using the framework.

## Impact of Data Visualisation on Accurate Interpretation of Data Analysis

*Dr. Chandreie Mukherjee and  
Dr. Bhargab Chattopadhyay*

Data Visualization is an extremely powerful technique that is increasingly finding its usage in political and other forms of media communication. With technological reformation, data visualization which is presumed to be easier to understand and interpret is often used as a political steering tool to spread distorted and biased reality that sometimes reflects subjective inclination towards a political ideology. The objective of this article is to emphasize the importance of graphicacy to the consumers of political data visualization and to promote fair information assessment from graphical representations.

# Impact of Additive Manufacturing on Innovation Management using Agile Methodologies

*Mukarram Ahmed*

Additive Manufacturing (AM) has been an integral part of Industry 4.0 that has revolutionized how we see manufacturing and prototyping developing in the coming years. With its rapid prototyping capabilities, while being highly accurate and quick, the possibilities of innovation have been widened. But with innovation comes the questioning of the status quo and the traditional process of product development.

This paper will help explore the impact of AM on innovation management while also looking at how agile methodologies can be used to control the process effectively. It will first begin with an overview of current AM standards, and their use across industries. Then the following section discusses the incorporation of AM into innovation management.

Furthermore, the paper will highlight the AGILE methodologies and their implications while discovering how closely the AM process is related to the AGILE system of operation with the use of iterative development, continuous feedback loops, etc. Moreover, the paper will help understand the potential drawbacks while drawing comparisons to the methods in AM, if used in innovation management.

Overall, this paper aims to highlight the impact of AM on innovation management and to understand the relative comparison to agile methods to manage the innovation process. This in effect will indicate a potential synergy of producing products quickly and efficiently while following market trends.

# Role of Smart Governance in Smart Cities: A Case Study of Masdar City Model, UAE

*Sakshi Priyadarshni and Mrutujanjaya Sahu*

The governments of numerous cities throughout the globe have launched "smart-city" plans and projects to make their cities more prepared for the future. The interactions between government, citizens, and other stakeholders are crucial to obtaining intended objectives and ensuring the long-term viability of smart city programs, and this is where "smart governance" comes in. This study examines the relationship between smart city development and smart governance through the framework of sustainable development goals in the city of Masdar, UAE. The case of Masdar smart city is interesting because its current urban planning policies reflect its aspiration to be a model for other Gulf States megalopolises. This study seeks to demonstrate the importance of smart governance in improving citizens' quality of life by analyzing the most important projects carried out in Masdar City from a wide range of perspectives, such as the integration of e-governance, infrastructure, participation, mobility, business, and the environment. The study also highlights the bottlenecks and challenges of smart governance related to data privacy and security concerns, as well as the necessity for collaboration among various stakeholders. This paper analyzes the current state of smart city research through a rigorous review of the literature. Secondary datasets are compiled from various sources, such as academic journals, books, open source documents from the website of the UAE State Government, public media releases, and social media content, and then subjected to a critical content analysis. The finding of the case study demonstrates that Masdar City, which has aspirations of becoming a global smart city model, has implemented the smart governance plan to improve the quality of life for its residents. Policy proposals for future approaches to develop a more equitable urban environment are proposed, and the study's findings will contribute to the growing academic literature on sustainable smart governance.



# Conceptual Framework on the Impact of Innovation and Technology in Business Excellence: Circular Economy of SMEs Perspective

*Pasupula Sivaiah*

Small and Medium Enterprises (SMEs) have been playing a vital role in fostering economic growth in both developed and developing economies. The adoption of techno-sustainable innovation aids SMEs in achieving and increasing organizational performance. The article aims to describe a conceptual framework for strategic choices in effective business management through innovation and technology, keeping a circular economy practice as the focal point among SMEs. The study reviewed relevant literature to understand the existing framework and elucidate the importance of sustainability, innovation, and technology in the present business world. To refine the framework, the authors further explored literature on sustainability, innovation, and technology with respect to business management in SMEs. The findings of the study are expected to bring more prudent resource management strategies among SMEs and strengthen sustainable development aspirations. The outlined framework is a seed for further research in contributing empirical studies in different industries specific and beyond. Exploring circular economy practices among SMEs can supplement, policy decisions, and minimize economic leakages among SMEs. In the emerging business world, new practices enhance competitiveness in the market. Improving business management innovatively requires sustainable and technological assistance that triggers circular economy practices for a sustainable future. Changing societal and market patterns and the interests of consumers may force organizations to address methods of sustainable innovation through technology for the well-being of society and the environment.

# Effects of COVID-19 on Globalization, Unemployment, Migration, and International Labour Mobility Trends: Comparative Analysis between UAE & USA

*Kateryna Kaptyelova*

This research was conducted aiming to achieve a comprehensive understanding of the COVID19 impact on economic growth, unemployment, and labour migration within the economies of the United States and the United Arab Emirates.

The study comprehends three different areas affected by COVID19 – economic growth, unemployment, and labour migration. It demonstrates the comparative analysis of well-established and rapidly developing economies, in terms of Real GDP growth, Unemployment Rate and the changed patterns of labour migration.

The coronavirus drove both economies into a recession. Technological advancement has enabled the countries to stay afloat despite the global lockdowns, however, the impact of COVID19 has taken its toll. The analysis showcase that UAE's real GDP was more severely affected than the US because of its high reliance on expatriates and the expat exodus that occurred due to the rise in unemployment, while the US experienced even higher unemployment, which was triggered by the pressure on the female population and reliance on unemployment benefits. Additionally, the findings showcase the impact on labour mobility of both countries and the digital solutions that have been implemented to combat the consequences of COVID19.

The analysis forecasted the forthcoming recovery of the US and UAE economies. Unemployment is projected to fall, and the long-term impact on labour immigrants is yet to be discovered. Therefore, the research demonstrated that the coronavirus impacted multiple aspects of both economies differently and these differences are brought to the consideration of the researchers and industry practitioners when speculating what the future holds.

## Screening 'Screen time' to Explore Parental Factors for its Provision, Following the Pandemic to Early Years Children in the UAE

*Safia Saeed*

In the present world, technology and its uses are ubiquitous. The COVID-19 pandemic increased the use of 'screen time' everywhere (Cachon-Zagalaz et al., 2021). This study explored various parental factors for providing 'screen time' following the pandemic to their Early Years children in the UAE. A multi-method qualitative approach was used, including semi-structured interviews with UAE-based parents and content analysis of Facebook posts and comments from a UAE-based parent's group. The parents were selected using purposive sampling, including parents of children with communication difficulties, to understand the link between excessive use of 'screen time' and communication difficulties. The Facebook data was collected from August 2021- June 2022 to study the post-lockdown period. The findings revealed various factors that influence parents' provision of 'screen time' to their Early Years children in the UAE. 'Benefits of screen time' and 'managing difficult behaviour' were the two factors that encourage parents to provide 'screen time,' whereas 'screen time in today's world' and 'lifestyle in the UAE' were two factors that compel parents for 'screen time' provision. However, 'negative impacts of screen time' discourages parents from providing screens to their Early Years children in the UAE. Another key finding was an association between excessive 'screen time' with or without watching age-inappropriate content and communication difficulties. Therefore, effective use of 'screen time' by providing age-appropriate duration and age-appropriate content has been suggested to reduce its adverse impacts on child development.

## An Experimental Study on Differences in the Female Perception of Indirect Aggression

*Eden Elsa Luis, Maliha Masood, Sumaya Shakubar, Sheldon Lobo and Sreya Subhash*

The study assessed whether significant differences existed in the female perception of indirect aggression in two scenarios wherein the gender of the aggressor in both scenarios was female. In contrast, the victim was female in one scenario and male in the other. It was hypothesized that females would perceive indirect aggression more significantly in the female-female interaction than in the female-male interaction. Men may endure psychological abuse silently, as they lack help-seeking behaviors. Social awareness is necessary to promote adequate sensitivity in the perception of indirect aggression's effects on both sexes. The quantitative study was conducted through Google forms. Participants were recruited via convenience sampling, on various social media platforms per the approval of the Middlesex Ethics Board. The inclusion criteria were females aged 18+. 941 participants were obtained after cleaning the data. Participants read scenarios and subsequently rated their perception of indirect aggression. Differences were compared using a within-group design. A paired samples t-test confirmed the hypothesis by demonstrating statistically significant differences in perception, with a higher degree of perceived indirect aggressiveness in the female-female interaction. Females are more likely to perceive female-female interactions as indirectly aggressive than female-male interactions. Strengths, limitations, implications, and further directions are discussed.

## An Automatic Braking System for Vehicles in Traffic

*Aliya Bint Abdul Ahad, Muhammad Ahtisham  
Sultan Mahmood and Sakina Juzer Chaklasi*

The goal of this research is to develop a method for autonomous braking in moving vehicles. For the objective of determining the movement and distance of cars in front and behind on a straight route, the proposed system will make use of the most recent object identification and distance measuring technology. To assist reduce accidents and enhance traffic flow, this will enable the system to detect any potential obstacles or slowdowns ahead and execute an immediate brake. In addition, it can aid in calming the driver.

To identify and follow the movement of other vehicles on the road, the suggested system will include sensors, cameras, and machine learning algorithms. These sensors will include cameras that can recognize and monitor objects in the immediate environment as well as radar sensors that can precisely estimate the distance between cars. The data gathered by these sensors will be analysed by machine learning algorithms, which will also decide when to start the automated braking system.

This system has a lot of potential advantages. The system might increase road safety and lessen the environmental effect of driving by preventing accidents and relieving traffic congestion. By eliminating the need for drivers to constantly watch the road and alter their speed in traffic, the technology may also save them time and lessen their stress. In the end, the suggested system has the potential to alter how we travel, improving the safety and effectiveness of our roads.

From a business standpoint, the suggested solution for autonomous braking in moving cars could provide various possible advantages for automakers and other connected industries.

The technology could assist automakers in following towards ever safety rules and standards, potentially saving them money on fines and other legal repercussions. This may be especially important in markets like those in the United States, Europe and even UAE where strict safety rules are prevalent. For businesses in related sectors like sensors, software, and machine learning, the technology may present new business possibilities. As the use of the technology spreads, there may be a greater need for businesses that specialize in these fields, opening up new marketplaces and sources of income. And with the use of this technology it might lower the price of accidents and insurance claims. The automatic braking system may help to lessen the financial burden associated with car accidents for both insurers and people by preventing accidents and lessening the severity of collisions

In conclusion for this abstract, the suggested method for an automatic braking system for moving vehicles makes use of contemporary object recognition and distance measurement technologies to determine the movement and distance of moving vehicles on a straight road. The system may increase security, adhere to legal requirements, lower the price of accidents and insurance claims, and open up new business possibilities for businesses in related sectors.

## Surplus Food Management

*Chinnu George, Syed Abbas Hussain and  
Syed Abbas Hussain*

The conundrum of excessive food waste bears grave repercussions for both our economy's intricacies and society's overarching foundation. In order to tackle this challenge, SFM aims to provide an android-powered management tool focused on minimizing unnecessary disposal. SFM's primary goal is to establish connections between hotels and restaurants with non-profit organizations (NGOs) that work towards combating hunger. By utilizing the software, partnered foodservice can donate their surplus provisions, which would have usually gone unused, into these charitable groups' hands, facilitating distribution among those in need throughout their communities. The unconventional method employed not solely diminishes food waste but additionally plays a crucial role in resolving the issue of inadequate access to nutritious meals for impoverished communities.

This report is structured into nine distinct chapters and explains in detail why and how was the SFM application developed. To begin, an initial section provides insight into this particular endeavour's scope and requirements. In addition, a background portion delves into pre-existing applications geared towards addressing surplus food management issues in various capacities. Following these sections lies another component pertaining specifically to requirements alongside analysis; herein lie evaluations concerning both functional as well as non-functional elements integral within the SFM app's structure. The following discussion pertains to design implementations which involve UML diagrams and wireframes. These visual aids are used to depict the logical organization of app architecture during the construction process. The phase where programming is developed, known as the implementation stage, comes before the verification and testing section to ensure all programs are working. The testing section will contain images of every screen, showing the user that the application works perfectly. Finally, at the conclusion stage, one learns about lessons they can take from this project while also considering possible future developments.



## Timeless Parking

*Faiq Mohammed and Chinnu George*

Timeless Parking is a parking system that allows motorists to locate parking very efficiently with the help of an application that can locate empty parking spots. It also has a booking feature that allows users to book parking spots. This project is designed to make people's lives easier and which will result in making people's lives more productive.

The existing parking system have very limited features like the lights that indicate whether a parking spot is empty or not. This is useful but can be improved for the better with Timeless Parking. The addition of the app will make a great change to the parking systems.

The aims of this project are:

- Create a time-efficient parking system.
- The task of finding parking is hassle-free.
- Make parking more organized.

The objectives of this project are:

- Make it less time-consuming by making an app that can guide people to the empty parking.
- With the help of the app, the user can book parking to find parking easily.
- People can make use of the app to be more organized and locate where their parking is.



## Green Grocer System

*Chinnu George and Shibil Shakir*

The primary objective of this project is to build a module or a system that detects fruits and vegetables in the retail store using a video module that is interconnected to the system. This system is implemented for the customer to fasten the process of particular pricing of fruits or vegetables of sorts, without any human interaction or need for another person to manually select the appropriate code for the desired fruit or vegetable, where the system itself does the pricing all by itself by identifying the item and given the price to depending on its weight. The ultimate goal of the system is to minimize human errors and the time that a human behind the traditional system might take, avoiding all the new systems implemented will further speed up the process by quickly identifying, and further enhancing the graphical user interface over the existing manual method where a human is required to do the pricing. A Raspberry Pi Model B, LCD, load cell, camera module, and housing make up the system's hardware. To classify an item, several convolutional models have been explored and refined. Given how challenging and time-consuming self-service technology is, customers may select another grocery shop. Customers' pleasure is essential to the success of the business because they are the reason why companies exist. The need for solutions that reduce process time is driven by customers' ongoing desire to save time.

## An Analysis of how Machine Learning is Incorporated in Netflix's Robust Recommendation System.

*Naba Khan and Chinnu George*

Recommender systems are web technology that actively proposes items of interest and relevance to users by leveraging the users' objective behaviour or overtly expressed preferences. This paper will investigate the use of recommender systems by digital platforms, their functioning, and the challenges faced in their development. The research evaluated in the paper points to an overall optimistic and positive view of recommender systems and machine learning algorithms; however, privacy concerns have been addressed, and both sides of the topic have been put forth as the paper presents findings for both matters of discussion. The paper will explore the recommender system of Netflix and how it impacts the viewership and eventual business of the web service.

## Remote Health Monitor

*Vaibhav Garg*

In this project we aim to create remote health monitoring system which could be further developed as wearable device to cater to medical needs of people who are old or living in remote area's with limited access to medical facilities or specialist. Device which will measure and monitor various health parameters including Heart Rate, Oxygen Level, Temperature, Blood Pressure and GPS location. If any of the parameter is high then user is alerted by notification and additionally information will be sent to remote clinic or specialist who will further review the results and take necessary action to ensure the patient health is at its best level. This Project scope will include measurement of Temperature, Heart Rate and SPO2 levels using sensors and arduino will be display the values on LCD screen as the user interface. The values received from the sensors will be published by Arduino to a ROS Topics using a serial node. ROS will subscribe to the topics to get the data for all the sensors and further publish values to ROS Topics which Arduino will subscribe to and further take action based on these values and the threshold limits by activating OLED Display, LEDs, Buzzer and Servo Motor on the Remote Health Monitor device.

## Factors Contributing to Behavioral Intention to Use E-commerce and Brick & Mortar Channels for Fashion Retail in the Gulf Cooperation Council (GCC) countries: Do they change between pre and during Covid-19?

*Prakash H Narayan Rao, Dr Nitin Vihari, Dr Shazi Shah  
Jabeen and Dr Sreejith Balasubramanian*

### Background & Aim:

The GCC region is traditionally the stronghold of Brick & Mortar (B&M) shopping for fashion retail and the mall culture is ingrained in the psyche of both expatriate and local population. But the advent of digitalization and the impacts of COVID-19 pandemic has accelerated the adoption of ecommerce channels. Hence the overall aim of the study is to examine the factors affecting the fashion retail consumer shopping channel choice behaviors in the GCC and propose comprehensive models for behavioral intentions of the customer to use the specific shopping channels incorporating the Theory of Reasoned Action (TRA) and its extensions of Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB). The model incorporates the independent constructs of Perceived Ease of Use (PEU) and Social Norms (SN) mediating through the Trust (TR) and Perceived Usefulness (PU) of the channel leading to the Behavioral Intention to Use (BIU) a specific channel. The study proposes the theoretical implications along with practical implications on the future business strategies for retailers.

**Design/methodology/approach:** The research was conducted for the Fashion Retail Industry (Apparel, Footwear, Accessories) in the GCC countries. Stratified random sampling was used to select the participants for the study. A quantitative technique was applied involving an online

survey being administered randomly to residents of GCC countries. In the pre COVID-19 era 890 completed responses formed the research sample, in the COVID-19 period, 806 completed responses formed the research sample. Structural Equation Modelling, Sequential Mediation Analysis and Multi Group Moderate Analysis were used to validate the proposed research framework.

**Findings:** The findings suggest that the proposed research model was a very useful framework to test the effects of consumers' perceptions, attitudes, and intention for the choice of shopping channels in the fashion retail industry. The findings provide the comparative analysis of both the channels in both the time periods of pre-COVID-19 and COVID-19 periods, such that customer behaviors in the "new normal" marketplace can be well understood. Results of the data analysis provides insights on the associations and relative strengths between the conceptual framework constructs across the channels for both periods.

**Contributions/Implications:** This research builds on the existing studies on online shopping intentions by including a comprehensive model incorporating all the constructs affecting online shopping continuance. It is one of the few comprehensive studies in this region. It also provides strategies for fashion retailers to build favorable consumer attitudes toward ecommerce and B&M shopping channels, which furthermore influence their positive shopping behaviors. The findings of the study offer actionable insights to the retailers to strategically use both the channels effectively based on the new normal.

## KHDA Rating Predictor

*Abdullatif Rkieh*

The Knowledge and Human Authority (KHDA) is a Dubai entity that regulates the education sector in the emirate of Dubai. As there has been lots of scrutiny to education systems globally at the beginning of this century, the KHDA decided to establish Dubai Schools Inspection Bureau (DSIB) that focuses on inspecting schools yearly. The inspection process is a lengthy process that involves the school writing a self-evaluation file (SEF) as self-reflection. DSIB inspectors will then visit the school to inspect it and ensure the data in the SEF is accurate and will then give the school a rating based on many indicators (KHDA, 2014). The research will be exploring publicly available data to try and predict the rating of the school based on historical data. Data is used extensively by schools and other entities to improve student attainment or progress, but the research will try to take an innovative look at data to try and predict the rating.

## Decoding Regtech Ecosystem Using Business Analytics Models

*Kirti Arekar and Ishaan Arekar*

**Purpose** – Regtech is the paradigm reshaping the financial services industry. It has offered new ways to manage Risk Management and Regulatory Compliance, integrating the potential of emerging technologies with the plethora of data at disposal. Through this research, the primitive goal is to gauge the Regtech Industry and how Analytics and other Machine Learning possibilities could be used to meet the ask and demands.

**Design/methodology/approach** – Research Design Quantitative analysis of several metrics are used to explore Anti Money Laundering and how ML would help us in creating a robust risk identification model.

**Data Collection:** Research will include only secondary data analysis.

**Findings/Results and Analysis** – A predictive model using Classification algorithms to identify Fraudulent transactions on anti-money laundering dataset. Not only does the implementation tease the promising potential of Regulatory Compliance, it also underscores the areas where the tedious, time-consuming, and laborious aspects of Regulatory and audit ecosystems. It is here that piles of data collected could be brought into use and some of the mechanical tasks could be automated, and build some smart systems – integrating big data, cloud edge services, IoT and other technologies – to intelligently identify and regulate audit and compliance risks in the industry. Using the Machine Learning tools, this research was able to propose a system that opens numerous opportunities for compliance tasks to be done by training our computers based on the available data.

**Conclusions and Recommendations** – This exhaustive research work was able to shed light on a vast range of possibilities in the domain of Regulatory Compliance. Primarily, this report focuses on exploring a sub-section of Anti Money Laundering, abbreviated as AML.

# Customer Engagement through Augmented Reality Filter on Social Media Influences Purchase Decisions

*Nivedita Bhat and Dr Jeongsoo Han*

The psychology of using augmented reality (AR) filters on social media can be influenced by several factors. Some possible psychological and motivational factors influencing AR filters' use on social media include entertainment value, aesthetics, social influence, personal expression, convenience, and product information. In addition, people use AR filters if it helps them achieve their goals, such as by enhancing their social status or making them more attractive to others.

This study aims to understand the variables that affect customer engagement and their influence on purchasing decisions—participants from over 400 worldwide who took an online survey through Qualtrics and then analyzed it through IBM SPSS. The objectives are to explore the uses and gratification of AR filters on social media, identify the impact of AR filters on customer engagement on social media, and analyze purchase intention based on customer engagement of AR filters on social media. The data suggest that hedonic value affects customer engagement on social media, influencing customers' purchase decisions more than utilitarian values. AR filters that allow customers to express their style or identity may be more likely to be used. AR filters that are easy to use and do not require exceptional skills or technology may be more likely to be used by customers. The data suggest that participants enjoy using a product filter for shoes and accessories more than clothing. Brand filter plays a huge role in customers trying a product-based filter. There is a positive correlation between Customer Engagement through Augmented reality filters on social media influences purchase decisions.



## The Sign Language Interpreting Gloves

*Ziad Burhani and Judhi Prasetyo*

This report's primary purpose is to provide a detailed overview of the sign language interpreting gloves project. It starts with an introduction, background and history of the deaf community to better understand the needs and issues of the D/deaf community. In the following literature review, the reader will have the chance to learn about the modern-days challenges faced by hearing-impaired people, broadly explained and elaborated. The psychosocial impact of assistive technology and its effectiveness in improving life quality is discussed next. A lack of new technologies assisting the D/deaf community is not hardly noticed. As elaborated in the previously mentioned chapters, sign language interpreting services are expensive and sign language interpreters cannot be easily booked. These and other findings gathered from the research and also by a survey conducted on a group of deaf individuals indicate that sign language interpreting gloves are the new free interpreters-to-be, and the answer to acquiring the so-wanted independence. Evaluated to have such a significant impact, building this assistive technology that can be easily accessed is the project's focus. The working principles, block diagram and flowchart are also described in the methodology section, where building, not one but a pair of gloves is also documented step by step. Finally, results, discussion and future work will tell us more about the importance of interpreting gloves to close the gap between both hearing and deaf communities.

# The Interplay of Spiritual Leadership and Employees' Innovative Behavior on Firm's Economic Sustainability

*S. Salma Parveen and Asi Vasudeva Reddy*

Embracing sustainability through innovation has gained a great acclaim in the recent years as it has been one among the prime targets of the sustainable development goals (SDGs) proposed by the United Nations for ensuring peace and prosperity for the people and the planet, in the present and the future. As employees are undeniably the significant determinants of sustainability, organizations should strive to nurture creativity among the employees for the development of innovative solutions to position as pioneers in the industry (Faulks et al., 2021). Several studies have examined the positive role of leadership in influencing employee's innovative behavior. However, there has been a dearth of research on how higher order constructs of leadership like spirituality are deployed in rejigging innovation and sustainability in the organizations. The current study aims to fill this gap in the literature. The purpose of this paper is to propose and test the mediation mechanism of employee's innovative behavior on the relationship between spiritual leadership and sustainable economic performance of an organization. Data were collected from the employees across the healthcare industry in India. As anticipated, it was found that spiritual leadership positively affected the employee's innovative behavior which, in turn, fosters the firm's economic sustainability. Also, employee's innovative behavior mediated the link between spiritual leadership and sustainable economic performance. The findings of this study would be a significant value add to academic researchers as well as industry persona.

## How Does the Video Creation in the Online Platform Affect Multicultural Students?

*Ajrina Hysaj*

Covid-19 and the subsequent period of imposed online learning necessitated the need to keep students engaged in the learning process through technological advances. This study took place in a multicultural university in the United Arab Emirates, and it evaluated the utilization of group video creation in multicultural classrooms. The sample size was 55 multicultural undergraduate students enrolled in a variety of majors and of different ethnic and linguistic backgrounds. The approach involved analyzing the impact of video creation on multicultural undergraduate students and was followed by a reflective task on the same. Based on the findings of this study, it has become imminent to explore further the utilization of the technological tools to encourage active participation and development of different worldviews in multicultural undergraduate students. Although the technological tools do not self-create learning and teaching they are an added value to the learning and teaching process and should be assimilated to scaffold the process of knowledge transference and knowledge construction. The qualitative results showed that students enjoyed the process of video creation and were actively engaged throughout the process. The findings of this study encourage researchers and educators to conduct further research on the utilization of video creation in the online platform aiming to increase undergraduate students' active engagement in the learning process, broaden their worldviews, and improve students' academic performance. Finally, this study discusses andragogical implications that highlight the need for continuous adaptations of curriculum design and effective utilization of technological advances in the online platform.

## Dynamics of Gender Differences in Entrepreneurial Attitudes in Dubai

*Dr. Deepshikha Vyas, Dr. Rajesh Mohnot*

Gender equality is the buzz word of modern world. In wake of the fact that the concept of gender justice is largely connected with social justice now a days every nation round the world is stepping ahead to ensure gender justice both legally and practically. Though gender diversity in entrepreneurial attitudes is a widely studied subject but very few studies have been done to explore the same in context of Dubai. Present study is an attempt to understand entrepreneurial attitudes of men and women in Dubai Emirates. Besides addressing the research gap, this study will also be useful to understand the dynamics of gender differences of entrepreneurs in the country. Sample size of the study is 350. Entrepreneurship is a wide concept which replete allied entrepreneurial attributes, which may vary over between genders dynamics. The results indicates that, the respondents are resilient towards attainment of goodwill and creative development rather than just to make profit. It was also found that entrepreneurs of Dubai are motivated and educated experts who are creative and ready to take innovative steps to flourish their entrepreneurship. Governmental support was found to be an enabler for gender dynamics entrepreneurship and its development in the country.

# The Future of Work in the Age of AI: Challenges and Opportunities

*Fatima Al Shamali*

Artificial intelligence (AI) is starting to impact upon an increasing number of industries in many countries around the world including the UAE. As AI starts to get more integrated within workplaces and labor processes, it is perhaps inevitable that the way we work will change over time. Some jobs that humans performed in the past can be automated, while new jobs that require skills related to AI may emerge. This paper aims to examine the effects of AI on the future of work and the key opportunities and challenges it presents for businesses. The approach taken is largely qualitative, through a critical examination of the academic literature and case studies of businesses that have transitioned to an AI-driven workplace. The key theme to emerge is that businesses need to adapt to AI and to do so effectively means taking a strategic approach. Among other things, this can involve creating and advancing an organizational culture of continuous learning and development, fostering different programs to up-skill employees, and developing employees' understanding of ethical and responsible use of AI. In other instances, the strategy might involve transformational (rather than incremental) change in work models. The paper concludes that those companies which are proactive can make this transition smoothly, preparing their employees to thrive in the era of AI, and positioning themselves for success in a rapidly changing business environment.

# Call of Duty or Duty of Care: Impact of Health Promoting Leadership on Follower Work Role Performance

*Nitin Poluru, Gita Bajaj, Priya Gunesh  
and Bidisha Banerjee*

**Purpose** – Job demands, particularly cognitive demands have increased over time, increasing the need for employee health and wellbeing. Healthier employees perform work tasks more efficiently, are less likely to quit their jobs, are more likely to perform extra role behaviours, and are more satisfied with their jobs. Established models of leadership, such as transformational leadership, are “too vague about specific health-related actions of leaders”. Therefore, the present study aims to investigate the impact of health promoting leadership in follower work role performance.

**Design/methodology/approach** – A theoretical framework is proposed based on conservation of resources theory and validated it by using lower and middle level employees working in the service sector of United Arab Emirates, Mauritius, and India. A total sample size of 507 is achieved after filtering the data and Structural Equation Modeling using AMOS 26 was applied to test the hypotheses. Also, the study used moderated mediation using PROCESS Macro in SPSS V.28 to test for the intervening effects.

**Findings** – The findings suggest that Health Promoting Leadership has a significant positive effect on follower work role performance and organizational health climate acts a partial mediator between them. The paper further reveals that perceived health competence coupled with follower workplace well-being results significant moderated mediation

between Health Promoting Leadership and Follower Work Role Performance.

Originality/Value – There have been very few theoretical models and empirical studies that posit the influence of “healthy leadership” attitudes, values, and behaviours on employee health and wellbeing.

Implications: Organizations should strengthen health promoting employee directed leadership beyond their call of duty to achieve positive discretionary outcomes. The study findings enrich the academic literature of leadership and human resource management.

## Understanding the Impact of Environmental Factors on Bike Sharing Demand: A Case Study

*Sherin Sojan, Seema Bashir, Judy Evangel,  
Nuwan Nanayakkara*

This paper aims to determine the factors influencing bike demand using the YULU bike-sharing dataset and use predictive models for forecasting demand for the bikes. The study aims to assist the management in making inferences about bike renting using peak ride times, seasonality, and usage of bikes variables. The potential outcome of the study is to propose a pricing model based on the model output to maximize revenue based on demand fluctuations. The study uses multivariate regression, k-means clustering, and random sampling to develop a demand prediction model. The results of the study indicate that registered and casual users have an inversely proportionate relationship, seasons and weather have a significant impact on bike rentals, and peak rental hours occur around working hours. The study recommends that YULU should focus on providing high-level customer service to retain demand during peak hours. The study concludes with implications and recommendations for improving demand prediction models for bike-sharing applications.



## What Lies Beneath: Untapped Potential of Smart Tourism Technology and Consumer Behaviour towards Technology Adoption

*Jick Castanha and Subhash K.B Pillai*

Around the world concept of Industry 4.0 is gaining prominence resulting in the application of information technology in transforming the economies (Maresova et al 2018, Palkina 2020), which affects all categories of industries, including the tourism industry, especially the Post-Covid-19 period (Gretzel et al., 2020), and is technically termed as Smart Tourism Technologies (STT), which plays a crucial role in travel planning and overall tourism experience (Gretzel et al., 2015; Koo et al., 2017; Yoo et al., 2017; Pai et al., 2020; Jiang and Stylos, 2021). Though STTs can be used in all four areas of tourism, namely, accessibility (travel), accommodation (hotel), attraction, and amenities, during the pre-as well as post-travel stages, the impact of STTs is more on the first two areas as they take away a major share of tourist expenditure (Deng et al., 2013; Ferrer-Rosel et al., 2015). An attempt is made to identify the behaviour intention of travellers to use of STTs (apps and websites) while booking flight tickets (accessibility) and hotel rooms (accommodation) because the success of STTs depends on how best these are efficiently used and adopted by the end users (Castanha et al., 2021). Of the many theories/models used for assessing consumer behaviour towards technology adoption, the study used the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) (Venkatesh et al., 2012) due to its limited application in tourism and hospitality so far.

A quantitative approach is applied using a structured questionnaire, administered online and offline, covering eight constructs, namely,

Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Condition (FC), Hedonic Motivation (HM), Price Value (PV), Habits (HB), Perceived Trust (PT), Satisfaction (ST) and their influence on Continuous Intention (CI). The data analysis would include Descriptive Statistics, Confirmatory Factor Analysis, and Structural Equation Modelling using Smart PLS. The preliminary result provides interesting information about who the respondents are and also what factors influence their behaviour towards technology adoption of mobile applications/websites while booking flight tickets and hotel rooms. However, the magnitude of the influence on various factors is yet to be further investigated. In terms of research implications, the use of the addition of two new constructs, namely, Perceived Trust (PT) and Satisfaction (ST) in the model may potentially have a major role to play while adopting new technologies. This may provide more insights on modifying and improving STTs by the entrepreneurs and business entities while improving and redesigning the existing applications by incorporating new features which improve trust among end users as well as providing complete satisfaction by using such STTs in future resulting in high level of loyalty.

## Is Fast Fashion Becoming Unfashionable?

*Vania Llerena Velásquez*

The aim of this paper is to evaluate the current 'fast fashion' industry status. It begins with a review of what the fast fashion industry is: cheap, trendy and disposable clothing, and how the constant churn in people's wardrobes are leaving an increasingly large ecological footprint as production, consumption and disposal of fashion garments negatively impacts on biologically productive land and basic resources. In stark contrast, the sustainable fashion industry aims to create clothing without negative externalities, mindful of producers' environmental and social responsibilities, related with the UN sustainable development goals (SDGs) (United Nations, 2015), and Paris Agreement commitments towards the Net Zero greenhouse gas emissions by 2050.

The project takes an observational approach, first of all, scrutinizing the claims of some fraudulent enterprises that are claiming to be sustainable when they produce negative externalities (e.g. BooHoo), and then contrasting how these businesses perform alongside businesses with impeccable sustainability credentials; e.g. Teemill, that is thoroughly aligned with the circular economy, the production and consumption model involves reusing, repairing, and recycling to extend clothing lifetime, reducing the ecological footprint (Teemill, 2022). The key theme to emerge from all this is that fast fashion is not going to disappear any time soon, but consumers are becoming more discerning as Teemill's success shows. However, public policy is also having an influence, and recent examples of governments prosecuting companies for greenwashing (making fraudulent sustainability claims) could bring about change in the industry more quickly.

Can the fashion industry solve its problem by itself? Possibly, but the evidence in this paper suggests that time is running out and public policy is now becoming more interventionist. Perhaps more so the closer we get to the deadlines to realize SDGs and net zero GHG emission targets.

# The Economics of the Business Transformation of Really Nice Fashion Company: A Learner's Perspective

*Ghaya Al Hemeiri and Shanzila Ahmed*

The aim of this paper is to argue for a more practical approach to learning economics and to evaluate the effectiveness and limitations of a simulated model of teaching core economics concepts. The current economics educational system is criticized for not providing students with practical skills, as many students struggle to apply these skills and concepts to the modern economy. Therefore, it is important to adopt a pragmatic form of education. This model entails a new approach to learning that employs a simulated company named "Really Nice Fashion Company" (RNFC). Students are tasked with transforming this business and developing a business plan based on the current 'real' economy, that this fictitious company operates within. It relies on the willing suspension of disbelief by students, who must view it as a real business to fully engage and learn from the simulated experience. New circumstances and events are introduced every week which, coincidentally, align with the topics one might find in a traditional economics syllabus, the difference being that students learn about them in the context of RNFC. The preliminary findings suggest that students have an easier time understanding complex economics concepts when they are contextualized. Interest in the topics also increased when students could see the purpose of their learning through the success of the simulated company. Additionally, students demonstrated better knowledge application. Although there is still room for improvement in the learning model to better replicate the practical world, all students reported greater satisfaction with the practical form of learning. We conclude that this simulated model of teaching core economics concepts provides a promising alternative to the traditional textbook-based method.

## An NLP-Based Approach to Examine Customer Views about Virtual Tourism Sites

*Ananya Ray, Pradip Kumar Bala and  
Arghya Ray*

Virtual tourism refers to tourists having virtual access to tourism activities without having to travel physically to the site of the activity. The rise in the usage of the internet led to the digitalization of businesses and, subsequently, the emergence of the Covid-19 pandemic led to the rising popularity of virtual tourism products among customers as well as providers. Being a relatively newer concept, it is important for virtual tourism providers to understand the customer views, based on their experience, in order to improve the quality of the products provided in order to attract as well as retain customers. Although researchers have been examining different aspects and scenarios related to virtual tourism, not many studies have utilized online-generated content to gain an in-depth understanding of customer perspectives. The present study attempts to examine the overall sentiment and emotions portrayed by tourists based on their virtual tourism experiences and to identify the major themes that the tourists have expressed by using 2665 online user-generated content from Airbnb's virtual tourism segment. The findings of the study show that users have generally expressed positive sentiments and emotions, especially, trust, anticipation, and joy. Additionally, for a "wonderful experience", users generally look for quality videos, storytelling, host, content and attention.

## Understanding the Impact of Social Media and Word of Mouth on Purchase Intention in Full-Service Restaurants in Dubai post-Covid

*Tamunomieibim Samuel Longjohn and  
Cody Morris Paris*

The aim of this study was to understand how social media advertisements and word-of-mouth (WOM) recommendations influence consumer purchase intention in full-service restaurants in Dubai post-Covid. This work is pertinent as existing research has primarily considered the role of WOM and social media in influencing purchase intention in restaurants independently. The findings of this study provide practical insights for leveraging social media advertisement and WOM in restaurant marketing in the post-Covid era. Based on the established literature, a hypothetical model was proposed with six hypotheses to address the objectives of the research. The hypotheses explored the influence of perceived relevance, informativeness and perceived image of WOM recommendations and social media advertisements on purchase intention. A quantitative survey was administered online using purposive non-probability sampling between July and November 2022, and the survey had 148 valid responses. Overall, the findings indicated that while WOM recommendations and social media advertisements have a positive impact on consumer purchase intention to dine in full-service restaurants in Dubai, WOM has a stronger impact than social media advertisements. Another important finding from the survey was that a desire to try a new type of cuisine is the most important factor considered by respondents when deciding to dine at a restaurant in Dubai for the first time, followed by discounts and special offers available.

## Do Sustainability Measures Act as a Signalling Variable in the Fashion Industry?

*Avantika Raje and Rashita Puthiya*

Over the last few years, there has been a growing focus on sustainability from an industry and investor perspective. This increased focus has coincided with the rise of fast fashion. Building upon signalling theory, this paper aims to look at whether sustainability measures act as a signalling variable to the market. Utilising a panel data regression approach, the relationship between the Price to Book value, with sustainability scores was analysed utilising a dataset of publicly listed companies in the fashion industry. The findings suggest that while long term returns act as a positive signal, composite environmental, social and governance scores do not act as signalling variables. The individual environmental score in fact has a negative effect on the dependent variable. Hence, sustainability was not able to be signalled by the fashion industry. This can be explained by the fact that while sustainability within the fashion industry is on the rise, it is still unsustainable. Hence, sustainability oriented investors do not utilise the fashion industry to meet their sustainability investment goals. This paper contributes to research by demonstrating the lack of signalling properties of sustainability measures within the industry. The limitations include the fact the it covers only USA, Canada, Europe and a few companies from Asia. Additionally, it includes only 31 publicly listed firms within the dataset. Further research can be undertaken by utilising event studies, along with analysing annualised returns and volatility. Furthermore, research can include unlisted firms and a higher number of firms for a more robust understanding.



## AI-Facial Expression Song Recommender

*Algorizmi Prasetyo and Krishnadas Nanath*

Music is mainly used as a form of enjoyment and entertainment by everyone. However, music has also been used as a form of stress relief, escapism and mood boosting. Music has also been studied to help with emotions and aid in the treatment of certain mental health conditions. Studies have shown that listening to music can have a positive impact on mood and can reduce symptoms of depression and anxiety. Music therapy, which is the use of music to address physical, emotional, cognitive, and social needs, is increasingly being used as a complementary treatment for these conditions. We used findings to discover what kinds of songs work with certain moods and what songs do specific moods ask for in people, this is then put into creating a music recommendation system that can curate a specific song based on the facial expression of a user can greatly reduce the paradox of choice and immediately give a song that a user likes that can also work with their current feelings and emotions.



# Application of Blockchain Enabled Smart Contract for Short-Life Products: An MCDM Approach

*Imnatila Pongen and Pritee Ray*

Blockchain technology (BT) has been creating a buzz similar to the time when the usage of the Internet was popularized. It has been gaining interest from many industry sectors and many studies are carried out to leverage the benefits provided by BT. Studies indicate that BT provides various benefits related to performance improvements, so, it is essential to evaluate the enablers of blockchain adoption in smart contracts. In India, as of date, BT is not widely adopted in most industries and is therefore relevant to evaluate the feasibility and the importance of blockchain smart contracts for short-life products, which occupy a large share of the market. This study identifies and establishes the relationships between the enablers of BT adoption in the short-life product supply chain. Eight enablers were considered after conducting a survey of the literature and validated through co-occurrence analysis before applying a combined Interpretive Structural Modelling (ISM) and Best Worst Method (BWM) techniques to understand the complex relationships between the identified enablers. It is found that among the identified enablers, traceability was the most significant. At the same time, decentralized database is the least important reason for BT-related smart contract adoption for short-life products. This result will help the managers in identifying and developing policies related to BT implementation for the firm.

# An Analysis on Wireless Sensor Networks and Data Analytics

*Chinnu Mary George and Sharon Luke Babu*

Wireless sensor networks are composed of hundreds or even thousands of small, low-cost sensor nodes that communicate with each other wirelessly to form a self-organizing network. These sensor nodes are capable of collecting data on a variety of physical parameters, such as temperature, humidity, pressure, and light. However, the data generated by these sensor nodes is often massive in scale, making it difficult to process and analyze manually. This is where data analytics comes into play. In this research paper, we explore the integration of data analytics and sensor networks, discussing the benefits and challenges of this approach, as well as some real-world applications of this technology. Data analytics involves the use of statistical and machine learning techniques to extract insights from large and complex data sets.

## Artificial Intelligence: Can I Trust You? Levels of Anxiety Based on Trust in Robotic Intervention in Healthcare

*Alisha Anis, Menna Abdelghany, Raihana Abdul Fatah, Rubab Murad, Sania Fatima and Sara Gilani*

**Purpose:** There is a dearth of research and limited knowledge on the perception of individuals to Artificial Intelligence (AI) and trust in robotic intervention in healthcare in the UAE. The current study aims to investigate the levels of anxiety and trust triggered by the involvement of AI in surgical procedures.

**Methods:** 383 men and women living in the UAE participated in the study. The Independent Variable was the health care provider conducting medical procedures on three levels of interventions; 1) Human Surgeon, 2) Human Surgeon assisted by robotic system, and 3) Robotic system. The dependent variable was trust and anxiety levels.

**Results:** One-way ANOVA was used to conduct the findings. Anxiety results were non-significant; however, the Trust levels were significantly different between the three interventional scenarios.

**Conclusion:** The results indicated a higher level of trust for a Human surgeon ( $M = 5.97$ ,  $SD = 1.785$ ) and least level of trust for Human surgeon assisted by robotic system ( $M = 5.16$ ,  $SD = 2.138$ ). Interestingly, the participants recorded a higher level of trust for a robotic system conducting surgery ( $M = 5.50$ ,  $SD = 1.832$ ), in comparison to human robot-assisted. Furthermore, the findings are indicative of least anxiety levels with a Human surgeon, followed by human Robot-assisted surgery, and most anxiety in surgery performed by a Robotic system.

# Review of Parameterization Methods in Nature-Inspired Metaheuristic Optimization Algorithms

*Geethu Joy*

Optimization methods play a significant role in disciplines such as Engineering, Economics, Science, and Finance. The objective functions to be minimized or maximized in real-world problems are particularly complex and cannot be solved in polynomial time. Exact methods can be time-consuming in these scenarios. Hence a class of approximation methods called Metaheuristic algorithms is the best approach for finding a near-optimal solution in a reasonable amount of time for such NP-hard problems. Nature-inspired Metaheuristic algorithms can be broadly classified into evolutionary algorithms, physics and chemical systems-based algorithms, and Bio-inspired (Swarm Intelligence) algorithms. The problem-solving skills exhibited by organisms in complex scenarios relating to survival, resource acquisition, and reproduction have inspired SI algorithms. These algorithms are predominantly formulated based on how colonies of organisms interact or forage. Some of the most recent applications where bio-inspired algorithms were used successfully include deep neural network compression, antenna design, and single path planning for UAV and oil and gas exploration. However, metaheuristic algorithms consist of stochastic components, and the efficiency of metaheuristic algorithms depends highly on the parametrization process. Most metaheuristic algorithms have a predefined set of parameter values(configuration) to be used with the algorithm. These values are obtained via pilot tests where different values are tried for the algorithm's parameters, and values that give the best performance are chosen during later use of the algorithm. However, these predefined parameter values are generic and might not yield the best results for a new or unseen problem. Parameter setting methods are usually divided into online(parameter control) and offline (parameter tuning). The quality of the result obtained, the speed of algorithm convergence, or a combination of both, and algorithm robustness are considered performance metrics while evaluating the efficiency and effectiveness of the parameter setting method. Based on the existing literature on various online and offline parameterization methods, the lack of a standardized performance metric and a formal classification system is identified as the current research gap that warrants further study in this domain.

# Robotic Solution for the Automation of E-waste Recycling

*James Brazier and Judhi Prasetyo*

This paper focuses on the issue of e-waste and the use of a 6 Axis Robotic manipulator to build and test an industrial robotic system to detect components of commonly disposed of E-waste, then disassemble and segregate the main components for proper disposal and recycling using OpenCV image capture, TCP connections between OpenCV and ESPON, Arduino integration for Servo control and 3D Printed fixtures for disassembly.

## Economic and Social Determinants of Sustainability

*Ajit Karnik*

The Brundtland Commission Report proposed one of the earliest definitions of sustainable development as “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Partha Dasgupta in his recent review on the Economics of Biodiversity points out that the Brundtland Commission spoke about the means of sustainable development while he would like to define it in terms of ends, i.e. “we shall say an economy enjoys sustainable development over a period of time if intergenerational well-being does not decline over the period”. Clearly, it seems important to identify the factors which promote sustainability and those which militate against it.

A substantial amount of literature has emerged which has identified various factors that affect sustainability. These are economic growth, natural resource rents, globalisation, and institutional quality among others. The present study seeks to take this literature forward using Global Sustainable Competitiveness Index as a measure of sustainability and relates it to a comprehensive list of possible determinants such as GDP, GDP growth rate, income classification of countries, social capital, governance (including political structure and liberties), natural resources rents and trade (as a measure of globalisation). I use panel data for 180 countries spread over 2013-2019, yielding over 1250 observations. Estimation techniques employed would be the standard Fixed and Random Effects models and also the GMM approach. It is possible that there might be problems with endogeneity with respect to some explanatory variables, in which case instrumental variables estimation would be carried out. Initial results suggest that GDP promotes sustainability as do social capital and governance while natural resources rents and trade work against sustainability.

# Creating Shared Value with Environmental, Social and Governance (ESG) Strategies

*Andrew Mackenzie*

While the notion of the sustainable consumer is relatively recent, debates about consumption, consumer behaviour and consumerism are well-established (Richardson, 2020). Along with the focus on consumers, it is becoming increasingly important for organisations to demonstrate their green credentials, often extolled through marketing and social media. However, simply insisting they are green is no longer satisfactory in the global marketplace with its many invested stakeholders. Marketers must respond to the social media narrative and demonstrate that they operate in increasingly sustainable ways, meeting ESG targets, reporting, and identifying sustainable investing.

This paper is looking at how the ISD (Institute for Sustainable Development) is enhancing the creation of shared value through ESG strategy in the University population and corporate training and development in developing business strategy. A new postgraduate module, Marketing Sustainability and ESG was launched in 2023 and will expand students' knowledge of sustainability across various organisations, industries, and practices, including business consulting (Training and Development into strategy) for environmental, social, and governance (ESG) factors. ESG strategy and planning, training, and development must be designed to generate robust ESG platforms that can create shared value (Porter, 2012), attract sustainable investors and stakeholders, and meet regulatory targets for 2030 and 2050.

The same principles are deployed in the corporate sector to enhance participants' knowledge of design and innovation for sustainability while building workplace skills for leadership positions to head the sustainability transition within teams and organisations. We look at the growing business demand for the implementation of ESG strategy and the growing requirement for graduates with ESG credentials.

The practice and importance of transparent reporting, including its value-added benefits for the organisation, through practical applications, is linked with business development and emphasises the importance of connecting our educational practice with the corporate world and government regulatory targets.

# Net Zero GHG Emissions and the Livestock Industry in Chile: An Analysis of Current Public Policy

*Sofía Gattini*

This paper analyzes the livestock industry in Chile in the context of attempts to build resilience in the fight against climate change, specifically how the industry will need to adapt in order to comply with the Paris Agreement stipulations set in 2015. The paper begins with a general commentary on current attempts by the livestock industry globally to address the implications of the Paris Agreement and the target of net zero greenhouse gas (GHG) emissions by 2050. Then, the livestock industry in Chile is analyzed in depth to understand its modus operandi and its importance in the Chilean economy. This leads to a discussion about the measures taken in the country to date that aim to reduce greenhouse gas emissions from livestock production. The key theme to emerge from this research is that the Chilean livestock industry needs to continue and amplify its efforts to reduce the industry's contributions to global warming through the bovine feeding practice of methanogenesis inhibitor supplements and red seaweed to reduce the production of methane inside the animal, and biodigesters that trap methane so the gas does not get released into the atmosphere. In addition, government-led investment in structures transitioning from current models to grown-in-lab meat and training programs for those employed in the industry could hasten this transition. Given its strategic importance to the Chilean economy, this paper concludes that it would make sense for the country to implement policies that minimize the risk of the livestock industry facing penalties if international legally binding action is taken to compel nations to meet their Paris Agreement commitments in the near future.



# Modeling and Prioritizing Supply Chain Solutions to Mitigate Risks in the Pharmaceutical Industry: Proposing Sustainable Response Against Supply Disruptions

*Vinayak Vishwakarma*

Pharmaceuticals make significant contributions to global health and well-being. Furthermore, healthcare and pharmaceutical supply chains enable companies to combat global disruptions. However, the concept of a sustainable supply chain is being tested as risks have arisen among value chain partners. It is difficult for decision-makers amid a crisis to identify, select, and prioritize risks with a long-term response to mitigate their consequences. As a result, it is evident and necessary to develop a response model based on identifying and prioritizing solutions to the various risks associated with pharmaceutical supply chains. This paper attempts to model risk identification and provides sustainable solutions as a response to recovery. The model consists of thirty-four risks under six significant measures of the pharmaceutical supply chain (PSC), along with twenty solutions as a sustainable response to a crisis arising from the pandemic. This paper is an in-depth examination of potential strategies for encouraging supply chain partners and practitioners to adopt sustainability. Successful adoption will develop robust pharmaceutical supply chains and a healthcare delivery system, allowing for rapid response to pandemics and supply disruptions. Policymakers, strategists, and stakeholders can use the study's findings to reduce risks and encourage supply chain resilience

# A Systematic Literature Review of Urban Vertical Farming to Support Sustainable Food Systems

*Rory McConnon*

Urban vertical farming has demonstrated potential for contributing to sustainable food systems. However, the vertical farming sub-sector is nascent, and the academic literature related to this topic is fragmented and limited in scope. This paper intends to provide a systematic review of the academic literature on vertical farming best practices, barriers and challenges, as well as the drivers and enablers, to understand trends and key issues in the published literature to-date. More broadly, this literature review seeks to analyse the extent to which vertical farming can contribute to sustainable food systems across the three dimensions of sustainability – economic, social, and environmental. Based on the PRISMA protocol, Web of Science, ProQuest, and a selection of publisher databases were searched for relevant papers. The initial review identified over 800 peer reviewed articles published in scholarly/academic journals between 2000, when this concept was first proposed, to March 2023. The full review is ongoing, and findings to-date have shown scant literature in the first decade of the review period, but a significant uptake over the last 5 years. The published research generally focuses on the productivity of individual plant species and technological issues relating to lighting and growth mediums, with more recent research starting to focus on digitisation, artificial intelligence, etc. What is limited in the academic literature is business/strategy focussed research or comprehensive frameworks to understand how vertical farming can contribute meaningfully to the challenges of achieving sustainable food systems.

## Reviewing the Academic Expatriate Literature: A Bibliometric Analysis of the Domain from 2000 to 2022 and Identification of Current Themes

*Rosemol Pappachan, Shazi Shah Jabeen  
and Nitin Simha Vihari*

**Purpose** – Despite the fact that academics have been moving across countries since the medieval times, only a few studies have been conducted on the aspects related to academic expatriates. This paper focuses on studies conducted on academic expatriates in various countries. Over the years, university curricula have become more international as a result of internationalization and globalization which has led to more hiring of international faculty. As a result, more academics have moved abroad. The purpose of the study is to analyse the studies done on academic expatriates, find the research gaps, identify the major themes studied and provide insights to academic expatriate community.

**Design/methodology/approach** – Research publications on academic expatriates from 2000 to 2022 are reviewed in this study using a systematic literature review (SLR) and bibliometric analysis. This paper focuses on academic research on expatriates that has been done on a variety of topics and in a number of different nations. Also, the paper explores major and minor themes in academic expatriate studies.

**Findings** – The SLR reviewed 55 articles published in the 22-year period from 2000. Despite being a crucial component of International Human Resource Management (IHRM), academic expatriates weren't given a precise definition until 2016. The bibliometric analysis categorizes the paper into different themes. Major themes of research include expatriate

adjustment, cross cultural adjustment, cross cultural training, job factors and job satisfaction whilst minor themes cover employee attitudes, employee behaviour, employee turnover, motivation, family support, acculturation, diversity management. The bibliometric network for the list of documents on academic expatriates was shown using VOSviewer.

Implications – This research can provide insights into research gaps in the domain to practitioners and academia. The study will benefit the academic community of expatriates. This research will also be a contribution to International Human Resource Management (IHRM).

## Optimizing Commercial Transactions

*Olivier Brusle*

B2B Late payments are a plague globally. There are a range of reasons for why commercial transactions are often so problematic: approvals are difficult to obtain, processes may be over-complicated and information systems are imperfect and often mistrusted.

Improvements are possible through the automation of the Goods Receipt process and the upgrade of the end-to-end processes in line with a well-defined delegation of authority. Information Systems should then be leveraged to automate such processes. It is also recommended that companies put in place a hierarchical performance system.

Also required are top executive endorsement and proper implementation by knowledgeable parties equipped with adequate technologies.

The reward is sizeable: trustworthy relationships with dependent parties, and greater productivity amongst their personnel and executives whose time is better employed in the core business rather than chasing (or being chased for) invoices and payments.

Fixing the late payment issues must become a top priority for governments and business leaders since cash flows are the life blood of enterprises, making timely payments an essential contributor to sustainable finance.

## Amateur Work or Serious Business? An Exploratory Study on How UAE Podcast Companies Operate Their Business

*Anas Masamreh and Noor Kharroub*

Podcast production has been growing globally and regionally, creating many business opportunities for media institutions, independent companies, and individuals. Despite the relatively low-cost of production and dissemination, high quality production needs some form of sustainable funding if it is to survive in a highly competitive media environment. Through the lens of Business Model Canvas, this paper examines the business models of podcast companies in the UAE to gain some insights about their operations and their ability to survive in the long term. Through semi-structured in-depth interviews with founders of 3 UAE-based podcast companies, a radio manager, and a podcast platform senior director, this study aims to provide a better understanding of how podcast companies operate in a geographical area that has not seen many academic studies on podcasting, particularly their business model and its sustainability. The insights provided from the interviews are complemented with analysis of previous interviews and articles found online and website and social media analysis. Findings of this study are expected to benefit individuals and companies who plan to start out in the podcasting industry, in addition to adding to an academic field of research that is undoubtedly lacking in our region.

## Yoga in Metaverse: The Trend of Metaverse and Virtual Reality extending to the Yogic System

*Amrutha Anand*

Yoga in Metaverse refers to the practice of Yogic techniques like Asana, Pranayama in a Virtual Reality environment practiced with a Virtual Reality headset that creates an immersive experience and also allows practitioners to feel as if they are in a real-life yoga studio or in a pleasant natural scenery.

According to Grand View Research, the global Virtual Reality in the healthcare industry was valued at USD 787.0 million in 2020, suggesting that Virtual Reality can be used to treat a range of conditions, including mental health disorders, pain management & rehabilitation. A study published in the Journal of Medical Internet Research found that Virtual Reality exercise improves physical fitness and reduces the risk of chronic diseases like heart disease, and diabetes.

The potential benefit of practicing yoga in Metaverse is practitioners can select a peaceful, serene environment like a mountaintop or a tropical beach which helps to improve their overall yoga experience and relaxation.

Additionally, Virtual Reality Technology can provide visual feedback on posture & alignment that helps beginners to attain perfection and guides them in breathing exercises and meditation.

Yoga in the Metaverse is an emerging trend providing a unique and immersive yogic experience helping people to make their practice more effective and Powerful.

## Optimising demand prediction for machine learning models: A case study on bike sharing demand prediction

*Adrien Gregory Thomas, Monika Verma, Parvathy Balachandran, Namrata Pal, Abner Ondara*

This paper presents a case study on demand prediction for bike sharing applications, with a focus on optimizing machine learning models. The study explores various approaches to predict demand, including the decision to split the demand variable into categorical or continuous, and finding the best ML algorithm for the given case study. The study uses the Yulu bike sharing dataset to develop a demand prediction framework, considering environmental factors such as day of the week, month, year, time of day, season, weather, holiday/working day, temperature, ambient temperature, humidity, windspeed, and combined independent variables. The study employs several ML models, including GLM, multinomial, ordinal, decision tree, and random forest, with different numbers of categories. The results show that the random forest model performs the best, with an 83% accuracy in prediction, and is a more realistic model. The paper concludes with implications and recommendations for improving demand prediction models for bike sharing applications.



# Anchoring Transformative Education Initiatives in HE - a Qualitative Investigation of an International Branch Campus in Dubai

*Stephen King*

The purpose of the study is to advance understanding into how the conceptual nature of transformative pedagogy of Education for Sustainable Development (ESD) can be anchored within the internationalised, neoliberal market environment in which higher education (HE) is delivered. This will be explored with a metamodernist lens and the prevalent, substantive theories of management models and organisational learning (Ricciardi et al, 2021). It is inspired by the author's personal experience as an "insider" at an international branch campus (IBC) of a British higher education institute (HEI) in the ascending education hub of Dubai. It is further motivated by the researcher's personal belief in the social obligation of educators to not only enhance the employability and transferable skills of the individual student, but to impart knowledge valuable to help identify solutions to community problems such as inequality, poverty and climate change, and others identified within the UN Sustainable Development Goals (SDGs).

The study arises at a time where two seemingly unrelated, but observably complementary phenomena are seen to be maturing and coinciding. The first, an emerging global movement led by the UN through the Education 2030 programme, which is advocating for empowering teachers to reimagine and design their own, locally relevant curricula, henceforth described as a "transformative" approach (Mogren & Gericke, 2019 p. 4). And the second, the maturing of the IBC to a position of academic renown independently of the home campus. The research is designed to present a toolkit of anchoring strategies and expand upon those proposed by Mogren and Gericke (2019), through semi-structured interviews from practitioners within the same IBC of renown. It is hoped this will contribute to discussions on the transformation of global education policy, curriculum design and to support other transformative and high impact teaching and learning interventions to become more securely protected within an institution's systems and processes.



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