





# Diamond Jubilee International Conference on Contemporary Research in Management and Technology

# **Conference Proceedings**

Edited by Dr. V. Srividya Dr. Angappa Gunasekaran Dr. T. Devi Dr. R. Sujatha The International Conference on Contemporary Research in Management & Technology (CRMT 2025), organized by PSG Institute of Management in association with PSG CARE, will be held in a hybrid mode at PSG Institute of Management, Coimbatore, on February 27–28, 2025. With the theme "Innovating for a Sustainable Future: Reimagining Management in a Digital Age," CRMT 2025 serves as a dynamic platform for researchers, academicians, and industry professionals to explore emerging trends and innovations at the intersection of management and technology. The conference brings together global thought leaders to present cuttingedge research in key focus areas, fostering knowledge exchange, collaboration, and transformative discussions. CRMT 2025 features distinguished experts from leading institutions worldwide as advisory committee members, technical committee members, program chairs, plenary speakers, and session chairs. The conference welcomes research papers from academicians, scholars, and industry experts, with selected papers being presented during the event. For more details, visit: https://crmt.psgim.ac.in.

### **Conference Tracks**

- Marketing Strategy and Digital Marketing
- Future of Finance
- Modern Human Resource Management
- Entrepreneurship and Start-ups
- Operations
- Strategic Management And Innovation
- Sustainability and Social Entrepreneurship
- Digital Transformation Analytics, IoT, ML

# CRMT2025

# PSG Institute of Management Coimbatore, India

Diamond Jubilee International Conference on

# **Contemporary Research in Management and Technology**

# **Conference Proceedings**



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### **Director's Message**



**Dr. V. Srividya** Director, PSG Institute of Management

It is with immense pride that I welcome you to the Diamond Jubilee International Conference on Contemporary Research in Management & Technology (CRMT 2025), organized by PSG Institute of Management. This conference provides a global platform for scholars, researchers, and industry professionals to exchange ideas, discuss emerging trends, and present impactful research.

CRMT 2025 has received an overwhelming 182 research papers, reflecting a diverse range of topics, including artificial intelligence, digital transformation, Marketing Strategy and Digital Marketing, modern human resources, Sustainability and Entrepreneurship, Finance, Strategic Management and Innovation, Entrepreneurship & Start-Ups, and Operations. The breadth of research underscores the dynamic intersection of management and technology, shaping the future of industries and academia.

We are pleased to have the Springer CCIS (Communications in Computer and Information Science) support, a testament to the academic rigor and significance of this conference. This collaboration ensures that pioneering research reaches a global audience, fostering further advancements in these fields.

We recognize the contributions of the organizing committee, reviewers, and authors for making this event a grand success. I am confident that the discussions at CRMT2025 will inspire innovation, collaboration, and meaningful impact.

Wishing all participants, a productive and enriching conference experience.

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#### **Reimagining Workforce Leadership for a Sustainable Digital Future**

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#### ABSTRACT

The shift from Shareholder to Stakeholder Capitalism emphasizes balancing profitability with sustainability and governance. Sustainability and innovation drive long-term success, requiring integration into business models. AI's role in work transformation highlights efficiency gains, evolving skill needs, and job displacement concerns. Surveys like Adecco's GWOF study show AI boosts productivity but necessitates reskilling. Leaders must foster AI literacy and continuous learning to ensure workforce adaptability and competitiveness.

The only thing that is not replicable is a company's culture and its speed of learning. The only sustainable competitive advantage companies will have going forward is their speed of learning. If the company and its people can learn faster than competition, they will surf the wave of success. As a consequence, the first and foremost preoccupation of every HR manager and every manager in any company should be Learning. Learning has two dimensions: "learning to learn" and the speed of learning. The *challenges that HR managers are grappling* are: *learning, guaranteeing lifetime employability, technology adoption, ai-related concerns, social contract, labour mobility, and private-public-academia partnership.* 

The evolving nature of human capital management requires organizations to shift from guaranteeing lifetime employment to ensuring lifetime employability. With rapid technological disruptions, upskilling and reskilling have become critical. The skills gap is widening, particularly affecting blue-collar workers and lower-income groups. Businesses, academia, and governments must collaborate to scale reskilling initiatives and create an inclusive workforce. Organizational culture is identified as the only truly non-replicable competitive advantage. Companies must focus on learning agility, where speed and adaptability determine survival. Traditional strategic planning cycles are becoming obsolete, necessitating a shift toward agile, scenario-based strategy models. A Yogic Organizational Culture, capable of rapid transformation, is essential for success.

A new social contract between employers and employees is essential, acknowledging the rise of freelancers, gig workers, and flexible employment. Labor mobility and migration policies must adapt to global skill shortages and talent distribution challenges. Public-private-academic collaborations are crucial in addressing workforce needs. Education must emphasize lifelong learning, critical thinking, and adaptability. Stakeholders must champion sustainability, innovation, and resilience to build an inclusive, future-ready workforce in the digital era.

Keywords: Disruption, Exponential Change, Stakeholder Capitalism, Sustainability, Innovation, Artificial Intelligence, Workforce Transformation, Reskilling, Learning Agility, Social Contract, Labor Mobility, Public-Private Partnerships.

#### Driving Growth: The Impact of Innovation, Technology (AI), and Entrepreneurship on Small Business Practices

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#### ABSTRACT

Innovation, technology, and an entrepreneurial mindset are pivotal in creating opportunities for diversification, growth, and efficiency, often leading to competitive advantage. Small and Medium Enterprises (SMEs) foster entrepreneurial thinking, promote innovative competencies, and invest in technology to survive and grow. However, while these factors are essential for competitive advantages, SMEs still struggle to fully realise their benefits. Research has highlighted the importance of network ties for obtaining external resources and promoting growth. Yet, the dynamic relationships between innovation, technology - more recently, artificial intelligence (AI), and entrepreneurship, all of which are vital for building and sustaining technopreneurs. entrepreneurial networks, remain underexplored for Technopreneurship, which integrates technology and entrepreneurship to foster innovation, involves activities such as trading, online marketing, and utilising AIdriven tools. It encompasses data science processes like big data analysis, data mining, and data warehousing to understand consumer behaviour and market trends. Technopreneurship requires entrepreneurial qualities such as creativity, innovation, risk-taking, ambition, and foresight to navigate complex strategic decisions, as well as manufacturing and management processes. The intersection of AI, innovation, and technopreneurship opens broader pathways for research, benefiting both academics and industry practitioners. This study aims to propose a framework that illustrates how the intersection of innovation, technology, and entrepreneurship-particularly technopreneurship-affects SMEs' business practices, strategic decision-making, and processes. The framework will highlight the impact of technopreneurship on SMEs' competitive position and growth potential, offering insights into how technology-driven entrepreneurship shapes business strategies and operational efficiencies.

Keywords: Technopreneurship, Artificial Intelligence (AI), innovation, entrepreneurial platforms, robotics

# Leveraging Large Language Models (LLMs) for Intelligent Decision-Making in Management

#### **R. Sridaran** Dean-Faculty of Computer Applications Marwadi University, Rajkot, India

#### ABSTRACT

In today's fast-evolving digital landscape, artificial intelligence (AI) and machine learning (ML) are transforming business management practices. Large Language Models (LLMs), such as GPT-4, are at the forefront of this revolution, enabling organizations to make more informed and intelligent decisions. These models process vast amounts of data, generate insights, and support real-time decision-making, thereby enhancing strategic planning and operational efficiency.

This keynote explores the increasing role of LLMs in management and how they are reshaping decision-making processes. Traditional decision-making relies heavily on human experience and structured data analysis. However, with the surge in data availability, managers often struggle to extract actionable insights. LLMs bridge this gap by automating data processing, predictive analytics, personalized strategy recommendations, and real-time decision support.

Businesses across industries are already leveraging LLMs to drive efficiency and gain a competitive edge. Key applications include AI-driven customer service chatbots, market research and competitive analysis, human resource and talent management, and risk assessment in compliance and fraud detection. These use cases demonstrate how AI-powered solutions are streamlining business operations while improving customer engagement and workforce management. Despite their advantages, LLMs also pose challenges. Issues such as bias in AI models, data privacy concerns, and the need for interpretability raise ethical considerations. Managers must ensure responsible AI adoption by balancing AI-generated insights with human judgment. Transparency, fairness, and robust security protocols are essential to building trust in AI-driven decision-making.

Looking ahead, the future of AI in management promises greater collaboration between AI and human intelligence. Businesses will witness AI-driven ecosystems that enhance automation, personalization, and adaptability. Continuous advancements in AI models will further improve accuracy, fairness, and ethical AI implementation. In conclusion, LLMs are transforming intelligent decision-making, and businesses that integrate AI-driven strategies effectively will gain sustainable competitive advantages. By embracing AI responsibly, leaders can unlock new efficiencies, drive innovation, and shape the future of management in an increasingly AI-powered world.

Keywords : Large Language Models (LLMs), Intelligent Decision-Making, Artificial Intelligence (AI) in Management, Predictive Analytics, Ethical AI Adoption

#### Determinants of Continuous Intention to Use Contact Tracing Applications in Malaysia

#### Sharmini Gopinathan (Taylors University), Haveena Kaur (Multimedia University), Segaran Veeraya (Taylors University), Murali Raman (Asia Pacific University)

#### ABSTRACT

On the 11th of March 2020, the World Health Organisation (WHO) officially declared COVID-19 as a global pandemic. The global outbreak of COVID-19 resulted in a significant rise in deaths worldwide and has evolved into a major international public health emergency. The WHO recommended four crucial measures to effectively control the spread of COVID-19. The key measures include implementing social distancing, conducting prompt testing for individuals displaying symptoms, tracing contacts of confirmed cases, and isolating both suspected and confirmed cases (World Health Organisation, 2020). The use of contact tracing was also highly recommended as it is a widely implemented surveillance system employed to identify, assess, and manage individuals who have encountered newly emerged infectious diseases (Jalabneh, et al., 2021). As the vaccines for COVID-19 began to roll out, the Malaysian government proceeded to use the contact tracing application as part of the National COVID-19 Immunisation Programme. Users were able to use the contact tracing application to book vaccination appointments for themselves and their dependents. Additionally, users were able to access their vaccination certificates via the application. When the number of cases started to drop due to most of the population being vaccinated, the application was then utilised to book appointments at health facilities, track infectious diseases, and pledge as organ donors. Although the initial functions of the contact tracing application are not mandatory anymore, the application still hosts functions which can still be used by users today. The effectiveness of the application relies on the willingness of users to continue using it. Therefore, this study aims to examine the factors that contribute to the continuous intention to use contact tracing applications in the post-pandemic world. A literature review was performed to further understand the topic in hand and it led to the derivation research objectives (i) To examine the relationship between hedonic motivation and continuous intention to use contact tracing applications. (ii) To examine the relationship between social influence and continuous intention to use contact tracing applications. (iii) To examine the relationship between facilitating conditions and continuous intention to use contact tracing applications. (iv) To examine the relationship between habit and continuous intention to use contact tracing applications. (v) To examine the relationship between perceived security and continuous intention to use contact tracing applications. The study aims to determine the factors that could prompt the continuous intention to use contact tracing applications, namely hedonic motivation, social influence, facilitating conditions, habit, and perceived security. Drawing on the Unified Theory of Acceptance and use of Technology 2 (UTAUT2) model by Ventakesh, et al. (2012), a literature review was conducted to understand the underlying concepts of these factors. Past studies have utilised the UTAUT2 framework to assess health-related applications (Badran, 2019; Alam, Hu, Kaium, Hoque, & Alam, 2020). The study used a quantitative approach and gathered data from participants using questionnaire. The participants in this study were Malaysian citizens who utilised contact tracing applications during the COVID-19 pandemic. The questionnaire was designed with caution to ensure the confidentiality of the respondents. Items in the questionnaire employed the 5-point Likert scale measurement, ranging from strongly disagree to strongly agree. A total of 163 respondents participated in this study. Structured Equation Modelling (SEM) was used to perform the necessary analysis. Based on the findings, hedonic motivation, social influence, and facilitating conditions do not have a significant positive influence on the continuous intention to use contact tracing applications. However, habit and perceived security have a significant positive influence on the continuous intention to use contact tracing applications. However, habit and perceived security have a significant positive influence on the continuous intention to use contact tracing applications. This shows that the general public are not genuinely interested in using the contact tracing applications beyond covid as there may lack awareness on the available features as well as there is a possibility that they are afraid that the personal data may not be secured.

Keywords: Contact tracing applications, Usage, Awareness, Continuous Intention, Perceived Security, Habit, UTAUT2 Model

#### Soft skills and Data Analytics for HR

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#### ABSTRACT

In today's evolving workplace, Human Resources (HR) is no longer just about payroll and benefits; it is about understanding people and optimizing their potential. The intersection of soft skills and data analytics is transforming HR, making it both datadriven and human-centric.

Soft skills are personal attributes that enable individuals to interact effectively with others. They are critical in fostering teamwork, leadership, and communication in organizations. Examples of essential soft skills in HR include: Communication – Ensuring clarity in workplace interactions; Empathy – Understanding employees' perspectives and challenges; Collaboration – Building strong teams and fostering cooperation; Problem-solving – Navigating workplace challenges with strategic thinking; and Adaptability – Adjusting to changes in dynamic work environments. Employers emphasize soft skills because technical skills can be trained, but qualities like punctuality, focus, and professionalism are harder to instill post-hiring.

HR analytics leverages data to make informed workforce decisions. It provides insights beyond intuition, helping organizations optimize hiring, training, and employee engagement. Examples include: Employee turnover rates – Identifying retention risks, Time-to-hire – Streamlining recruitment, Training effectiveness – Measuring learning impact, Employee engagement scores – Assessing workplace morale. The synergy between soft skills and analytics enhances HR decision-making. Data identifies gaps, while soft skills enable meaningful action. In recruitment, analytics finds high-performing candidate sources, while HR professionals use soft skills to assess personality fit. In onboarding, analytics measures training effectiveness, while soft skills ensure an engaging experience. In performance management, data highlights productivity trends, while soft skills facilitate constructive feedback.

The Future of HR : A people-centric workplace requires both data insights and human intuition. By integrating soft skills with HR analytics, organizations can foster a productive, inclusive, and engaged workforce, ensuring long-term success.

Keywords : HR analytics, Soft skills,

#### Digital Marketing Adoption Challenges among Small Businesses in Kerala: A Qualitative Inquiry

# Bibin Xavier (Marian College Kuttikkanam Autonomous)\*, Dr. A Vanitha (Arumugam Pillai Seethai Ammal College, Tirupathur, Tamil Nadu)

#### ABSTRACT

In the dynamic business landscape, small enterprises play a vital role in fostering innovation, employment, and community development. Despite the transformative potential of digital marketing, many small businesses in Kerala, India, have been slow to adopt these strategies. This research investigates the specific barriers hindering digital marketing adoption among small businesses in Kerala. Using a qualitative methodology, semi-structured interviews were conducted with 36 business owners and managers across diverse industries. The findings reveal several key obstacles, including a lack of digital marketing knowledge, fear of change, resource constraints, concerns about ROI, and issues related to trust and security. The study introduces two novel concepts: digital marketing product fit and digital marketing customer fit, highlighting the importance of aligning digital strategies with the nature of the products and the characteristics of the target customer base. The research uncovers that many small businesses perceive digital marketing as complex and risky, leading to hesitance in adopting these strategies. Additionally, resource limitations and financial uncertainties further exacerbate these challenges. This study contributes to the theoretical understanding of digital marketing adoption by emphasizing the unique barriers faced by non-adopters and proposing targeted strategies to overcome these hurdles. The insights derived from this research provide practical implications for small business owners, policymakers, and digital marketing practitioners. Recommendations include the need for comprehensive digital literacy programs, strategic consultations, and tailored digital marketing strategies that align with the specific needs of small businesses in Kerala. By addressing these barriers, the research aims to facilitate a smoother transition for small businesses towards digital transformation, enhancing their growth in the evolving digital economy.

#### Charged Choices: Unveiling Consumer Preferences for 2-wheeler Electric Vehicle Adoption in India

#### Issac Jacob John (Marian College Kuttikkanam Autonomous), Bibin Xavier (Marian College Kuttikkanam Autonomous)\*, Prof. Dr. Ajimon George (Marian College Kuttikkanam Autonomous), Amal S. Nair (Marian College Kuttikkanam Autonomous)

#### ABSTRACT

In an era of increasing focus on sustainable transportation, Electric Vehicles (EVs) are steering the automotive industry towards a greener future. However, the adoption of EVs in India is limited by several factors, and understanding them is crucial. Existing researches have focused primarily on 4-wheeler EVs only. Also, there is a gap regarding the relative importance of these factors and how they can be optimally combined to maximize adoption & satisfaction. Addressing these gaps is essential to develop effective strategies that enhance EV adoption in India and contribute to a sustainable transportation ecosystem. This study investigates the factors influencing 2-wheeler EV adoption in India. Through an exploratory mixed research method combining qualitative interviews (n=10) and choice-based conjoint analysis (n=420), key attributes affecting adoption, their relative importance and best profiles for 2-wheeler EVs were found. The findings highlight that performance and range are the most influential factors, followed by other factors. Practical implications include focusing on high-speed, long-range, affordable EV models, subsidies and charging infrastructure. The originality and value of this study lie in focusing on Indian 2-wheeler market, exploring the relative importance and its combinations, offering actionable insights for accelerating EV adoption in emerging markets.

#### Drones as a Service in Sustainable Agriculture: A Qualitative Exploration of Opportunities and Challenges encountered by Drone Pilots

#### D Divya prabha (PSG College of Arts and Science)\*

#### ABSTRACT

With agriculture remaining as a cornerstone of India's economy, Drones as a Service (DaaS) is revolutionizing Indian agriculture by providing innovative solutions for precision farming, resource management, and crop monitoring. Offering the benefits of affordability and cost efficiency, these unmanned aerial vehicles (UAVs) enable farmers to optimize pesticide application, monitor soil health, assess crop growth, and manage irrigation with unprecedented efficiency. As the demand for skilled drone operators is growing rapidly, this study explores the opportunities and challenges experienced by rental drone pilots in agriculture. Interviews with drone pilots reveal significant opportunities, including enhanced job prospects, flexibility, and the ability to work with cutting-edge technology. However, despite these opportunities, drone pilots also face challenges including technical barriers and operational issues such as limited access to training, high initial costs of equipment, and the need for continuous skill development to keep pace with rapidly advancing technology. This study underscores the critical need for policy interventions, technological advancements, and training programs in fostering the adoption of drones and ensuring the sustainable growth of the drone industry and the workforce supporting it.

Key words: Drones as a Service (DaaS), Precision Farming, Drone Pilots, Sustainable Agriculture, Skill Development

#### Advancements in Predictive Modeling for Early Diagnosis of Parkinson's Disease Using Machine Learning

Nisha Varghese (Christ University)\*, Neha Seirah Biju (Christ University)

#### ABSTRACT

Parkinson's disease (PD) is a degenerative disorder of the central nervous system that affects millions of people globally. Successful management of PD relies heavily on early diagnosis and intervention, as the disease progresses over time, impairing motor functions and other neurological capabilities. In recent years, machine learning (ML) has emerged as a powerful tool to aid in the early prediction and diagnosis of PD, using a variety of physiological and neurological markers to forecast disease onset and progression. This predictive system leverages machine learning models, including random forest, gradient boosted trees, and logistic regression, to analyze patterns and trends within patient data. These models help identify key indicators linked to PD, such as voice characteristics, motor performance data, and other biomarkers, which are often challenging to diagnose in the early stages with traditional methods alone. By comparing multiple algorithms, the system can optimize predictive accuracy, highlighting factors that correlate with higher risks of developing PD. Such an illness prediction system is not only instrumental in facilitating early diagnosis but also holds potential to guide personalized treatment approaches. It offers a proactive solution, enabling clinicians and researchers to intervene earlier in the disease course, ultimately leading to improved quality of life and more effective management strategies for those at risk.

#### Voices of the Ghats: The Battle for Environmental Protection vs. Community Survival – A Case Study

#### Anjali V B ( Marian College Kuttikkanam Autonomous), Bibin Xavier (Marian College Kuttikkanam Autonomous)\*

#### ABSTRACT

In the lush embrace of India's Western Ghats, a profound struggle unfolds-a battle between environmental preservation and community survival. Revered as a UNESCO World Heritage Site, the Western Ghats are not just a natural wonder but a lifeline for countless indigenous communities whose lives are intricately woven into its ecosystems. However, the relentless advance of industrial development threatens to unravel this delicate tapestry, as roads, plantations, and mining encroach upon pristine landscapes, leading to dire ecological consequences. Amidst escalating environmental degradation, the government formed the Western Ghats Ecology Expert Panel (WGEEP) in 2010, led by Dr. Madhav Gadgil, to devise a sustainable conservation strategy. The committee's meticulous research identified Ecologically Sensitive Zones (ESZs) where specific restrictions on land use were deemed essential for ecological balance. Yet, the findings ignited widespread fear among local farmers like Rajan, who feared losing their ancestral lands and livelihoods due to stringent new regulations. The proposed tiered model of ESZs presented a dichotomy: protect the environment or preserve their way of life. As protests erupted across the Ghats, villagers united to voice their fears, holding placards that echoed their plight. The local political landscape shifted, with leaders rallying behind the farmers' cause, emphasizing the need for a balanced approach that respects both environmental integrity and human dignity. Media attention intensified, framing the conflict as a microcosm of a larger national debate over development versus conservation. In the heart of this turmoil lies a poignant question: Can a harmonious coexistence be achieved, or must communities sacrifice their heritage at the altar of ecological preservation?

#### **Revolutionizing Human Resource Management: An AI-Integrated e-HRM Framework for Predictive Analytics and Workforce Optimization in IT firm**

#### Pushpalatha S. (Saveetha Institute of Medical and Technical Sciences), R. Duraipandian (Saveetha Institute of Medical and Technical Sciences)

#### ABSTRACT

AI integration in e-HRM has brought a revolution in human resource management through solving broadly documented problems in talent acquisition, employee performance, and job satisfaction. The conventional systems of HRM cannot adapt and forecast the changes in the environment as seen in the IT firms. This research work outlines an e-HRM framework that integrates hybrid AI models for predictive analytics and individualized HRM plans. The methods include machine learning and deep learning approaches to real-time data sets for improving workforce management. In terms of the prediction of employee performance, the model has achieved 5% accuracy, in the analysis of job satisfaction, the model has achieved 88.4% accuracy, and in the improvement of the talent retention rates, the model has provided an improvement of 11.3%. Based on the comparative analysis, the performance is higher than in the traditional models. The findings of this research show how e-HRM powered by AI can revolutionize the way organizations manage their human capital to achieve organizational objectives that are in harmony with employees' needs. Future workbased it may help researchers and practitioners develop more AI-advanced HRM, thus enabling organizations to make more adaptable and data-oriented decisions.

#### Empowering Leadership and AI-Driven Knowledge Sharing: Enhancing Innovative Work Behaviour in IT Professionals in Chennai

#### Vinodh (Saveetha University, Chennai), A.K. Subramani (Saveetha University, Chennai)

#### ABSTRACT

This paper presents an AI-driven leadership framework aimed at promoting Innovative Work Behavior among IT professionals. In order to improve leadership abilities, the proposed framework implements Reinforcement Learning (RL). The process of information sharing is enhanced through the use of NLP, or natural language processing. Furthermore, it implements collaborative AI to establish dynamic teams. The RL model adapts leadership decisions based on real-time innovation and performance metrics, the natural language processing system identifies knowledge deficits, and the system facilitates collaboration by recommending experts and mentors. The framework promotes collaboration and creativity by assembling teams with a diverse array of skills and backgrounds, in addition to employing supervised learning methodologies. The findings indicate that the rates of innovation production, employee engagement, and team cooperation all increased. This new and scalable solution to leadership challenges in dynamic IT settings, propelled by AI, fosters creativity on a personal and professional level.

#### Enhancing Customer Experience Transformation Through AI-Driven Loyalty Programmes

Yasodha P. (Sathyabama University), A. Palani (Sathyabama University)

#### ABSTRACT

This study presents an efficient AI-driven loyalty program optimization system that aims to improve client engagement and retention. The goal is to optimize the efficiency of programs and personalize rewards for customers using advanced machine learning techniques, such as Proximal Policy Optimization (PPO), hierarchical attention-based temporal graph neural networks, and hybrid sentiment analysis with Transformer-Capsule Networks. This proposed approach outperforms traditional loyalty programs and achieves excellent performance metrics such as recall, precision, F1-score, and engagement rates over 96% by using real-time data for personalizing incentives. The experimental results show that the system can achieve better sentiment forecasting, consumer segmentation, and dynamic reward changes. The results show the adaptability and scalability of the system across different industries. Finally, the proposed AI-based solution will bring a revolutionary approach in the administration of loyalty programs and is likely to elevate the improvement in the optimization of client relationships considerably.

#### Leveraging Blockchain and Machine Learning to Analyze Inflation's Influence on Working Women's Investment Strategies

#### Jayasree K (Sathyabama University), A. Palani (Sathyabama University)

#### ABSTRACT

The study presents an innovative approach to standard financial threshold models by investigating the impact of inflation differentiation on working women's behavioral investing strategies. Existing systems are static data-driven, centralized databases that are readily tampered with and lack personal and real-time insights. The article describes a decentralized, secure, and adaptable architecture that provides blockchain and machine learning (ML) as a service. ML techniques, particularly the Random Forest (RF) model, anticipate behavior in investing with high accuracy, while the Blockchain ensures the data's integrity. The prediction results show that the proposed prediction system can achieve a forecast accuracy of 92%, whereas existing systems can only approach 80%. Additionally, it demonstrates a strong preference for inflation hedges such as bonds and property. The proposed method, which adapts over time and gives far more precision, appears to have the ability to provide the country's working women with individualized data-driven strategies to combat inflation and become financially sensible.

#### **Deep Learning-Based Secure Real Time Face Recognition System**

#### Lakshmi Priya Varshini S (PSG Institute of Technology and Applied Research Ashika V (PSG Isntitute of Technology and Applied Research) Manimegalai Rajkumar (PSG Institute of Technology and Applied Research)\* Shreenivasan R (PSG Institute of Technology and Applied Research)

#### ABSTRACT

In that era of digital transformation, all day-to-day activities both in households and organizations were getting automated. In any organization, maintaining and monitoring attendance was an important activity. However, many challenges, such as using counterfeit identities or fabricating attendance records, existed in the attendance monitoring system. Facial features are important biological features because they serve as the initial point of recognition in our social relationships. In this work, a Deep Learning (DL) based application was designed and implemented to capture the attendance and record the presence of an employee or student in real time. This work proposed the concept of developing a face recognition application using the Python framework, which employed Deep Learning algorithms such as Convolutional Neural Network (CNN) to extract facial features and recognize faces of individuals and Viola Jones' Haar cascade technique was used to detect live faces. Security concerns such as spoofing attacks were mitigated by employing the Chaotic Logistic Key Mapping Algorithm along with the PyQt framework for facial encryption. The work proposed used PostgreSQL to store information about the users. It is interesting to note that the combined use of two algorithms, namely CNN and Viola Jones' Haar cascade technique, improved the prediction accuracy. The findings demonstrated the application's efficacy in facial recognition, live face detection, and spoofing attack protection, providing a comprehensive solution for robust face recognition. Performance of ML algorithms was compared based on accuracy, precision, recall, and F1 score. The CNN model was tested with different data split ratios of 60:40, 70:30, 80:20, and 90:10, and it was discovered that the 90:10 data split ratio resulted in better prediction accuracy.

#### Empirical Analysis on the Utility and Effectiveness of Digital Marketing in Real Estate Sector with Reference to Coimbatore City

#### Meena Suguanthi Govindaraj (Karpagam Academy of Higher Education )\* Thiyagarajan C (PSG College of Arts and Science)

#### ABSTRACT

Cost of obtaining information about a product or service is made free due to the development of information technology. this paper is intended to study the impact of digital marketing in real estate sector. The research process focuses on how customers use the information which is available online that is via various platforms and what are the content which they seek in those platforms and how organizations reach the potential customer through social media. This around 200 samples were administered with structured questionnaire and at the end of the research conclusions and suggestions were given based on the analysis which was carried out using the data collected by administering the questionnaire.

## REAL TIME CAR PARKING SLOT DETECTION USING MACHINE LEARNING

#### Harshini Mannepalli (Sathyabama Institute of Science and Technology)\*, Harshith Ratnakar Nammagiri (Sathyabama Institute of Science and Technology) S Scienthia Clarinda ((Sathyabama Institute of Science and Technology)

#### S.Scinthia Clarinda ((Sathyabama Institute of Science and Technology

#### ABSTRACT

In everyday life, locating a parking area may be hard, especially in densely populated, excessive-visitor regions. As extra people personal cars and compete for confined parking areas, calls regularly exceed the available to deliver. This causes visitors jams, annoyance, and time wastage for motorists seeking out an area. Factors that include an insufficient parking area, unclear signage, and illegal parking add to the hassle. Effective parking management is essential to lessen visitor congestion and improve city mobility. As our financial system grows, nonpublic cars have grown to be part of our day-by-day lives, now not handiest providing convenience but additionally creating issues such as scarcity of parking spaces. Although state-of-the-art parking structures are available, they frequently require complex design, installation, and maintenance. Many parking facilities still rely on manual meters, whereas advanced systems can efficiently identify vacant spots and guide drivers accordingly. However, in spite of those technologies, making sure of real-time seat availability remains a challenge. The project offers a value-effective solution using cameras to screen parking regions without computerized structures. It makes use of video processing algorithms to investigate digital camera photos, discover parking areas, and offer actual-time data to drivers. This approach's objectives are to offer a bendy strategy to brief or emergency parking desires and to correctly manage parking in regions where conventional structures are impractical or unavailable.

#### Supplier Relationship Management in the Age of Digital Transformation: Insights from Manufacturing Industry

# Parameswaran S (Erode Arts and Science College)\*, Dr Vanathi R (Erode Arts and Science College)

#### ABSTRACT

This qualitative study examines Supplier Relationship Management (SRM) in the context of digital transformation within the manufacturing industry, focusing on the role of emerging digital technologies. Through semi-structured interviews and documentary analysis, the study explores how organizations utilize technologies like artificial intelligence (AI), blockchain, and Internet of Things (IoT) to enhance SRM practices. Findings indicate that digitalization improves operational efficiencies, realtime data analytics, and expands supplier networks through digital platforms. A strategic shift toward collaborative supplier relationships is observed, with an emphasis on joint innovation, technology co-investment, and shared risk management strategies. Despite these advancements, the implementation of digital SRM strategies presents challenges, including data privacy concerns, integration issues, cybersecurity threats, and regulatory compliance. To address these, organizations must develop robust governance frameworks and cybersecurity protocols. Key performance indicators (KPIs), such as supplier performance, cost savings, and innovation impact, are crucial for assessing digital SRM success. The study suggests that businesses prioritize leadership commitment, cross-functional collaboration, and continuous learning to optimize SRM practices. Future research should explore emerging trends in digital SRM, technological impacts on supplier dynamics, and ethical considerations in digitalization. Integrating these insights into strategic decision-making will enable organizations to enhance supplier relationships, mitigate risks, and achieve sustainable growth in the manufacturing industry.

Keywords: supplier relationship management, digital transformation, Manufacturing, artificial intelligence, blockchain, internet of things, strategic partnerships

#### Leveraging ChatGPT in Higher Education: Insights from Malaysian Academicians

Jayamalathi Jayabalan (University Tunku Abdul Rahman)\*, Kalaivani Jayaraman (University Tunku Abdul Rahman), Mahendra Kumar Chelliah (University Tunku Abdul Rahman), Komathi Munusamy (University Tunku Abdul Rahman), Farida Bhanu Mohamed Yousoof (University Tunku Abdul Rahman), Au Weng Chee (University Tunku Abdul Rahman)

#### ABSTRACT

The adoption of ChatGPT technology among academics in Malaysian higher education institutions (HEIs) represents a burgeoning area of interest with implications for teaching, research, and administrative processes. This research investigates the adoption of ChatGPT technology among academics in Malaysian higher education institutions (HEIs), focusing on factors influencing their decisions. Through explanatory mixed method which employs quantitative analysis in phase 1 using questionnaire survey and qualitative method in phase 2. By diving into academics' experiences and viewpoints, this study adds to our understanding of technology adoption patterns and highlights the revolutionary potential of AI-driven tools in higher education. The research explores the role of facilitating conditions, perceived trust, performance expectancy, and effort expectancy in shaping adoption patterns. The findings underscore the significant impact of these factors on ChatGPT adoption, aligning with past literature while offering fresh insights specific to the Malaysian higher education context. The study illuminates the potential of ChatGPT to streamline academic activities, enhance student engagement, and foster collaborative learning. Its implications extend to future research directions, policymaking initiatives, and the refinement of educational practices within Malaysian HEIs. This work serves as a foundational exploration, encouraging additional research and collaborative efforts to realize the promise of ChatGPT and similar technologies in changing the future of education.

#### AN EMPIRICAL STUDY ON PERCEPTION OF STREET VENDORS IN CHENNAI TOWARDS DIGITAL TRANSACTIONS

#### Janani Sivakumar (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women)\*, Kamakshi S (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women)

#### ABSTRACT

This study examines the perception of street vendors in Chennai regarding cashless transactions, focusing on their demographic profile and the challenges they encounter in adopting digital payment systems. Primary data was collected from 103 vendors using a structured questionnaire, with Simple Random Sampling technique is used to select respondents. Analytical tools such as descriptive statistics and one sample t tests were employed to analyze the data and identify perception of street vendors. The findings show that while vendors are somewhat aware of digital payments, they lack a comprehensive understanding of the full benefits and security features. Many vendors expressed concerns over the security of digital platforms and the complexity of using them. The research provides insights. The results of the one-sample t-test reveal that the perceptions of street vendors regarding digital transactions are significantly above average across all the statements assessed. This suggests that street vendors have a generally favorable view towards adopting digital payment methods, with a particularly strong belief in their effectiveness.

Keywords: Street vendors, Cashless Transactions, Digital Payment, perception of street vendors, Adoption Barriers, Vendor Attitude

#### Navigating Sustainability: Social Capital Formation Among Organic Product Promoters

#### Initha R (PSGR Krishnammal College for Women.)\*, Prabusankar R (PSGR Krishnammal College for Women)

#### ABSTRACT

This study examines the pivotal role of social capital in fostering sustainability among organic product promoters in India. Organic entrepreneurs are instrumental in driving eco-friendly lifestyles and sustainable agricultural practices. However, they face significant challenges, including limited consumer awareness, restricted market access, and high operational costs. This research explores how social capital—manifested through trust, networking, and shared norms—enables these entrepreneurs to overcome barriers, foster innovation, and advance sustainability.

#### AN EMPIRICAL STUDY ON DISASTER PREPAREDNESS AMONG FIRE STATION EMPLOYEES

#### Sharon Preethi Mosses (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women)\*, Rekha M (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women)

#### ABSTRACT

This study investigates disaster preparedness among fire station employees, focusing on their knowledge, training, and readiness to respond effectively during emergencies. The research highlights the crucial role of continuous training, resource allocation, and cross-functional teamwork in building resilient emergency response teams. It aims to assess the existing protocols, challenges, and strategies for disaster response within fire stations. Data for this study was collected from 250 respondents through surveys with fire station personnel, the research evaluates their level of preparedness for different types of disasters, such as fires, natural calamities, and chemical accidents. The sampling method used in this study was purposive sampling, and statistical tools were analysed using descriptive statistics, independent sample t-test, one-way ANOVA, and exploratory factor analysis. This study finds out disaster preparedness behaviour in training, resources, and coordination with other emergency services, offering recommendations for improving disaster response efficiency. The findings will contribute to enhancing disaster preparedness strategies and ensure that fire station employees are adequately equipped to safeguard lives and property during crises. The conclusion of the study, fire station employees are ready to accept the natural and manmade disaster situations through the adequate training of disaster preparedness.

Key words: Disaster, Preparedness, Risk Reduction, Emergency, Employees.

#### A Novel Machine Learning Framework for Precision Diagnosis of Leukemia Using Gene Expression Data

#### Italia Joseph Maria (Marian College, Kuttikanam)\* Devi Thirupathi (PSG Institute of Management, PSG College of Technology)

#### ABSTRACT

Diagnosis and evaluation of any cancer disease is facilitated by the classification of blood cells. Leukemia, a cancer that affects the blood has various subtypes and can be classified to these subtypes either by taking gene expression values or using blood smear images. This paper presents a novel explainable machine learning framework designed for the precision diagnosis of leukemia using gene expression data. The framework integrates the Synthetic Minority Oversampling Technique (SMOTE) to address class imbalance and a Logistic Regression Classifier (LLRC) for robust classification. Explainable Artificial Intelligence (XAI) techniques, specifically SHAP (SHapley Additive exPlanations), are employed to enhance the interpretability of predictions, providing actionable insights into key biomarkers. Experimental evaluation using the Golub et. al leukemia dataset demonstrates the framework's superior performance in terms of accuracy, precision, F1-score, Matthew's correlation Coefficient (MCC), Kohen's Kappa and log loss, while SHAP-based visualizations enable clinicians to better understand the decision-making process. This research bridges the gap between advanced machine learning techniques and clinical applicability, ensuring better measures in leukemia diagnosis and care.

#### Enhancing Employer Branding through Social Media Engagement: The Mediating Role of Organizational Attractiveness

#### Meghana C. Mohan (Mahatma Gandhi University)\* Santhosh P Thambi (Mahatma Gandhi University) Dhanya ajayaghosh (Saingits Institute of Management)

#### ABSTRACT

This study investigates the relationship between social media engagement and employer branding, with a focus on the mediating role of organizational attractiveness. In an era where digital presence is paramount, organizations leverage social media platforms to promote their employer brand and attract top talent. This research employs a quantitative methodology, surveying employees of IT sector to evaluate how their perceptions of social media engagement influence their views on employer branding and organizational attractiveness. As organizational attractiveness can act as a mediator, it amplifies the effects of social media engagement on employer branding. This study will contribute to the understanding of how social media engagement can enhance employer-branding initiatives. It provides the implications for HR professionals seeking to optimize recruitment strategies in a competitive landscape. The results reveal the importance of maintaining an appealing online presence to attract potential candidates and retain them, leading to organisational success.

#### **Determinants of Rental Price in A Metropolitan City**

#### Kamatchi Ramamani S (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women )\*, Dr.Kamakshi S (Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women)

#### ABSTRACT

The study focuses the factors influencing rental price dynamics in metropolitan areas, focusing on Chennai city. Using primary data from 104 respondents obtained through simple random sampling, the analysis employs descriptive statistics and one-sample t-tests to identify key determinants. The findings reveal that property size, parking availability, and utilities are significant factors, while internet connectivity holds less importance. Demographic insights indicate that most respondents are middle-aged, female, employed in the private sector, with higher incomes and postgraduate qualifications. The study highlights the need for rental housing policies to align with tenant preferences, emphasizing space, modern amenities, and accessible infrastructure, offering valuable guidance for policymakers, urban planners, and real estate stakeholders to enhance rental market efficiency and equity.

Keywords: Rental Price, Water and Power Supply

#### Organizational Support drives Employee well-being and behaviour

#### Divya Prabha S (PSG Institute of Management, PSG College of Technology)\*, Kirupa Priyadarsini M (PSG Institute of Management, PSG College of Technology)

#### ABSTRACT

The purpose of this research is to investigate the factors that contribute hybrid employees to thrive in their organization. Social exchange theory builds a strong foundation for this study. Reviews of literature signifies that perceived organizational support influence job crafting makes an employee to concentrate more on their behaviour to achieve their assigned duties and responsibilities and reaching out for the innovative ways of working which makes the hybrid employee to thrive in their organization. An appropriate hypothesis was formulated. To investigate the formulated model, the study conducted a survey from employee in IT sector. Convenience sampling technique was used. Validated questionnaire was used for a survey. In this framework, structural equation modelling (SEM) has been emerged as a powerful tool to investigate the conceptual models linking two or more latent constructs. This study shows the applicability of the equation modelling SEM (PLS-SEM) in analysing the complex model using higher order constructs. The findings of the study reveal that hybrid employees perceive organization support significantly influence crafting behaviour within hybrid employees. Henceforth, it empowers hybrid workforce to make flexible choices about their work schedule and the way they carry out to perform their duties fosters to develop their skills, to work actively and vibrantly leading to thriving in their organization. The study confirms the applicability of PLS SEM as a promising tool to investigate a multifaceted model in the domain of hybrid workforce in IT sector.

#### Navigating Green Choices: The mediating influence of Perception of environmental impact on Consumer Attitudes toward Solar Panel Adoption

#### Meghana C. Mohan (Mahatma Gandhi University)\* Dhanya ajayaghosh (Saingits Institute of Management) Sujitha Annie Kurian (Marian College, Kuttikanam)

#### ABSTRACT

This study explores the mediating influence of perceived environmental impact on consumer attitudes toward solar panel adoption. As the urgency for sustainable energy solutions intensifies, understanding the factors that drive consumer decisions becomes critical. Drawing on established theories such as the Value-Belief-Norm Theory, and Rational Choice Theory, researchers hypothesize that positive perceptions of environmental impact enhance consumer attitudes while perceived costs may serve as a barrier to adoption. Quantitative data were collected through surveys distributed to selected demographic groups. Findings suggest that heightened awareness of environmental benefits significantly relates with favorable attitudes toward use of solar panel adoption This research contributes to the understanding of consumer behavior in renewable energy markets and offers implications for policymakers and marketers aiming to promote solar energy adoption effectively.

#### Assessing the Role of Social Enterprises in Advancing Sustainable Development Goals Through Clean and Renewable Energy

#### Radhika Diddi (GITAM University)\* Dr. P. Pinakapani (GITAM University)

#### ABSTRACT

Social enterprises are playing a pivotal role in advancing the Sustainable Development Goals (SDGs), particularly SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action), through their efforts in promoting clean and renewable energy. These enterprises, driven by a dual mission of social and financial returns, have successfully addressed the energy needs of underserved and rural communities by implementing innovative and sustainable energy solutions. This study examines the contributions of social enterprises to the achievement of SDG 7 and SDG 13, focusing on their business models, strategies, challenges, and impact on local communities. The research employs both quantitative and qualitative analyses, including descriptive statistics, correlation analysis, hypothesis testing, and chi-square testing, to assess the effectiveness of these enterprises in providing energy access, reducing environmental impacts, and creating local economic opportunities. The findings indicate a significant positive impact of social enterprises on renewable energy adoption, energy access, and local job creation. Despite facing barriers such as financial constraints, policy hurdles, and lack of infrastructure, social enterprises continue to foster sustainable development through collaborations with various stakeholders. The study provides valuable insights into how social enterprises can be further supported to scale their impact and contribute to global sustainability goals.

Keywords: Social Enterprises, Sustainable Development Goals, SDG 7, SDG 13, Clean Energy, Renewable Energy, Energy Access, Climate Action, Community Impact, Sustainability, Rural Development, Green Jobs, Policy Barriers, Stakeholder Collaboration.

#### AI in organisational transformation

#### Vijayanand Selvaraj (IT Professional, USA)\*

#### ABSTRACT

Organizations adapt their structures and processes through artificial intelligence (AI), driving digital transformation in modern business environments. AI implementation fosters intelligent systems that enhance decision-making, maximize efficiency, and create personalized consumer experiences. By adopting Machine Learning (ML), Natural Language Processing (NLP), Large Language Models (LLM), Video Vision Language Models (VLM), and predictive analytics, organizations transition from traditional silos to data-driven Agile ecosystems. Automation reduces repetitive tasks, allowing workers to focus on strategic priorities while leveraging real-time data for decision-making. AI-powered tools improve customer engagement with tailored services and intelligent chatbots, fostering satisfaction and loyalty. Organizations accelerate product development, detect market trends, and optimize resource management using AI. However, AI-driven transformation faces challenges like data quality, ethical issues, and change management. Investing in AI literacy, robust infrastructure, and inclusive governance is crucial to unlocking AI's full potential. This new paradigm drives operational excellence, scalability, and digital resilience, fostering business growth and market competitiveness.

#### The Role of Virtual and Augmented Reality in Transforming High School Teaching Methods: A Case Study from the UAE

#### Sangheethaa S (University of Fujairah, UAE), Gowri Arun Menon (St.Mary' Catholic High School), Arun Korath (University of Fujairah)\*

#### ABSTRACT

VR/AR is changing traditional methods of teaching. This study examines their impact on high school education in the UAE as it pertains to student engagement and conceptual understanding, and barriers related to their implementation. While virtual reality involves the creation of simulated, immersive environments through which students learn, augmented reality adds an interactive component to real-world learning. This report represents the perspectives of 30 UAE high school teachers through interviews and surveys, describing the effectiveness of VR/AR in explaining concepts in a simple manner, enhancing retention, and encouraging active participation throughout the curriculum in all subjects, with particular emphasis on the STEM areas. Nevertheless, this wider implementation is restricted because of the shortage of proper teacher training and financial matters, let alone poor infrastructure. Be that as it may, teachers remain believe in the transformational power of VR/AR. Results emphasize professional development, targeted funding, and consideration of ordering immersive technologies in relation to curricular goals. This study raises an alarm for awareness among policymakers and educators who seek to leverage VR/AR toward improved learning outcomes and learning environments.

#### Multi-Agent Based Resource Provincing for Energy Minimization and Co2 emission monitoring

#### Syed Syfullah (Amrita Vishwa Vidyapeetham)\* Umamageswaran Jambulingam (Amrita Vishwa Vidyapeetham) Kundula saiteja (Amrita Vishwa Vidyapeetham)

#### ABSTRACT

Conventional methods of allocating virtual machines (VMs) frequently concentrate on centralized energy-conscious tactics or execute virtual machine migrations without sufficiently accounting for the related expenses in cloud computing structures. We provide a decentralized agent based virtual machine (VM) allocation method that minimizes energy consumption and maximizes income production in order to overcome these difficulties.PM receives a cooperative agent from the suggested agent method, which helps with managing virtual machine resources. Our technique for allocating virtual machines (VMs) to PMs is auction-based, which enables these agents to strategically assign VMs to PMs while maximizing potential income and energy efficiency. Agent can swap out the virtual machines that is allocated using this process, which lowers energy expenses while raising total income. We evaluate the effectiveness of the agent based method with both static and dynamic simulations. The results of our static testing demonstrate that our strategy may produce significant energy savings and decreasing the CO2 emission while maintaining computational efficiency when compared to other common centralized strategies such as Heuristic-based approaches and Simulated annealing approaches. In dynamic scenarios, our agent strategy not only achieves the energy efficiency of virtual machine consolidation techniques, but also significantly reduces relocation costs, boosting CSP profitability and ensuring sustainable energy consumption.

#### INSURTECH-DRIVEN MICROINSURANCE IN INDIA: PIONEERING FINANCIAL INCLUSION AND SUSTAINABILITY

#### Bridin Rocha (Karpagam Academy of Higher Education)\* Dr. R. Parameswaran (Karpagam Academy of Higher Education)

#### ABSTRACT

Traditional insurance services fail to serve India's rural and low-income population, making financial inclusion a primary challenge. The melding of insurtech with tailored microinsurance brings revolutionary possibilities through technology solutions that connect both methods to serve underserved populations better. Through data analytics coupled with digital platforms and mobile technology, Insurtech helps speed up process execution while making coverage more affordable for people in underserved communities. Microinsurance, with minimal coverage and inexpensive premiums, provides vulnerable communities access to financial protection against severe events such as natural disasters with specific protection benefits, health emergencies, and economic turbulence. Insurtech tools and microinsurance systems prove to be consistent with Sustainable Development Goals (SDGs) specifically focused on poverty reduction (SDG 1) and health improvement (SDG 3), gender equality (SDG 5), and climate action (SDG 13). For this study, descriptive analysis was conducted on 625 respondents, and Multivariate Multiple Regression (MMR) was used to analyze the data. This research investigates how Insurtech optimizes awareness and trust alongside operational efficiency and satisfaction levels for microinsurance policyholders across India. This research evaluates how insurtech microinsurance supports Sustainable Development Goals by promoting sustainable development across underserved places.

Keywords: Insurtech, Microinsurance, Sustainable Development Goals.

#### **Exploring the Nexus of Talent Management Success, HR Practices, and Digital Transformation on Enhancing Employees' Interest and Industry Performance**

# Dr. Swaranalatha R (PSG College of Arts & Science), Dr Karthikeyan K (PSG College of Arts & Science), Athish R R (PSG College of Arts & Science)\*

#### ABSTRACT

This study explores the factors influencing talent management success in the banking industry in Coimbatore, addressing the challenge of aligning HR practices, industry standards, digital transformation, and individual interests with organizational goals. The primary objective is to examine the relationships between these key variables and their impact on talent management success. A descriptive research design is employed, with a sample size of 166 banking employees selected to provide insights into the workforce dynamics. Data is collected through a structured questionnaire and analysed using descriptive statistics and Structural Equation Modelling (SEM). SEM is used to identify causal relationships and validate the conceptual framework, enabling a comprehensive understanding of how these variables interact to influence talent management outcomes. Findings of this study are intended to assist banking organizations in Coimbatore towards enhancing employee satisfaction, retention, and overall performance, offering a practical approach to refining talent management strategies in a competitive and evolving industry.

Keywords: Talent Management Success – Digital Transformation – Individual Interest – Industry Standard – HR Practices

#### **Examination of Bitcoin prices using Sentiment Analysis**

#### Susana D (PSG Institute of Management, PSG College of Technology)\* Srividya V (PSG Institute of Management, PSG College of Technology) Aniruddth R (PSG Institute of Management, PSG College of Technology)

#### ABSTRACT

The cryptocurrency market is a rapidly changing landscape, constantly introducing innovations that draw the attention of investors worldwide due to its potential for high returns. Given the significant volatility and inherent risks, the market has been a subject of study in recent years. Social media has emerged as a key source of market sentiment, influencing the behavior of cryptocurrency prices. Research conducted from June 14, 2021, to June 12, 2023, focuses on Bitcoin, the leading cryptocurrency, and explores how investor sentiment during this time influenced its price. This particular time frame was selected because of notable fluctuations in cryptocurrency values. The research employed VADER to score sentiments, ADF and KPSS tests to check for stationarity and a Granger Causality Test for cause-and-effect analysis. The findings indicate a strong relationship between sentiment scores and daily price changes, with sentiment levels being particularly high during this volatile period.

#### Exploring the Impact of Green Practices (GP) and Green Dynamic Capabilities (GDC) on Green Innovation (GI): The Mediating Role of Green Value Cocreation (GVC) in SMEs

#### Ramesh (GITAM University), Ch Shankar (GITAM University), Ch Sahyaja (Amrita Vishwa Vidya Peetam, Amaravathi), S. Chand Basha (St. Ann's College of Engineering and Technology, Andhra Pradesh)\*

#### ABSTRACT

This study explores the relationships among green practices, green dynamic capabilities, green value co-creation, and GI within the context of small and medium enterprises (SMEs). Using a cross-sectional research design, data from 500 SMEs across five South Indian states were analyzed to examine these constructs' direct and indirect effects. The findings reveal that GP significantly and positively influences green innovation, underscoring the importance of sustainable operational strategies in fostering ecofriendly innovations. However, GDC exhibits a negative relationship with green innovation, suggesting potential trade-offs or challenges in leveraging these capabilities effectively. Furthermore, GVC was not found to mediate the relationship between GP and green innovation, nor were GP or dynamic capabilities significant predictors of value co-creation. These results highlight the efficacy of direct strategies, such as adopting green practices, over collaborative approaches in driving innovation within SMEs. The study contributes to the theoretical understanding of sustainability in SMEs and provides practical insights for managers, emphasizing the need to prioritize internal sustainability initiatives as a pathway to innovation. We then discuss the limitations and avenues for future research to further the dialogue on sustainability-driven innovation, including additional factors, like government policies and technological advancements, and longitudinal studies.

#### THE AI-HUMAN SYNERGY: UNDERSTANDING WEBROOMING BEHAVIOR IN THE DIGITAL AGE

#### Teslin Sabu (karpagam Academy of Higher Education)\* R. Parameswran (Karpagam Academy of Higher Education)

#### ABSTRACT

This study investigates how webrooming intention (the practice of customers searching for things online before making an in-store purchase) is affected by AI-driven technologies. The study aims to investigate how consumers' intention to webroom is affected by AI-driven personalization, AI-driven virtual try-on technologies, customer satisfaction, Involvement, and engagement, Anxiety affects webrooming behavior. AIdriven personalization and Involvement Were insignificant while other variables provided positive webrooming intention Retailers may build interactive experiences that connect online and offline purchasing by utilizing virtual try-on technologies. Results point to the necessity for personalized suggestions and different channel selections as current customers want a smooth transition between online research and real purchasing. By using offline channel reassurance mechanisms, the consumer's confidence can be increased by reducing the purchase anxiety of the consumers. The result of the study provides the analytical role of advanced technology and customer's emotional factors in shaping consumer behavior, by giving actionable perception for retail strategies in the digital era. Moderating and mediating variables can be used in future studies.

Keywords: Webrooming, omnichannel, AI-driven personalization, virtual try-on technology, purchase anxiety, customer involvement, engagement, and satisfaction.

#### SYNAPTIC FRANCHISE AS AN ENTREPRENEURSHIP TOOL: A TRANSFORMATION FOR FRANCHISE SUCCESS AND THE FUTURE OF SUSTAINABLE FRANCHISING –A PERCEPTIONAL OVERVIEW

# Sudharsan N (PSG Colege of technology)\*, Dr Shankar R (PSG College of Technology), Dr Prabhukarthi A (PSG College of Technology)

#### ABSTRACT

This paper investigated the support services of Synaptic Franchise model from both franchisor and franchisee perspectives. The study makes use of various statistical techniques including t-tests and ANOVA and correlation and regression to uncover performance dynamics affecting franchises and determine substantial satisfaction differences between different support services. The performance and happiness levels of franchisees heavily depend on operation coaching and financial advice as well as sustainability practices. Finding from the study emphasize that franchisors must customize their supportive offerings to franchisee requirements for both entities to receive mutual value. By adopting this Synaptic Franchise Concept model franchisors can include all their services under one umbrella to enhance the quality performance of the franchise system. Both franchisors and franchisees will benefit from adapting to changing customer tastes. The research originates foundations for future academic explorations concerning franchise implementation success along with demonstrating the importance of committed franchise support which leads to profitable results.

#### Bone Fracture Detection Using Transfer Learning and Neural Networks: A Modern Approach

# E. Sujatha (Saveetha Engineering College, Chennai)\*, Varalakshmi J. (Saveetha Engineering College), Saravanan N. (Saveetha Engineering College), Manokarthick S. (Saveetha Engineering College), F. S.Mourise Jane, G. Rohit (Saveetha Engineering College)

#### ABSTRACT

A current trend across several industries involves utilizing computer-based technologies to identify faults. To meet the demands of immediate detection and high precision, a highly responsive system should leverage modern approaches and make full use of available resources. While various methods exist for detecting bone fractures in the modern world, such as Magnetic Resonance Imaging (MRI), CT scans, and Bone scans, these approaches tend to be more expensive, uncomfortable for patients, and less effective at detecting subtle fractures that, if left untreated, could lead to significant challenges. In recent years, the application of Convolutional Neural Networks (CNNs) in medical image fracture identification has shown promise in automating the detection of bone fractures from X-ray images. However, deploying such algorithms on devices remains challenging due to limited computing resources. In this research work, Mobile Net, employs X-ray images to detect bone fractures, and its results are compared with those of a CNN model. The Mobile Net architecture is chosen for its capacity to reduce computational complexity while maintaining high accuracy of 98%.

#### Key Factors Influencing Consumer Behavior in E-Commerce Food Delivery in Urban and Rural Coimbatore: A Comprehensive Analysis

# Balaji Parasuraman (TNAU), Bharath Kumar Paleti (TNAU), Sakthirama V (PSGIM), Mugilan K (TNAU)\*

#### ABSTRACT

The rapid expansion of the online food delivery sector has revolutionized consumer behavior offering unprecedented convenience and accessibility. Despite its rapid expansion, there is still a critical gap in understanding the combined impact of service quality, pricing, usability, and sustainability on consumer decisions. Particularly in emerging markets like India, where urban and rural preferences vary significantly. The present study seeks to bridge this gap by examining the key factors influencing consumer behavior on e-commerce food delivery platforms. A structured survey of 300 respondents (105 rural and 195 urban) was conducted using both in-person and online methods. Through factor analysis and path modeling, four key dimensions were identified as Quality of Service, Pricing Behavior, User Convenience and Health & Sustainability. Results indicate that Health & Sustainability ( $\beta = 0.75$ ) and Quality of Service ( $\beta = 0.72$ ) significantly impact consumer satisfaction, then User Convenience  $(\beta = 0.68)$  and Pricing Behavior ( $\beta = 0.65$ ). Urban consumers prioritize speed, usability and promotions, while rural consumers emphasize affordability, trust and reliability. The study underscores the growing importance of sustainability with consumers gradually valuing eco-friendly practices like biodegradable packaging and carbonneutral deliveries. The findings offer actionable insights for businesses to enhance customer satisfaction by fostering loyalty and aligning with global trends toward sustainable practices. By integrating these critical factors into a comprehensive framework, the study provides practical strategies for improving service quality, optimizing pricing models, and adopting environmentally sustainable practices, enabling e-commerce platforms to remain competitive in an increasingly dynamic marketplace.

#### **Future of Finance: Blockchain and Cryptocurrencies**

#### Denisha D (Bannari Amman Institute of Technology)\*

#### ABSTRACT

The banking industry is experiencing a major revolution, fueled by block-chain technology and cryptocurrency. These disruptive ideas encourage decentralization, lower transaction costs, increase transparency, and strengthen financial system security. This study examines blockchain's technological roots, integration with cryptocurrencies, and impact on established financial institutions. It conducts in-depth study of new potential and problems in decentralized finance (DeFi), regulatory frameworks, and economic ramifications. The study's goal is to give a complete knowledge of blockchain's ability to transform the financial sector while addressing important challenges and future developments.

Keywords: Blockchain technology. Cryptocurrency. Decentralized Finance (DeFi). Financial innovation. Regulatory Challenges.

#### Back to Journey: Career Re-Entry Behaviour of Women Returners

#### Hemavathy Ramasubbian (Avinashilingam Institute for Home Science and Higher Education for women)\*

#### ABSTRACT

The journey of women re-entering the workforce after a career hiatus is a dynamic and often challenging process. Social and motivational factors plays a crucial role in this transition, influencing decisions, aspirations, and resilience. Understanding the unique force driving women to re-enter the workforce after a break, whether due to care giving responsibilities, personal development, or other reasons, is essential for designing effective support systems. This study elaborates on the pattern of career break opt by the women returners and the factors that push them to make re-entry decisions. Using structural equation modelling, the moderating role of training on women returners' reentry behaviour was analyzed. The findings of this study will aid women in getting clarity about their career reentry decisions and point out the importance of training after the career break.

#### AUGMENTED REALITY'S INFLUENCE ON CONSUMER SHOPPING EXPERIENCE: A STUDY BASED ON RETAIL STORE

#### Priyanga T (PSG Institute of Management) Swathi G (PSG Institute of Management)\*

#### ABSTRACT

Purpose: Technology is gradually changing the face of retail business across the world and one of the revolutionary tools is augmented reality. This paper aims at analyzing the influence of AR on the consumer shopping behavior in the retail industry.

Methodology: Questionnaires were administered to the AR users to obtain quantitative data for technological literacy, brand interaction and customer satisfaction and to determine the relationship between technological literacy, brand interaction, customer satisfaction and loyalty using Structural Equation Modeling (SEM).

Findings: The research findings show how AR can revolutionize the sphere of retail trade. AR positively influences the technological literacy level in interacting with the brands and ultimately positive outcomes, including customer satisfaction and purchase intentions. Additional opportunities for the use of AR experiences also include the strengthening of brand loyalty through memorable and unique experiences that consumers can participate in.

Originality: To some extent, this research is distinguishable from its counterparts because it adds depth to existing knowledge, specifically regarding the long-term behavioral impact of AR. It highlights on the requirements of each industry to inform AR strategies as well as the technological and logistical issues. Since AR becomes popular, this paper will make it easier for retailers to effectively capture the value of using AR for increasing sales, effective customer involvement and improving brand reputation.

#### CONTEMPORARY APPROACH OF STRATEGIC ENTREPRENEURSHIP IN EMPLOYEE ENGAGEMENT AND RETENTION

#### Sivakumar Subbarayan (Karpagam Academy of Higher Education)\* Thiyagarajan Ramanathan (Karpagam Academy of Higher Education)

#### ABSTRACT

Strategic entrepreneurship is a distinct type of strategy where organisations focus on constant innovations. The concept of Strategic Entrepreneurship is considered to be the transformation of Strategic Management into Entrepreneurship, taking Entrepreneurial actions using a strategic perspective, as the Entrepreneurship culture developed in large corporates as growth strategy. Strategic Entrepreneurship rejuvenates firms to achieve a competitive advantage in the current market. It is effective in forming corporate entrepreneurship and involves the simultaneous opportunity-seeking behavioursThis study provides and insight into the concept of Strategic Entrepreneurship for Employee engagement and Retention. The result would provide directions and concepts to improve employee retention. However, work life balance also has a significant role on employee engagement and retention. of firms. This study aims to understand the role of strategic entrepreneurship in Employee engagement and retention. This study attempts to understand the principal factors of strategic entrepreneurship influencing the employee engagement and retention. Interpretive case studies and interactions approach have been used to understand the effect of this study. The study results have given the clearcut concepts to be followed to engage and retain the employees for the growth of any organisation.

#### Building a Sustainable Future: Energy Efficiency, Environmental Remedies, and Green Design in Construction

#### Baskaran Lt Col.Dr. (Viruksha Developers)\*

#### ABSTRACT

The construction industry, a major contributor to global carbon emissions, is undergoing a paradigm shift towards sustainability. This paper explores energyefficient designs, environmental remedies, and green building strategies, essential for reducing the ecological footprint of construction. The study investigates passive and active energy systems, sustainable materials, waste management techniques, and the integration of renewable energy technologies. It compares global and Indian practices in sustainable construction and highlights opportunities for reducing operational costs and environmental impact through green design. Despite challenges such as high initial costs and limited technical expertise, the adoption of green building practices promises long-term economic and ecological benefits, contributing significantly to climate action goals. The paper concludes by emphasizing the importance of innovation, policy support, and stakeholder collaboration to achieve a sustainable and resilient built environment.

#### Digital Transformation and Sustainable business performance in India

#### Alamelu D (KGiSL Institute of Technology)\* Subha M V (Anna University Regional Campus, Coimbatore)

#### ABSTRACT

Digital transformation has profoundly impacted all facets of business over the past decade. Achieving sustainable business performance, however, remains a significant challenge due to intense competition among digitally mature organizations. Digital transformation extends beyond technological advancements, encompassing critical non-technological dimensions such as business strategy, human resource capabilities, organizational structure, systems, and leadership skills that drive sustainable change. Successful digitalization demands active and collaborative efforts from all stakeholders involved. This study conducts a structured literature review to explore the successes and challenges faced by businesses during the digital transformation journey. Findings indicate that digital transformation is an evolving domain with far-reaching technological, business, and societal implications. Additionally, the research highlights the need for organizations to acquire enhanced resources and capabilities to ensure a seamless transition to digital processes and to achieve sustainability.

#### Machine Learning Applications in Climatic Change Forecasting

#### C Srividhya (Department of Commerce Bharathiar University)\* M. Nirmala (Department of Commerce Bharathiar University) N. Hidayathulla N (Department of Commerce Bharathiar University)

#### ABSTRACT

Climate change forecasting addresses environmental challenges and improves preparedness for extreme weather events. Traditional climate models, which rely on physics-based equations, often struggle with the complexity and variability of climate interactions. In this study, we explore the application of machine learning (ML) models, including artificial neural networks (ANNs), "convolutional neural networks (CNNs)", "long short-term memory networks (LSTMs)", "random forest models", and hybrid ML-physics models in climate prediction. We use publicly available datasets such as ERA5 Reanalysis Data, NASA's GISS Surface Temperature Analysis, and NOAA's Climate Prediction Center datasets. The study evaluates ML models based on metrics such as "mean absolute error (MAE)", "root mean square error (RMSE)", and precision-recall analysis for extreme weather event detection. Results indicate that ML models outperform traditional physics-based models, with LSTMs and hybrid models demonstrating the highest temperature and precipitation forecasting accuracy. The study highlights the benefits of ML in improving computational efficiency and realtime forecasting capabilities. Future research should focus on integrating explainable AI techniques to enhance model interpretability, improving climate datasets, and developing more robust hybrid models that combine ML and physics-based approaches

#### AI-POWERED EMPLOYEE ENGAGEMENT AND ITS RIPPLE EFFECT ON SUSTAINABLE DEVELOPMENT GOALS (SDGs)

#### Haripriya Varadharaj (Karpagam Academy of Higher Education)\* R. Parameswaran (Karpagam Academy of Higher Education)

#### ABSTRACT

The modern workplace is undergoing a nearly theatrical transformation. Hybrid work patterns are increasingly becoming more and more relevant, yet they still face challenges in boosting engagement and well-being aligned with the UN's SDGs. Traditional workforce management frameworks fail to address compelling demands of a hybrid workforce very often, hence more than anything else calling for creative solutions. But the development of AI offers a huge approach to deal with this situation. With regard to the SDGs 3 (Good Health and Well-Being), 4 (Quality Education), 5 (Gender Equality), 8 (Decent Work and Economic Growth), and 11 (Sustainable Cities and Communities), the study empirically investigates how AI can promote employee engagement in hybrid IT work environments. The study's findings demonstrate that AI directly affects these SDGs in a statistically meaningful way, highlighting its potential as a driver of workforce reforms driven by sustainability. The mediation analysis, however, shows that AI's indirect impacts through employee engagement are comparatively weaker, indicating that adopting AI by itself is not enough to maximise organisational impact that is in line with the SDGs. This study emphasises how important it is to carefully combine AI-powered solutions with strong frameworks for employee engagement in order to create workplace ecosystems that are inclusive, highperforming, and sustainable.

#### Revolutionizing Strategic Management with Generative AI: A Case Study on Cloud Computing Optimization

#### Bhushan Chavan (MGM Resorts International)\*, Ravi Kumar (AWS), Saurabh Yadav (AWS), Vishalkumar Langaliya (SSR College of Arts, Commerce and Science. Silvassa)

#### ABSTRACT

Abstract. Generative Artificial Intelligence (GenAI) is evolving rapidly, and it has the potential to redefine strategic management through improved decision-making, automation, and optimization. Authors explore various aspects of GenAI's influence on cloud computing, particularly in terms of enhancing efficiency, resource allocation, cost-effectiveness, and overall system performance. Using case studies, Authors look at how organizations use GenAI to forecast workload spikes trends, automate increasing or decreasing infrastructure resources and improve security measures in the cloud. By analyzing patterns in usage, GenAI can adjust the level of computing power, storage, and network bandwidth needed based on real-time demand, thus, optimizing the use of cloud resources, as noted in the report. AI-powered strategies also offer

reduced operational costs, increased fault tolerance, and enhanced cybersecurity through intelligent threat detection. Authors show, how integrating GenAI in their cloud management leads to higher efficiency, lower downtime, and better sustainability. With a newer approach to strategic management, this research contributes toward the field of AI-driven strategic management and offers valuable insights for businesses and policymakers to improve cloud computing frameworks. GenAI is the future of intelligent automation and digital transformation in enterprises, acccording to our study.

#### Leveraging Customer Experience Analytics for Predicting At-Risk Customers in Telecom Using Machine Learning Techniques

# Kalai Arasi M (PSG Institute of Management)\*, Srividya V ((PSG Institute of Management), Sujatha R (PSG Institute of Management)

#### ABSTRACT

The Telecom industry has evolved as a highly competitive one in which the service providers are obliged to identify and mitigate at-risk customers which is essential for their survival as market leaders. Identifying at-risk customers and addressing their pain points aids in improving service quality and customer retention. This study applies machine learning techniques like K-means clustering and advanced visuals to analyze customer experience and identify at-risk customers concerning the telecom operator and geospatial location. The objective is to segment the customers from which at-risk customers are identified and their key challenges are addressed to provide actionable insights to telecom operators. The Key findings indicate that BSNL and Airtel are the most at-risk operators, with Jio showing lower intrusion in certain areas. High-risk clusters vary, with Airtel dominant in some and Jio emerging as a secondary at-risk operator, especially in travel and outdoor scenarios. Airtel faces peak at-risk percentages in Q2, Jio in Q3, and BSNL shows instability, with a sharp rise in November. Urban congestion, IT hubs, and tourist-heavy areas experience high call drops, with BSNL performing the worst, while Jio and Airtel show moderate but inconsistent performance. The Telecom operators should prioritize and implement network expansion and optimization in high-risk regions while enhancing signal switching for customers in mobility. Seasonal spikes could be fixed through proactive infrastructure enhancements which will reduce churn. Furthermore, real-time analytics in telecom decision-making can enable enhanced customer experience and ultimately retain at-risk customers. By leveraging these insights, telecom companies can optimize service delivery, which will lead to improved customer loyalty and customer lifetime value.

#### The Effect of Consumer Sustainable Behavior and Ethnocentrism on Purchase Intentions of Organic Food in India

#### Sakthirama Vadivelu (PSG Institute of Management)\*

With the rapid expansion of the organic food market, both domestically and internationally, many organic food supply chains are shifting their focus toward local markets. The concept of "local food for local people" is gaining traction, emphasizing the importance of strengthening regional food systems over international distribution. The locavore movement seeks to bridge the gap between food producers and consumers within the same geographic region, fostering self-reliant and resilient food networks while promoting economic growth, environmental sustainability, and community wellbeing.

This study examines Indian consumers' intentions to purchase organic food using Structural Equation Modeling (SEM) within the framework of the Theory of Planned Behavior. Based on a sample of 645 respondents, the findings indicate that sustainable behavior and ethnocentrism positively influence purchase intentions. Additionally, subjective norms, attitudes, and perceived behavioral control mediate these relationships. These insights enhance the understanding of consumer motivations and decision-making processes in the organic food sector. The study also provides valuable implications for businesses operating in India's organic food market, helping them align strategies with evolving consumer preferences.

#### Implementation of 5S Practices to Enhance Productivity in a Micro-Organization

# Sujatha R (PSG Institute of Management)\*, Madhumitha P (PSG Institute of Management), Uma Maheswari B (PSG Institute of Management)

#### ABSTRACT

The lean manufacturing approach includes eight wastes. "Waiting" and "Motion" are two of them that hinder the manufacturing cycle and squander valuable operating time. The major objective of this study is to reduce these two wastes by utilizing lean manufacturing methods like Value Stream Mapping, 5S, Total Productive Maintenance, and Kaizen. The research was carried out at an injection moulding industrial enterprise. Injection moulding, de-gating and combining, and packing and storing are the three major processes that are done in the production of plastic paint brush handles. Every process and subprocess was documented, reviewed, and divided into operations that added value and those that didn't add any value, with the help of Value Stream Mapping. To increase the overall operational efficiency, a suitable, 5S concept was devised and put into practice. The equipment's idle times were computed for each operation, utilizing concepts from total productive maintenance to maintain the benefits. This study elucidated and enumerated how the application of these principles had significant effects on the system. By reducing the number of defective parts produced as well as the overall operating time, the productivity of the firm is increased by roughly 3%.

#### Star Power & Beauty: The Influence of Celebrity Endorsements on Cosmetic Sales and Smarter Ad Strategies for Bigger Impact

# Chitra R ( PSG Institute of Management), S.Narendra Rathnaraj (PSG Institute of Management)\*, Devi Nanthitha (PSG Institute of Management)

#### ABSTRACT

Celebrity endorsements have long been a dominant strategy in cosmetic advertising, significantly influencing consumer behaviour, brand perception, and purchase intent. This study examines the effectiveness of celebrity endorsements in the cosmetics industry while assessing alternative promotional strategies such as influencer marketing, discounts, and brand transparency. Using a structured survey and statistical analysis, the research evaluates consumer trust, brand familiarity, and skincare consciousness. The research focuses on the available alternatives that can be used instead of conventional marketing strategies which will be heavily impactful for the contemporary buyer generation. Findings indicate that while celebrity endorsements enhance brand recognition and credibility, alternative strategies, particularly social media-driven influencer marketing, yield comparable or greater engagement and conversion rates. Additionally, the study explores ethical concerns related to celebrity endorsements, including unrealistic beauty standards and potential consumer deception. The research highlights the need for brands to adopt a balanced approach, integrating celebrity endorsements with cost-effective and consumer-centric promotional tactics. This study provides valuable insights for marketers aiming to optimize their advertising investments in an evolving digital landscape.

#### Determinants of Consumer Purchasing Behavior on B2C E-Commerce Platforms: Insights from Internet Users in Tanzania

#### Dr Vijaykumar N (PSGIM)\* Dr Nina J Burra (College of Business Education - Dar es salaam )

#### ABSTRACT

The study identified the factors that influence consumers' online buying behaviour based on their online shopping experiences as well as the decisions they make while making purchases online. 385 internet users were included in the study's sample, and online survey instruments were used to gather data. The gathered collected was evaluated and presented using both quantitative and qualitative methods. The results indicate that social media applications are preferred by online shoppers over specialised e-commerce websites. The results also show that, similar to physical retail markets, online shoppers can obtain products of excellent quality at reasonable costs. Regarding the elements influencing consumer online buying behaviour, it was discovered that the Security, user friendliness, and product quality all had an impact on the online buying

experience. The study also discovered that consumers have no intention to stop buying things online, despite the unpleasant experiences they've had, as no of players are very low. Overall, e-commerce platforms in Tanzania can enhance consumer purchasing behaviour by focusing on product quality, providing detailed product information, ensuring security, and offering a user-friendly interface. Addressing these factors can help build consumer trust and loyalty, leading to increased engagement and sales.

#### Factors Shaping the Purchase Decisions of Green Cosmetics: Research Agenda and AI Driven Consumer Insights

#### Dr. Firdaus Bashir (PSG Institute of Management, PSG College of Technology), Dr. Aswathy Prakash G (Saveetha School of Law, SIMATS)\*, Nikhil D Jonathan (Xavier Institute of Management and Entrepreneurship)

#### ABSTRACT

The demand for green cosmetics is on the rise as customers are Increasingly, favouring the purchase of it. This has significantly transformed the cosmetic industry mandates by compelling them to understand customer preferences more deeply to meet their requirements and make informed decisions. The research study, which is a review of the literature explores the crucial factors that enable consumers to make a purchase decision towards green cosmetics. The theory of planned behavior, a psychological framework is the underpinning theory for the study. Data from prominent scholarly databases like Web of Science and Scopus were selected for the study which was put through inclusion and exclusion criteria for further selection. A total of 90 articles were finally selected through mutual agreement. The study considered factors like attitude, environmental awareness, and quality including impactor intrinsic clues like texture and extrinsic factors like biodegradable packaging, branding health consciousness as well as green certification. The findings high-lighted that a green cosmetic purchase decision is influenced by a number of these interconnected factors. Besides it also tries to explore the opportunities for future research as it is a relatively underexplored domain but an exponentially growing realm. A green cosmetic manufacturing organization should strengthen the entire life cycle of the product to serve consumers who are growing. The research also discusses the AI-driven impacts and reformations it might bring into the industry. Hence, integrating technology throughout the product life cycle is essential for maintaining relevance and connecting with customers.

#### Optimizing Food Industrial Processing: A Real-time Dashboard for Business Performance and Decision-Making

#### Vijay Arputharaj (CHRIST University)\* Mahmud El, Yakub Sridevi R, Helen K Joy (CHRIST University)

#### ABSTRACT

In the rapidly evolving food processing industry, real-time data analytics is crucial for optimizing operations and enhancing business performance. This study presents the development of a real-time dashboard designed to monitor key operational metrics and provide actionable insights for decision-making in food industrial processing. Despite the growing importance of data-driven management, the adoption of advanced monitoring systems among small and medium-sized enterprises (SMEs) in Nigeria remains low. This research addresses this gap by developing an IoT-enabled dashboard that integrates real-time sensor data-such as temperature, humidity, moisture, and light intensity-to optimize food processing efficiency. The system architecture incorporates IoT devices for data acquisition, cloud-based analytics for processing, and an interactive user interface developed using modern web technologies for seamless visualization. Additionally, security features such as user authentication and CCTV integration enhance operational oversight. The results demonstrate improved real-time monitoring, enhanced decision-making, and increased operational efficiency in selected Nigerian food industries. This study highlights the potential of IoT-driven business intelligence solutions in transforming the food processing sector and underscores the importance of adopting technology-driven decision-making tools for sustainable industrial growth.

#### The Role of Trade Databases in Assessing Environmental Impact: A Comprehensive Review

#### Porko Imayavendan (PSG Institute of Management)\* Devi Thirupathi (PSG Institute of Management)

#### ABSTRACT

Trade data which includes import and export statistics contains statistical information about international trade that is typically organized by time period, country and commodity. Trade databases provide easy management capabilities along with quick access and retrieval options by organizing trade data. The United Nations Commodity Trade Database (UN COMTRADE), World Trade Database (WTD), Global Trade Analysis Project database (GTA), World Development Indicator (WDI) and International Monetary (IMF) represent notable examples of trade databases. Trade databases serve a multitude of purposes ranging from financial trading investment to supply chain management and international trade. Trade database insights make strategic decisions more effective by optimizing operations and maintaining regulatory compliance. Companies which excel in trade data analysis achieve competitive benefits and risk management while functioning effectively in intricate international markets. With ongoing technological progress trade databases will become even more important for developing business practices and economic policies. Trade databases provide numerous advantages but face obstacles like data accuracy and timeliness as well as consistency granularity privacy bias cost and technological limitations. Businesses that understand trade data restrictions can optimize its advantages and prevent related issues. The research investigates the operational role of trade databases across various sectors through an analysis of their advantages and drawbacks.

#### **Evolving User Experience Across Generations: A Comparative Analysis of Different Generations and predicting UX trends for the Next 20 years**

## Dayanandhan S (PSG Institute of Management)\*, Sujatha R (PSG Institute of Management)

#### ABSTRACT

Over time, the discipline of user experience (UX) design has experienced significant changes due to generational preferences, cultural upheavals, and technical advancement. In order to predict UX advancements over the next 20 years, this article combines quantitative data and psychological insights to present a thorough comparison examination of UX patterns across generations. The study emphasizes important elements that influence user experiences, including behavioral tendencies, emotional involvement, and cognitive load. The study highlights generational–specific impacts and external factors influencing UX design at various times by examining a number of academic research, industry white papers, and current trends. The purpose of these insights is to give developers and designers the tools they need to produce innovative, flexible solutions that satisfy users changing needs. The suggested hypothetical prediction highlights how crucial it is to comprehend generational dynamics and outside factors in order to create user experiences that appeal to a variety of user groups and continue to be relevant in the face of upcoming difficulties.

#### Multi-Modal Image Fusion with Convolutional Neural Networks for Brain Tumor Detection

# Aashna Unnikrishnan (Bharath Institute of Higher Education and Research)\* S. Arulselvi (Bharath Institute of Higher Education and Research) B. Karthik (Bharath Institute of Higher Education and Research)

#### ABSTRACT

Precise identification of a brain tumor holds a crucial relevance in medical image analysis for pre-therapeutic and therapeutic intents. This present work proposes to automate the image analysis process used in the classification of brain tumor images by creating a new fusion method combining multimodal imaging characteristics with a Machine Learning architecture, specifically, that of a Convolutional Neural Network (CNN). The novel approach enhances image visibility through different imaging modalities, such as MRI (T1, T2 and FLAIR). Utilizing a ML-based fusion technique to obtain relevant structural and spatial data from several modalities is important in order to create a more informative fused representation, which then feeds the combined pictures into a CNN model for the process of classifying and segmentation of tumors. In comparison to state-of-the-art approaches that relied on a single modality, the suggested framework demonstrated considerable increases in accuracy, sensitivity, and specificity when tested on benchmark datasets. Experimental data indicate improved detection of tumors and a low number of false positives, making this pipeline an efficient and reliable tool for clinical applications. Therefore, the promise of multimodal Machine Learning techniques for improving brain tumor diagnosis is highlighted by this study

#### THE STUDY ON THE ROLE OF ATTENTIONS IN MEMORY FORMATION

#### Pradakshina P (Christ University)\*

#### ABSTRACT

The establishment of human cognition and memory depends on the complex interaction between cognitive and attentional forms. This exposition investigates the vital portion that consideration plays in the creation of recollections. What data from the tactile input is considered critical is decided by considering, a specific cognitive preparation, which at that point coordinates its recording into memory frameworks. The toughness and retrievability of recollections are considerably affected by the profundity of handling, which is decided by the level of consideration. Within the setting of memory arrangement, this paper analyses the thoughts of supported consideration, particular preparation, and preparation levels. Moreover, it investigates the struggle between programmed and controlled handling modes and looks at how isolated consideration influences memory encoding. By guaranteeing that as it were noteworthy data is kept, the blocking of pointless data by consideration makes a difference to preserve memory constancy. Moreover, the relationship between en- thusiastic boosts and consideration is investigated, showing the opened-up memory arrangement for sincerely charged circumstances. This investigation progresses our understanding of cognitive forms by clarifying the complex components through which consideration influences memory. It too offers recommendations for making strides in learning techniques and memoryboosting strategies.

Keywords: cognitive science, human cognition, memory formation, memory strategies

#### Strategic Management & Innovation - AI-Powered Model with a sprint planning and strategic forecasting on the Upcoming Sprints based on the current sprint backlog using agile Iterative Framework

# Sanjay Kumar (PSG Institute of Management)\*, Sujatha R (PSG Institute of Management)

#### ABSTRACT

Modern corporate environments must use AI in strategic management to foster creativity and flexibility. This need is highlighted by rapid market dynamics in areas like automotive, where traditional forecasting methodologies have failed to meet changing customer needs and technology advances. AI-driven models improve demand forecasting and inventory control, allowing firms to optimise and improve operations (Omprakash et al., 2024). After disturbances like the COVID-19 pandemic, organisations must examine their supply chain resilience and adaptation policies (Lelei C et al., 2024). As firms increasingly use data-driven decision-making, AI-powered strategies assist strategic forecasts and help them stay competitive in uncertain markets. Thus, strategic management requires AI for sustainability and originality.

AI, a transformative technology with multiple uses across sectors, including strategic management, is significant. Modern corporations face unprecedented challenges such changing customer preferences, innovative technologies, and global instability. AI-powered models are increasingly sought by businesses to increase innovation and simplify strategic decision-making. Agile Iterative Framework is increasingly popular due to its agility and flexibility in responding to market changes. This study develops an AI-powered model for Agile iterative process strategic forecasting and scenario planning. AI models may help firms maximise sprint planning and improve strategic predictions based on sprint backlog, giving them a competitive edge.

#### Fintech and Digital Identity: Enhancing Security and Trust in Financial Services

#### Rinu Jayaprakash (Mahatma Gandhi University)\*, Roshna Varghese (Mahatma Gandhi University)

#### ABSTRACT

The emergence of fintech (financial technology) has radically transformed the financial services landscape by enabling seamless, digital-first solutions for consumers and businesses alike. However, with the increasing reliance on online platforms for financial transactions, the importance of ensuring robust security and building consumer trust has never been more crucial. Digital identity technologies play a critical role in addressing these challenges by ensuring secure authentication, enhancing privacy, and fostering trust between service providers and end-users. This article examines the intersection of fintech and digital identity, exploring their mutual influence on enhancing security and trust within the financial services ecosystem. A comprehensive literature review highlights key technologies, challenges, and trends, while the methodology section outlines the approach used to assess the role of digital identity in mitigating security risks. Key findings demonstrate that innovations in biometrics, decentralized identity, and multi-factor authentication significantly contribute to securing financial transactions and improving user confidence. The article concludes by emphasizing the need for interoperability, regulatory alignment, and usercentric approaches in advancing the adoption of digital identity technologies within the fintech sector.

#### **RAG Based Expense Report Feedback System**

#### Manimegalai Rajkumar (PSG Institute of Technology and Applied Research)\* Alisha Shinaz A (PSG Institute of Technology and Applied Research) Anbuchelvan K (PSG Institute of Technology and Applied Research) RAMYA A (PSG Institute of Technology and Appli

#### ABSTRACT

Improving financial compliances and minimizing administrative burdens through fewer approvals would require effective and accurate expense management. Traditional expense report approaches include manual overviews. Therefore, the process might take a while and is subject to errors or policy infringement. This paper introduces the RAGBased Expense Report Feedback System which encompasses retrievalaugmented generation along with optical character recognition to improve efficiency and accuracy, and compliance with the submission of expense reports. The proposed system is designed for using AI-driven feedback in checking the submitted receipts and reports toward establishing inconsistencies and actionable recommendations. Also, along with this system, there is an integrated fine-tuned language model into a secure backend architecture, which will realize this real-time user-friendly interaction to guide the user into the submission of complete, compliant expense reports. Therefore, the solution presents advance steps in the management of financial operations, promising them the efficiency of operation with regards to user experience, along with company policies followed in the process. The integration of OCR's capabilities with those of RAG in the areas of retrieval and generation results in accurate contextual report feedback on diverse reporting scenarios.

Keywords: Expense Report Feedback  $\cdot$  Retrieval-Augmented Generation (RAG)  $\cdot$  Optical Character Recognition (OCR)  $\cdot$  Real-time Feedback  $\cdot$  Compliance Verification  $\cdot$  Financial Management  $\cdot$  ReactJS  $\cdot$  Flask  $\cdot$  MongoDB.

#### Enhancing a Framework for Hybrid Web Based Commerce Security using Data Science

#### V. R. Siva, R. Durga (Vels Institute of Science, Technology & Advanced Studies)

#### ABSTRACT

Because of the increase in assaults and data breaches, the safety of web applications is becoming a bigger concern. Because of the intricacy and interdependence of applications, achieving security becomes more challenging. The goal of this study is to evaluate the present state of protection from web app attacks and pinpoint vulnerabilities for new defense tactics by comparing the resistance of different web service identification techniques to various methodologies. Web-based apps have emerged as the mainstay of both personal and professional life, but they also present a number of security risks. The goal of this article is to answer the question, "How trustworthy were the websites we use use?" by listing the most commonly reported vulnerabilities and the technologies used to find them. services, leading to substantial data and financial losses.

#### Review of Feature Enhancement and Learning Strategies for Tiny Object Detection in Aerial Images

#### Rubadevi G, Dhivya R (PSGR Krishnammal College for Women)

#### ABSTRACT

A lack of feature information and significant variance in the amount of positive and negative samples are caused by small objects' often low pixel percentage in the image. It is still quite challenging to precisely locate and classify tiny objects for object detection. Detecting little objects in photos using conventional methods is difficult since they characterize a limited pixel area. The network extracts fewer features as a result. The primary issue in tiny object recognition is using the least amount of features to accurately extract semantic and positional properties of tiny objects. The two primary topics of this study's examination of small/tiny object identification techniques are multi-scale feature learning and deep learning technique improvement. Through mask attention supervision, more essential feature representation is obtained through multiscale feature learning. Although techniques like the Feature Pyramid Network (FPN), feature-and-spatial aligned network (FSANet), and You Only Look Once v5 (YOLOv5) have increased tiny object detection, they frequently ignore contextual information and make network construction more difficult. These are easily susceptible to feature loss in the convolution procedure during extraction techniques. Consequently, the detection phase experiences erroneous and missed detections. By creating a new anchor bias learning branch from the feature map, deep learning makes it possible to assign higherquality positive and negative samples. It has good classification ability and can detect with high precision using few parameters. In recent years, deep learning-based detectors shave outperformed other approaches and significantly increased in complicated scenarios.

#### Study on Opportunities and Challenges in the Indian Aerospace Sector

# Balaji S (Honeywell Technology Solutions Limited)\*, Sujatha R (PSG Institute of Management, PSG College of Technology, Coimbatore, )

#### ABSTRACT

As the country advances toward self-reliance in Aerospace, Defence, and Space technology development, there is a concerted effort to understand the complete value chain, explore emerging opportunities, and address associated challenges. This study aims to analyze various factors influencing the existing value chain and policies, assessing their impact on the ecosystem. The primary objective of this research is to identify an optimal innovation model that ensures sustainability within each domain.

Keywords: Aerospace, Space & Defence, Value chain, Indian Aerospace

#### Data-Driven Insights into Customer Satisfaction: Machine Learning Models for AI-Enabled Online Retail

Rathimala Kannan (PSG Institute of Management, PSG College of Technology)\*, Kannan Ramakrishnan (Multimedia University), Begum Ersoy (Cape Breton University, Canada), Davide Contu (Canadian University, Dubai), Aagata Stachowicz-Stanusch (Canadian University, Dubai), Leonardo Mataruna (Canadian University, Dubai).

#### ABSTRACT

Artificial Intelligence (AI) has revolutionized customer experiences by enabling businesses to enhance their products with innovative features. However, online retailers who have invested in AI tools to improve the online shopping experience need to understand whether these tools truly impact customer satisfaction. This study aims to address this uncertainty by predicting customer satisfaction based on their experiences with AI tools, using data mining and machine learning techniques. Data were collected through surveys conducted in 2021 and 2022 among online shoppers in India, China, and Canada who had interacted with AI tools. Five machine learning algorithms-Decision Trees, Random Forests, Naïve Bayes, Gradient Boosted Trees, and Multilayer Perceptron Neural Networks-were employed to identify satisfied customers. All models achieved an F-score above 86.5%, with the Random Forest model achieving the highest accuracy at 91.5%. The findings suggest that online retailers can effectively identify satisfied customers with an accuracy of 91.5% using these machine learning models. Integrating AI-driven models into business operations provides valuable, datadriven insights that enhance customer satisfaction and contribute to a more competitive and efficient business strategy.

#### Public Awareness Towards Smart City Facilities In Coimbatore City

#### N Akshaya (Karpagam Academy of Higher Education)\*, Dr.V. Mathan Kumar (Karpagam Academy of Higher Education)

Cities all over the world are embracing technology to make urban experiences richer, giving birth to the concept of smart cities as a model for sustainable growth and enhanced well-being. Coimbatore, a new urban hub in India, is actively working on the agenda of a smart city, which involves the implementation of various technological innovations for the streamlining of infrastructure and enhancement of services. This research examines the awareness of the public about smart city infrastructures in Coimbatore city. Mixed-methods data collection was carried out using a survey and personal interviews that covered residents from various demographic sections. The questionnaire analyses the awareness, perception, and usage of the different amenities related to smart cities, such as intelligent transportation systems, digital governance sites, and environment monitoring activities. Preliminary results indicate a range of awareness among the Coimbatore citizens, depending on age, education, and socioeconomic status. While some segments show a very high level of awareness and usage of smart city facilities, others have little awareness or fear the use of such technologies. Well, the implications of these results go beyond awareness. It influences the policy recommendations in enhancing public engagement, creating an atmosphere of inclusivity, and the adoption culture in the community. Knowing the knowledge gap and attitude toward smart city initiatives facilitates the design and development of strategic approaches to maximize the benefits of Coimbatore's journey toward becoming a smarter, more sustainable city.

Keywords: Smart cities, Public awareness, smart city facilities, Urban development, Technological adoption, Coimbatore, India.

#### An Analysis Of Talent And Performance Management Practices In The Automobile Sector: A Focus On Tamil Nadu, India

#### R Santhoshkumar (Marian College Kuttikkanam(Autonomous))\*

#### ABSTRACT

In order to improve employee performance in Tamil Nadu, India, this study investigates the suitability of talent and performance management in the automotive industry. Prima-ry data was gathered from 524 workers in the industry at different levels. Reliability test-ing, descriptive analysis, cluster analysis, and regression analysis were among the analyt-ical tools used to evaluate how well talent and performance management procedures worked. For businesses looking to keep their skilled personnel and lower employee turn-over, the study offers insightful information. It defines and identifies important talent at every organizational level and suggests talent management factors that are suited to the unique requirements and competencies of the automotive industry. These suggestions are meant to make it easier to choose highly qualified workers who share the objectives of the company. Analyzing the variables affecting the chosen respondents' perceptions of the efficacy of talent management is the main goal of this study. It demonstrates how the automotive industry views talent management as a crucial instrument for developing employee potential and improving overall business performance.

Keywords: Talent, performance Management, Organizational Performance, Automobile sector, employees, skilled employees.

#### The Mediating Role of Entrepreneurial Orientation in the Relationship Between Personal Traits and Firm Performance: Insights from Jaffna District

Tharshiga, P., Thusalini, S., Rathiranee,Y (University of Jaffna)

#### ABSTRACT

The research investigates the relationship between Entrepreneurial Psychological Capital (EPC) and Firm Performance Expectations (FPE), emphasizing the mediating role of Entrepreneurial Orientation (ENO). A quantitative study design was employed, utilizing convenience sampling to collect survey data from 90 entrepreneurs in the Jaffna District. Data analysis was performed using SPSS 22 and SmartPLS 4 software, implementing structural equation modeling through the partial least square's method. The findings indicate that EPC exerts a direct influence on FPE, with variables such as achievement motivation, need for cognition, and internal locus of control identified as critical factors driving business success. Additionally, ENO was found to serve as a significant mediator between EPC and FPE. Entrepreneurs exhibiting personal attributes that encourage proactive, risk-taking, and innovative behaviors are more inclined to adopt an entrepreneurial orientation, thereby enhancing business performance. These results underscore the importance of cultivating robust personal characteristics and an entrepreneurial mindset among entrepreneurs to improve business outcomes. The study contributes to the literature by elucidating the direct impact of EPC on FPE and the essential mediating function of ENO. Moreover, it stresses the significance of nurturing both personal traits and entrepreneurial orientation to optimize business results. The contributions of the study highlight the dual influence of EPC on FPE, both directly and indirectly through ENO. Future research should consider incorporating diverse samples and employing objective measures of firm performance to further validate the proposed relationships.

Keywords: - Need for achievement, Need for cognition, Internal locus of control, entrepreneur orientation, entrepreneur 's Characteristics and Firm Performance

#### Valence and Arousal Prediction in Dynamic Environments Using CNN-based Ensemble Models

#### K Deepak, M S Vineeth, Kothamasu Venkata Sai Rishi (Amrita Vishwa Vidyapeetham, Chennai)

#### ABSTRACT

FER fits within the prominent tasks of affective computing that have already been used for emotional monitoring, human-computer interaction, and also behavior analysis. This work will give an in-depth investigation on the estimation of valence and arousal value from video sequences using the AFEW dataset. We will investigate some possible deep learning architectures: one of them is an ensemble of a Random Forestbased EfficientNet and DenseNet, EfficientNet and ResNet; lastly, standalone DenseNet and ResNet implementations. This is done by testing their ability to pick subtle variations in dynamic video data produced by variations in facial expressions. Our empirical results show whether each method has its strengths and weaknesses and whether the effectiveness and accuracy of the models are applicable in practice. Challenges cited in occlusion management, illumination change, and real-time FER have been discussed with future work directions in the article towards the development of more robust emotion detection systems.

Keywords: Densenet121, Resnet50, Random-Forest

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