

18th International Forum on Knowledge Asset Dynamics

# BOOK OF ABSTRACTS IFKAD 2023

7-9 June 2023 University of Basilicata Matera, Italy



# **IFKAD 2023**

18th International Forum on Knowledge Asset Dynamics

7-9 June 2023 Matera, Italy

# Managing Knowledge for Sustainability

## **BOOK OF ABSTRACTS**

Organized by:

Arts for Business Institute LUM University University of Basilicata

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### WELCOME TO THE IFKAD 2023

18<sup>th</sup> International Forum on Knowledge Asset Dynamics

### **Managing Knowledge for Sustainability**

Welcome to the 18th International Forum on Knowledge Asset Dynamics (IFKAD 2023) co-hosted by the University of Basilicata and the University of LUM Giuseppe Degennaro in the inspiring city of Matera, Italy. We are delighted to have you here.

The current IFKAD edition is a major milestone as it marks the event's 18th year since its establishment. IFKAD is recognized as a significant international event that emphasizes the importance of knowledge as a driver of innovation, performance improvement, and value creation at the individual, organizational, and territorial levels. This achievement results from the dedication, interest, and involvement of the entire IFKAD community, including the chairpersons, organizers, delegates, scientific committee, keynote speakers, and journal editors and publishers. We can be happy about achieving our goal but are also motivated to continue improving the conference's overall mission and impact. This includes enhancing the content's quality, increasing journal publication rates, and improving event management.

IFKAD is bringing together world thought leaders, academicians, young researchers, practitioners, and policymakers from different fields to discuss and debate new approaches, models, tools, and practices of knowledge and innovation management. This year's conference will focus on addressing growing pressures and emerging opportunities related to the "sustainability agenda", with high-quality and extensive participation guaranteed, as always.

Knowledge management is now widely recognized as critical for maintaining and improving an organization's competitive advantage. Recently, there has been a renewed emphasis on the significance of knowledge-based strategies and factors in promoting sustainability. This involves various environmental, political, economic, and socio-cultural issues. These aspects are essential in enabling managerial and policy approaches towards sustainability.

The growing focus on sustainability means that organizations need to adapt their business models and values to prioritize social and environmental responsibility alongside economic success. As a result, knowledge management is becoming a key factor in meeting the new standards for economic, environmental, and social sustainability.

We aim to improve how we measure the impact of sustainability-focused projects by using better processes and practices that consider environmental, social, and economic factors.

At the 18th edition of IFKAD, we wish to elaborate, extend and improve theories and discuss and share findings, practices and experiences to inform academic, managerial and policy debates about the role of the knowledge drivers in stimulating and supporting the organisational capacity

to address the emerging challenges of the sustainability, by developing and implementing new products and services, re-thought operations, new ways to conceive and use technology and digitalisation, renewed relationships with customers and stakeholders, and new business models. We invite you to join us in making IFKAD 2023 the premier forum for advancing academic understanding of how knowledge-intensive organizations can address sustainability challenges at all levels of investigation - micro, meso, and macro. Our goal is to provide valuable insights to help leaders, managers, and policy-makers rethink their organizations and develop practical initiatives to move beyond the rhetoric of "greening."

This year's conference program promises to be as informative and engaging as previous IFKAD conferences. With COVID-19 restrictions removed, most attendees will be present in Matera. The conference will feature exceptional keynote speakers who will share their research and practical insights, inspiring new perspectives and avenues of research. Over 200 speakers from 30 countries will present an excellent blend of academic and practical papers.

The IFKAD event in 2023 will demonstrate IFKAD's involvement in Asia through the IFKAD ASIA Chapter, which is led by Prof. Min-Ren Yan from National Chengchi University in Taiwan. In addition, there is a collaboration with Ipàzia, which is a Scientific Observatory on Gender Research led by Professor Paola Paoloni from Sapienza University. The focus of this collaboration is to promote a culture of equality and equal opportunities, while also working to prevent any forms of discrimination or violence.

The IFKAD 2023 conference is a joint effort between the Arts for Business Institute, LUM University, and the University of Basilicata. Our associate partner, the Institute of Knowledge Asset Management, is also involved in organizing this event.

We are honoured for your participation and confident that all the delegates will share insights to help private and public organisations worldwide to face uncertainty, identify opportunities and capitalize on high-level human capital and emerging technologies to improve their value creation capacity.

IFKAD 2023 Co-Chairs Giovanni Schiuma, *LUM University, Italy* Antonio Lerro and Daniela Carlucci, *University of Basilicata, Italy* 



### **PARTNERS**

### **Hosting Partners**







### **Associated Partners**











### **GENERAL THEMES & TOPICS**

- Knowledge management for organisational sustainability
- Creating and translating knowledge into action for sustainability
- Knowledge management system to support organisation's transformation
- Managing knowledge for Industry 5.0
- Big data and analytics for sustainability
- Knowledge-based frameworks and approaches for leading organisations in uncertain times
- Managing organisations' strategic knowledge assets to navigate through a crisis
- Assessing intellectual capital dimensions to handle uncertain times
- Knowledge and new technologies for business model innovation
- Knowledge value drivers and knowledge management processes: new theories and practices
- Knowledge management systems, ICT and digitalisation
- ➤ Inter-organisational knowledge dynamics
- Human resources management, collective intelligence and organisational design
- Arts-based management approaches and tools for knowledge management and organisational development for sustainability
- Design thinking methods for innovation and knowledge creation and visualisation
- Knowledge management and Intellectual Capital-based models for the sustainable and inclusive development of regions and cities
- Knowledge management and social innovation
- Knowledge-based frameworks and approaches for organizational resilience
- Knowledge management and transformative organisations
- Managing knowledge assets for digital transformation

# Knowledge Management in Stormy Times - Or How to Develop and Implement Integrative and Inclusive Approaches and Activities

Organizers

Susanne Durst, Tallinn University of Technology, Estonia Michele Borgia, University G. D'Annunzio of Chieti-Pescara, Italy Samuel Foli, Tallinn University of Technology, Estonia Maura La Torre, University G. D'Annunzio of Chieti-Pescara, Italy

# **Knowledge Management for Green Sustainability: Definitions, Tools and Patterns**

**Organizers** 

Paolo Biancone, University of Torino, Italy
Davide Calandra, University of Torino, Italy
Maria José Sousa, ISCTE, Portugal
Francesca Dal Mas, University Ca Foscari Venezia, Italy
Dominika Hadro, Wroclaw University of Economics and Business, Poland

# The New Frontiers of Sustainability: The Strategic Synergy between Sustainable, Digital and Social Inclusion

**Organizers** 

Serena Strazzullo, University of Naples Federico II, Italy Vincenzo Corvello, University of Messina, Italy Barbara Bigliardi, University of Parma, Italy Serena Filippelli, University of the Republic of San Marino, San Marino

# Knowledge Management Pathways for Green Sustainability in Islamic Finance

**Organizers** 

Paolo Biancone, University of Turin, Italy Kabir Hassan, University of New Orleans, USA Burhan Uluyol, İstanbul Sabahattin Zaim Üniversitesi, Turkey Federico Lanzalonga, University of Turin, Italy Justyna Fijalkowska, University of Social Sciences, Poland

### Toward the S5.0: Aims, Drivers, and Dynamics of the Industry 5.0

Organizers

Angelo Bonfanti, University of Verona, Italy Rossella Canestrino, Parthenope University of Naples, Italy Francesco Caputo, University of Naples Federico II, Italy Elias G. Carayannis, The George Washington University School of Business, USA Pierpaolo Magliocca, University of Foggia, Italy

### **Linking Inter-Organisational Collaboration and Circular Economy**

**Organizers** 

Benito Mignacca, University of Cassino and Southern Lazio, Italy Marco Greco, University of Cassino and Southern Lazio, Italy Anne Velenturf, University of Leeds, United Kingdom Serena Strazzullo, University of Naples Federico II, Italy

# Sustainability-Driven Innovative Solutions to Support Continuity and Traceability along the Agrifood Supply Chain

Organizers

Giulio Paolo Agnusdei, University of Salento, Italy Pier Paolo Miglietta, University of Salento, Italy Eleonora Bottani, University of Parma, Italy Giulio Malorgio, Alma Mater Studiorum University of Bologna, Italy Pamela Palmi, University of Salento, Italy Federica De Leo, University of Salento, Italy

### **New Technologies and Entrepreneurship**

Organizers

Ciro Troise, University of Turin, Italy Mark Anthony Camilleri, University of Malta, Malta Tian Han, University of Nottingham, UK Gabriele Baima, University of Turin, Italy Augusto Bargoni, University of Turin, Italy

# **Understanding and Managing Knowledge on Sustainable Consumer Behavior**

Organizers

Rosa Maria Dangelico, Politechnic University of Bari, Italy Luca Fraccascia, Sapienza University of Rome, Italy Francesco Testa, Sant'Anna School of Advanced Studies, Italy

### Lean Organization and Knowledge Management in Healthcare

Organizers

Angelo Rosa, University LUM, Italy Olivia McDermott, National University of Ireland, Ireland Giovanni Improta, University of Naples Federico II, Italy Giuliano Marolla, LUM School of Management, Italy

# Digital Dynamic Capabilities for Digital Transformation of Organisations for Sustainability

Organizers

Gioconda Mele, University of Salento, Italy Giuseppina Passiante, University of Salento, Italy Giustina Secundo, LUM University Giuseppe Degennaro, Italy Guido Capaldo, University of Napoli Federico II, Italy Vincenzo Corvello, Università Messina, Italy

# Digital Transformation and Organizational Resilience: Managing Knowledge to Nurture Capabilities

Organizers

Alessandro Annarelli, Sapienza University of Rome, Italy Silvia Colabianchi, Sapienza University of Rome, Italy Fabio Nonino, Sapienza University of Rome, Italy Giulia Palombi, Sapienza University of Rome, Italy

# Innovative Finance Tools, Digitalization and New Technologies for Sustainable Female Entrepreneurship Development

**Organizers** 

Ipàzia Scientific Observatory on Gender Research

# Diversity Management as a Sustainable Governance Strategy in the Private and Public Sector

**Organizers** 

Ipàzia Scientific Observatory on Gender Research

### Entrepreneurship: Agrifood, Fashion, Luxury and Made in Italy

**Organizers** 

Ipàzia Scientific Observatory on Gender Research

### Organisational KM Strategies and Sustainability

Organizers

Krishna Venkitachalam, Ajman University, UAE Nina Helander, Tampere University, Finland

### **Business Analytics**

**Organizers** 

Henri Hussinki, LUT University, Finland Jan Stoklasa, LUT University, Finland Johanna Orjatsalo, LUT University, Finland

# Managing Data, Information, and Knowledge for Sustainable Public Organizations

Organizers

Lotta-Maria Sinervo, Tampere University, Finland Harri Laihonen, University of Eastern Finland, Finland

### Innovation and Sustainability as Pillars for Healthcare System Transformation: Smart Solutions and Future Challenges

Oraanizers

Lorella Cannavacciuolo, University of Naples Federico II, Italy Emanuela Foglia, LIUC University of Cattaneo, Italy Eleonora Gheduzzi, Politechnic University of Milan, Italy Stefania Manetti, Politechnic University of Milan, Italy Elena Pessot, University of Siena, Italy

### Towards a Circular Economy Knowledge Management for a Harmonious and Sustainable Society

**Organizers** 

Maria Colurcio, Magna Graecia University of Catanzaro, Italy Angela Caridà, Magna Graecia University of Catanzaro, Italy Nicola Varrone, Magna Graecia University of Catanzaro, Italy

### Stakeholder Engagement as Source of Knowledge

**Oraanizers** 

Mario Tani, University of Naples Federico II, Italy Gianpaolo Basile, University Mercatorum, Italy Mohamed Gheith, Mansoura University, Egypt Anna Prisco, University of Naples Federico II, Italy

### Affecting the River of Knowledge in Sustainability: Knowledge Management Strategies and Tools in Cross-Cultural Settings

**Organizers** 

Jörg R. Noennig, HafenCity University Hamburg, Germany Katharina Borgmann, HafenCity University Hamburg, Germany Ágota Barabás, HafenCity University Hamburg, Germany Kai Michael Dietrich, University of Applied Sciences Lübeck, Germany Anika Slawski, University of Applied Sciences Lübeck, Germany

### Cultural Landscapes and Heritages as Knowledge Management Experimental Laboratories for Sustainable Development Scenarios

**Organizers** 

Alessandro Raffa, University of Basilicata, Italy Angela Colonna, University of Basilicata, Italy Ina Macaione, University of Basilicata, Italy Annalisa Percoco, Fondazione ENI Enrico Mattei, Italy Valerio Tolve, Politechnic University of Milan, Italy

# The Bright and Dark Sides of Sustainability in (Digital) Platform Ecosystems

Organizers

Pietro Vito, Sapienza University of Rome, Rome, Italy Francesca landolo, Sapienza University of Rome, Italy Francesco Caputo, University of Naples Federico II, Italy Luca Carrubbo, University of Salerno, Italy

# Organizing Projects for Sustainability: Knowledge Integration for Overcoming Organizational Tensions and Barriers

Organizers

Paolo Canonico, University of Naples Federico II , Italy Ernesto De Nito, University of Salerno, Italy Alessandro Hinna, University of Rome Tor Vergata, Italy Antonio Bassi, SUPSI, Switzerland Yvonne Schoper, HTW University of Applied Sciences, Germany

# Socially Sustainable Knowledge Management: a Gender Perspective

Organizers
Maria Zifaro, III

Maria Zifaro, Universitas Mercatorum, Italy Marco Giannini, University of Pisa, Italy Jole Miriam Corrao, University of Pisa, Italy

# Sustainable Organizations and Communities Driving Innovation by Managing Knowledge and Technology

**Organizers** 

Mauro Romanelli, University of Naples, Italy Alexandra Zbuchea, SNSPA, Romania Alessandra Lardo, University of Naples, Italy Domenico Celenza, University of Cassino and Southern Lazio, Italy

# Unlocking the Potential of Embedded Knowledge in Organizations to Support Innovation

**Oraanizers** 

Michal Krčál, Masaryk University, Czech Republic Ahad Zareravasan, Masaryk University, Czech Republic Mikhail Monashev, Masaryk University, Czech Republic

# The Role of Knowledge Management for the Implementation of Circular Economy Models and Practices

**Oraanizers** 

Roberto Cerchione, Parthenope University of Naples, Italy Patrizia Ghisellini, Parthenope University of Naples, Italy Renato Passaro, Parthenope University of Naples, Italy Ivana Quinto, Parthenope University of Naples, Italy Beatrice Re, University of Trieste, Italy

### **Resilience Perspectives of the Public and Private Sectors**

Organizers

Ilona Bartuseviciene, Mykolas Romeris University, Lithuania Giovanni Schiuma, LUM University, Italy

# A Critical Perspective on Public Sector Innovation Labs: New Directions in Managerial Practices, Technologies, Public policies and Organizations

Organizers

Peter Meister Broekema, Hanze University of Applied Sciences, Netherlands Maria Diacon, Legal, Political and Sociological Research Institute, Moldova

### **Knowledge and Sustainability for Complex Health Organization**

Oraanizers

Rocco Reina, University of Catanzaro, Italy Elio Borgonovi, University Bocconi, Italy Sabrina Bonomi, Ecampus University, Italy Nabil Georges Badr, Higher Institute For Public Health, Lebanon Concetta Lucia Cristofaro, Ecampus University, Italy

### Organizing Knowledge Management in Agri Food Business

Organizers

Walter Vesperi, University of Catanzaro, Italy Raquel Puentes Poyatos, University of Jaen, Spain Rocco Reina, University of Catanzaro, Italy Adoracion Mozas Moral, University of Jaen, Spain Marzia Ventura, University of Catanzaro, Italy Alessandra Ricciardelli, LUM University, Italy

# Innovation and Development of Cultural Tourism Ecosystems in the Digital Age

Organizers

Daniela Carlucci, University of Basilicata, Italy Francesco Scorza, University of Basilicata, Italy Beniamino Murgante, University of Basilicata, Italy Antonio Lerro, University of Basilicata, Italy Giovanna Andrulli, University of Basilicata, Italy Mauro Fiorentino, University of Basilicata, Italy Francesco Santarsiero, University of Basilicata, Italy Rosaria Lagrutta, University of Basilicata, Italy

# Knowledge Co-Creation for Navigating the Complexity: The Unleashing Role of Systems Thinking

Organizers

Canio Forliano, University of Palermo, Italy Paola De Bernardi, University of Turin, Italy Stefano Armenia, Link Campus University, Italy Stefano Bresciani, University of Turin, Italy

### **Continuum Building Design**

**Organizers** 

Antonella Guida, University of Basilicata, Italy Graziella Bernardo, University of Basilicata, Italy Vito Porcari, University of Basilicata, Italy

# Cultural Dimension as Driver of the Company's Competitive Advantage in the Knowledge-Based Economy

**Oraanizers** 

Fabrizio Rossi, Guglielmo Marconi University, Italy Michele Grimaldi, University of Cassino and Southern Lazio, Italy Domenico Celenza, University of Cassino and Southern Lazio, Italy Elbano De Nuccio, LUM Jean Monnet University, Italy Berthold Kuhn, University of Berlin, Germany

### **KEYNOTE SPEAKERS**



Harri Laihonen
University of Eastern Finland
Finland



Constantin Bratianu
Bucharest University of Economic
Studies, Romania



**Quy Nguyen Huy**INSTEAD Business School
Campus Singapore



**Giustina Secundo**LUM University Giuseppe
Degennaro, Italy

### **PROGRAM OVERVIEW**

WEDNESDAY <sup>1</sup>	7 June 2023
9.00 - 9.05	OPENING OF VIRTUAL SESSIONS
9.05 - 12.25	VIRTUAL SESSIONS
14.30 - 14.45	OFFICIAL OPENING OF IFKAD 2023 <sup>2</sup>
14.45 - 15.30	KEYNOTE SPEECH
15.30 - 17.10	PARALLEL SESSIONS + WORKSHOP "KNOWMAN"
17.10 - 17.30	Coffee Break
17.30 - 18.45	PARALLEL SESSIONS
20.30 - 23.00	WELCOME RECEPTION - Palazzo Bernardini, Piazza del Sedile

THURSDAY	8 June 2023
9.00 - 11.05	PARALLEL SESSIONS
11.05 - 11.25	Coffee Break
11.25 - 13.05	PARALLEL SESSIONS
13.05 - 14.30	Lunch Break
14.30 - 17.00	PARALLEL SESSIONS
17.00 - 17.20	Coffee Break
17.20 - 18.05	KEYNOTE SPEECH
20.00 - 23.00	SOCIAL DINNER – Masseria del Parco

FRIDAY	9 June 2023
9.00 - 9.45	KEYNOTE SPEECH
9.45 - 11.00	PARALLEL SESSIONS
11.00 - 11.20	Coffee Break
11.20 - 13.25	PARALLEL SESSION + WORKSHOP "MEET THE EDITORS"
13.25 - 14.40	Lunch Break
14.40 - 17.10	PARALLEL SESSIONS + IAKM MEETING
17.10 - 17.55	KEYNOTE SPEECH
17.55 - 18.15	Conclusions, Closing Remarks and Announcement of IFKAD 2024

 $<sup>^{1}</sup>$  Time-table is valid at the moment of print. Changes may apply. For the most updated program, please consult our website www.ifkad.org <sup>2</sup> Live sessions, speeches and events are NOT transmitted online

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# How to Assess the Intellectual Capital of Firms in Uncertain Times: A Systematic Literature Review

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### Abstract

Measuring Intellectual Capital (IC) is essential for contemporary firms. To succeed in a radically changed economic environment, organizations must develop reliable measures of IC.

Yet existing studies focused on this topic missed evaluating the uncertainty sources. To our knowledge, we performed the first systematic literature review with thematic analysis to understand which IC measurement model works better in the following uncertainty areas: digital transformation, environmental impact, financial crisis, social impact and turbulent environments. We searched three databases and included quantitative peer-reviewed articles relevant to IC measurement methods in business uncertainty. This yielded 2,709 studies, of which 27 were eligible and included in the final sample.

Our study found no agreement on the best IC measurement tool for uncertain times due to varying firm characteristics, including location, industry, size, and performance dimensions. Additionally, included studies emphasized the importance of human capital in enhancing company competitiveness and profitability. However, investing in IC alone cannot ensure agility and resilience in the digital era. Firms must effectively manage intangible assets like innovation, R&D, and employee knowledge and skills to drive growth.

For future research, we recommend focusing IC measurement research on under-investigated industries, such as automotive, transportation, and hospitality, which require tailored IC measurement solutions. Furthermore, to highlight the broader societal benefits of effective IC management, research should also focus on measuring IC's impact on social development goals, such as ecological sustainability, fair employment and gender parity.

**Keywords** – Intellectual capital, Measurement, Business uncertainty, Human capital, Systematic literature review

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# Universities 3.0 as a Key Source of Digital Transformation of the Economy

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### **Abstract**

Under current conditions, the development of digital technologies is largely supported by modern universities (University 3.0), which are of particular importance in the formation of digital potential. Within the framework of the presented research, the role of modern universities in achieving the goals of digitalization is considered, taking into account the current knowledge dynamics. In the context of this work, universities 3.0 refers to universities that include educational, research and an entrepreneurial functions. The entrepreneurial function is the missing link in the innovation value chain. Thanks to it, modern universities are a source of digital transformation of the economy, which is reflected in the results of the study. The emphasis on the entrepreneurial component of the universities makes it possible to reveal their role in the process of digital transformation of the economy to a greater extent.

**Keywords** – University 3.0, modern university, full life cycle of innovation, entrepreneurial activity, digital transformation

**Paper type** – Academic Research Paper

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# Strategic Knowledge Management as a Key Driver for Social Innovation Deployment

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### Abstract

Nowadays, innovation has become the staple of every company. The nature of global economic growth has also been modified by the high speed of innovation, due to a very distinctive rapid and everlasting evolving technology, shorter product lifecycles, programmed obsolescence and a higher rate of new product development. Companies, institutions and organizations have to make sure or even guarantee that their business strategies are unique and innovative in order to build and sustain competitive advantage, otherwise they would simply die.

It is important to stand out that strategic knowledge management processes are quite significant for innovation, since they conceive knowledge creation, knowledge transfer and knowledge application. It all aims to create a unique knowledge resource that can eventually be added into products, processes and services (Nonaka & Takeuchi, 2009). The main purpose of it is contributing towards improving social well-being, enhancing economic growth as well as improving technological readiness (Kanter, 2015). In this sense, the current study aims to identify and analyse the key drivers for social innovation deployment. Chiva et al. (2014) state that knowledge is widely regarded as a new novel solution for a wide range of issues which have been wracking havoc all around the world. On the one hand, there is a widespread agreement among authors, researchers, consultants and thinkers in the field of management. When it comes down to innovation, they all posit that it is the central capability for all organizations and they are all interested in it. It is all about doing different things with the same elements. On the other hand, social innovation turns out to be a vital outcome

These two concepts must be considered to fully understand the abovementioned intrinsic relationship. The latter does not only solve specific problems, but also encourages collective action and inclusion. To sum up, the current study aims to delve into these concepts and their contribution to science,

since it is related to providing a better understanding and results to global issues.

technology and society. Once key drivers have been identified and analyzed, a theoretical methodology will be applied and interpreted through a thorough examination. By doing this it will also be important to determine the degree of importance so that data can be properly easily understood.

Finally, it is worth to mention that the output is expected to be disseminated in order to enhance practical scenarios facing up current circumstances regarding social innovation.

**Keywords** – Strategy, knowledge management, social innovation

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# The Effects of Policy Mix during COVID-19 Pandemic in Romania

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### **Abstract**

The objective of this study is to determine the impact of the COVID-19 pandemic in Romania and whether the government's interventions and imposed policy measures helped to maintain economic equilibrium.

The crisis generated by the coronavirus pandemic has compelled the authorities to take measures to aid first the health system and then the national economy. During the lockdown, production ceased and economic activities were suspended, resulting in a fall in the volume of trade.

In this context, the paper's goal is to determine whether the applied measures were beneficial for the economic system and whether Romania is on the path towards recovery, but it will also analyse if it is necessary to establish a policy framework to prevent potential future exogenous shocks and what regulations could be adopted for a sustainable recovery that would help the economy, providing support for the future complementary approaches to monetary and fiscal policies.

The empirical analysis has been carried out for the period 2020:1 to 2022:9 on monthly frequency data for Romania. The model employed is a BVAR (Bayesian Vector Autoregression) that provides a simple yet effective way of modelling interactions between macroeconomic variables. In order to analyse the consequences of the mix of implemented policies, we examined and considered as exogenous shocks the NBR's monetary policy rate, the evolution of energy product prices, and the number of new COVID-19 cases.

The crisis caused by the COVID-19 is perceived as a health crisis that necessitates adjustments to public, fiscal, and monetary policies. Although the costs may be high at the moment, the changes will be effective in the future and may result in economic consolidation and a higher level of economic resilience for the Romanian market.

**Keywords** – COVID-19, resilience, public policy, monetary policy

Paper type – Academic Research Paper

# National Innovation Systems Performance and Economic Growth: Country Panel Analysis Using Global Innovation Index Data

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### Abstract

Innovation is an essential source of economic growth and national competitiveness. Understanding countries' innovation system characteristics and performance is critical in identifying shortcomings and opportunities for evidence-based innovation policymaking. This study explores the features of innovation systems in countries with varying living standards and GDP growth rates. It validates the Global Innovation Index (GII) as a relevant tool for national innovation system operationalization and evaluation and investigates the relationship between innovation system strengthening and economic development. The surveyed countries are classified into four groups, allowing for an assessment of the specificity and heterogeneity of NIS characteristics across countries.

The study applies principal component analysis (PCA) to the raw set of GII indicators and extracts seven components, which collectively correspond to the classifications of functions of innovation systems, suggesting that GII can be used as a proxy of NIS. The analysis reveals a significant divergence in NIS characteristics driven by countries' economic development levels, where developed countries are distinguished by a strong commitment to innovation of all NIS actors, ensuring effective resource allocation, knowledge creation and diffusion. On the other hand, lagging economies rely more on foreign recognition of their S&T potential and investments due to institutional, resource, and other limits to build up and exploitation.

A panel regression analysis is conducted to derive the NIS-related determinants of economic growth. The results provide evidence that neither of the considered NIS components may ensure economic development independently, and growth sources varied significantly by country groups in 2015-2021. Interestingly, the availability of highly skilled human capital and a robust international trade is a necessary component to provide an initial impetus for growth, but not sufficient to sustain high rates of long-run economic growth.

The study provides useful insights for policymakers and practitioners in innovation and economic development. It suggests GII to be a reliable proxy for measuring NIS and shows that though necessary, the commitment to innovation by all NIS actors is not sufficient for a long-term stable growth. By interpreting the phenomenon of economic growth through the prism of NIS aspects and their underlying interrelations, the paper demonstrates the variety of unique priorities as growth sources in countries with different living standards and GDP growth rates.

**Keywords** – National innovation system, Economic growth, Global Innovation Index, Cross-country analysis, Panel data

Paper type – Academic Research Paper

### What Do the Faculty Members Know: A Multidimensional Knowledge Portrait

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### Abstract

Information overload is putting pressure on organisations to provide a better-quality service and improve agility. The key challenges for knowledge intensive organisations are how to identify, map, assimilate, disseminate, and apply knowledge, particularly the knowledge mapping of different users with incompatible perspectives and purposes. As part of this study we started the development of ontology based knowledge map which reflects faculty knowledge and delivers knowledge to various users with different perspectives and purposes. The faculty knowledge map is based on the triad of faculty activities: teaching, research and consulting.

As there is no methodology for faculty knowledge map development the paper focuses on the methods of developing such digital knowledge maps, forming a multidimensional knowledge portrait module that can be later integrated into knowledge management systems. Methods of ontology engineering are used for developing the conceptual models of the knowledge domain and faculty activities.

Keywords - knowledge models, knowledge maps, ontologies, knowledge management

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# The Roles of Digitalization and Knowledge Sharing in French Company's Performance: The Mediating Role of CSR

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### **Abstract**

The purpose of this study is to examine the impact of digitalization (DG) and knowledge sharing (KS) on the financial performance (FP) of French companies, with a focus on the mediating role of corporate social responsibility (CSR). A survey was conducted among a sample of French companies, and the data was analyzed using structural equation modeling PLS. The results of the study indicate that DG and KS have not a positive impact on the FP of French companies. Furthermore, CSR completely mediates the relationship between DG and FP. These findings suggest that French companies should focus on improving their digital capabilities and promoting KS among employees, while also paying attention to their CSR activities, in order to enhance their FP.

Keywords - Digitalization, Knowledge sharing, CSR, Financial Performance, Dynamic capabilities

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### **Knowledge as a Driver for Organizational Change: The Italian Case of the Office for the Trial**

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### **Abstract**

This research provides the first evidence of the Justice System's change management path in response to exogenous change pressures from Europe, the National Recovery and Resilience Plan, and the Italian legislature. The research, in particular, depicts the Justice System's institutional change scenario through mixed methods; investigates the organizational models of the Offices for the Trial, which represent symbolic manifestations of the reforming process; and analyzes the HR practices of the Office for the Trial employees, who constitute unprecedented professional figures recruited ad hoc to pursue the National Recovery and Resilience Plan goals, which are set for June 2026. The study is part of a broader initiative named StartUpp, which stands for "Models, Systems, and Competencies for Implementing the Office for the Trial." The Ministry of Justice coordinates the project, which is supported via the 2014-2020 Governance and Institutional Capacity Plan. The University of Salerno is assisting four judicial offices in the province of Salerno, which is the subject of this study, as part of the project's macro-areas. The authors used the TREE change and knowledge management methodology to analyze the state of implementation of the Office for the Trial, highlighting the gaps from the planned objectives, as well as the critical application of the elements of innovation introduced, laying the groundwork for co-design and knowledge sharing with all stakeholders involved in a new reconfiguration of the Office for the Trial capable of generating value for the community.

Keywords - Knowledge Management, Organizational Change, Justice Sector. National Recovery Plan

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### Human Component in Sustainable Digitization: Towards a Conceptual Framework

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### Abstract

Since the late 20th century, the introduction of digital technologies has revolutionized the way people interact with the world. This has led to the mass diffusion of the Internet, smartphones, global computer networks and virtual reality, which have become an integral part of people's daily lives. This digital transformation has had a significant impact on all spheres of human activity, including work. In addition, unexpected events such as the COVID-19 pandemic forced organizations to digitize rapidly to conduct business, despite social restrictions. This has contributed to the emergence of new paradigms in the world of work. In manufacturing sectors, the industry 4.0 model using automation, robotics, artificial intelligence, the Internet of Things and additive manufacturing has enabled manufacturing companies to optimize processes, reduce costs and improve service efficiency. While digital tools have a positive impact on economic and environmental aspects, they also force organizations to reconceive the role of human activity in the workplace. This revolution in the world of work can, however, have both positive and negative implications for an organization's human resources. It is the responsibility of organizations to choose whether to adopt a sustainable approach that balances economic, environmental, and social factors.

Specifically, to preserve social sustainability, organizations should adopt human resource management practices that place human capital at the centre of the transition to digital workplaces. This requires providing employees with digital skills for decent and rewarding employment.

This paper aims to provide an analysis on the topic of digitization and social responsibility, where humans are at the centre of interest for organizations. Conflicting views on the effects of digital transformation on social sustainability make this an important topic for research. To investigate this gap, we adopted a two-stage methodology. In the first stage, we conducted a systematic literature review to understand the most widely discussed research topics on the topic to date. Then, based on these findings, we conducted an exploratory case study. Specifically, this paper analyses a San Marino company operating in the medical sector. This case is particularly interesting in that it highlights the effects of social sustainability related to digital transformation, both from the perspective of the organization and the beneficiaries of the product/service. The case study will allow for feedback and empirical validation of what is known in the scientific literature.

**Keywords** – Digitalization, Sustainability, Human resources

### Knowledge Innovations: Research of Perspective FinTech Technologies Based on Literature Review and Patent Analysis

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### Abstract

COVID-19 pandemic significantly has changed the behaviour of customers and businesses, and influenced the development of technologies. Technologies that provide opportunities for remote interaction in various spheres of human activity have gained unprecedented scale, including FinTech technologies. COVID-19 has accelerated digital trends, as well as significantly changed the behaviour of customers who began to prefer digital payments, banking applications, etc.. Companies around the world have rethought the value of modern technology, with a huge potential to create a unique personalized offer in a time and place convenient for the client. Obviously, new opportunities have emerged for the FinTech industry. Current market conditions and social distancing practices have impacted each category of FinTech companies differently, with unique challenges that need to be addressed. The unique strengths, knowledge and skills of FinTech companies give them great advantage and flexibility to overcome challenges. The question is how FinTech companies can use their unique knowledge to take advantage of new opportunities in the future. It is interesting to analyze the most recent data available in order to understand in which direction FinTech technologies are moving. FinTech is constantly evolving, adding new technologies and opportunities. The purpose of the work is to identify the most promising technologies in the field of FinTech. To do this, it is important to analyze the views of the scientific community through an analysis of the latest research in this area. The business view of technology has been analyzed by studying the dynamics of patents in this area.

**Keywords** – FinTech, Innovations in the field of knowledge, Patent analysis, Consumer preferences, Market analysis.

### Fast Fashion Brands and Environmental and Social Sustainability: Knowledge Management as a Moderator

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### **Abstract**

As fast fashion brands expand, society and customers pay more attention to environmental and social sustainability. This study will examine the impact of environmental and social sustainability on customer purchase intentions and the moderating effect of knowledge management strategies on this relationship, based on the general understanding that knowledge management (KM) can be a strategic tool to achieve sustainability and communicate with outside sources. Three hundred and twelve students from mainland China were surveyed. The moderating effect of knowledge management strategies on environmental and social sustainability has been examined through regression analysis. Results confirm that environmental and social sustainability positively impacts customer purchase intentions. The study shows some interesting moderating effects associated with human-focused knowledge management strategies. In this study, the contribution of context-dependent environmental and social sustainability to customer purchase intention is examined, as well as the potential influence. This study also analyzes the contribution of context-dependent environmental and social sustainability to customer purchase intention as a knowledge management strategy.

**Keywords** – Environmental sustainability, social sustainability, Technology-focused KM strategy, human-focused KM strategy, Customer. Purchase intention.

### The Impact of Strategic Knowledge Management in Lean Healthcare Organizations

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### Abstract

The healthcare industry faces various challenges, and Lean management and Six Sigma initiatives are gaining attention for their ability to improve performance by reducing defects, waiting time, and costs while increasing patient satisfaction. Strategic Knowledge Management (SKM) is essential for the success of Lean and Six Sigma initiatives in healthcare organizations. SKM focuses on arranging knowledge resources and competencies to bridge the knowledge gap between required and existing know-how in the organization, enhancing people's skills and assets. This study aims to explore the relationship between Lean management and SKM approach to knowledge management in healthcare organizations. The study uses regression analysis to investigate the role of SKM in achieving Organizational Performance Improvement. The findings enrich the debate in the literature on the use of a strategic knowledge-based approach to continuous improvement and provide a comprehensive framework for healthcare facility managers to promote knowledge sharing as a core asset within organizations.

**Keywords** – Healthcare, Organizational Performance, Lean Six Sigma, Strategic Knowledge Management

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### FinTech: Financial Inclusion and Women

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### **Abstract**

Can FinTech companies close the gender gap in access to financial services? In order to answer this question, the present research in the first part analyzes the literature that has been expressed on the diffusion of FinTech platforms and their approach to an inclusive financial system aimed at supporting and sustainable development of companies with greater difficulties in accessing credit, including women's businesses. The research is inspired by a study by the Bank of Italy on the analysis of FinTech platforms operating in the world and in Italy and then analyzes the specific data of a FinTech platform, through direct contact. The example of the research is the absence of comparable official data, while the originality of the work lies precisely in the desire to draw scientific attention to a well-known topic, but still little explored in terms of data and literature.

**Keywords** – FinTech, woman entrepreneurship, female, sustainability, inclusion

Paper type - Practical Paper

### Thematic Areas and Key Actions in Gender Equality Plans: Evidence from Italian Universities

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#### Abstract

The European Union has been advocating for Gender Equality Plans in academic and research organisations since 2015, recognising them as a criterion for eligibility in Horizon Europe calls for research and innovation. The European Commission defines GEPs as a set of commitments and actions that aim to promote gender equality in an organisation through a process of structural change. Italian universities are now required to adopt GEPs in compliance with Decree No. 2/2019 and EU-COM No.152/2020. While most Italian universities have implemented their first GEPs, studies on their implementation and content are still limited. This study aims to explore the state of GEPs in Italian universities by analysing the extent of information disclosure in terms of actions planned. Special attention has been devoted to the area of work-life balance and organisational culture. Our study has found that universities are acknowledging the significance of promoting work-life balance and providing family care assistance. However, universities have not planned enough measures to address workplace well-being and mitigate threats to diversity and inclusion.

Keywords – Gender equality plan, diversity, gender gap, universities, empirical research

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### **Self-Financing in Growth Strategies of Italian SMEs: A Case Study**

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#### Abstract

In international markets, territoriality increasingly represents a decisive success factor for companies, particularly Italian ones, which, thanks to their intellectual capital, manage to be competitive in the era of globalisation in which we find ourselves, despite strong competition at world level. In fact, with particular reference to industrial companies, Italy has managed to make the concept of 'Made in Italy' perceived as a guarantee of quality and luxury throughout the world, creating a brand under which all Italian companies are recognised.

The reputation of the Italian manufacturing company is, in fact, known worldwide and is a hallmark of creativity and quality.

This paper aims to investigate the propensity of Italian SMEs to self-finance and invest in research, development, and innovation.

The research is conducted by analysing the findings of a company case study. The results for the three-year period 2019-2021 of a medium-sized Italian company belonging to the manufacturing sector were analysed to examine how a medium-sized family business can implement a growth project through the predominant use of internal financial resources.

The results show how, through self-financing, the company was able to increase its value and market share, especially abroad. This was done by investing heavily in innovation and research, despite the economic crisis resulting from the Covid-19 pandemic.

**Keywords** – Made in Italy, Self-financing, SMEs, Intellectual capital.

Paper type - Practical Paper

# From Daughter Successor in the Family's Firm to Starting One's own Enterprise: A Case Study in the Jewellery Sector

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### Abstract

Research has deeply investigated factors that may hinder or favour the possibility of daughters being chosen as successors in family businesses. Little is known, however, about daughters who voluntarily decide to leave the family business, despite the possibility of serving in the leadership role, to engage their entrepreneurial aptitude and potential in creating new enterprises.

This paper investigates the experiences of a successor daughter who decided to give up that role to start her own entrepreneurial venture. Placing in the research field of family entrepreneurship and drawing on the case study method, we identified the motivations behind her decision and how her entrepreneurial identity was formed in this context. Special attention was given to the role of the entrepreneurial family to understand how it may have influenced the daughter's choices and her identity construction process.

We show that the entrepreneurial family can play a decisive role in three different stages of a daughter's identity formation process, i.e. when: 1) the idea of starting one's own business emerges and takes shape; 2) the decision to pursue an independent entrepreneurial career is made; and 3) the new entrepreneurial activity is launched.

**Keywords** – Family firms, Entrepreneurial families, Successor daughters, Women entrepreneurs, Jewellery

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### Food Safety Climate and Drivers in Italian Agrifood Companies

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#### Abstract

This paper aims to investigate the impacts of food safety drivers on food safety climate of Italian agrifood companies. we empirically tested the relationship among food safety driver, leadership, internal communication, resources, and risk awareness. From March to May 2022, we gathered survey information from 168 Italian companies engaged in the agri-food industry. Results suggest that food safety drivers enhance each dimension of the food safety climate. This study is the first one that analyses the impact of food safety drivers on each food safety climate component, deepening the knowledge of the components of food safety climate in the Italian context. The main limitation of the present study is that we collected data from a single European Country and results cannot be generalized.

Keywords - Agrifood, Food Safety Culture, Food Safety Climate, Drivers, Italian Firms

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### Paradoxical Tensions in Producing Knowledge for Environmental Planning and Decision Making

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### Abstract

Environmental impact assessment (EIA) is a procedure for producing knowledge for environmental planning and decision making. The aim of this study is to find out the information and knowledge management challenges of EIA and consider the connection between the identified challenges and paradoxical tensions in the knowledge production process. The aim is to answer the research question: What kind of information and knowledge management challenges and paradoxical tensions appear in the production of knowledge for environmental planning and decision making? The study was conducted as an interview study of EIA consultants and EIA authorities in Finland (n=24) with the aim of finding out how the practitioners of EIA understand the knowledge management practices of EIA. Results demonstrate the existence of different paradoxical tensions in the EIA procedure. Findings also reveal different identities of EIA authorities and EIA consultants and resulting differences between practitioners' way of thinking. For the EIA practice, this study concludes that even though EIA is a legal procedure, many paradoxical tensions affect how it is implemented in practice and what kind of impacts it has. An argument is presented that paradoxical tensions lie behind many of the challenges of information and knowledge management. Future research could delve deeper into the question of how EIA practitioners respond to the paradoxical tensions, and how these responses affect the effectiveness of EIA and sustainability outcomes.

**Keywords** – Knowledge Management, Information Management Cycle, Tension, Paradox Theory, Environmental Impact Assessment.

### **Executive Confidence and Meaningful Coincidences: How to Cope with Turbulent and Uncertain Contexts**

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### Abstract

The aim of this study, which is grounded in decision-making theory, is to explore whether the occurrence of meaningful coincidences can positively influence executive confidence, allowing hospitality industry organizations to cope, if only for short periods, in chaotic and uncertain contexts and settings, such as the COVID-19 pandemic.

Through a qualitative study with 24 interviews, conducted both in person and via Microsoft Teams, this study focuses on Italian hospitality facilities in the Campania Region of southern Italy to explore how executive confidence led by meaningful coincidences can influence managerial decisions.

The results highlight the process through which meaningful coincidences lead to the three different characteristics of executive confidence during a decision-making process – overestimation, overprecision, and overplacement. The insights that emerge suggest a number of positive and beneficial aspects for decision-making in a crisis such as the COVID-19 pandemic.

To the best of the authors' knowledge, this is the first study in the literature aimed at investigating, by means of qualitative methodologies, the positive outcomes of executive confidence in decision-making led by meaningful coincidences during crisis periods in the specific context of the Italian hospitality industry.

**Keywords** – Executive confidence, Meaningful coincidences, Decision-making, Qualitative study, COVID-19.

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### The Factors Influencing the Growth of SMEs in the EU Pharmaceutical Industry: An Empirical Analysis

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#### **Abstract**

SMEs are the economic backbone of Europe. In pharma companies, SMEs are the engines of innovation, playing a critical role in the creation of novel medications for patients. However, in reality, the scenario is not so favourable, and the objective of this research is to identify potential factors of negative growth in the pharmaceutical industry. The study used secondary data from the EU Industrial R&D Investment Scoreboard in 2015 and 2020 to apply a multiple linear regression model, with the dependent variable being operating profit. The results are very interesting, for example, the nest sale has positive and operating profit has negative coefficients throughout the years, implying that operating expenses, costs of goods sold, and day-to-day costs are higher than sales revenue in most cases. In the model, we get that R&D expenditure is having a positive relationship in 2015 but an insignificant probability value; however, it is negative and highly significant in 2020. Likewise, R&D expenditures, the capital expenditure also does not go through identical patterns in these two periods. Therefore, further studies are required to go through several years to generalize an exact relationship among the variables.

**Keywords** – Factors, Growth of SMEs, Pharmaceutical Industry, the European Union, Empirical Analysis

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# Supporting Decision Making in Waste Management Companies: Using AHP Methodology to Assess the Optimal Scenario for Disposable Diapers Collection

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### **Abstract**

Waste collection and recycling processes represents a strategic activity in supporting the circular transition. The present research deals with disposable diapers collection; indeed, in order to increase the recycling rates of such typologies of waste, during the very recent years, waste management companies initiated to collect those separately from other household waste streams with different typology of collections.

Making use of a case study grounded on raw data from six municipalities within Lucca province (Italy), our research aims at assessing, using an Analytic Hierarchic Process (AHP), six possible scenarios for used disposable diapers collection.

Results shows that the best scenario is represented by the one where disposable diapers are collected from users by a curbside door-to-door collection system on a weekly base. Results are discussed under a managerial perspective in order to support future decision-making processes in waste management companies.

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### The Marketing Role in Multi-Stakeholder Engagement: An Empirical Examination

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### **Abstract**

The goal of stakeholder theory, which was primarily developed in the field of business ethics, is to examine the interactions between the company and all of the actors in its ecosystems. Despite the growing recognition of the significance of communication strategies focused on internal and external stakeholders, the role of marketing has been largely neglected. In this research we propose an empirical assessment of a marketing-based theoretical framework. The analysis is aimed at analysing how the components of stakeholders' engagement (recognition, support, and dialogue), and knowledge exchange, affect stakeholders' response and firms' outcomes (financial performance, risk, and reputation).

Keywords - Stakeholder engagement, Strategies, Marketing, Knowledge exchange

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# The Observatory for the Management of the UNESCO Site of Sassi of Matera: Cognitive Autopoiesis and Communities of Knowledge

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#### Abstract

The UNESCO Chair on "Mediterranean Cultural Landscapes and Communities of Knowledge", University of Basilicata, research and experiment among others the concept of "Communities of Knowledge" inside the UNESCO site of the Sassi of Matera, contributing to the creation of the Permanent Observatory for the Management of the UNESCO site. The Management Plan (MP) for the UNESCO site of the Sassi was elaborated from a participatory process developed around the concept of "Community of Knowledge". Inside the MP, the strategical regeneration of the testimonial value and use of the UNESCO site -conceived as a cultural landscape of sustainability and harmony between human settlements and nature-, is to understand and operationalize the power of knowledge for the valorization of the Sassi's world heritage, make it also a Mediterranean laboratory and a model too. The Observatory was conceived to work as a laboratory of sustainable development, declined on the topic of valorization of a territory, understood as a universal cultural heritage. The entire design process of the UNESCO Site Management Plan was interpreted as 'process of processes' with methodological and operational value. An analogue approach, principles and procedures will contribute to the creation of the Observatory. With the idea of 'process of processes', attention is drawn to the different logical levels to which actions belong, from attention to the object of investigation and project, to attention to the process itself. This attention develops effective cognitive and awareness processes to implement responsible and participative strategies for the heritage management, conceived as 'common'. The Sassi Observatory project also proposes an autopoietic organization, embracing through its strategies, tools and methods, the way life develops and evolves, i.e., learning from the process itself. Lastly, concerning the actualization of the UNESCO site's values, inside the Observatory, the dynamic process of Sassi's identity building- interpreted as a complex relationship between place, community and universal value- has been read through the concepts of "Community of knowledge" and "Generative narration of the landscape."

**Keywords** – Sustainability; UNESCO Heritage; Management Plan; Communities of Knowledge; autopoietic cognition.

### **Engaging our Digital Technology Actors in Learning HealthCare Ecosystems for Sustainability and Equity**

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#### **Abstract**

Involved actors in healthcare processes have been reformulated: with systems servitization and patient engagement with awareness of their care pathway can be clarified through the Actor-for-Actor (A4A) approach. Referring precisely to this cyclically phased model, we focused on the structural prerequisites of engagement and relationships among actors and examined the determinants of the system and their commitment to the value of equitable care delivery: a system in which there are no unfair and avoidable or remediable differences between socially, economically, demographically, or geographically defined population groups. Looking through the A4A lens and using a dynamic systems approach, we find that motivational drivers for our digital technology actors' commitment to value-based care are rooted in meaningful data resource integration for meaningful interactions and timely, accurate decision-making. By analysing use cases of digital technology in support of the healthcare ecosystem such as artificial intelligence and robotics for telemedicine and remote patient monitoring, we witness the potential of equitable care to the population in compliance with the quintuple aim for health system performance.

**Keywords** - Health Equity, Artificial Intelligence, Telehealth, Learning Healthcare Ecosystem, Sustainability

Paper type – Practical Paper

### Smart Working a Tool for Social Sustainability from a Gender Perspective Complete

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#### Abstract

This academic article discusses the potential of smart working as a social sustainability tool for achieving gender equality in organisations. With the rise of telecommuting and remote work due to technological advancements, companies must adopt a dynamic, innovative mindset open to sudden changes and challenges. Sustainable open innovation is a crucial aspect of fostering sustainability in business operations. Smart working is a recent phenomenon that has gained significant momentum during the Covid-19 pandemic, attributed to its decisive contribution to environmental sustainability. The article explores how smart working can contribute to social sustainability, particularly in the context of gender equality. The research question is whether smart working can become a social sustainability tool for companies to achieve gender equality. The paper aims to explore this issue using resource dependency theory as a key to interpretation. The article employs the case study methodology, which is most suitable for exploring the impacts of gender equity on corporate sustainability. The research highlights the need for more cohesive and consistent literature on the advantages and disadvantages of smart working from an employee perspective. The study indicates that smart working is associated with higher employee participation in company life, higher performance, and greater organisational effectiveness. The paper concludes that trends in remote working will continue after the pandemic and that smart working could be an opportunity for lasting behavioural change to strengthen the positive impact on the environment while achieving gender equality.

**Keywords** – Smart Working, social sustainability, gender inclusion, diversity management, New Organization

# The Scenario of Economic Policy Uncertainty and Financial Innovation in Visegrad Economies: A Systematic Literature Review

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#### **Abstract**

The importance of the impact created by different uncertainties in the policies on the overall economy of a country or a region cannot be denied. The Visegrád Group (V4 countries, including the Czech Republic, Hungary, Poland, and Slovakia) has certain political and cultural alliances and a significant economic influence in both central Europe and the European Union. The researchers conducted a systematic literature review on the background of economic policy uncertainty and financial innovation in Visegrad economies to understand the real fact of economic uncertainty in financial innovation in this region. The PRISMA 2020 framework has been updated to extract more detailed and accurate systematic literature reviews that were previously ignored and 22 papers have been finally selected to have the results. The common characteristics of these economies are in their transition from planned to market economies, particularly in Slovakia and the Czech Republic. In the common background of these economies, fiscal policy uncertainties, stock market volatility, exchange rate fluctuations, and political uncertainty are also responsible for the EPU. However, a significant influence is that the rapid innovation priority and emphasis on R&D development help the economy to rapidly converge with the EU economies stream.

**Keywords** – Economic Policy Uncertainty, Financial Innovation, Visegrad Economies, Systematic Literature Review

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### **Evaluating Tourism Digital Ecosystems: A Knowledge Management Approach to Enhance Inner Areas**

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#### Abstract

In the Italian context, inner rural and mountain areas suffer from depopulation, an ageing population, a lack of services, and extreme seasonal tourism. In order to counteract this phenomenon, the Italian National Strategy for Inner Areas (SNAI) identifies sustainable tourism as a promising accelerator of local development, along with agricultural and food production, renewable energy supply chain, and handicraft

In particular, in this paper the new 24 Italian mountain inner areas, selected by SNAI in the second programming cycle (2021-2027), were considered case studies representing challenging contexts for the development and implementation of innovative and sustainable cultural tourism ecosystems through digital services. More specifically, this work analyses a set of web platforms to identify the best practices in cultural and experiential tourism, their lacks and their main features and thus support both public and private bodies in New Product Development (NPD) processes of digital tourist services aimed to enhance and promote specific territorial contexts.

A 5-phase knowledge management approach is proposed to evaluate different tourism digital ecosystems that foster the enjoyment of specific sites and territories by disseminating the knowledge on them, providing different tourist experiences and improving their tourist vocation. The evaluation procedure is an iterative circular process based on three steps aimed at analysing the digital ecosystems' objectives and the quality of a series of features characterising them.

Applying the proposed knowledge management approach to the preidentified case studies highlighted that most new Italian mountain inner areas still need an innovative and sustainable cultural tourism ecosystem. Still, two best practices among the selected platforms were identified, reaching very high scores both for their objectives and the quality levels of their features. Results showed that most of the considered web platforms present high-quality showcases of places, offered experiences, and relatively good communicative and informative aspects. On the contrary, the features with the lowest quality levels are the active profiling tools and the presence of written interviews, testimonies and videos with people who tell their stories.

**Keywords** – Knowledge management; Tourism experience platforms; Sustainable tourism; Cultural tourism; Inner areas.

### Aluminium Alloy Roofing Systems for Sustainable Architecture

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#### **Abstract**

The present paper intends to advice readers about the potentialities of aluminium roofing systems in terms of general sustainability, recyclability, and achievement of energy requirements. The use of metal sheet panels for buildings roofing and cladding has been progressively increasing since the very beginning of the last century. Nowadays, several different products are available on the market, either basic or even highly engineered, in different materials, shapes, colours and, of course, prices. Among these, aluminium alloy systems play a major role thanks to the material's inherent characteristics. For what concerns sustainability, aluminium production allows to use high contents of recycled material resulting in a reduction even over the 95% of the energy required in the process compared to the bauxite ore extraction and raw metal production. The total and theoretical infinite and degradationless recyclability of aluminium when compared to other metals used in the roofing systems industry makes it easily preferable overall. Such solutions can either concern new roofs covering or refurbishment of existing ones. In the latter case, lots of construction waste is usually generated and eventually ends up in landfills. Instead, aluminium alloy roofing systems allow to be fully recycled and reused at the end of the service life, which is already longer than other non-metallic products, eventually reducing waste transferred to landfills. In fact, the higher cost of such material is largely compensated by its service life expectancy, which is among the longest lasting roofing materials and can reach up, in certain conditions, even to a hundred years. For this reason, complete replacement interventions are still quite uncommon, which favourably contributes on the final environmental impact of the roofing system. In this respect, aluminium alloy systems are particularly suitable, especially when compared with other different solutions, towards design for recyclability. Furthermore, aluminium systems are also indicated for rainwater harvesting purposes, as their surface retains less pollutants than other traditional porous materials and is less likely to give place to mold or concentrated collection of polluting particulates.

**Keywords** – Aluminium, Roofing Systems, Recycle, Sustainability, Certification.

Paper type - Practical Paper

# Existing Heritage between Tradition and Innovation: The Coffered Ceiling of the Church of the Confraternity of the Holy Rosary Archdiocese of Sorrento - Castellammare di Stabia

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### Abstract

It is always a very delicate and complex operation to begin work on existing building heritage, including restoration. The work is built with the techniques and technologies of its time, with the culture, with the language (or style) of its time, with the spirit, with the will and the common feeling of its time, in other words with what is appropriately called in German the "welthanschauung". Understanding the construction process involved in the building of the work and the various phases that have followed one another over time means having a clear idea of the intervention to be carried out and how it should be carried out and performed. The line of thought, the current culture of intervention on the pre-existence up to the actual restoration, the various Restoration Charters up to the last one in Krakow in 2000 and in Italy the Code of Cultural Heritage as per Legislative Decree no. 42/2004, are the basis of any and all modus pensandi and modus operandi. Sustainable interventions were recently carried out on the roof and artistic coffered ceiling of the Church of the Confraternity of the Holy Rosary in Gragnano (Naples)in the Archdiocese of Sorrento-Castellammare di Stabia (Naples). Due to water infiltration in the attic over decades, the iron girders of the attic floor have oxidised. This led to the detachment from the intrados of the girders of the plaster underneath with weighting on the entire decorative part attached to wooden frames, and consisting of decorated plaster elements, curved cardboard elements shaped in the connection with the inner cornice. The concomitant cause was also the rotting of the fir wood warp-frame itself hooked with iron wire to rudimentary nails fixed in the ceiling above. The first step was therefore a careful study of the construction system, followed by the rebuilding of the solid chestnut wood trusses, the tile covering, and then the reinforcement of the attic. The artistic coffered ceiling was instead dismantled in parts but entirely. A new support structure was then created in lightweight aluminium profiles (instead of the rotten fir wood frame) made integral with the upper slab. This case study demonstrates that interventions are sustainable when they are capable of re-proposing traditional materials and techniques, consistent with the history of the work, non-invasive and therefore respectful of its identity. Architecture and the interventions that it requires over time (monitoring, diagnosis, adjustments, structural consolidation and up to scientific and philological restoration) require sedimentation of thought and cognitive and design "slowness", without "performance anxiety", or inferiority complexes, or mania for the new and modern at all costs.

**Keywords** – intervention, sustainable, roofing, coffered ceiling

Paper type - Practical Paper

### Organizations' Sustainability-Oriented Innovation: When Open Innovation Leads to Sustainability

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### **Abstract**

This paper is intended as a contribution to the ongoing conceptual development of the role of organizations in fostering innovation, and in promoting, at the same time, sustainability. In particular, Sustainability-oriented innovation (SOI) involves making intentional changes to an organization's philosophy and values, in terms of "openness", which consider commercial viability, while simultaneously improving environmental and/or social performance. However, although it is evident how essential it is to ensure a SOI within organizations, little attention has been paid to bridging between open innovation (OI) and sustainability, with particular references to the key drivers enabling such valuable processes within organizations. Starting from these considerations, the main purpose of this paper is to contribute to the recent debate on the new intersection between innovation and sustainability within organizations. The paper, focusing on Enel case study and through a website content analysis, sheds light on the drivers related to the concept of "open innovability". The study offers several useful implications for both researchers and professionals operating in the sustainable innovation field, highlighting how OI could support the organization in the creation and transmission of sustainability solutions and objectives.

**Keywords** – open innovation, sustainability, sustainability-oriented innovation, content analysis.

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### Innovation and Sustainability: Towards More Smart and Green Forms of Organization for Healthcare

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### **Abstract**

The paper aims to create the conditions to develop a smart model of work organization 4.0 able to generate sustainability and green logic through a multi-sectoral approach that exploits the central role that the working dimension assumes in the life of the urban community and in the organization of the city.

The methodology that we intend to apply is qualitative-quantitative in the sense that we will start with a first desk phase that aims to collect specific information, detailed, useful in the start-up phase and that will then be used to build the survey and will proceed with a longitudinal analysis.

The expected results of the research concern, first of all, the overcoming of the state of inconsistency and weakness on the subject of agile work and also the attempt to rationalize the economic and social impacts that this innovative approach entails.

The importance of this work lies in the possibility of building a structured SW implementation model that takes into account the different implications (economic, organizational and social) that this innovative approach to work generates. Our scientific and operational contribution is based on the possibility of creating new forms of work.

An innovative contribution of this paper appears to be the formulation of proposals and useful indications for change management policies and interventions in terms of new forms of work, in the sectors under analysis.

In particular, the paper, through the results of a qualitative-quantitative analysis will focus on the identification of critical issues encountered by employees in the implementation of SW and its impact in terms of individual and organizational performance.

That is, this dimension transversally intercepts all aspects of personal and collective organization, affecting the lives of individuals and families, the local economy, the quality of the environment, the demand for mobility, consumption, social relations and urban planning.

These aspects allow to consider the change that the SW generates with a logic of combination between the hard aspects of an organization and the soft ones, including the new innovative digital skills, IOT and the so-called soft skills.

The overall results of the survey are intended to describe a dynamic process that begins to rethink even the procedures and tools of organizational action, within which the relationship with employees is increasingly placed at the center of the design.

The increase in the quantity and quality of time due to the lack of home-work journeys puts people in a position to experiment with new daily forms of re-synchronization of work commitments with family and personal needs.

Keywords - Smart Working, Covid19; Organization, Healthcare

Paper type – Practical Paper

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### Project Manager Competencies and Learning: A Literature Review

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### Abstract

The project manager must possess various skills in order to achieve the goals set in the project for which he is responsible. According to the existing literature, these managerial skills possessed by the project manager can be not only of the hard type (technical), but also of the soft type (behavioural or transversal). In order to better understand these dynamics, the aim of this research is to present the discussion about how project managers learn soft skills according to the scientific literature. The purpose, specifically, is to map and group the various articles published, from 2003 to 2022, to have an overall representation of the studies carried out.

The methodological approach used was quantitative through a literature review that took place in three phases. The main results showed that the most prominent research areas are knowledge management, the typologies of skills and the learning method and style.

**Keywords** – Management education, experiential learning, literature review (max 5 words)

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# How Can Consumers Behave Sustainably in the Fashion Industry? A Study of Determinants, Drivers, and Barriers for Different Sustainable Consumption Options

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### Abstract

A shift toward more sustainable production and consumption patterns is crucial. The fashion industry is responsible for negative environmental and social impacts along the value chain. Thereby, the fashion industry is one of the priority areas of intervention in the sustainability agenda.

Recently, the literature has devoted much space to the analysis of sustainable fashion consumption. Some literature reviews on sustainable fashion have been published recently. However, these focused on a specific consumption stage. Multiple alternatives to make, use, and dispose of fashion products sustainably are available among all consumption stages and an analysis of the determinants of consumer behavior for each option is missing so far. Such knowledge would be useful for a deeper understanding of sustainable consumption in the fashion industry, to define a holistic picture of the reasons that favor or discourage the adoption of sustainable behaviors for each phase of consumption. This study aims to fill this gap by systematically reviewing the literature related to sustainable consumer behavior in the fashion industry. A product life cycle approach is adopted by analyzing consumers' perceptions and the influencing factors of consumer behavior towards the sustainable options existing for each stage (i.e., production, use, and disposal). Specifically, these sustainable options can belong to the phase of garment choice (i.e., before consumer usage), the garment usage (i.e., during consumer usage), and when the consumer ceases to use the garment (i.e., after consumer usage). The research string used to collect articles was created by mixing keywords related to three main domains: consumer behavior, sustainability, and the fashion industry. The research string was launched on Scopus and Web of Science databases on 31st December 2022. After a series of screening following exclusion criteria, a final sample of 216 articles was included in the review.

Results show many factors driving or hindering sustainable consumer behavior. The main barriers to sustainable consumption are high price, skepticism, stereotypes, lack of knowledge, availability, and efforts to access product/service. Furthermore, consumers' environmental concerns and awareness seem to play a secondary role in the decision process. Conversely, high-quality, comfort, and style of garments, together with new emerging technologies and services, can positively contribute to sustainable consumption. Social media can help shift toward sustainable consumption practices, favoring the spread of sustainable knowledge and awareness among consumers. A future research agenda and several implications for managers are provided.

**Keywords** – Sustainable fashion, Consumer behavior, Product life cycle, Sustainable consumption, Systematic literature review.

### Social Media in Agribusiness: The Way for Sustainability

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#### Abstract

This paper aims to investigate which are the relationships between Italian agri-food companies, governed by women, sustainability and social media. The aim of this paper is to analyse how agrifood companies are sustainable and if disclose their way of being sustainable through social media. In addition, this paper aims to investigate what economic benefits Italian agri-food companies that convey sustainability through social media receive. This work is supported by a qualitative methodology based on a case study. The results of any studies have begun to show that there is a close connection between agribusinesses and sustainability. Furthermore, SMEs are not only tied to tradition, but also to innovation; it was also found that the positive effects, produced by the diffusion of new information technologies, produced improvements in efficiency, product quality. environmental sustainability and new communication channels; all of these are important factors that can influence business relationships. It was also possible to see that through the use of social media, agri-food companies were able to communicate their commitment to sustainability to a large audience. Communicating a company's level of sustainability, also in the agri-food sector, through social media can bring economic benefits. This paper aims to expand the literature on the topic of sustainable agri-food companies in Italy, with a special focus on the use of social media in women's businesses.

Keywords - Agri-food, sustainability, social media, gender, SMEs

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### Cryptocurrency, Fintech and Islamic Entrepreneurs: Shaping the Prospects of the Islamic Digital Economic System

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### Abstract

The research identifies the essential fintech solutions available in the Islamic nations and the shaping factors that are classified based on the economic growth. For accomplishing the goals of the current study, a qualitative secondary research survey is conducted. The study involves collection of 30 research journals from the leading Islamic web sites. Data have been analyzed for shaping perspectives of economic development as per Sharia Law. The results indicated that there is a need for development of existing services and enhancing the use of fintech technologies. The proper regulation of cryptocurrency based on Sharia compliance was analyzed and the study findings indicated that Islamic entrepreneurship needs to emphasise more on the technology development and marketing. The overall shaping prospects and regulations parameters for the Islamic digital economic system are processed as per the Sharia law and the beliefs of Muslim people. The study states that the Economic factors such as Fintech, Cryptocurrency, and Entrepreneurship must be more transparent, cost-effective and must provide effective customer satisfaction.

Keywords - Fintech, Cryptocurrency, Entrepreneurship, Sharia law, Blockchain

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# A Spatial Decision Support System for the Knowledge and Valorisation of Cultural Heritage in Small Towns: Method and Application to a Case Study

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### Abstract

This paper proposes a method for recognising the elements of cultural interest located in inland areas and disseminating the information by a tool based on the data collection and organisation methods. This is done through the use of GIS (Geographic Information System), which makes it possible to map, manage and analyse a whole series of information, guaranteeing better knowledge and communication, as well as better management of decision-making processes. The application to the case study concerned the Province of Avellino as a pilot area, but it should be noted that the validity of the proposed methodology lies in the possibility of replication to any other context. The versatility of this tool can provide useful guidelines to those who wish to know, communicate or intervene on the surveyed buildings/assets, which from time to time will become available through the databases implementation.

**Keywords** – G.I.S, S.D.S.S., inland areas, valorisation of cultural heritage, small towns

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### Entrepreneurship in a "Made in Italy" Company: Analysis of the Start-Up Phase

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### Abstract

The objective of this article is to present the analysis of a case study regarding a small-medium enterprise Italian-owned company in the start-up phase, which produces consumer goods such as playful learning products for 0-24 months children. The Company is unlisted and is fully held by a family-controlled group. It meets the basic requirements of a 'Made in Italy' brand and its products are manufactured using production processes that reflect the concept of sustainability. The term 'sustainability' of a company refers to an organisation's concrete commitment to promoting a business model that not only enables the company's long-term profitability, but is also attentive to the environment, social welfare and long-term governance. The research is conducted through a qualitative method and intends to analyse implemented processes and results of the case study, obtained interviewing Company's management. In particular, the research focuses on commercial, financial, and social strategies. The Company was founded in 2020 and, after establishing itself in the Italian market, it started a process of internationalisation, promoting itself as a 'Made in Italy' company.

**Keywords** – Entrepreneurship, Sustainability, Made in Italy.

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### **Gender Equality: Driver or Brake of Sustainability**

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### Abstract

In view of a necessary sustainable organizational turnaround, this research aims to reflect on the aspect of social sustainability, which is often given little weight in corporate sustainability programs. The research focuses on one of the most crucial nodes in social sustainability, the gender gap. Through the Gender equality global report & ranking 2023, were highlighted the progress made and the critical issues still to be resolved in terms of corporate gender equality policies

The future developments of the research include interviews aimed at all the HR of companies according to the Mosaic Business Model.

**Keywords** – Gender gap, social sustainability, knowledge management, diversity management, broken rung

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# Exploring the Determinants of Consumers' Sustainable Fashion Purchase: An Integration of the Theory of Planned Behavior and the Fashion Adoption Theory

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### **Abstract**

Many fashion companies are increasing their sustainable offer by introducing into the market new sustainable clothing (e.g., bio-based garments). However, the level of acceptance of these products is still low among consumers due to barriers, such as high prices, lack of product knowledge or availability. To foster sustainable fashion consumption, a clear understanding of consumers' motivations to purchase this kind of clothing is needed.

This paper aims to investigate the determinants of consumers purchasing intentions and behaviors toward bio-based garments. To this aim, a conceptual framework was developed, based on the integration between the "Theory of Planned Behavior" (TPB) and the "Fashion Adoption Theory" (FAT). Sustainable fashion is considered a new trend, according to previous studies; therefore, the sustainable fashion adoption process was studied by reconducting the FAT variables in the TPB model

This study adopts a quantitative methodology. A questionnaire was spread among Italian consumers. The linear regression technique will be used for data analysis.

The contributions of this study are manifold. From a theoretical point of view, the adoption of different behavioral theories and their modification using innovative and traditional variables in different combinations. From a managerial point of view, (1) insights for developing marketing strategies for sustainable garments and specific consumer segments; and (2) information to evaluate how to best use digital channels to promote its sustainable offer. Concerning policy-related implications, this research will help define categories of target consumers on which to focus awareness campaigns.

**Keywords** – Sustainable fashion, Consumer behavior, Bio-based garment, Purchase behavior, Sustainable consumption.

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### The Role of Experience in the Consumers Decision to Adopt the Zero Emission-Vehicle (ZEV)

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### **Abstract**

Important international legislation in recent years on the decarbonisation of production and consumption has accentuated the commitment of the world's countries to reduce annual greenhouse gas emissions (GHG). This challenge, addressed to both academic and business professionals, has prompted fervent research activity to devise new, less impactful production models (Augenstein, 2015; Sarasini and Linder, 2018; Vanugopal and Shukla, 2018; Piterou and Coles, 2021; Tapaninaho and Heikkinen, 2022; Stalmokaitė et al., 2022; Mansoor and Paul, 2022).

Among the various production sectors, transport is one of the main contributors to annual GHG emissions. About 27% of total GHG emissions come from the transport sector (EEA, 2020) of which about 75% of emissions come from road transport (IEA, 2021). In this context, the green transformation process currently underway necessitates a transition of mobility towards the use of zero-emission vehicles (ZEVs) – i.e., all those vehicles powered by alternative fuels such as electric, hybrid and hydrogen. Indeed, although research in recent years has focused on these issues, in particular investigating what factors induce consumers to adopt an electric vehicle, the current literature tends to disregard the different types of ZEV by treating non-traditional vehicles indistinctly (Augurio et al., 2022; Brückmann, 2022; Kar et al., 2022; Li et al., 2022; Lin and Shi, 2022; Munshi et al., 2022; Sahoo et al., 2022). Furthermore, few studies are available on European consumers.

This study investigates the purchase intention of Italian consumers towards ZEVs through an integrated model based on the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). This theory considers four antecedents: performance expectancy (i.e., the benefits or perceived usefulness of the technology user), effort expectancy (i.e., the degree of perceived ease of use by the technology user), social influence (which reflects the degree to which other parties believe that the user should adopt the technology), and facilitating conditions (i.e., the perception that users have on the existence of an adequate infrastructure that supports the use of the technology). This research extends the UTAUT, integrating it with the consumer experience – i.e., the amount of objective or stated knowledge by the consumer towards the ZEV product (Johnson and Russo, 1984; Rao and Monroe, 1988; Sujan, 1985; Torrico et al., 2019). In this study, we consider both the direct experience – i.e., the degree of consumer knowledge derived from the purchase or past use of the product – and the indirect experience – i.e., the degree of consumer knowledge about the existence of the product (Marks and Olson, 1981; Dangelico et al., 2022). Furthermore, the proposed model also integrates demographic control variables to understand how experience can influence adoption intention for different consumer categories.

This study offers theoretical implications in that it delves into the role of experience in consumer decision-making processes in the adoption of a ZEV, analysing how direct and indirect experiences can increase the propensity to accept and use this new technology for different demographic categories of consumers.

### Agri-Food Digitalization and Sustainability: A Scientometric Analysis toward Industry 5.0

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### **Abstract**

Recent environmental changes and socio-economic issues, required companies to adopt sustainability practices in order to safeguard the ecosystem on which insist and, at the same time, guarantying their profitability. In this scenario, the agri-food industry is particularly concerned, as food production and delivery have high impact on environment and society. Companies are investing in a digitization journey, surfing the flow of the transition from the actual technocentric vision of technology to a synergistic one involving social and environmental sustainability. Starting from these assumptions, the aim of this paper is to provide an overview of how the scientific literature explored the relationship between sustainability, Industry 4.0 (I4.0) and the agri-food sector, as well as delving into the role of the I4.0 pillars in driving sustainability moving toward Industry 5.0 (I5.0). A rigorous methodology guided the study toward a double-layers scientometric, performed with Bibliometrix. The sample was identified, using PRISMA methodology, in Scopus and WoS, leading to a database of 1114 papers and a further 9 sub-datasets, one for each I4.0 pillar. These datasets were analyzed in depth in order to recognize i) the main characteristics of the investigated research field; ii) the main research routes addressed in the investigated research field; iii) the current capability of each I4.0 pillar to drive sustainability in the investigated research field. The results reveal that the topic is recently and internationally debated; there is a strong interest in searching for sustainable solutions that safeguard natural resources with the help of data-driven technologies; among the I4.0 pillars, the simulation is the most recognized pillar in driving agri-food toward sustainability; the main topics addressed are linked to environmental and social domains. The study provides research and practical implications consisting of understanding the field concepts multiplicity, laying groundwork for future researchers, encouraging in the study replication, understanding how pursue sustainability issue, supporting the adoption of technology-based sustainable practices toward I5.0, stimulating in the exploration of new sustainability topics leveraging on technology application.

**Keywords** – sustainable development, knowledge management, digitalization, agriculture 4.0, environmental impact

#### Sustainability versus Digitalisation in the Public Water Sector: Knowledge-Driven Insight Taken from an Evolutionary Digitalisation Project in a German Public Hybrid Water Association

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#### **Abstract**

This paper analyses the tension field between digitalisation, sustainability and knowledge management in the water sector, particularly, in the context of climate change and water stress. The importance of sustainable hybrid drinking water supply and simultaneous flood protection is outlined by a practical case study within a German water association with a total volume of around 100 Mio. EUR. An ongoing evolutionary digitalisation project is presented and research propositions are stated, which are centred on the questions of deployment of sustainable critical success factors (CSFs) based AI-solutions paired with knowledge management systems (KMS) in the context of climate change and water stress. The application of CSFs and the creation of digital and rational decision-making models based on KMS are elaborated on. Additionally, it is elucidated, whether digitalisation, knowledge and sustainability are to be seen as CSFs in themselves, which thereinafter is confirmed. Finally, the possibility of integrating Kingdon's multiple stream model into an AI-based KMS to provide management decision support is explained. In conclusion, knowledge is seen as a binding key for achieving a sustainable digitalisation strategy within a critical infrastructure organisation.

**Keywords** – flood protection; drinking water supply; data-driven knowledge management; evolutionary digitalisation IT project; sustainable public water sector

Paper type – Practical Paper

# Green Ports: Innovation Adopters or Innovation Developers? An Explorative Analysis through the Lens of Innovation Ecosystems

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#### Abstract

Global warming and resource depletion lead ports worldwide to define new strategies for reducing their environmental impacts. The paper offers an explorative analysis of three of Europe's largest and most polluted ports - Rotterdam, Antwerp, and Hamburg - describing how those ports address the sustainable challenge. Particularly, the analysis is beneficial to decline a recurrent concept, i.e., green port. The concept has been developed to increase environmental awareness and refers to a set of actions describing how the port balances the ecological footprint by economic benefits. Key actions to be sustainable often are mainly attributable to green technology adoption. Instead, the paper focuses on how ports act to be green. Is a green port a port that adopts green solutions for improving operational performance, or does it develop green solutions and guide the green strategy with and for the entire local area? Results show that ports, in addition to adopting intelligent and digital solutions that improve ports' activities, they act as innovation hubs, building an innovation ecosystem that leads their green transition.

**Keywords** – Green ports, ports, sustainability, innovation ecosystem, innovation

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#### For Wider Sustainability

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#### **Abstract**

The European Agenda for Sustainable Development has set a target of 2030 to achieve 17 Sustainable Development Goals (SDGs) which are: 1: Eradicate poverty; 2: Eradicate hunger; 3: Health and wellbeing; 4: Quality education; 5: Gender equality; 6: Clean water and sanitation; 7: Clean and affordable energy; 8: Decent work and economic growth; 9: Business, innovation and infrastructure; 10: Reducing inequalities;11: Sustainable cities and communities;12: Responsible consumption and production;13: Combating climate change;14: Life under water;15: Life on Earth;16: Peace, justice and sound institutions;17: Partnership for the goals (1/2 - 2/2) and 169 associated sub-goals. This contribution makes a reflection aimed at extending the concept and meaning of sustainability, to speak and bring into play - clearly and explicitly - other mental categories and values such as the human dimension of domestic and urban space, mathematical perfection, roots and historical memory as well as aesthetic quality. Citing some of Italo Calvino's The Invisible Cities therefore seemed appropriate and pertinent. To emphasise the importance of the role of memory and roots, reference is made to classical mythology to examine two emblematic figures: Ulysses and Aeneas.

**Keywords** – Sustainability, Memory, Roots, Aesthetics

### Relationship between Lifelong Learning and Income, Wages and Labour Productivity Growth

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#### **Abstract**

In the era of technological progress, it is necessary to have a skilled workforce with abilities to react to market changes. The empirical literature relies almost exclusively on school attainment measures of human capital, such as years of schooling. As lifelong learning programs may increase the skills of a labour force, the research on the participation of labour force in lifelong learning programs and its impact on income, wages, and productivity should contribute to the existing literature. The aim of this study is to estimate the impact of the participation of labour force in lifelong learning programs on income, wages and productivity, as empirical analysis shows high heterogeneity in the participation rate among European countries. Descriptive statistical analysis of a sample of 35 European countries for the period 2006-2021, shows that, on average, 10.8% of the EU (27) population aged 25-64 years participated in education and training programs in 2021, with Finland and Sweden having the highest participation rates in 2021 (30.5% and 34.7%), while the Balkan countries have the lowest participation rates (1.8 in Bulgaria and 4.8% in Serbia in 2021, 2.7% in Montenegro and 2.6% in North Macedonia in 2020). Applying the OLS model to the sample of thirty-five European countries and the period from 2006 to 2021, with growth in the participation rate in education and training (persons in the labour force, 25-64 years) as an independent variable, while the growth in GDP per capita, labour productivity, and wages are dependent variables, we show that growth in the participation rate in education and training by one percentage point leads to GDP per capita growth by 6 percentage points, nominal labour productivity growth by 5.5 percentage points, and wages growth by 2.6 percentage points. Productivity growth is a prerequisite for long-run economic growth in all countries, and it is not possible without investment in knowledge, either in education or investment in research which will result in innovation and technological progress. Lifelong learning is an important part of the overall system of education and increases human capital, and should be given the highest relevance in the overall education process. For medium-income European countries, to converge to the income level of developed European countries, it is necessary to increase its technological readiness, quality of the workforce, and productivity. The growth in human capital is therefore indispensable, not only through formal education but through lifelong learning also.

Keywords - Lifelong learning, Income, Wages, Productivity, Europe

### Digital Spiral Model of Knowledge Creation and Encoding its Dynamics

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#### **Abstract**

The paper is conceptual as it aims to extend the well-known Nonaka's spiral model in order to develop a model of knowledge creation (MKC) using information technology. The need of developing the MKC is due to the increasing ubiquity of information technology in the field of knowledge management. The three grounds of the MKC development are considered. The first is human-computer symbiosis combining the automatic (computer) and expert stages of goal-oriented new knowledge discovery. The first ground determines the usage of three media of different nature (mental, informational, and digital ones) during knowledge discovery. The second ground extending Nonaka's model is the specification of digital potential sources of new knowledge which should be relevant to the goal of its discovery. The third ground is explicit linkages between new concepts (individual and group) and their digital sources. To define the MKC the paper describes some notions (knowledge, concept, mental data, sensory perceived and digital information, sensory perceived and digital data, and digital knowledge representations). The MKC covers three processes of Nonaka's model (internalisation, socialisation, externalisation), its modified fourth process (combination), and includes new processes for discovering new concepts in digital potential sources of new knowledge. The principal feature of the MKC is encoding knowledge dynamics in computer system knowledge bases fixing individual and group concepts, their digital sources, and concept generation time points. The proposed model is the foundation of evolving previous version of the DIKW hierarchy because the MKC processes clarify linkages between data, information, and knowledge.

**Keywords** – Knowledge creation, Knowledge dynamics, Spiral model, DIKW hierarchy

#### Knowledge Documentation and Storage as a Key Challenge of Knowledge Management Implementation in Small and Medium-Sized KIBS Companies

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#### Abstract

Knowledge Intensive Business Services (KIBS) companies have long been recognised as key players in the modern economy since they positively affect the innovativeness of businesses and societies. Their business activities are mainly based on knowledge, which is both the input and the output of their production processes. Despite their small average size, the vast majority of KIBS companies are aware that knowledge is their most crucial competitive resource. However, they often manage their cognitive assets in a substantially informal and undeliberate way. Indeed, such companies face difficulties and obstacles typically associated with a limited size, such as, e.g., scarcity of human and financial resources, lack of time, and short-term orientation. Furthermore, KIBS SMEs face specific challenges, mainly caused by the intangible and knowledge-intensive nature of their business processes. A key issue concerns knowledge documentation and storage, which is essential to make the retrieval and reuse of possessed knowledge easier for existing and newly hired employees.

In spite of the above, research about how small and medium sized KIBS companies manage knowledge documentation and storage processes is still limited. To help fill this gap, this paper examines the main difficulties that KIBS SMEs face when documenting and storing their knowledge and how they try to face and overcome these difficulties. In particular, the paper illustrates and discusses the findings of an empirical investigation that involved 13 Italian KIBS SMEs belonging to different sectors. The decision to adopt a multiple case study approach was induced by the exploratory nature of the research. The study revealed that knowledge documentation and storage is a widespread activity among the investigated companies, which confirms the relevance of these processes. The investigated companies are aware that poor documentation generates several problems that result in late responding to client requests. Furthermore, the study allowed identifying some shared challenges that concern the entire document and storage process, as well as collecting useful indications about how companies deal with them. The study has the usual limitations of a case study methodology, and especially the difficult generalisation of the results. This paves the way for future research devoted to confirm what emerged from the present analysis, for example, by means of surveys.

**Keywords** – KIBS, Knowledge documentation, Knowledge storage, Knowledge management challenges, Case study

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### Sustainable Intellectual Capital: Characteristics and Lines of Research

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#### Abstract

Organizations have become aware of the need to expand their objectives beyond traditional economic issues. Thus, since the concepts of Corporate Social Responsibility (CSR) and Corporate Sustainability (CS) were introduced, more and more managers introduce social and environmental objectives in their decision-making process. Additionally, organizations focus their efforts on the development of their intangible assets to achieve better performance, since these guarantee their survival, value creation and improvement of competitive advantage. The set of intangible assets that an organization possesses constitutes its Intellectual Capital (IC).

The existing literature has repeatedly illustrated different concepts and dimensions of IC from various perspectives. However, the terms "green", "social" and "sustainable" IC have recently been incorporated into the academic literature on the management of companies' social and environmental responsibility, representing the fusion between two key aspects for the future success of organizations: (1) the management of intangibles and (2) sustainability.

In order to increase the knowledge in the field of intangibles management from the perspective of sustainability, the purpose of this work is to carry out a systematic review of the scientific literature around a very new topic: Sustainable Intellectual Capital (SIC). The research questions that arise are: (1) How has the scientific production on the SIC evolved? and (2) What are the fundamental characteristics of this type of study?

To answer the research questions formulated, a systematic review of the literature was carried out according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses methodology (PRISMA, 2022).

Data collection was carried out between January and July 2021 through the Web of Science and Scopus databases. After eliminating duplicate papers and those that did not coincide with the topics of interest, the final sample consisted of 32 articles.

The results obtained shed light on the following aspects: (1) 71.87% of the papers on the SIC have been carried out in the years 2019, 2020 and 2021; (2) The scientific production analysed has been divided into eight blocks: the relationship between the green management of human resources and Green Intellectual Capital (GIC), the relationship between the GIC and green innovation, the conceptualization and analysis of the SIC construct, the link between logistics and management of the green supply chain with the GIC, the effect of organizational environmental awareness and environmental regulations on the GIC, the effect of the GIC on the competitive advantage of the organizations, the impact of the GIC on the CS and the role of information and communication technologies and the GIC in the achievement of the CS; (3) The use of quantitative methodologies predominates over qualitative ones. In particular, the use of Structural Equation Modelling (SEM) stands out; (4) Most of the studies have focused on the analysis of companies in the secondary sector, more specifically, manufacturing firms.

**Keywords** – Sustainable intellectual capital, Triple bottom line, Green, Social and Economic intellectual capital, PRISMA methodology

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# Exploring the Intersection of Technology, Digitization, and Innovation in Sustainable Knowledge Management: A Bibliometric Network Analysis

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#### Abstract

This article investigates the link between technology, digitalization, and knowledge management using digitalization and knowledge management to achieve sustainable development. In addition to the increased interest in knowledge management for implementing sustainability, technology, digitization, and knowledge management have an important influence on promoting sustainable economic systems. Knowledge resources must be exploited and managed, and a knowledge management system must be created to solve sustainability issues. Digital technologies such as Big Data are particularly significant in the context of sustainability since they provide improved decision-making processes. Furthermore, using digital platforms facilitates inter-organizational communication and information exchange by facilitating the exchange of best practices and collaboration. Using bibliometric network data analysis methodologies, we propose exploring the links between technical development, digitalization, and innovation in knowledge management for sustainable growth. The "core" themes covered in the literature will be determined using bibliometric analysis based on network-based methodologies, specifically community-detection algorithms. This information will be optimized using ensemble methods, and any possible bias from the many algorithms will be eliminated.

The relevant results of this work emphasize the role of new technology, innovation, and digitalization, all playing a vital role in the applicability of these findings to sustainability. Organizational reforms and internal strategic approaches are required to apply these technologies effectively and sustainably. This study adds to the expanding body of research on sustainability, knowledge management, and digitalization by shedding light on the interrelationships between these factors and emphasizing the significance of adequately managing knowledge resources to address sustainability concerns. Five essential organizational performance and sustainable growth principles have emerged: knowledge management, sustainability, innovation, intellectual capital, and corporate social responsibility.

Additionally, the analysis emphasized the significance of leadership in knowledge management processes. Several clusters also highlighted the significance of promoting sustainable growth through collaboration, innovation, and knowledge transfer. Small and medium-sized firms (SMEs) may benefit from intellectual capital and open innovation initiatives to better their knowledge management procedures and support sustainable growth. Growth and competitive advantage can be attained if these concepts are managed effectively. A firm's success depends on its leadership and ability to share and transfer information. Therefore, the sustainable growth of a business needs a knowledge management process that is backed by a strategic approach and incorporates knowledge exchange and transfer in its design.

Keywords - Knowledge Management, Technology, Sustainability, Innovation, Bibliometric Analysis

**Paper type** – Academic Research Paper

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<sup>&</sup>lt;sup>1</sup> We thank two anonymous referee for their comments and suggestions.

# The Role of Digitalization in the Sustainable Business Model: A Content Analysis of Integrated Reporting of European Companies

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#### Abstract

The topics of sustainability and digitalization are increasingly present in contemporary academic, economic and social debates. Both topics are drastically changing the behaviour of companies. This article aims to examine the disclosure of information on digitalization and sustainability in the context of the Integrated Report of European companies. It seeks to understand the extent to which these companies are moving towards a sustainable business model (SBM) that includes new digital technologies. In particular, the analysis started from the systematic literature review proposed by Broccardo et al. (2023) who, in order to investigate the contribution of new technologies to the transformation of companies' SBM, provides a new table of categories started by the Business Model Canvas. Based on this framework, the authors constructed the useful items to develop and test the research objective. For this purpose, the qualitative research method was chosen. In detail, an automatic content analysis was conducted. This work analysed the Integrated Reports using a sample of 125 European companies in the period 2020-2021. The results showed that companies are increasingly including digitalization and sustainability issues in financial and non-financial reports. However, the financial sector seems to include digitization issues more closely, while the nonfinancial sector includes sustainability issues. Although studies in this field are increasing considerably, it seems that the academic debate is still in its infancy and that there are not enough empirical studies. To fill this gap, this article can contribute to the existing literature and provide an element of support for academics, companies and standard setters.

**Keywords** – Sustainable Business Model, digitalization, integrated report, disclosure

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### Marketing-Specific Intellectual Capital, Marketing Capabilities, and Performance: An Empirical Study

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#### **Abstract**

Following recent research calls that highlight the need for a more contextual approach to the study of intellectual capital (IC) that could provide managers with more fine-grained and actionable insights and recommendations, and considering recent concerns regarding the contribution of the marketing function to firm performance in the age of data, this paper aims at analysing how investments in marketing-specific structural capital and relational capital contribute to enhance marketers' knowledge (i.e., marketing-specific human capital) and lead to superior organizational marketing capabilities (i.e., product, price, place, and promotion) that translate into superior market performance and, ultimately, competitive advantage (i.e., superior financial performance). Based on survey data from 346 Spanish firms over 100 employees and using structural equation modelling (SEM) based on partial least squares (PLS), we find that both marketing-specific structural and relational capital are positively and strongly related to marketers' knowledge and that all marketing-specific IC categories (human, structural, and relational) are positively and significantly associated to marketing capabilities. At the same time, capabilities are strongly and positively related to market and financial performance. While marketing-specific structural capital is related to financial performance only indirectly (i.e., via human capital, marketing capabilities, and market performance), human and relational capital are both directly and indirectly related to financial performance. Our findings also reveal what specific knowledge resources within each IC component are the most relevant, thus offering specific guidelines to improve marketing-related resource allocation decisions.

Keywords - Intellectual capital, Marketing, Marketing capabilities, Market performance, Financial performance

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### Organizational Innovation as an Enabler for the Emergence of a Non-Precompetitive Knowledge Ecosystem

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#### Abstract

In this paper we conduct a qualitative case study on how knowledge management occurs within a regulated safety context that seeks to make its knowledge sustainable. Thus, organizations, which operate in this context, try jointly, to create, share and, above all, sustain this knowledge for a long time. The most effective way to meet their objectives is to redesign their inter-organizational architecture into a non-competitive knowledge ecosystem. The back and forth between the research field and the theory, led us to ask the following research question: how a regulated safety context should evolve into a non-pre-competitive knowledge ecosystem? To answer this research question, we adopted an organizational perspective, integrating knowledge management and organizational innovation streams. Our results show the emergence of a non-pre-competitive knowledge ecosystems where actors' interactions are strictly collaborative due to its main goal: sustainable and interorganizational knowledge management. This emergence is enabled by internal and interorganizational innovation, i.e., the development of a knowledge management process. Organizational innovation is articulated within the actors' own (intra-organizational) knowledge systems, but also through the knowledge flow that is exchanged at the inter-organizational level. To achieve this, ecosystem governance is ensured by a focal actor (through regulatory legitimacy) who assumes the role of orchestrator, to sustain the knowledge flow through coordination and collaboration of ecosystem members.

**Keywords** - Sustainable Knowledge, Knowledge Ecosystem, Non-precompetitive Ecosystem, Organizational Innovation, Regulated Safety

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### Open Innovation Activities and Firm Performance: A Comparison between Pre-Crisis and Post-Crisis

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#### Abstract

Innovation played a relevant role in coping with the related economic-financial consequences of the 2008 crisis. In particular, several studies show the pivotal role of open innovation activities in responding to 2008 crisis-related downturn conditions. Remarkably, previous studies share several limitations. First, they leverage single-country data or single sectors to examine open innovation activities. Second, they examine open innovation activities and firm performance through binary comparisons between either pre-crisis and crisis or crisis and post-crisis periods. An overall view of how the outburst of a crisis altered the 2008 pre-crisis collaboration strategies and how such strategies changed after the 2008 crisis is a relevant gap in knowledge. This article addresses this gap in knowledge by examining open innovation activities and firms' performance through a binary comparison between pre-crisis and post-crisis periods. In particular, this article analyses a repeated cross-sectional sample of firms from 13 European countries interviewed during 5 consecutive Community Innovation Survey waves. This article shows how after the crisis, European firms reduced – on average – the variety of their innovation partners. Such a loss was recovered only in 2012-2014. The outburst of a crisis seems negatively associated with the propensity towards open innovation and, specifically, with the number of different collaboration channels exploited by a firm to innovate. A crisis may urge firms to focus their energies on fewer collaboration channels to make the most out of them. The results also emphasise that the financial crisis temporarily reduced innovativeness. Interestingly, the results show that the positive relationship between collaboration breadth and innovation performance is more marked in the post-crisis wave for the firms more active in open innovation.

**Keywords** – Open innovation, Recession, Crisis, Interorganizational collaboration, Innovation performance

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### Disruption in Research Practice - Disruptiveness in New Knowledge Spaces

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#### **Abstract**

Disruptive innovation has become a hype in some industries, discourses and applied research fields and often has a positive connotation. This normative conception of disruptive innovation often arises from the context of sustainable development: outside existing systems and structures, new solutions for mitigating and adapting to climate change are to be sought. Ethical reflection is of particular importance. (IPCC, 2014).

The paper, therefore, argues that a critical examination and definition of the disruption concept are pending. This means that it should be examined how the term is used in such a way that it is linked to normative expectations of research and innovation processes. Based on this, it is argued that disruptiveness cannot easily be invoked in research projects as a legitimising approach to positive social consequences of development processes. The concept of disruption is therefore related to changing knowledge spaces in research and innovation processes. By changing social interactions in socio-technical systems, reference systems for research and development processes are altered and dynamics are disrupted. Starting from the discussion of various possible definitions, the legitimacy of the demand for disruption in research practice is critically questioned. Thus, it is less a matter of radical change happening through external force, but rather of disruptive research or innovation being actively pursued

Some problems with disruption are outlined in the introduction. The resulting questions are formulated in the first section. Some approaches and possible goals in modelling disruptive innovation are discussed in the second section. Finally, the state of the research and conclusions are discussed.

The overarching question for the contribution is: "What is the significance of the concepts of disruption and disruptivity for the practice of responsible research and innovation, taking into account the technical shaping of new knowledge spaces"?

Keywords - disruption, paradigm, path development, innovation, knowledge management

### Managing the Metrics of Academic Publishing: Private Benefit at Public Cost

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#### Abstract

The management of academic performance in higher education has become the management of gaming. All actors in academic publication - individual academics, editors, universities, publishers - game to create the metrics that will bring them most personal reward. Much gaming is - like the white lie - considered mild and is scarcely noticed: an author self-citing more than previously; an editor pleased when authors cite more of the journal's own papers; a university congratulating employees for publishing in top journals; authors making the most of their research by spinning one paper into three or four; social and other media coverage emphasising the impact of a group's research, new research collaborations bringing a proliferation of co-authors, each likely to self-cite their paper, and so on.

But this amateur gaming is being overtaken by more sophisticated gaming. It has become normal for authors to cite themselves dozens of times; for editors to coerce authors into citing their journal's papers on pain of rejection; for universities to pay publication bounties well in excess of salaries; and for authorship to be extended to any name that will contribute to a paper's metrics. Journal papers have become formulaic, designed to fit citation requirements rather than to say anything new, or perhaps anything at all in that many are never intended to be read and some are quite unreadable. Vacuous 'water is wet' papers that can be cited just about anywhere in support of just about anything are highly valued. The editors of the *BMJ* and the *Lancet* are as one in declaring that most papers published in medical journals are disgraceful, and that the main task now facing medicine is erasing the rubbish from the record.

The metrics used to measure academic performance do no such thing, in small part because achieving the measures has become an end in itself, and in large part because the metrics, being key to competition, are universally gamed. When no one knows who has written a paper except that it is unlikely to have been any of the paper's listed authors - the situation encountered in many medical journals - this is extreme gaming, as it is when authorship slots are openly sold and bought, or when publishers sell tailoring services to fit papers to the requirements of their own journals. The public good is no longer served by castigating essay mills and predatory publishers when very similar services are provided by the 'legitimate' academic publishing industry. Nor is it served by relying on peer review to maintain standards; referees are reluctant to serve this system and are being replaced by editorial assistants who simply reject what is unlikely to be cited.

Keywords – academic publishing, metrics, gaming, peer review

# Knowledge Based Frameworks and Approaches for leading businesses in VUCA times - The impact of positivity in Multi Business Model Innovation in a world of VUCA - How can positive emotions stimulate the MBMI process influenced by VUCA Events?

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#### Abstract

The importance of right speed, effectiveness, efficiency and learning in Multi Business Model Innovation (MBMI) is vital to meet today's Volatile, Uncertainty, Complex and Ambiguous (VUCA) challenges to survive as a business in Business Model Ecosystems (BMES). VUCA events coursed by external and internal sources make some of the big challenges in 2023 to businesses.

How can businesses under these "VUCA World conditions" do high quality MBMI and knowledge management? How is it possible to stay positive and influence MBMI participants and teams in these processes to be and stay optimistic, create and capture knowledge - to increase their MBMI output, performance, competence, capability and courageous appetite on doing MBMI?

This paper investigates the impact between a positive mindset and knowledge innovation MBMI processes in BMES's influenced by VUCA Events. The impact of positivity is studied in 3 MBMI cases as competences to endure challenging MBMI processes influenced by different kinds of VUCA Events. From the cases a transfer of knowledge from tacit into explicit and internalized knowledge is outlined. The involved persons demonstrate preference for socialization processes, learning in pairs and groups as learning and creating by doing. They are very easy to internalize what they have learned in the VUCA. This corresponds to the hypothesis that a positive mindset is a predictor for success in MBMI.

The research is conducted in the view of Knowledge Management, MBMI and psychological theory – particularly the concept of positivity as fundamental for better creating and increasing learning and knowledge creation – the vital "raw material" in all MBMI and especially in a VUCA world. Our research shows that individuals embedded in networks and teams and with a general mood of positivity strengthens the MBMI processes. The paper finds that knowledge about the impact of positivity is very useful in MBMI processes influenced by VUCA.

**Keywords** – Positivity, Knowledge Management, Multi Business Model Innovation (MBMI) process, Volatile Uncertainty Complex Ambiguous (VUCA)

Paper type – Academic paper

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### **Green Intellectual Capital: A Hot Research Front in the Vast Field of Green**

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#### **Abstract**

The need for environmental awareness and green management in business and management arenas has led to green becoming a vast field that needs to be parcelled out to identify the green shoots. Knowledge is emerging as the key factor in developing a green awareness in companies, which has come to be called green intellectual capital (GIC). The objective of this research is therefore twofold. First, to identify and map the existence of active research fronts in the field of green through a bibliometric analysis (bringing green shoots to the surface); and second, to analyse in depth the GIC research front previously identified in this paper (one of the green shoots that emerged) and to offer new insights into it. We analysed 4,180 articles (4,142 for the identification of green research fronts and 38 for GIC) from WoS published between 2008 and 2022. Amongst the potential contributions made by this study include characterising 19 of the most active research fronts on green in business and management, as well as to know what advances have been made (and what remains to be done) in the literature on GIC.

**Keywords** – Green, Business and management, Green intellectual capital (GIC), Bibliometrics, Bibliographic coupling analysis (BCA).

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### **Knowledge Hiding in Organizations: Systematic Literature Review**

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#### Abstract

Although companies frequently make great efforts to encourage workers to share knowledge and voice concerns, many workers intentionally choose to conceal their knowledge rather than share it. This 'an intentional attempt by an individual to withhold or conceal knowledge that another person has requested" is called knowledge hiding.

This review systematically reviews, categorises, and synthesises the current body of literature regarding knowledge hiding. The current literature is categorised based on methods, theories, research context, and geographical distribution. Secondly, the antecedents and outcomes of a KH across the different levels of analysis are mapped using an inductive approach. This thematic map offers a visual guide to KH, placing antecedents and outcomes at different levels of analysis and suggesting where future research in KH might be headed.

Keywords – knowledge hiding, knowledge withholding, literature review

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### Intellectual Capital Framework and Athletes with Disabilities: The example of Bebe Vio

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#### **Abstract**

This paper tests the intellectual capital (IC) framework dedicated to elite athletes proposed by Aprile et al. (2022) on the Italian Paralympic champion Bebe Vio to determine the usefulness of this framework and its components. To do so, the study is based on primary and secondary data from and about Bebe Vio. The findings underline that the IC framework offers a solid approach to determine and learn about the IC of elite athletes (regardless of its type). Additionally, the findings indicate areas that could be added/extended to successfully determine the IC of these persons.

**Keywords** – Intellectual capital framework, Elite athletes, Athletes with Disabilities, Sport, Inclusiveness

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### The Impact of Ethical Leadership on KM Practices and Performance

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#### **Abstract**

Considering the relevance of leadership to sustainable business development (Hind et al., 2009; Kurucz et al., 2017; Pham and King, 2019), in this paper, we examine the relationship between leadership and organizational performance. More precisely the focus is on ethical leadership which has been defined as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (Brown et al., 2005, p. 120). Ethical leadership has found to be relevant in situations of change, as followers appear more satisfied with ethical leaders, which in turn motivates them to perform better, engage in more organizational citizenship behaviours, and also enjoy higher job satisfaction (Sharif and Scandura, 2014). A recent study by Ali et al. (2022) has also shown the positive relationship between ethical leadership and organizational learning. At the same time, empirical research on the impact of ethical leadership on organizational performance, however, is still limited (Dey et al., 2022).

Acknowledging the role of knowledge for sustainable business development (Abbas and Sağsan, 2019; Durst and Zieba, 2020), we argue in this paper that ethical leaders will emphasis and promote continued knowledge creation and knowledge networks to contribute to the firms' organizational performance (Rhee et al., 2022; Li et al., 2009) and thus their sustainable development.

The remainder of this paper is structured as follows. We first briefly address the literature background of this paper. We then explain the methodology of the research. This is followed by the presentation and discussion of the results before we terminate the paper with a conclusion.

**Keywords** – Ethical leadership, Knowledge management, Knowledge creation, Knowledge networks, performance

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#### **Knowledge Risks Arising from Digitalization**

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#### **Abstract**

This conceptual paper aims to identify and analyse knowledge risks resulting from digitalization. Additionally, the paper tries to present factors influencing knowledge risks arising from digitalization and ways of handling them.

The study is a continuation of the research by Durst and Zieba (2019) related to knowledge risks and their potential outcomes. This present study makes an update on the literature on knowledge risks arising from digitalization.

The paper offers new insights for researchers dealing with the topic of knowledge risks in the context of digitalization and ways of handling them.

The study provides insight for each of us, as the issue addressed concerns us all. By becoming aware of the potential consequences of such knowledge risks, people may meet and cope with digitalization in a better, more enlightened way.

The presented paper is based on prior literature and the authors' reflections, experience, and analysis. Thus, to check for the suitability of the risks proposed, there is a need for empirical studies. Such studies are planned by the authors in the near future.

Keywords - Knowledge risks, risk management, knowledge management, digitalization

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#### Knowledge Management and Metatheory in a BANI World

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#### Abstract

The purpose of this paper is twofold: (1) to understand how knowledge management failed to fulfil its promises and became a blurred field of research that gets increasingly diluted in adjacent fields, a catch phrase referring to an eclectic group of intangible phenomena related to learning and roughly to any organizational situations using the word 'knowledge'; (2) to explore how the use a metatheoretical analysis may suggest a way forward that moves away from eclectics to unity and highlight the potential KM holds for organizations striving to manage organizational knowledge within turbulent times. Considering the persistence of the conventional rational-cognitive obsession with recipes and the slicing and dicing of organizational knowledge in well-defined, circumscribed, and quasi-observable sub-domains, is timely. This widely spread inclination in objectifying and reifying knowledge fails to help organizations navigate the complex business environment of this first quarter of the 21st Century. Contemporary organizations are compelled to manage knowledge within a VUCA or BANI world. More than ever, firms must consider holistic perspectives enabling the management of an ambiguous and elusive organizational knowledge, while acknowledging the complexity or crisis state of our current world. Practitioners and scholars must go beyond the simplified assumptions currently available in mainstream literature. The following research question guides the study: What does a meta-theoretical study about the evolution of knowledge management reveal on its inherent ontological and epistemological assumptions, and how can this support scholars and practitioners to make most of a VUCA context? Through a meta-theoretical analysis, this paper endeavours to highlight how the field has come to this situation. It attempts to refocus the audience attention on the kernel of organizational knowledge, mechanisms, and dynamics. Meta-theoretical analyses on knowledge management are rare provided that the field is taken for granted and that trends seems to define the field and how it evolves.

Kevwords - Knowledge management, Metatheory, Positivism, Social Constructionism

### Needing Less to Have More: Sustainability and the Aesthetics of Restraint

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#### Abstract

The Global Wealth Report of 2022 reveals that we are wealthier, healthier, and living longer than ever before. However, this doesn't necessarily seem to equate to success as a society. The prevailing view in the western business world is that companies must generate high returns and great profits, which requires precise management and planning based on rational, explicit information and 'profound' knowledge. This view is being increasingly questioned by researchers and practitioners who argue that more is not always better. Instead, an 'aesthetic of the right measure' is needed to achieve long-term sustainability.

This position paper explores the idea of *the right measure* that may also include a shift of what we consider desirable in an organizational context. In the light of current movements towards 'Spiritual Knowledge Management' and 'Responsible Knowledge Management', the field of Knowledge Management may need to shift more towards knowledge creation for the greater good. This requires developing a tacit understanding of the meaning of sustainability and a shift in what is considered to be 'working beautifully' from something technically rational to something sustainable and organic.

Presumably, the only way for a company to achieve sustainability in the long run is to change the premises by which it operates away from the culture of 'more is better' towards what I coin as an 'aesthetic of the right measure'.

Ultimately, being a sustainable company needs to become as aspirational as being a financially successful company is today. This involves a shift of the aesthetic image that we have of success as being mainly drawn to financial wealth. Instead, the aesthetics of restraint involve finding pleasure in needing less. The paper suggests that this shift towards sustainability and organic growth is based on a positive aesthetic image of sustainability and requires a change in decision-making methodology and a strong sense of the organization's true purpose.

**Keywords** – Organizational Aesthetics, Sustainability, Restraint, Responsible Knowledge Management

### Integrating SDGs in Supply Chain Performance Measurement: A Multiple Case Study

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#### **Abstract**

In today's competitive environment, measuring and managing the sustainability performance of supply chain is fundamental as organizations are considered responsible for their harmful impact as well as for their contribution to sustainable development beyond corporate boundaries. The purpose of this paper is to investigate if and how organizations embed SDGs and their targets in their supply chains and how the impacts on SDGs can be measured and assessed. To this aim, a multiple case study involving four Italian companies is adopted. Our insights show the main supply chain practices implemented across the entire supply chain in order to achieve sustainability and SDGs. Furthermore, the preliminary findings show that performance measurement practices are critical enablers to instil a sustainability and SDGs oriented culture closing the knowledge gap with the various actors of the supply chain, especially those who exhibit a lower awareness of environmental and social issues. However, some barriers to the measurement of supply chain impacts on SDG targets are identified. In so doing, this paper contributes to prior studies on sustainability supply chain literature by providing empirical evidence on supply chain strategies and measurement practices to contribute to sustainability performance and realize a positive contribution towards the achievement of SDGs.

**Keywords** – Supply chain, sustainability, SDGs, performance measurement, case study.

### How Individual Level Factors Impact Digitalization in SMEs: An Empirical Analysis in the Wine Industry

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#### **Abstract**

In modern society, digitalization has become increasingly pervasive, both in the lives of individuals and in business activities. Research thoroughly analysed the advantages and challenges of digitalization, suggesting that this not only involves the adoption of new technologies but also requires significant changes in the processes and capabilities of the firm. As such, human resources are among the most affected by companies' digitalization. Despite this, we observed a lack of studies investigating the interplay between companies' digitalization and individual responses. Most studies focus on analysing how digitalization affects individuals but fail to explain how individuals can, in turn, influence companies' digitalization. Aiming to help bridge this gap we first performed a thorough literature review to identify the main individual-level factors influencing companies' digitalization. Among these, we included digital skills, skills and capabilities, culture, and top management support. Then, to support literature results and lay the foundation for new theory development, we used a rigorous case study methodology to provide empirical evidence of how individual responses affect SMEs' digitalization. Specifically, we performed a series of semistructured interviews with the managers of 4 Italian SMEs in the wine industry. We chose to focus on the wine industry since it is a sector characterized by both great opportunities, and significant obstacles to digitalization.

Ultimately, our analyses show that SMEs' digitalization is significantly affected by the management's actions, which also affect digital skills and organizational culture. Indeed, companies realized the importance of digital transformation and tried to foster it by hiring new professionals and by rethinking management processes. At the same time, SMEs lack the resources to invest in the development of advanced digital knowledge and skills. As a result, individuals still lack advanced digital knowledge and show strong resistance to the introduction of innovative solutions that would radically change traditional production processes. One of the tools that SMEs can leverage to overcome these obstacles is collaboration with external partners, who can provide the technology and digital skills needed without requiring direct investment by the companies.

**Keywords** – Digitalization, Agri-food, Case study, SME.

### Digital Skills and Free Market Orientation for a Sustainable Development

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#### Abstract

Economic well-being within a society will ultimately depend on the productivity increases that occur at industry level. Digitalization and the use of ICT are tools of capital importance in this process. However, in order to scale up to industry level, they should first appear at an individual level. Having or not having ICT skills will therefore be crucial both for the individual (not to be left behind due to his/her digital divide) and the society (to keep up with the economic development of other regions). In this research we study the existing relationship between ICT skills and the free market orientation, both in its political and economic component. We find that ICT skills is a complex measure, that can interact with free market in some aspects and be independent in others. The use of on-line banking, communication technologies and the access to databases are not linked to free market orientation. But the ability to buy on-line is found to be positively correlated with free market orientation, which could speak of the existence of trust in the markets as a facilitator of on-line purchasing. Contrarily, on-line selling is negatively correlated with free market orientation.

**Keywords** – Digital skills, Sustainable development, ICT, libertarianism, statism.

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### Unveiling the Secrets of Sustainability Disclosure: How Governance and High-Tech Sectors are Paving the Way

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#### Abstract

In recent times, there has been a surge in demands for transparency and accountability worldwide, particularly concerning information on environmental, social, and governance (ESG) aspects due to increasing stakeholder pressures. This demand is particularly important in high-tech sectors, where economic activities can have adverse impacts. However, the quality of ESG disclosure can vary widely across companies. Hence, this study aims to investigate how board characteristics, such as diversity, independence, size, average age, frequency of meetings, tenure, and membership in high-tech sectors, impact the quality of ESG disclosure, using agency theory as a foundation. The study utilizes the ESG disclosure score acquired from Bloomberg to measure the scope of corporate social responsibility (CSR) and comprises a sample of 864 international companies. A multiple linear regression model is used for cross-sectional analysis. The results show that diversity, independence, and size joined to high-tech industry membership have a positive impact on ESG disclosure quality. This study expands the scope of agency theory, by identifying additional determinants, and tests the influence of high-tech sectors on the quality of ESG disclosure. The results have significant implications for policymakers, regulators, and organizations seeking to promote sustainability and social responsibility.

**Keywords** – ESG disclosure, corporate governance, high-tech industry, sustainability

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### The Role of Corporate Entrepreneurship in Society and Industry 5.0 Era

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#### **Abstract**

Society 5.0 and Industry 5.0 concepts are gaining more importance in the academic and political debate, going beyond the boundaries of the policy brief, and becoming growth models interesting for other countries (Fukuyama, 2018; Carayannis, 2021). These new paradigms start from different focuses, one on society and another on the industry, but there are many common elements.

Our interest in this paper is to highlight the common point of this element, with the intent to identify the "Context 5.0". This Context 5.0 involved many actors, including government, industry, and Civil Society. As Management and Entrepreneurship scholars, in studying this new context our focus is on the role of industries.

In this paper, we aim to understand how Corporate Entrepreneurship can support companies that want to do business in line with the imperative of Context 5.0 and finally open a debate based on the possibility of integrating the theory of Humane Entrepreneurship with Corporate Entrepreneurship.

**Keywords** – Society 5.0, Industry 5.0, Corporate Entrepreneurship, Humane Entrepreneurship.

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#### The Effectiveness of the "Out of Core" Discoveries: Serendipity in the R&D of Rare Diseases and "Orphan Drugs"

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#### Abstract

Serendipity – the notion of making unexpected and valuable discoveries – and knowledge arbitrage have played a significant role in the debate about innovation and innovation effectiveness, opening a considerable discussion about the feasibility of R&D investments. The chance to detect serendipitous events and the mechanisms triggering it may attract the attention of those seeking greater efficiency in research and those aiming to sustain basic research. Depending on the above, our research focuses on the serendipitous events and knowledge arbitrage in the R&D of rare diseases and orphan drugs to detail the market opportunities and the economic value arising from the untargeted discoveries. The Tigem research center in Pozzuoli (Italy) is engaged as a case study to achieve this purpose. Since no previous researches are available about the serendipity in R&D of rare disease, this paper provides new knowledge in a still underexplored field, offering new insights at both theoretical and practical levels.

Keywords – Serendipity; R&D; pharmaceutical industry; rare diseases; orphan drugs

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### Does I4.0 Guarantee Inclusiveness and Accessibility? Evidence from Multimedia Immersive Exhibitions

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#### Abstract

Immersive multimedia exhibitions – which are based on digital images, light effects, and soundtracks – are developing in most of museums worldwide to enhance the customer experience. However, not all visitors such as disabled people can enjoy them. Previous studies that have so far examined the accessibility and inclusion of disabled people in museums are very few. This research aims to investigate how I4.0 can guarantee inclusiveness and accessibility of disabled people in immersive multimedia exhibitions. In this purpose, a single case study engaged in good practice was performed by examining an immersive multimedia exhibition in Italy. This study provides specific aspects and solutions devoted to more inclusiveness and accessibility that could serve as a starting point for designing future immersive multimedia exhibitions. The results of this research have theoretical and practical implications.

Keywords - Technology, Inclusiveness, Customer experience, Museum, Immersive exhibitions

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### Collaborative Network Formation in Robotics Digital Innovation Hubs: A Dynamic Capabilities Perspective

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#### Abstract

The field of robotics has witnessed unprecedented growth in recent years, with emerging technologies such as AI, machine learning, and the Internet of Things (IoT) transforming the industry. To capitalise on this growth, manufacturers are turning to collaboration opportunities with digital innovation hubs, to foster collaboration, experimentation, and learning in the field of robotics. However, the success of such hubs depends not only on individual capabilities but also on their ability to work together as a network. In this context, the constitution of a network of digital innovation hubs operating in the domain of robotics raises important questions about the role of dynamic capabilities in the formation and development and of the network. Dynamic capabilities are traditionally considered to be the ability of organisations to adapt to changing environments and markets by leveraging their resources and capabilities. In the context of a nascent pan- European network of digital innovation hubs focused on robotics in manufacturing, it is proposed that the dynamic capabilities of the network at a system level will play a critical role in the network's development and activities. It is also important to acknowledge that effective knowledge management can enhance dynamic capabilities by allowing the network to leverage existing knowledge and acquire new knowledge to adapt to changing environments. This paper, focusing empirically on the analysis of DIH<sup>2</sup> – a nascent network of digital innovation hubs operating in the domain of manufacturing robotics, examines how dynamic capabilities can be developed and leveraged to contribute to the overall success of the network. Overall, the paper aims to contribute to the growing literature on dynamic capabilities by examining their role in the constitution of a network of digital innovation hubs in the domain of manufacturing robotics. By highlighting the importance of knowledge management in the development of dynamic capabilities, the paper provides insights that can inform the design and management of successful digital innovation hub networks, in cognate domains.

Keywords - Digital innovation hubs, Dynamic capabilities, Inter-organisational network

#### The Role of Digital Technologies for Environmental, Economic and Social Sustainability in Supply Chain Management

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#### **Abstract**

The technological choices facing organisations are increasingly complex and aimed at promoting sustainable development. Recently, the concept of Industry 5.0 has laid the foundations for a digital transformation that drives companies to adopt sustainable approaches. Although there are various contributions investigating the link between sustainable production and digital technologies, there is still a lack of comprehensive research on the role of digital technologies in achieving the three pillars of sustainability in specific areas of supply chain management (SCM). The article aims to assess and understand which digital technologies are the most promising for achieving sustainability standards. Through a systematic literature review, the study analyses 1,720 scientific articles that identify business practices supported by digital technologies such as: 3D printing, artificial intelligence, blockchain, computing, digital applications, geospatial technologies, immersive environments, Internet of Things, open and crowd-based platforms, proximity technologies and robotics. Such business practices are thereafter associated with specific areas of SCM such as distribution, marketing and procurement. The results show that blockchain technology is promising for different sustainability aspects, whereas computing, 3D printing and immersive environments are less employed for sustainable development. The study also highlights that scholars have paid more attention to environmental rather than economic and social sustainability dimensions. The contribution of this article is to provide a current overview of digital technologies in SCM to clarify the state of the art of research. It also defines a research agenda for academics to conduct further exploratory research. For managers and practitioners, it presents a knowledge base where data on sustainable practices supported by digital technologies in SCM have been collected and organised, providing information to companies on opportunities for implementation in their own business.

**Keywords** – Digital transformation, sustainability, supply chain management, artificial intelligence, blockchain.

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#### **Open Processes of Knowledge in Circular Enterprises**

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#### **Abstract**

The circular economy (CE) is experiencing increasing attention, as it has the potential to move away from unsustainable production and consumption patterns, such as the linear one. The circular innovation has even more considered an approach to be adopted in pursuing the sustainable development goals, embracing environmental, social and economic nature of sustainability.

Starting from the above premises, our study aims to investigate how inter-organisational collaborations lead to the creation, sharing and exchange of knowledge with potential benefits for the companies involved, especially in terms of innovation. To achieve this, we observed the circular economy context since, as mentioned above, the interactions between different knowledge areas, as well as the interaction between different actors, are considered strategic keys to support and foster the transition to the circular economy.

Furthermore, our paper also aims at contributing to the debate on industrial symbiosis and innovation processes in circular enterprises, focusing on knowledge management (KM), through the integration of different skills provided by local partners. The results underline that the collaborations with local actors are a phenomenon rooted in circular businesses, and that the interconnections between different and complementary knowledge and skills are fundamental to support circular innovation. Implications and suggestions for future studies derive about the knowledge management function both in managing knowledge flows to and from partners and in processing knowledge.

**Keywords** – Circular economy; Inter-organisational collaboration; Industrial symbiosis; Knowledge Management

Paper type – Academic Research Paper

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### Applying Circular Economy to Buildings: An Open and Collaborative Innovation Case

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#### **Abstract**

Circular economy is an economy model aiming to overcome the current linear economy and closing resources loop. Circular economy is still far from being widely widespread and implemented. The transition to circular economy is particularly tough in complex and highly fragmented sectors where information, materials and products' flows are interrupted multiple times at different stages. Among these complex and fragmented sectors, the building sector stands out given its high resource consumption and emissions. Collaboration is needed to implementation circular economy in the building sector. Indeed, collaboration enables to spot in advance any issues and/or mismatches that may arise along the whole value chain given that the different actors belonging to the value chain jointly collaborate since the starting design phase. We have focused on buildings' façade, as they are responsible for 10% to 20% of the total embodied carbon emissions of the building and they are external elements easy to be accessed, maintained and assembled. The different actors involved in the facade value chain have been identified, through action research methodology. Besides, the collaboration among the actors involved, on the one side, in the circular product development (i.e. exploration phase) and, on the other side, in the circular business model design (i.e. exploitation phase) have been detected. We posit that (i) collaboration is key in order not to have mismatches along the whole value chain and be able to exploit the potentialities of circular economy, (ii) different actors are involved in exploration and/or exploitation phase performing the same or different roles, depending on their specific skills and resources.

**Keywords** – Circular business model, circular buildings, collaborative innovation, open innovation, PSS

### Circular Economy Disclosure through Social Media: An Empirical Analysis on Twitter

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#### **Abstract**

In recent years, to solve the problems related to sustainability, there is an increasing need for a transition from linear production and consumption systems to new models oriented towards recycling, reuse, reuse and reuse. In the academic field, several scholars have turned their attention to the adoption by companies of the new circular economy models. Due to the interest of a large number of stakeholders in issues related to the circular economy, several scholars have begun to explore the circular economy disclosure practices of companies. Despite this, studies on the topic are still limited. The purpose of this study is firstly to examine the level of circular economy information disseminated through Twitter by companies and, secondly, to examine the impact of some characteristics of companies on the level of circular economy disclosure. Empirical results show that the most profitable and most indebted companies disclose a greater amount of circular economy information through their official Twitter accounts. This study contributes to enriching the academic literature and provides important practical contributions.

Keywords - Circular economy, Disclosure, Social media, Twitter

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# Investigating Circular Business Implementation's Antecedents: An Empirical Assessment of Open Innovation and Digital Technologies Adoption

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#### Abstract

More and more companies are winking at sustainability through the adoption of circular business models, which are based on resource and waste minimization to establish a renewable closed-loop production and consumption system. Departing from a linear take-make-use-dispose setting, circular economy principles lead businesses' transition toward the development of circular products and processes. Drawing on past studies that associate circular businesses with the adoption of digital technologies or open innovation approaches, this research seeks to shed light on the role of openness in companies' innovation approach and digital technologies in fostering a circular business model development. In this vein, the authors' purpose is to quantitatively evaluate such elements as predictors of circular business model development and thriving. After pointing out some key features of the research, the paper concludes with the presentation of the expected findings and the discussion of the potential theoretical and practical implications of the study.

**Keywords** – Circular Economy, Open Innovation, Digital Technologies, Dynamic Capabilities, Resource Orchestration

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### A Theoretical Tool for Evaluating the Circular Economy of Agrifood Companies

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#### Abstract

Global warming, pollution and the rapid absorption of natural resources require swift and immediate action to limit and reverse their impact on the environment. Circular economy offers a clear solution to addressing these global challenges. Therefore, measuring the circularity of one's organization should be the fundamental objective of all companies intending to apply circular economy. Otherwise, the effort made cannot be evaluated and the results achieved cannot be quantified.

The agri-food sector is considered one of the main challenges related to the achievement and application of Circular Economy (CE) strategies, therefore this study is aimed at developing a multilevel framework for assessing circularity in agri-food industries, by providing the user with a step-by-step approach. The framework is composed of four stages. In the first stage, a circular economy theoretical model, based on four criteria, was implemented and adapted to agri-food sector. In the second stage, a set of indicators capable of measuring each criterion was collected. In the third stage, a weight is assigned to each indicator using the Analytical Hierarchy Process (AHP). Lastly, an Axial Distance-based Aggregated Measurement (ADAM) model is used to normalize, assess, and aggregate the results and produce final circularity scores. The model can be a useful tool to support corporate decisions concerning the circular economy, making entrepreneurs aware of their starting level. It indicates the extent to which companies are implementing circular business models across different dimensions, and thus where they are still lacking.

**Keywords** – circular economy; circular assessment; agri-food sector; business model; MCDM method; circular transition

## Digital Technologies and Entrepreneurship: The Makerspace as a Knowledge Sharing Enabler

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#### **Abstract**

The New VUCA entrepreneurial environment (Millar et al., 2018) asks new entrepreneurs to quickly respond to the ever-changing needs they are targeting with their business ideas.

Entrepreneurs may answer by adopting a lean startup approach (Ries, 2011; Blank and Dorf, 2012; Blank, 2013) that, according to Wang et al. (2022) suggests entrepreneurs to test their assumptions through business experiments (Bocken and Snihur, 2020). In particular, adopting an experimental approach, action-oriented, nimble, and in some case even low-cost, can help get ideas off the ground quicker than usual. Moreover, these processes may be useful in identifying and engaging the first customers (McDonald and Eisenhardt, 2020) and in tackling those grand challenges for which there are no simple and obvious solutions (Yunus, et al. 2010).

According to Furr and Dyer (2014), theoretical and virtual prototypes may help this approach, helping entrepreneurs to get a minimum viable prototype that later may, eventually, evolve into a full-fledged product. The Fablabs - short form for Fabrication Laboratories - are shared spaces open to the public that offer both tools and services for digital manufacturing (Manzo and Ramella, 2015). These spaces give access to sophisticated technologies, so that their users can explore, learn and, obviously, make new things (Rayna and Striukova, 2021).

The possibility of "sharing technology tools in social spaces" is a distinctive trait of the so-called "maker movement", which is based on the interaction, even internet-based ones (Howard et al., 2014), between subjects who use shared resources (technology, spaces, knowledge) to create artefacts (Browder et al., 2019).

In particular, the technologies and the tools that the startuppers and the entrepreneurs may get access to in the Fablab may help them to exploit digital prototypes as a way to reduce the start-up costs, to test and optimise their products in a better and faster way. Furthermore the digital nature of these products may help the would-be entrepreneurs to create an entrepreneurial team that is not limited by the need to be geographically co-located (Capdevila, 2018).

In this work in progress research, we will study a sample of Italian Fablabs, both private ones and university-based ones, to understand how they do participate in helping both the "makers", and the local entrepreneurs, in developing the competencies needed to access to the digital technologies, and to exploit them to implement a Lean Startup Process.

Keywords - Maker Space, Fabrication Lab, Lean Startup, Digital Technologies, New Technologies

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## Digital Technologies for Supporting Firms' Absorptive Capacity: A Systematic Review

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#### Abstract

A firm can improve its innovation processes by accessing useful external knowledge, profiting from the Open Innovation outside-in process.

However, to benefit from the flow of knowledge from the firm's outside boundary, the firm's Absorptive Capacity - the ability to correctly acquire, assimilate, transform, and exploit external knowledge according to the innovation needs – plays a pivotal role. So, firms must equip themselves with relevant tools to support all Absorptive Capacity activities.

Despite digital technologies seem to be very promising tools, currently, their supportive role in firms' Absorptive Capacity activities is understudied, hence generating a literature gap related to a very rising topic.

This work aims to contribute to filling this gap by proposing a structured literature review of academic research papers from the Scopus database.

The main results of this research are three: i. the recognition of the most studied digital tools in supporting Absorptive Capacity activities; ii. the explanation of how the identified digital tools support Absorptive Capacity activities; iii. the impact of using digital tools for supporting Absorptive Capacity activities on firm performance.

Contributions are both theoretical and practical.

Theoretically, this work is a first step in linking Open Innovation, Absorptive Capacity, and Information and Communication Technologies theories, often studied separately. In addition, the proposed literature review highlights new possible topics to be researched to improve the scientific knowledge about the phenomenon under investigation.

Practically, the results of this work lead firms' innovation managers to select the most appropriate digital tools to support Absorptive Capacity activities to enhance firms' performance.

**Keywords** – Open Innovation, ICT, Dynamic Capabilities

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## Artificial Intelligence for the Customer Experience: Developing a Digital Human for Banking using Algho Platform

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#### **Abstract**

The study aims to assess the potential of artificial intelligence (AI) for improving the customer experience in the banking sector by designing and developing a digital human sustaining the customer care. Digital humans are conversational robots that have transformed traditional human-human interactions into new disruptive machine-human interactions that are more reliable and exceptional, but also fragile. The study analyses Algho, a virtual assistant platform developed by QuestIT company, to automate the banking customer care service, and in particular the loan request. The key aspect of this process was creating and consolidating an effective Knowledge Base, the indispensable basis for a successful performance of the digital human. The research evaluates the performance of the virtual assistant, equipped with a digital human interface, through the creation of an Algho tester that can verify the effectiveness of the knowledge base. The results show that AI-based technologies can have a positive impact on business processes. The originality of the study lies in the training of a digital human according to business needs with a perspective of creating an optimised customer experience.

**Keywords** – digital transformation, digital marketing, artificial intelligence, customer experience, innovation

## Biophilic Architecture to Promote Environmentally Sustainable Behaviour in Children: The Project for the New School in Rionero in Vulture

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#### Abstract

This paper aims to examine how biophilic architecture can be considered a key tool for promoting environmentally sustainable behaviour in children through the analysis of a case study. The first part expounds on the key principles of biophilia and the effects that a daily relationship with nature can generate on our mental and physical well-being. The paper explores the applications of biophilia in the field of architecture, as well as strategies to enhance the restorative experience that living spaces can have through the use of biophilic design.

The second part examines the case study of the project for the new secondary school in Rionero in Vulture, developed as part of the doctoral research on architecture and biophilia for the "Aree Interne" of Basilicata, currently being carried out at the University of Basilicata. The project developed in collaboration with architect Matilde Suarez Ruiz, came out as the winner of the "Futura" design competition organised by the Italian Ministry of Education, applies design strategies based on the 14 patterns of biophilic design (Terrapin bright green, 2014) and on major environmental psychology theories such as Attention Restoration Theory (Kaplan, 1995) and Stress Recovery Theory (Ulrich, 1981). Through the use of biophilic design and restorative design strategies, the aim is to create spaces that help prevent attention deficit problems and learning disorders, promote psychophysical well-being and the development of eco-sustainable behaviour.

Finally, the third part of the paper will focus on the knowledge management process in architecture with special reference to the design competition system and the case study under consideration.

**Keywords** – Biophilic design, Restorative design, Eco-sustainable behaviour, Architectural knowledge management

Paper type – Practical Paper

# Unsupervised Learning Al Algorithm-Data Management and Improved Lean Methodology in Healthcare Organizations

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#### **Abstract**

In the following article, we apply a set of machine learning algorithms to analyse a set of 445 Californian Hospitals. We investigate a variable that can be considered as a synthesis of the economic, financial and organizational performance of the hospital i.e. Net Income. First of all, we have applied a regression analysis with OLS-Ordinary Least Squares to verify the presence of significant relationships among the variables in respect to Net Income. Furthermore, we have applied the k-Means algorithm optimized with the Elbow Method to verify the presence of groups of hospitals in the dataset based on more than 200 variables and centred on Net Income. Finally, we propose a comparison among eight different machine-learning algorithms to estimate the future value of Net Income based on an historical series in the period 2014-2018.

Our idea is that the area of inefficiency that are showed thanks to the regression analysis can be optimized with the application of AI and Lean Management. Specifically, the efficiency of hospitals to manage human resources and specifically physicians can be improved with the application of telemedicine and organizational tools, that can increase either the performance of the hospital and the level of care offered to patients.

The mix of Artificial Intelligence and Lean Management can promote better models in healthcare, reducing costs, improving the quality of services, increasing the level of human resources especially physicians, to create a more sustainable and reliable healthcare system.

**Keywords** –Telemedicine, Lean Management, Knowledge Management, A Healthcare, Data Management

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## **Process Mining Applied to Lean Management Model Improving Decision Making in Healthcare Organizations**

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#### **Abstract**

The paper introduces an innovative approach to model risks in healthcare finding possible solutions in organization models and about Human Resources (HR) managing. Specifically, the method is based on the application of the Business Processing Modelling and Notation (BPMN) workflows in healthcare environments merging Lean management methods and Artificial Intelligence (AI) decision making approaches. The discussion begins with a case study about risk management integrating AI to enable a Decision Support System (DSS) thus defining the innovative BPMN Process Mining (PM) models. The BPMN-PM models are based on AI risk prediction and AI risk classification suitable to optimise the whole HR organizational model. In the specific case study, the AI algorithms allows the optimization of risk assessment. Finally, the work discusses some theoretical BPMN-PM models to integrate in more complex healthcare processes managing efficiently HR. The proposed work provides information about the process design and the key-reading to interpret BPMN-PM workflows.

**Keywords** – Business Process Modelling and Notation –BPMN-, Process Mining, Artificial Intelligence, Healthcare DSS

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## The Impact of Smart Working on Organization Performance: The Mediating Role of Digital Leadership

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#### Abstract

The development and diffusion of digital technologies (especially those supporting communication, collaboration and social networking), along with the pervasive dissemination of powerful and easy-to-use mobile devices, may encourage organisations to implement Smart Working (SW). The previous research suggests that an effective SW implementation is enabled by the availability of a certain set of resources, namely advanced ICT infrastructure and digital technologies, employees' digital skills and acceptance, and a trust-based organizational culture and managerial style. Despite this, the existing studies neither empirically determine the role of enabling resources for an effective SW implementation nor explain the interplay of different SW enablers in the improvement of organization performance. This study investigates through an empirical study the relationship between the SW enabling resources and the organization performance. Furthermore, this study aims at analysing the mediating role of digital leadership on the relationship between the SW enabling resources and organization performance.

Keywords - Smart Working, Digital Leadership, organization Performance

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## Use of the Smart Glasses in the Learning Surgery Residents: The Empirical Case

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#### Abstract

The outbreak of the COVID-19 pandemic has led to a sudden reorganization of surgical activities to deal with the global emergency. Non-urgent surgeries have been postponed providing resources for COVID-19 patients and non-deferrable cases. This collapse in activity has profoundly compromised the training programs of medical residents (whose activity is usually focused on inpatients, outpatient clinics, minor surgeries) (Hodges et al., 2020). An alternative to the traditional training method, where skills are acquired primarily in the classroom and operating theatre, is training with digital technologies that enable skills training remote. According to Vale et.al. (2021) in this transition process, teachers and students had to reflect, adapt, change, innovate and use digital tools. On these premises, the research focused on the implementation of Smart Glasses to support the training and learning of medical residents at the Hemodynamic Cardiology - Electrophysiology Unit of a University Hospital in Southern Italy. The methodological process was developed through a qualitative approach based on a case study, according to the methods and indications suggested by Yin (2009), which involved the collection of data through semi-structured interviews and analysis of documents. The data reveal, the transition from face-to-face teaching to remote teaching, or online teaching and learning, became the possible alternative for Education institutions to ensure the continuity of courses and medical residents learning. In this case study, the technology used are the smart glasses web-connected glasses that can present data onto the lenses and record images or videos through a front-facing camera. The medical residents displayed positive attitudes towards using the new device. The study results show that technology tools can effectively improve learning efficiency and reduce learning cost and have shown that smart glasses training improved the technical abilities and reduced complication rates.

**Keywords** – Knowledge Sharing, Digital transformation, Smart Glasses, ICT tools, Case Study.

## The Effect of Digital Expertise of the Board on Corporate Innovation

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#### **Abstract**

Innovation represents a key factor for sustainable growth and long-term success. However, despite most firms recognize its importance, only few of them are equipped and prepared to innovate. Previous studies have shown that various characteristics of the board, such as networks, behaviors, gender, and composition, influence a firm's decision to innovate. Even though recent transformations like the digital one and the Covid-19 pandemic emphasized the need for including directors with digital expertise to understand new technologies that affect business decisions, this role is still underexplored. Our study addresses this gap in the literature by exploring the impact of the digital expertise of the board on corporate innovation. Using data from 2527 U.S. listed large firms, our preliminary results show that the presence of at least one director with digital expertise significantly increases the likelihood that firms implement high-quality innovation strategies. The study sheds light on how specific professional expertise of directors matters for firms that decide to innovate and adds new evidence to the role of corporate governance in high quality innovation activities.

**Keywords** - innovation, digital expertise, board of directors, corporate strategy

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## Blockchain Technology for Secure Management and Traceability of Industrial Data: A Bibliometric Analysis

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#### Abstract

Blockchain is recognised as a useful key digital technology in Industrial Internet of Things environments. It provides a means for the protection, traceability and security of industrial data. Blockchain is defined as an immutable digital ledger technology, based on a distributed and decentralized infrastructure that facilitates the management of data and transactions by leveraging on encrypted and trusted mechanisms. Despite it was introduced in 2009, it seems to be still immature. Indeed, some few applications have been experimented since 2019. Therefore, it is interesting to explore the knowledge boundaries of such technology for a secure data management and for ensuring the sustainability of industrial business models. Based on a systematic literature review and a bibliometric analysis, this study aims to identify the most important implications of the blockchain adoption with regard the protection and traceability of data in industry. The results of the analysis show the identification of seven clusters, as potential future research directions. The study provides both theoretical and practical implications. It extends the body of the literature by suggesting potential opportunities in industry and within an emerging technological field. Also, it supports managers to identify and plan accurate strategies for strengthening the sustainability of their business, by leveraging on the development of novel knowledge for a secure management of their assets.

Keywords - Blockchain, Data protection, IIoT, Bibliometric analysis, Research directions

## **Exploring the Outcomes of Sustainability-Oriented Open Innovation: Evidence from the Energy Sector**

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#### Abstract

Sustainability-oriented open innovation (SOI) has gained significant attention in recent years. However, there is a lack of evidence on the actual outcomes of this paradigm across enterprises. Thus, this study aims to investigate the implementation of SOI in the energy sector. A thematic analysis (TA) approach was adopted to analyse 64 sustainability reports from energy sector enterprises worldwide. The findings of this study identified five key themes, with three related to the sustainability outcomes of SOI, including "Empowering Business and Increasing Economic Prosperity", "Environmental Stewardship and Conservation", and "Building Sustainable Communities." The remaining two themes focused on how these outcomes were achieved, including "SOI Advancing Measures" and "SOI Facilitating Measures". By providing practical insights, this study aims to bridge the gap in the current body of knowledge on SOI.

Keywords – Open Innovation, Sustainability, Thematic Analysis, Sustainability Reports, Energy

Paper type - Practical Paper

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## **Organizational Learning for Cybersecurity**

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#### Abstract

The increasing connectivity and digitization of organizations have made cybersecurity a top priority. Organizations have become highly dependent on integrated systems and data, exposing them to cyber threats that can lead to economic and reputational losses. The COVID-19 pandemic has further highlighted vulnerabilities in cybersecurity systems across sectors. In particular, there has been a recent focus on the role humans play in this scenario by turning out to be both a possible source of vulnerability and a mitigating factor. To manage this, organizations must focus on establishing a culture of cyber security awareness by promoting policies, standards, and users' behaviors from an organizational learning perspective.

Employees' education is one of the components needed to create such a culture, hence training programs on cybersecurity have a crucial role.

However, the effectiveness and sustainability of training programs depend on including a variety of stakeholder groups to identify and mitigate cost and efficacy concerns, adopt accessible training techniques, employ trainers with relevant expertise, and address psychological obstacles like trainee guilt and shame. A balanced human-machine approach is needed to maximize the benefits of connectivity while minimizing cyber risks. Overall, cybersecurity training requires an ongoing, collaborative, and flexible process tailored to each organization's context. Today, there is no consensus on the most effective and appropriate cybersecurity training methods. This research investigates available cybersecurity awareness types of training and provides guidelines for developing good organizational training programs in increasingly digital environments.

**Keywords** – digitalization, cyber resilience, human factor, training 4.0, innovation

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## **Gender Bond, Innovative Financial Tools in Woman Enterprises**

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#### Abstract

This paper aims to analyse how an innovative financial tool for female-led Small and Medium-sized Enterprises (SMEs) can contribute to the development and sustainability of these businesses. Women's enterprises can only reach high levels of indebtedness if there are equally high personal guarantees. Women's enterprises have always been distinguished from men's enterprises by simpler financial management, mainly related to the control of internal sources of finance, such as treasury and equity of the female entrepreneur, and only residually of external sources by way of debt capital. The development of sustainable finance in recent years has opened up the use of capital to the explicit aim of reducing the gender gap. In this context, Gender Bonds (GB) seem to be the most viable solution to solve this issue and, at the same time, meet today's sustainable development challenge. In this way, the present paper aims to answer the following RQ.

RQ1: what is a Gender Bond and what are its characteristics in term of sustainability?

RQ2: what economic and financial benefits can a GB bring to women's enterprises?

The present work is supported by an exploratory descriptive qualitative (EDQ) research. As above, EDQ conducted by document analysis represents the first step in developing grounded theory (GT).

This paper aims to expand the literature on the topic of sustainable financial tools for woman enterprises, with a special focus on the gender bond. This study therefore highlights how all those new financial tools, such as gender bond, succeed in improving the economic results of woman companies. It also highlights how the use of gender bond can allow to woman enterprises to improve their financial structure.

Keywords - gender bond, sustainability, innovative finance, gender, SME

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# Women Founders and Innovators: Technology and Intellectual Property as Success Factors on Eco-Innovative Companies

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#### Abstract

Today the role of women in entrepreneurship is assuming great value and has become one of the most relevant topics in literature. According to the latest World Bank report (2022) [1], promoting women's empowerment is essential to achieve inclusive growth, especially in sectors that pay particular attention to the environment such as eco-innovation. Women's participation in the economy can increase productivity and help build a more harmonious society. But what are the enabling cultural, social, and economic factors that make a company founded by an innovative woman a success story? This is the research question underlying this study. In particular, the analysis was conducted through the methodology of the case study, on a company operating in the eco-innovative industry and her founder. The analyzed innovative company is characterized by a business model oriented towards innovation. The importance of the topic is related to the need to identify the enabling factors that contributed to the business success of women entrepreneurs, to understand indepth the main challenges that these women entrepreneurs faced and to highlight policy recommendations offered as key drivers for facilitating entrepreneurship. The qualitative approach allows for considering cultural, social and economic aspects in an integrated way.

**Keywords** – Women Entrepreneurship, Eco-innovation, Patents, Technology-Based Entrepreneurship, Success Factors

## Does Gender Enter into the Non-Performing Loans' Management?

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#### **Abstract**

In recent years several routes have been entered to face the existing discrimination in the access to credit between male and female. In this framework, the initiatives undertaken by the United Nations and the national governments have shown growing attention in order to alleviate the gender gap in various economic sectors. Among those, the non-performing loan one, given the recent economic and pandemic crises, is registering a fast increase. The objective of this work is to examine if and how gender is considered among the evaluation criteria of non-performing loans (NPLs) portfolios.

An inductive content analysis has been carried out on 30 documents relating to NPLs. Specifically, the sample is made up of official publications and reports published on the websites of European and National Institutions, supervisory authorities, main banks groups, specialized sectorial consultancies and leading servicers.

The analysis of the documents shows that, at present, gender is not particularly taken into consideration when banks and servicers illustrate their NPLs portfolio. On the contrary, it is possible to find classifications based on other variables (e.g. geographical position, business sector or presence of guarantees). Therefore, it is possible to conclude that gender – so far - does not appear to be an element that is considered when discussing the management of NPLs.

This work is the first part of broader empirical research intended to open a debate about the relevance of the gender factor in the management of NPLs. In fact, while the gender variable seems to be taken into account as an element for granting credit, it is not considered for its management.

**Keywords** – Female-run business, Asset quality management, credit crunch, gender diversity, non-performing exposure

## Women Led Firms and Circular Bioeconomy Actions: A Systematic Literature Review

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#### Abstract

This paper is an initial study concerning the role of women in firms in supporting circular bioeconomy practices. Moreover, circular bioeconomy could generate economic opportunities for women, boosting female and green entrepreneurship. The objective of the research is twofold. On the one hand the study investigates whether women-led firms adopt more circular economy practices than men-led businesses. On the other hand, the research investigates whether the circular bioeconomy could generate economic opportunities for women by encouraging female entrepreneurship. To achieve the proposed objectives, a bibliometric analysis and a systematic literature review have been conducted. The results are overall consistent with the research questions. Female entrepreneurs as well as female directors or female employees plays a critical role in achieving sustainable economy and sustainable development, also in social and environmental dimensions. At the same time, the growth of the service sector, stimulated by the transition to a circular economy and bioeconomy, could provide more opportunities for female employment.

**Keywords:** Circular economy – Bioeconomy – Circular bioeconomy - Women led firms – Female

## Virtual Relational Capital for Business Development: A Structured Literature Review and Research Agenda

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#### Abstract

Digitalization has brought new opportunities for companies to employ new tools for business development Digitalization has allowed the creation of new tools but also new ways for organizations to manage their relations in a virtual way, leading to a "virtual relational capital." The COVID-19 pandemic has further enhanced such a process

The article aims to deepen the concept and role of virtual relations in shaping the new relational capital, and how it can contribute to business development, by employing a structured literature review of the most recent literature ranked on the Scopus. 20 papers were analyzed through research framework, to assess them under different lenses.

Even if the selected sample is limited, results underline the presence of multiple research methodologies (from qualitative studies based on case studies and interviews to surveys, from laboratory experiments to literature reviews) conducted in several countries around the globe. Several stakeholders are engaged in and benefit from such relations, including individuals but also institutions and other groups, like virtual communities. Several advantages are recognized, of both social and economic types. Even if some barriers are mentioned in the use of such technologies, virtual relations seem to provide companies with new exciting and profitable ways to engage their stakeholders with the use of technology, opening up to new opportunities and business models.

**Keywords** – Intellectual capital, Relational Capital, Virtual relations, Digital technologies, Business Development

## **Greenwashing, Bank Performance and Women on Board: Evidence from European Banks**

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#### Abstract

The study explores the impact of greenwashing on bank performance and whether women on boards play a moderating role in this relationship. Using a peer-relative sample of 77 European banks over the period of 2013-2020, we employ panel feasible GLS (FGLS) and test all model specifications on three different measures of bank performance. Our finding reveals the negative effect of greenwashing on bank performance. Also, results show moderating role of women on boards on performance. Overall, the study contributes to research on both sustainability in capital markets and corporate governance, enriching in particular the strand of studies on the effects of financial company governance on window-dressing practices. Our study thus has significant implications for ESG policymakers, regulators, corporate boards and investors.

Keywords – ESG; greenwashing; bank performance; women on board; banks

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## Gender Diversity Management in a Decade of Research: A Structured Literature Review

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#### **Abstract**

If "diversity" can be defined as the distribution of attributes among interdependent members of a work unit (Jackson et al., 2003), "diversity management" (DM) can be recognised as the comprehensive process of building an environment where all the employees can interact effectively through practice and organisational structure aimed to manage the diversity (Yadav and Rajak, 2022; Roberson et al., 2017; Pitts, 2006).

This process consists of implementing measures that make an organisation's workforce more diverse and inclusive, promoting genuine communication and transmission of knowledge (Trittin and Schoeneborn, 2017; Fältholm and Norberg, 2017).

Among the most evident aspects of social diversity is gender diversity, which always kept women in a background position compared to men, both in the public and private sector (Fusco et al., 2022; Dong, 2022).

The measures and actions aimed at achieving equal representation of men and women represent Gender DM (GDM) (Kamasak et al., 2020; Uddin and Manir Chowdhury, 2015).

The present research aims to i) analyse how economic literature is facing GDM); ii) classify the main foci of analysis in the extant literature; iii) identify thriving future research areas.

The analysis is conducted through a Structured Literature Review (SLR) methodology (Paoloni and Demartini, 2016), a literature classification widely used in business studies to classify them according to four lenses: Article Focus, Research Area, Geographic area; Research method. The present work considers 153 studies among articles, conference papers, book chapters and books identified on the SCOPUS database by searching "diversity management" and "gender". The authors considered only the studies that have been published in the last ten years.

This paper implements gender studies about women's emancipation in employment and improves studies about diversity management by adopting a gender perspective. It categorises all the studies related to Gender and Diversity Management (GDM) to give researchers a better understanding of the challenges and opportunities women face in the workforce, and the measures organisations take to address these issues.

Keywords - sustainability, gender gap, women, gender equality, diversity management

## Female Leadership Engagement in the Italian Audio-Visual Companies: The Role of Soft Power

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#### **Abstract**

Defining the pillars of sustainable development, the 2030 Agenda recalls inequality and valuing diversity as an asset. Diversity management can be defined as a managerial approach pursuing an active and conscious development of a forward-looking, value-oriented strategic and communicative managerial process of accepting differences and using some differences and similarities as a potential of the organization, a process that creates added value to the enterprise. However, a lack of literature emerges regarding the studies on "behind the line" themes, which represent the key factors for the companies operating into the audiovisual industry. Especially, one of these regards soft power meaning the use and persuasion to change minds and influence behavior. In this stream fits in the present research aiming to analyse how women's leadership can support audiovisual companies in reaching sustainable development.

Qualitative face to face surveys methodology supports the paper, analysing 16 in-depth interviews. The interviews were conducted mainly with key figures of several audiovisual companies such as TV producers, production managers, directors of public and private TV networks, and heads of audiovisive archives.

The positive role of female leadership in the audiovisual industry is confirmed. From executive appointments to new recognition paradigms, inclusion is on the 2022 agenda of the audiovisual world. A growing presence of roles and productions of female filmmakers is confirmed, although the gap between men and women is still very wide. Several insights emerge from the study of soft power topics, linking them directly to themes like training, innovation, responsibility, and change that emerge from the interviews.

The present study has several theoretical and practical implications. From theoretical perspective, it enriches the literature on gender study fields. Also, several aspects of the company's sustainable development and diversity management have been treated. From practical perspective, the present research points out the main features in terms of soft skills that female leadership must fulfil in order to achieve sustainable development for the company.

The main limitation of the research could be recognised to the number of interviews conducted. The future lines of research aim to expand the survey, also considering international entities. This perspective will help the authors in identifying the main characteristics of women managers that could allow the audiovisual companies in reaching the best outcome format for the market. Moreover, extending the analysis could promote the generalisation of the main findings of the research.

**Keywords** – women, leadership, diversity management in audio-visual companies, soft power, sustainability

## **Increasing Diversity in Aviation Industry**

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#### Abstract

Social and regulatory pressures and competitiveness are increasingly encouraging companies to invest in diversity to manage differences in the workplace. In service industries such as hospitality, tourism, and transport, the relationships and interface between customer and service are critical (Singal, 2014).

According to this approach in aviation companies, the subject of this is study, diversity management takes on even greater importance than in other industries (Steven et al., 2004).

The commercial aviation industry is a high-tech service industry, extremely competitive and sensitive to the customer-employee relationship, since it is obviously a service that is consumed at the same time it is delivered (Appelbaum, Fewster, 2004).

It appears known from the literature that diversity management plays a significant role in the organization's outcomes (Lorbiecki, Jack, 2000). This study seeks, in fact, to provide a brief review of the history of diversity management in organizations, aiming to identify how, from the business side, diversity management is perceived and considered and which strategies have been implemented, or are in the planning stages, that may prove useful.

In order to analyze the intangible aspects of airline and how attention to diversity can become an element of competitive advantage, a qualitative research methodology using a multiple case study was chosen in the paper, through an unstructured questionnaire interview. Specifically, direct interviews with three management figures in the aviation industry were chosen as the source of information collection.

This first explanatory research confirms that the best combination of differences and, thus, the management of human resources enable the enhancement of diversity in organizations, with performance level benefits.

Therefore, through the interview some strategies in aviation industry in order to sustain diversity management are highlighted.

The limitation concerns the number of pilot cases observed (three) Future lines of research will be focused on the study of other company to acquire more data on the topic.

Keywords - Diversity management, performance, aviation

## The Role of Woman in Crisis Management: The Case of Sport-Based Entrepreneurship

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#### Abstract

This paper investigates the role of women who hold top-level positions in the management of firms in managing and overcoming the corporate crisis. The research's main goal relies on discovering the extent to which gender differences affect perceived crisis proneness/preparedness in organisational settings in sport-based entrepreneurship. In particular, we aim to study actions, decision-making, abilities, and opportunities women can exploit to strategically run the business during a crisis.

The research question is answered through a single case study approach based on the basketball club "Virtus Cassino", which participates in the Italian national Serie B basketball championship. We conducted semi-structured interviews with the woman entrepreneur. We analysed strategic business documents, the website, and articles published in the press on Virtus Cassino. Therefore, the female entrepreneur figure represents a vital aspect of the analysis conducted and the strategic management model of crisis management. The Ratten (2011) and Ahonen (2019) frameworks were used to test our results in achieving the research aims. Finally, a triangulation of the research results was conducted to attest to the integrity and reliability of the data. The paper enriches the literature on gender and crisis by providing a strategic management model for crisis management in sports entrepreneurship, guided by a female entrepreneur. The results of this research contribute to the literature also on sport-based entrepreneurship and entrepreneurship theory, identifying the strategic levers of crisis management guided by a female entrepreneur, including intangible elements such as the manager's entrepreneurial skills, the cultural background of the factors, the relationships established by the sports club with fans and specialized figures in the sector. This model helps to understand how the role of women, even in sports enterprises, can be considered valuable for overcoming corporate managerial crises.

**Keywords** – Gender, crisis management, sport, entrepreneurship, innovation

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## The Credibility of Non-Financial Corporate Disclosure: Evidence from the Fashion and Luxury Sector

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#### **Abstract**

The purpose of the study is to analyze the credibility of non-financial reports of companies belonging to the fashion and luxury sector and to understand the role played by gender equity in the pursuit of sustainability goals.

The pursuit of sustainability by nations and companies is an increasingly discussed topic in the literature and is closely related to the ways in which the activities put in place are not only implemented, but also reported and disclosed.

In this context, sustainability issues are particularly relevant for companies operating in the fashion and luxury sector, where companies belonging to the "Made in Italy" can exploit a competitive advantage. In fact, a number of principles and regulations have emerged aimed at outlining proper reporting and disclosure of non-financial activities, among which those aimed at sustainability have assumed a prevalent role. Some companies, however, take a "check the box" approach with regard to sustainability-related reporting, and this has compromised their reputation, as positive results are extolled and negative ones omitted

Therefore, to achieve this goal, a qualitative content analysis of reports prepared in 2021 by No. 23 companies within the top 100 global luxury brands was conducted.

The qualitative analysis was carried out through a self-constructed credibility index based on Habermas' idealism. Credibility was considered as a construct consisting of: truthfulness, sincerity, and adequacy and comprehensibility. The results show that non-financial reports of companies operating in the fashion and luxury industries tend to have low credibility. This result contributes to the expansion of empirical research directed at verifying the credibility of communications regarding the pursuit of sustainability goals carried out by companies.

The study also contributes to providing a better understanding on sustainability reporting carried out by companies in the luxury fashion industry by highlighting best practices that other companies can also follow.

Keywords - Gender studies, credibility index, CSR disclosure, Made in Italy, Sustainability

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## Made in Italy and Craftsmanship: The Transition to Sustainability

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#### **Abstract**

Made in Italy, in its entrepreneurship, constitutes an invaluable cultural and economic heritage for our country and too is worldwide considered as a synonym of art, quality, uniqueness and craftsmanship. In fact, this sector contrasts "knowing how to do well" against mass production, often poor of quality in materials and finishes, as well as certainly lacking an artistic and innovative dimension.

The analysis of the literature highlights that the craftsmanship dimension, in fact, imposes flexibility and adaptability to particular needs, according to a slower pace of production, as well as shorter production lines at the local level, also making use of local craft, skills and traditions, fitting them into regional and national culture and heritage (Murzyn-Kupisz & Hołuj, 2021). In order to avoid making our analysis generic and too vague, it is important to specify that our theoretical background will refer to a specific type of company, i.e. craftsmanship.

Our research objective, in the context just described, will be to observe how these realities are moving towards the rapidly expanding race for sustainability, not only as a new sales opportunity, but also, as a necessary condition to guarantee their survival over time. The call to sustainability, especially at the European level with the transposition of the new European Directive 2022/2464/EU approved in November 2022, will lead to an obligation of sustainable reporting to a larger group of companies (Ottenstein et al., 2021). Made in Italy, typically made up of SMEs, will therefore certainly be directly affected by this new scenario, for which it will be appropriate to take the right measures and understand the new logic.

In addition to the above, based on an empirical analysis carried out on a sample of companies referring to the blown glass sector, we have analyzed quantitative data in order to bring evidence to our study. The blown glass sector, in fact, corresponds to Italian excellence of craftsmanship, and also, to fine art (Bialek, 2022). In this sector, it is also true, that there is evidence of numerous polluting residues, making the issue of sustainability very relevant and crucial (Hamada et al., 2022). Our empirical research, thanks to the data provided by the association "AssoVetro," the National Association of Glass Industrialists adherent to "Confindustria", will therefore propose to analyze how in a group of sample companies sustainability is managed, valued and reported. In accordance with what has been stated, the purpose of our empirical analysis is to answer the question: "How the glass sector has grown in relation to the impact of sustainability?".

 $\begin{tabular}{ll} Keywords & -Sustainability - Entrepreneurship - Made in Italy - Craftsmanship - SMEs - Blown Glass Sector \\ \end{tabular}$ 

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# Exploring the Current State and Future Research Agenda for Sustainability Knowledge Spillover in the Textile Industry

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#### **Abstract**

The EU Strategy for Sustainable and Circular Textiles outlines a comprehensive approach to promoting sustainability in the industry, including the use of recycled and renewable materials, circular business models, the uptake of sustainable innovations, and the reliability of sustainability knowledge. Literature suggests that promotion of sustainability knowledge spillover within the textile industry can have an impact on the overall textile business in terms of social, financial, and environmental sustainability and its overall competitive advantage. This paper aims to provide a comprehensive overview of the current research on sustainability knowledge spillover in the textile industry. The research method is a systematic literature review of articles published in the leading KM journals.

Keywords - Knowledge Management, sustainability, textile industry, knowledge spillover

# Does 'Doing Good' Really Imply 'Doing Well'? The Effect of Organisational Phronesis on Corporate Social Responsibility Performance and Learning Strategy

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#### Abstract

This paper empirically demonstrates that an organisation's ability to exercise phronesis shapes its learning strategy and promotes socially responsible practices. It highlights the implications of organisational phronesis for enhancing an organisation's performance and contributing to the larger societal good.

This study employs a quantitative approach to investigate the relationship between organisational phronesis, learning strategy, and corporate social responsibility. The empirical analysis was conducted using multiple regression model, by the software STATA, which allows for robust and reliable regression modelling.

The empirical findings of this study demonstrate a significant and positive association between organisational phronesis and both the learning strategy and corporate social responsibility. The multiple regression analysis reveals that higher levels of phronesis within an organisation are associated with a more effective and adaptive learning strategy. Additionally, the results indicate that organisational phronesis is positively linked to corporate social responsibility, reflecting greater commitment to ethical and sustainable practises that benefit society and the environment. These findings provide novel insights into the role of phronesis in fostering organisational learning and responsible behaviour, highlighting its potential to contribute to long-term organisational success and societal well-being.

Keywords - Practical wisdom, Phronesis, Learning strategy, Corporate Social Responsibility

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## **Top Management Perceptions on Using Analytics in Decision Making**

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#### Abstract

Firms use business analytics to improve their decision making. Analytics applications are increasingly used for decision automation regarding routine processes, and business analytics models and tools have been created for supporting firms in future planning and prediction. While benefits of using analytics to monitor, develop and improve daily operations have been reported by many scholars, the role of business analytics in improving non-routine decisions has remained somewhat uncharted. Top manager role often requires making non-routine decisions. Using thematic analysis of 12 interviews conducted in large Finnish firms, this paper outlines the perceptions of top managers on using business analytics when making decisions. It contributes to the currently ongoing academic discourse on information technology business value and business analytics business value by demonstrating how firms apply business analytics in top management decision-making activities.

Keywords – strategy, strategic management, decision making, business analytics

## Personal Data and Analytics as Drivers Broadcasting Industry Transformation

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#### Abstract

Personal data has become one of the main sources of value in data-driven business. Personal data plays an increasingly important role in building sustainable competitive advantage but also effects both the way services are being created and provided to users as well as how they are being utilized. Business analytics, cloud computing and platform business logic are seen to emerge in the 'industry of content', I.e., audio and visual broadcasting. This study explores the platform-based business logic behind user experience centric, data-driven services and illustrates how digital convergence impacts the nature of business in the case of broadcasting industry. We further identify mass personalization as one of the key outcomes for how personal data is used to create compelling user experiences with the use of analytics.

**Keywords** – Personal data, analytics, mass customization, broadcasting, data-driven

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## Sustainability Information and Knowledge Management in Local Government

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#### **Abstract**

Sustainability has been extensively studied in different disciplines especially since the publication of the Brundtland commission's report in 1987. However, in public management as well is knowledge management literature sustainability has gained limited scholarly attention. Especially, there is a lack of understanding of sustainability as an issue that needs managing. Therefore, article approaches sustainability in organizational context and is interested in how sustainability is managed in local government and what knowledge is used to support management. While sustainability can be regarded as a pressing societal challenge, relatively little is known on how sustainability policies and strategies are implemented and managed in public organizations. In order to understand how public managers perceive sustainability as a management issue and define sustainability information, an interview study was carried out. The article analyses the data of 25 semi-structured interviews from branch and financial directors in Finnish municipalities to provide an in-depth knowledge-based view to the practice of managing sustainability in local government. The article contributes by developing new understanding about the different roles knowledge management can have in supporting public organizations and public officials to grasp the complex phenomenon of sustainability.

**Keywords** – Sustainability information; Sustainability management; Knowledge management; Public management, Local government

# Why is it Challenging to Integrate Sustainability Performance Information into Managerial Practices of Local Governments?

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#### **Abstract**

Local governments can have a prominent role in steering local level actions for sustainable development. To actively pursue sustainable development, local governments need to not only to generate sustainability performance information to target their actions and demonstrate their effects towards sustainability but integrate it as part of their managerial practices and consider sustainability performance information as part of their routine management and decision-making. Due to the complex and ambiguous nature of sustainability as well as institutional features of the local government organizations – and the contradictions and tensions between these two - the integration of sustainability performance information as part of managerial practices of local governments can be challenging.

We interviewed 46 key individuals who had played active roles in the integration process of sustainability performance information into the management practices of 18 different local governments in Finland and used the interview records to explore why is it challenging to integrate sustainability performance information into managerial practices in local government. Through our data, we outline five common challenges in the integration of sustainability performance information as part of the managerial practice: (1) Ambiguity and multiplicity of sustainability performance, (2) Cultural barriers and politicization of performance, (3) Siloed organizational structure and practices, (4) Unclear role of sustainability performance information, and (5) Techical difficulties in performance measurement and management

Keywords - Sustainability, Local governments, Performance information, Managerial practices

## The Influence of Digitalization of Italian Municipalities on the Universities' Run for Efficiency: A Conditional DEA

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### **Abstract**

Over the years the daily-life of ordinary people looks completely different. The changes have forced institutions to re-organize the traditional ways of doing things, to re-think the management of services, and to re-shape cities and their organizations. In particular, the attention is focused on transformation-process, in terms of sustainable and digital development, in order to improve the quality of life and global safety. Today's society is increasingly knowledge-based, and the role of universities appears absolutely essential in the creation and dissemination of knowledge. The concept of university, in fact, is based on the evolution of values, ideas, actions, and projects that return greater efficiency, in terms of knowledge management. However, the surrounding environment is crucial. In this perspective, the assumption, in fact, is that the environment that surrounds us affects the performance level of the university, in fact, the place in which there is a significant presence of smart technologies becomes more efficient, thus performing better. For this purpose, it is important to measure the efficiency level of universities, in terms of innovation and research, and, above all the impact of the digitalization of the cities in the relation-and-transformation-process between inputs and outputs. The present analysis through the use of Data Envelopment Analysis has carried out an unconditional analysis to measure the efficiency level of each Italian public university, in terms of research and innovation, and in a second stage, it aims to conduct a conditional analysis with the introduction of external environmental variables in frontier models. The environmental variable is represented by the digitalization level of Italian municipalities. The sample is composed by 52 stateuniversities, and municipalities involved in the conditional DEA analysis are those in which each university has its headquarters. The study has some implications for policymaker, in order to allow an increase of initiatives and projects to implement and adopt smart technologies and sustainable activities to ensure a proper growth environment in universities performance.

Keywords - University, Efficiency, Digitalization, Data Envelopment Analysis, Italian context.

## **Technology Adoption in Pharmaceutical Supply Chain: A Systematic Literature Review**

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#### **Abstract**

The pharmaceutical supply chain is a complex and sensitive chain that requires to be managed effectively given its direct effects on public health and people's lives. Introducing digital solutions within the key supply chain process and decision areas can certainly help make them more transparent, traceable and well-coordinated, as well as improve knowledge management among all participants in the PSC. However, the path to digital transformation still presents some challenges in terms of technology acceptance by organisations. In this paper we present a systematic literature review of the existing studies on the main acceptance models in the pharmaceutical supply chain and, in general, on the determinants of digital technology (DT) adoption by organisations. The resulting 94 articles were classified according to three dimensions: the DTs analysed, the key processes of the supply chain in which they were implemented, and the addressed acceptance and adoption factors. Despite the disparate benefits of the emerging DTs, the results show that there are still many barriers to their introduction into healthcare and specifically within the pharmaceutical supply chain. The most important ones turn out to be those relating to the compatibility of technology with existing systems, both from an organisational and technological point of view.

**Keywords** – Technology adoption, UTAUT, Pharmaceutical supply chain, Drug logistics, Systematic literature review

## The Impact of Health Policy and Technology on Hospital Productivity Growth: Evidence from Italy

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#### Abstract

This work provides evidence of the impact that Recovery Plans (RPs) have had on the productivity growth of Italian hospitals from 2010 - 2019. Using the Malmquist TFP index, we decompose the hospital's productivity into technological and efficiency changes.

We find that the RPs have resulted in an increase in efficiency change, i.e. hospitals use their resources (physicians, nurses, other hospitals' employees and the number of beds) more efficiently. In contrast, technological change has dramatically declined because hospitals are not using financial resources to buy innovative tools and learn new techniques that could improve healthcare processes. So, austerity measures have certainly reduced healthcare expenditure by optimising inputs capital, but they have contained investment in Information and Communication Technology (ICT). These results confirm that a lack of innovation and development has a severe longer-term impact on productivity.

**Keywords** – TFP, productivity, health policy, health technology, Italy

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## PCN 2.0 Diagrams: An Improved Visual Framework for Service Processes Management and Innovation

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#### Abstract

Visual frameworks can be essential tools for service process management and innovation as long as they succeed in representing certain key features. Firstly, they should make it possible to visualize all the steps that make up the processes. Second, they should enable representing customer interaction (i.e., the interaction between customers and service providers) and customer participation (i.e., customer contribution to service production and delivery). Third, they should help identify interacting stakeholders and assess their role in the value (co)creation process. Fourth, they should allow identifying non-value-added steps. Finally, they should provide information about the duration of process steps and the channels through which the service is delivered (e.g., face-to-face or telephone). Several visual frameworks have been developed (Business Process Modeling Notation, Service Blueprinting, etc.), but Process Chain Network (PCN) Diagrams are the most comprehensive. Unfortunately, those diagrams have some limitations. First, PCN diagrams assume that a process begins when the customer expresses a need and ends when the need is satisfied. However, this choice may be inconvenient or impossible. In addition, they usually group stakeholders. This grouping is generally functional, but sometimes more detail is needed. In addition, the description of non-valueadded steps could be refined. Finally, they do not provide an understanding of the duration of process steps or the channel through which the service is delivered. These limitations are significant in complex and lengthy processes such as health services.

Taking PCN diagrams as a reference, this paper proposes PCN 2.0 diagrams to overcome these limitations. We first conceptualized the elements a visual framework should include reviewing widely used ones. Then we refined our framework by representing actual service processes. Finally, we demonstrated the power of our framework through its application to the televisit service offered by one of the leading children's hospitals in Europe.

This study contributes to the existing literature by presenting an improved version of PCN diagrams. Our framework could support researchers and practitioners in service management and innovation for its completeness and clarity. Although we show an example drawn from the health sector, the framework is assumed to be generalizable.

**Keywords** – Service Operations Management, Process Innovation, Visual framework, Healthcare, Telemedicine

## **Coordination Mechanisms from Telemedicine Practices: Three Case Studies in Italy**

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#### Abstract

Although telemedicine practices may be traced back to decades ago, their real potential has only been recognized during Covid-19 outbreak. As the pandemic has abated, the implementation of telemedicine has revealed many managerial considerations that are crucial for its optimal deployment. The technical and social connotation of telemedicine is central for both understanding and promoting its implementation. This dual nature has been shown to peculiarly affect the organization of work, in particular coordination among health professionals. This study investigates which coordination mechanisms are enacted within telemedicine services among health professionals and how these mechanisms unfold to achieve collective performance within these services. To do that, three case studies, concerning telemedicine services provided by public healthcare organizations in the Italian context, were analysed. Results shed novel light on coordination mechanisms enacted within telemedicine services and their integrated conditions, meant as the instruments through which coordination mechanisms unfold to achieve collective performance. Practical implications are discussed to support managers in interpreting how coordination mechanisms work within telemedicine services and consequently how to effectively design them.

Keywords - Coordination, Organization, Telemedicine, Healthcare

## Lights and Shadows of Sustainability in Healthcare: A Literature Review

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#### Abstract

Sustainability is becoming a crucial research area, not only considering industrial contexts, but also managing healthcare, environmental, and social issues, adopting a holistic, multidimensional, and multi-stakeholders' approach. In a world where economic growth has been the primary objective in all the industries, the need to integrate environmental and social sustainability into business strategies first and then into daily activities is strongly emerging. Sustainability could be declined in three main pillars: economic, social, and environmental, traditionally in all the industrial and organizational settings, but this could generate peculiar instances also in the healthcare field. Being sustainable is becoming an urgent priority for the development of worldwide population. This unmet need should be addressed in any settings of the healthcare context, considering macro (i.e., healthcare system), meso (i.e., hospital) and micro (i.e., process) levels. Healthcare services are necessary for sustaining and improving human well-being, but the environmental impacts and the carbon footprint generated by these services, contributing to environment-related threats, are high. Assuming the One Health approach (Atlas, 2013) and referring to the health, environmental and social dimensions as closely interconnected, the importance of investigating the link between technology and sustainability emerges. To achieve this goal, a systematic literature review was conducted, including 86 articles that were divided into three different clusters considering papers devoted to technological aspects, models, assessment frameworks' development, and telemedicine. An analysis of the research areas interested was performed considering a double perspective, assessing environmental and social issues.

From the literature evidence, a strong relevance of technologies as the principal driver to guide the sustainable transition and an impulse to define quantitative indicators and assessment tools, emerged, also considering the necessity to support the decision-making process and the stakeholders' knowledge, to guarantee a green and sustainable development of healthcare systems.

The results included in the review demonstrate a significant diffusion of performance measurement models and systems, especially in relation to the environmental aspects, also considering innovative processes and technologies. The analysis of the social aspects is still limited, particularly in relation to the corporate social responsibility topic. Therefore, this contribution would highlight the need to define multidimensional assessment models, integrating the different pillars of sustainability, also into the technological governance process.

**Keywords** – Sustainability, Healthcare, Technology, Model, Environment

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# Task Shifting in Home Care Nurses: An Italian Multiple-Case Study

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#### Abstract

A sustainable healthcare system requires moving assistance from the hospitals to patients' homes. This new model of care requires the home care organizations to review the role of home care professionals. This change of work practice is particularly relevant for nurses that are a key figures in the process of value co-creation. To support healthcare providers and policy-makers in guiding this change, this research aims at studying the mechanism of task shifting in home care nurses using an ecosystem perspective. Given the exploratory aim of the study, a multiple-case study methodology was chosen by selecting four home care providers in Italy.

Results revealed that the role of the nurses is evolving through all three typologies of task shifting: enhancement, innovation and delegation of activities from general practitioners to healthcare assistances. The types of activities that were shifted among professionals, patients and their caregivers were interactive and administrative activities mainly, but also care and educational tasks. The root causes that led to the shift of tasks during home care assistance were organized into four categories: organizational, patients' needs, environmental and individual forces. Finally, this research made a first attempt to study the influence of task shifting on the other actors of the service ecosystem. Results revealed that the activities that nurses performed in addition to their routine activities influenced the micro, meso and macro levels.

**Keywords** – task sharing, primary care, sustainability, nurse, skill mix. (max 5 words)

# Transformation for Mobile Local Care, with Increased Teamwork, Competence, and Digitalization

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#### **Abstract**

Demographic changes together with scarce resources means that a transformation is needed in healthcare. A national work is on-going in Sweden to change the healthcare system to get it closer to the patients and users. In this transition work mobile local care is an important area. The aim of this paper is to learn and find out important flows of action that drive the healthcare transformation in mobile local care to evolve in a timely movement. A main challenge is the larger number of involved partners with different autonomous political governance, different in size and with different cultures. The study is based on a qualitative study and the collected data is analysed in accordance with the three modalities timing, attentionally, and undergoing as defined Baygi, et al (2021). The used approach opened the horizon of possibilities in a novel way, to understand the phenomenon of transformation in healthcare. The work also reveals that the used modalities have different possibilities for learning related to organizational, digital, and medical conditions. In the further work it would be crucial to study how the learning is interweaved by coinciding flows of action in this context.

**Keywords** – Transformation, Flow, Healthcare, Digitalization, Learning.

# Circular Economy Knowledge Management for a Sustainable Society: A Literature Review

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#### Abstract

The study investigates how the Circular Economy Knowledge Management for a Sustainable Society is analyzed in the literature, giving scholars and practitioners a clear overview on this topic. Based on the quantitative and qualitative analysis, the study explores the most productive and influential publications, countries and scholars in the field investigated. Moreover, it provides an overview on clusters topics.

**Keywords** - Circular economy, knowledge management, sustainable ecosystem, sustainable society, SDGs

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# Knowledge as a Circular Resource: Integrating Information Exchange and Circular Business Models for Product-Life Extension

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#### **Abstract**

The change from a linear to a circular business model requires the development of new services integrating information exchange and product usage to prolong product life through maintenance and repair. Information exchange has been identified as important for promoting circular economy, and this study draws on empirical data from a two case studies to demonstrate which kind of information supports maintenance and repair, and how the information exchange can be facilitated. Case company A offered maintenance of white goods (e.g., washing machine) as a subscription service where reminders and maintenance guides were emailed monthly to customers. Company B offered virtually guided repairs of white goods. The study finds that sharing information on what and when to do something facilitates end-users to participate in maintenance and learn about maintenance; more than half of the company A questioned customers reported that they learnt from guides and were involved in maintenance due to guides and reminders. For repair the problem description and possible solutions is information that must be exchanged, and a simple voice and video call can facilitate repairs that prolong product life with a minimum cost for the end-user. Both types of information exchange are facilitated by simple-tech solutions relying on known and cheap technology (e.g., email service, video call, and text-messaging). The findings of the study suggest that the development of circular business models does not always require expensive high-tech solutions to integrate information flow with product flow and usage, and companies are recommended to experiment with designing solutions based on known technology.

Keywords - Circular business models, Knowledge management, Information exchange, Case study

# Low-Cost System for Monitoring and Detection of Leaks in Hydraulic Pipes for Homes: Adequate Management of Technologies Applied to Water Care

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#### Abstract

Water has a high impact on the global population, its use is essential for any use, application and development in any activity. At present, the existence of the vital liquid has been significantly reduced due to inappropriate and excessive use in various parts of the planet. Becoming a global problem, currently in homes the use of it is quantified, however, there are factors that have not been considered for water care, liquid leaks in a hydraulic system, are rarely considered in a home and They represent a part of the problem. Although there are different prototypes to prevent water leaks today, the simplicity in a defined system is an adequate solution to prevent leaks in furniture in ciciendas. In the present work, a quantitative methodology is developed to avoid vital fluid leaks, using low-cost and freely accessible electronic and electromechanical devices such as the ESP-12-E development board, the JSN-SR04T ultrasonic sensor, also a YF-S201 flow sensor and a solenoid valve to control the opening and closing of the liquid supply, with the option to monitor the system, the Arduino software is used. The system was implemented in a house located in Jalisco, Mexico and works in a simple, but effective way, where the described ultrasonic sensor acts as the main axis, sending a signal to the ESP12-E board, to indicate the opening or closing. of the water supply in the pipe that will supply the bathroom furniture, upon detecting the absence of a user and at the same time the mentioned water flow through the signal provided by the user, closing the solenoid valve and otherwise the system does not execute the instruction any, fulfilling the adequate use of the vital

Regarding the quantification of the liquid in the system, two tests were carried out the first; in a conventional bathroom in a house and the second room; in the bathroom toilet, under the same criteria of use in both pieces of furniture, functioning properly, later a leak was induced in the system to test its operation before the scenario to intervene, producing the closing of the solenoid valve, blocking the use of the water in the sink and checking the proper performance of the system.

Although a leak is unpredictable, this system can avoid the problem of water waste in homes with a low -cost system for the user and, in addition, being implemented in home furniture and in all homes, it would result not only in a Savings in the cost of water, but in its use and care, inducing a large -scale use and paying for the care of the environment in an important way for the planet.

**Keywords** – Water, ESP 12-E, Housing, Monitoring.

Paper Type - Practical Paper and Academic Research Paper

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# Street-Scale Logistic Hubs for Enhancing Urban Vitality and Public Space Usage

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#### **Abstract**

The article discusses the impact of the trends towards online shopping and personal last-mile micromobility on urban mobility and public spaces. These trends reflect changes in consumer behavior and preferences driven by technology and the increasing availability of online services. The article argues that the preference for door-to-door services can potentially lead to a reduction in pedestrian foot traffic and affect the social sustainability of neighborhoods. To address this challenge, the article proposes the use of small-scale transport hubs strategically positioned to cater to evolving consumption and mobility practices, while also preserving the vitality of public spaces and reducing carbon emissions. The article suggests the need for transdisciplinary approaches and digital tools for knowledge management to address the complex challenges of selecting suitable locations for these hubs in cross-cultural settings. The paper proposes a methodology based on digital tools for addressing the clash between general standardized criteria and context-tailored interests in the process of locating small-scale transport hubs, applied for the case study of six European cities to illustrate the methodology.

Keywords - Location finding, micro hubs, geodata

Paper type - Practical Paper

# What is Intercultural Competence and for Which Situations is it Necessary? Validation of the Content and Application Areas of a Test for Measuring General Intercultural Competence and Culture-Specific Competence

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#### Abstract

Advancing globalisation processes entail that businesses increasingly have to orient themselves internationally in order to remain competitive. Growing labour mobility and international economic networks imply a rise in intercultural contacts, and thus a rising demand for intercultural competence. However, the relevance of intercultural competence is often underestimated outside of the academic community. In order to elucidate the significance, the necessity and areas of application of intercultural competence, an explorative (primarily qualitative) study was conducted with students and professionals with and without a migration background. The central objects of study were the experience-based attitudes of students and professionals. In this qualitative study, 61 structured interviews were examined using a content analysis. After the presentation of a definition of the construct, the interviewees were asked about aspects of intercultural competence. The aspects mentioned most frequently was a general open attitude, followed by impartiality, self-reflection of one's own culture and person, and lastly, culture-specific knowledge. Regarding the areas in which intercultural competence is needed, respondents mentioned the education sector most frequently, followed by references to business, as well as internationally operating companies.

These results provided indications for the development of a measurement instrument of intercultural competence and related constructs. Therefore, another qualitative study was conducted with 249 interviewees to identify aspects of both, general intercultural competence, and culture-specific competence in a German cultural environment. Eleven dimensions of general intercultural competence, relating to personality traits, relational attitudes, and skills, were identified in a content analysis of the interviews. Further, six culture-specific aspects were derived from the interviews, containing culture-specific knowledge, norms, and communication skills. Based on the responses, three scales were generated: two graded response scales for general intercultural competence and culture-specific competence, and a culture-specific situational judgement test.

The resulting measuring instruments were thereafter validated in a quantitative study with a total of 6338 participants, including students, professionals, and unemployed, each with German background, international background, refugee background, or emigrated. The scales' and subscales' reliability and validity were tested in the individual subsamples, using methods from both classical test theory and item response theory. The items were reviewed twice, based on the calculated item characteristics, as well as on results from a focus group with immigrants and expert discussions.

The present paper thus contributes to a differentiated understanding of cross-cultural and culturespecific aspects of intercultural competence in an increasingly culturally diverse global society.

**Keywords** – intercultural competence, intercultural contact, specific intercultural competence, measuring intercultural competence, international cooperation

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# Enhancement of Cultural Heritage Tourism along the Darb Zubaydah Pilgrimage Route in Saudi Arabia: Fayd Oasis as a Sustainable Development Scenario

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#### Abstract

Saudi Arabia opened its doors to tourists in September 2019 and unveiled ambitious tourism plans during its G20 presidency in April 2020. The cultural heritage is remarkable, given the rich history of Saudi Arabia. With the Saudi Vision 2030 built around three themes "a vibrant society, a thriving economy, and an ambitious nation," tourism figures prominently as one of the primary sources of diversification of the Kingdom. This strategic framework aims to enrich the journeys of Makkahbound pilgrims while in the Kingdom and establish tourist and historical sites and cultural venues to enhance the pilgrimage experience. The paper concerns one of the five pillars of Islam: the annual Islamic pilgrimage (Hajj) to the Holy City of Makkah, considered one of the most important and ancient in the world. The pilgrimage routes were religious and commercial axes that crossed the Arabian desert, favouring movement throughout the ancient world and creating a "heritage route." The research study focuses on Darb Zubaydah, the main historic Hajj pilgrimage route connecting Kufa in Iraq to Makkah in Saudi Arabia. This 1,300 km route has 13 heritage sites, four in Iraq and nine in Saudi Arabia. The Dar Zubaydah is a historical, cultural route of exceptional universal value, and since 2 January 2022, it has been included in the Saudi Heritage Tentative List of UNESCO. The research aims to promote and bring to light the cultural heritage along Darb Zubaydah by developing sustainable cultural tourism. The paper defines guidelines enhancing services near the historical sites and between one pilgrim station and another to reduce distances. Fayd Oasis, one of the most important and strategically located stations in Darb Zubaydah, has been selected as a case study for a sustainable development scenario to revitalize today's archaeological site and implement its services. The goal is to strengthen the pilgrimage route's cultural identity and historical heritage through services for tourists and pilgrims that promote Saudi cultural heritage while preserving the environment and natural resources. Defining a strategic plan to enhance this tourist axis of pilgrims is essential to promote the cultural landscape and heritage by strengthening the sense of identity towards a sustainable approach. The result of this study wants to contribute to Vision 2030 to enhance the development of tourism through the revitalization of the Islamic, Arab, and national cultural heritage of the Kingdom. It can be applied in other Hajj pilgrimage routes and on a global scale.

Keywords - Cultural tourism, Heritage, Pilgrimage route, Saudi Arabia, Sustainability.

# Design-Driven Knowledge Management for Climate Heritage: Contemporary Tendencies and Future Perspectives for UNESCO Cultural Landscapes' Sustainable Development in a Changing Climate

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#### Abstract

The present paper summarizes recently-started research inside the UNESCO Chair on Mediterranean Cultural Landscape and Communities of Knowledge whose objective, from a theoretical and operational point of view, is to elaborate a design-oriented knowledge model for a climate-resilient management of the UNESCO site of the Sassi and the Park of the Rupestrian Churches, in order to understand and maximize the potential of 'Community of Knowledge' concept around climate adaptation's challenge. Heritage climate adaptation is a newly emerging research field which intends to reduce effects and enhance the benefits from present or potential climate change impacts through planned strategies and actions. Within Heritage studies, an interesting transdisciplinary debate is arising on the relationship between heritage and contemporary uncertainties, in particular with climate change. Heritage is positioned as a crucial asset and a source of creativity for climate adaptation, also informing UNESCO and its advisory bodies' approaches. Considering heritage through the lens of climate change also challenge heritage understanding, knowledge production/management inside the design processes. The complex nexus heritage-climate change asks to re-define, from a design perspective, knowledge management approaches, methodologies and tools. Knowledge management is crucial inside the design process for heritage transition to climate heritage: the way and from whom we gather multiple data, analyze process, results and experiences and disseminate them are key aspects for increasing the effectiveness and impacts of adaptation process. With this regard, UNESCO cultural landscapes, as 'living' and 'continuous' landscapes, are envisioned as possible climate experimental laboratories, able to respond to the international organizations' calls for capacity-building, multi-level creation, management and exchange of knowledge through climate adaptative design process. With this purpose the site of The Sassi and the Park of the Rupestrian Churches, Matera, Italy has been selected as a hologram of Mediterranean cultural landscapes and a possible prototype for a design-oriented knowledge model for climate resilience. From an experimental point of view, the research intends to elaborate the CROA (Climate Resilience Operational Atlas), conceived as a collective and inclusive platform which aims at sustaining a dynamic, multi-scalar, participatory and design-oriented knowledge process which will inform the update of the Site's Management Plan. The Atlas could be interpreted as knowledge process, understood as a mapping tool and a focus on what is possible, in which local groups and communities, and their Endogenous Way of Knowing, would play a central role in guiding socioecological adaptation processes opening to sustainable development scenarios.

**Keywords** – Climate Change, UNESCO Cultural Landscapes, Sustainable Development, Adaptation, Design.

# Villa Adriana as a Paradigm: The New UNESCO Buffer Zone between Sustainability and Innovation

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#### Abstract

The 17 goals for sustainable development of the UN 2030 Agenda defines some of the main issues related to the environment, the climate change, the rational consumption of resources and the commitment to reduce inequalities between different countries and people themselves. Aspects whose solution today seems increasingly undeferrable: the succession of opposite climatic emergencies – for example from drought to floods – and the recent energy crisis impose a change of course with respect to the globalization trend that characterized the second half of the 20<sup>th</sup> century and the beginning of this new millennium, in the wake of mass production and consumption. However, the contemporary debate around these issues often suffers from the infodemic of our hyperconnected time and even more often from greenwashing practices. Even architecture, within its competence, must have the responsibility to really include these goals in its programs and conscientiously reconsider the use of resources, the choice of the best construction technique in relation to the theme and the context and the reduction of consumption of soil, towards a necessary rebalancing between nature and artifice, between construction and landscape.

This contribution wants to introduce some recent experiments conducted by a multidisciplinary research group who have attempted alternative approaches to the more consolidated ways of making cities and landscapes. *Learning from Villa Adriana*, is the project that offered us the opportunity to experiment these themes on a double layer: specifically, by investigating new forms for the resignification of the Unesco Buffer Zone of Villa Adriana, and more generally by investigating tools for landscape management and cultural heritage with a view to truly sustainable development. This project was an opportunity to experiment new forms for the re-signification of Unesco Buffer Zone of Villa Adriana, re-establishing the ontological relationship between the Villa and its landscape – the *ager latialis* – removing it from the 'non-place' of the modern township to return it to the complex system of relationships between man and the environment. The project imagines a contemporary *locus amoenus*, extending from the Villa to the Aniene, which investigates the relationship between ancient/new and between nature/artifice. The landscape is the appointed tool for recomposing these antinomies within an overall design that redefines the terms of the necessary and sustainable transformation of a place.

Keywords - Cultural Landscape, Unesco Buffer Zone, Villa Adriana, UN 2030 Agenda

# UNESCO Buffer Zones and Territorial Identity: Design as a Potential Tool for Context-Heritage Integration

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#### Abstract

In the last thirty years the notion of heritage has deeply changed, and the attention has shifted from the materiality of monuments, as bearers of intrinsic values, to a wider recognition of cultural heritage as a process that increasingly involves the territorial context and its dynamics. UNESCO official preservation tools include the definition of a buffer area surrounding an enlisted property as a noncompulsory added layer of protection to the heritage core, but, without further specific criteria and purpose, this remains as a mere generic "defensive shield" instead of becoming a contact point between heritage and territory. The contribution critically investigates how the implementation of UNESCO buffer zones is conflictual with the more recent compulsory management plans, theoretically fostering the inclusion of local dynamics in valorisation policies. Design and spatial transformations, that are fundamental components of a living cultural environment, are mostly excluded from the development of strategic interconnections between heritage sites and their surroundings, and they are mainly seen as threats to the heritage integrity and authenticity.

In this framework, the analysis of case studies highlights the potential of design actions in the heritage-context reconnection. The selected examples – both in and out of the UNESCO system –, are projects able to conjugate the territorial transformation processes with the heritage preservation priorities in a tentative to encompass the idea of architecture as a practice of care of heritage-related territorial fragility. Starting from these examples, the study of how design actions can be integrated both in the process of definition of buffer areas (*cognitive framework*) and in the drafting of the management plans (*interpretation framework*), defines a methodology that could activate new forms of preservation policies, that take into account the need for a renewed and shared knowledge of local traditions and for a valorisation that goes beyond the heritage site boundaries. The narrative and activating potential of architectural transformation cannot be excluded from the valorisation policies, and rethinking the role of UNESCO *buffer zones* can be crucial in a new balancing between preservation instances and territorial development.

Keywords - Buffer zone, territorial fragility, design, cultural heritage

# Phygital Approach to Value Co-creation in Cultural and Creative Sector

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#### Abstract

This research work is part of the emerging paradigm outlined using phygital approaches for the experimentation of innovative forms of use of the Cultural Heritage. The conceptual framework outlined is the field of investigation in which the cultural-based experiences that combine the proposition of physical and digital value in a national and international area are explored from a managerial point of view. The research objective is pursued through a qualitative approach that aims to provide a theoretical understanding and explanation of the phygital phenomenon in the cultural sector. The innovativeness of the proposal is expressed in the comparative analysis of the selected cases, with the purpose of identifying best in class and prospects for improvement. The research's findings highlight that the phygital formula can take on different characteristics depending on the technologies used and the purpose to be achieved and can be a useful tool for the co-creation of cultural value.

Keywords - Phygital, Cultural Heritage, Digital Technologies, Value Co-creation.

### **Reconstruction of Models - Models of Reconstruction**

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#### Abstract

The traditional concept of heritage, which focuses mainly on physical, architectural and urban aspects, no longer allows adequate conservation strategies. New approaches need to integrate notions of the socio-economic context and sustainable development as well as factors related to social and cultural representations and intangible heritage. Reconstruction is the activity of building again something that has been damaged, bringing it into the state it was before; nevertheless, deeper studies, focused on what reconstruction is, show how it doesn't only describe a project but it also sums an attitude of mind in the face of lack of form, defined by scientific, ideological and political strategies, economic interests, aesthetic demands

The controversial topic must be led out of fixed patterns of thought, as it has ceased to be simply the continuous representation of an image, instead shifting the paradigm towards a new construction of history. The ever-present idea and practice of re-presenting again what is missing must be seen in the new perspective of "re-construction", stressing the attention on the prefix "re-", linked to the possibility of repetition of actions, in same or opposite way, moving expected results from precise copy to broader quote of invention. The basic principle of any cognitive structure is repetition. If intended as the action of performing again something that already occurred, it allows the formation in the subconscious of an image in which users can recognise specific values. Reconstruction, in the action of building again and filling gaps, supports the desire for continuity of a constructed memory that is also part of contemporary cultural self-construction. The concept of reconstruction weaves relationships concerning ontological, ethical and pragmatic aspects. Reconstruction tackles the dichotomy between complete form and ruins, a condition in which architecture, although reduced to minimum formal terms, still manages to exist through an image that constantly lies in collective memory. It opens questions on the ratio between original contents and replicas and on its social and political legitimacy and investigates building techniques involved and the innovation impressed on the remains by the rehabilitation project.

This contribution aims to clarify how a reconstructive approach to heritage intervention can play, in multiple fields, a significant role in the transmission of memory and value, and also to broaden the spectrum of investigation onto various reconstructive models, which provide the theoretical basis for a subsequent practical approach for the heritage.

**Keywords** – Reconstruction, model, ruins, value, Verona

# **Smart Waste Bins: Tackling Waste Management Challenges in Touristic Areas and the Hospitality Industry**

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#### Abstract

Waste management in touristic areas and the hospitality industry is a significant concern, with the problem exacerbated during large events. This research paper aims to explore the main problems of waste management in these sectors and propose the implementation of smart waste bins as a solution. The study includes an in-depth analysis of current waste management practices and the potential benefits and challenges associated with smart waste bins. We examine their effectiveness, cost-efficiency, and potential for integration with existing waste management infrastructure, as well as their potential environmental and social benefits. The results show that smart waste bins, when strategically deployed and integrated into a comprehensive waste management plan, can significantly improve waste management efficiency, reduce environmental impact, and support sustainable tourism and hospitality operations.

**Keywords** - sustainability, waste management, smart waste bins

# (Sustainable) Platforms Ecosystems: Integrating the Green into the Blue

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#### **Abstract**

Sustainable innovation has become an increasingly important topic in recent years, as society faces emerging challenges related to sustainability. Rooting on a wide review of sustainable innovation and framing digital platform ecosystems as a way to create new markets, promote regional specialization, and provide long-term horizons for political action, the paper proposes a conceptual framework to highlight the pivotal role of the platform sponsor in guiding and controlling the development of sustainable innovation on the whole platform ecosystem. This involves setting clear goals, defining metrics, and establishing rules for participation. The platform sponsor also plays a critical role in fostering collaboration and co-creation among users, facilitating the sharing of knowledge and resources, and creating a culture of innovation and sustainability: in this, algorithms play a key role in enabling green and blue technology recombination, supporting sustainable decision-making. By integrating these technologies, digital platform ecosystems can support sustainable practices across a range of industries and reduce the environmental footprint of human activities.

**Keywords** – Sustainable innovation; digital platform ecosystem; green and blue; algorithms.

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# Bridging Integral Human Development and Intersectionality in Business Ethics Research

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#### **Abstract**

This paper, normative in nature and scope, addresses the social role of working organizations in addressing inequality, one of the Grand Challenges of our time and the 10th Goal among UN SDGs. More in depth, it focuses on a gap in organizational and business ethics literature, so far lacking a perspective on inequality able to bridge Integral Human Development and Intersectionality. While there has been an increase in studies deploying Intersectionality as analytical framework to understand inequality and studies adopting integral human development and the capability approach to suggest strategies and policies to tackle it, no unifying perspective has been conveyed using the two. We argue for their joint deployment with the aim to increase effectiveness of diversity management and policies, as well as to face the challenges connected to the organizational reproduction of inequality. Ultimately, this study provides an original theoretical stance able to propose further path of research as well as suggestions to practitioners aiming to building organizational strategies and cultures based on the values of fairness and gender, racial and social justice.

**Keywords** – humanistic management, human integral development, intersectionality, gender issue, humanism in business

Paper Type - Academic research paper, normative

# Developing a Knowledge-Based Framework in Financial Firms for Sustainability Change and Reporting

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#### **Abstract**

This paper aims to enhance understanding and increase visibility and accountability of financial firms through developments in a knowledge-based framework, 'integrated thinking', and reporting for sustainability purposes. This is essential to understand and manage Net Zero and CSR change and associated 'sustainability reporting' and make financial firms accountable in their central role in economy and society.

More specifically, the paper aims to make large international financial firms, and their dynamic change processes, comprehensible, transparent, and accountable.

Three connected knowledge-based problems arise in financial firms—managing change—integrated reporting—and authenticity (Adams 2017; Torre et al 2018, Larsen, 2017, Cho et al 2015). These problems arise when rapid, complex external change such as CSR and Net Zero change pressures, interact with problematic internal predispositions in financial firms. They arise because finance system stakeholders mediate such change and its impact on reporting and 'principles', in their interests (Flower, 2015).

Given these problems the paper argues there is a need to understand how the financial firm is evolving to understand how its sustainability reporting is evolving.

A 'whole firm' or holistic view is required to understand change in financial firm and change in their sustainability oriented integrated reporting (<IR>) by individual firms and standard setting bodies such as IFRS and EFRAG. This takes the form of a 'Behavioural theory of the financial firm' (BTFF), adapted to incorporate CSR, Net Zero, and financial orientations (Holland, 2021, 2022a,b).

This is a knowledge-based framework for guiding financial firm practice and academic research in uncertain times

This sustainability oriented BTFF is used to argue for changes to create a modified <IR> frame for sustainability reporting by individual firms and standard setting bodies such as IFRS and EFRAG. This includes changes in the <IR> 'Octopus' model' of value creation, and development of multi-dimensional view of integrated thinking. The combined BTFF and modified <IR> frames are used to develop a coherent change narrative and metrics as new content in the modified <IR> structure.

The new knowledge in the combined BTFF and <IR> frames and proposed changes in reporting content, are means to change information flows, reporting, and behaviour in the financial firm and in wider systems. They are the basis to enhance management of change and wider stakeholder understanding of change. They are means to develop and exploit new empirical research and theory building on change and reporting.

Keywords - Financial firms, Change, Knowledge, Sustainability, Reporting

# The Impact of ESG Perception on Universities

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#### **Abstract**

During the last two decades, sustainability issues, such as climate change, depletion of natural resources, or bad working conditions, gained considerable attention in the literature. Investors, consumers, suppliers, employees, public powers, and non-governmental organisations are increasingly requiring the development and implementation of sustainable practices, considering that sustainability and environmental, social and governance (ESG) factors became drivers able to affect companies' performance and are considered a source of competitive advantage.

In the current scenario, universities play a pivotal role in the transition to a sustainable society, providing students with knowledge about sustainability, ethical values, and human rights, contributing also to the achievement of the 17 Sustainable Development Goals (SDGs) of the 2030 UN Agenda. The perception of the relevance of sustainability and ESG issues fosters the universities to make investments for organizational restructuring, adjusting planning and controls, transforming their own missions, broadening their curricula, and providing non-financial disclosure. Particularly, non-financial disclosure is a strategic tool at least for the following three main reasons: to i) affect the way they are perceived and regarded externally; ii) legitimize their business activities to stakeholders; and iii) appear as good corporate citizens.

In the light of the previous considerations, this research paper tried to understand if the ESG factors can affect the performance of universities. Our analysis considered only the Italian mega-universities and was based on the ESG Perception Index for the period June-October 2021 as a tool for assessing the value of the relevance given to ESG issues by universities. This indicator was retrieved from the Reputation Science's Report. We carried out a multi-stakeholder analysis to understand if there is a correlation between the ESG Perception Index and economic variables related to the following three categories: i) students; ii) professors; iii) the Ministry of Higher Education. The findings showed a significant positive correlation between the ESG Perception Index and the considered variables. In order to validate these results, we developed a content analysis of universities' sustainability reports, based on the presence of keywords related to environmental, social, governance/transparency, and sustainability issues and then we used the retrieved level of non-financial disclosure as a control variable. Thus, these findings provide insight into how ESG perception can affect universities' performance and can be useful for academic researchers, policy-makers, and practitioners.

Keywords – University, ESG, sustainability, disclosure, non-financial report

# Digital Platform for Knowledge Sharing and Value Co-Creation in Waste Recycling: The Case of Alpha

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#### Abstract

This paper aims to investigate the role of digital platforms in improving knowledge sharing and the effectiveness of waste recycling by co-creating value. In order to do so, this research undertakes a single qualitative case study focusing on Alpha, a small-sized digital platform provider that operates in the highly fragmented Italian market of waste management.

The case analysis relies on the Resource Interaction Approach as main analytical framework since it provides a practical tool - the 4R model - to classify resources involved and value outcomes emerging from their integration.

Findings show how the digital platform fosters recycling practices engaging citizens, municipalities, and waste management companies in a shared co-production program. They support the literature on digital platforms serving value co-creation processes. The platform acts as a circularity broker between various stakeholders with complementary goals having a different impact on the process and outcomes of value co-creation.

Keywords - Circular economy, Waste management, Recycling, Digital platforms, Value co-creation

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# Innovation Practices and Knowledge Management in Circular Firms: An Analysis on Italian Experiences

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#### **Abstract**

The Open Innovation (OI) increases knowledge flows, accelerates the innovation processes and increases the benefits produced by the innovation itself. It is generally considered as a fundamental tool for the development of the circular economy.

In line with this, the aim of this study is to investigate the possible connection between knowledge management (KM) and circular economy (CE), within the open innovation practices.

To accomplish this aim, we adopted the Grounded Theory (GT) approach to investigate OI practices linked to CE, partnerships and benefits declared by companies.

Italian firms have been adopted as a research context. Those selected for the analysis have started to redesign their production systems or carried out radical innovations to achieve the goal of obtaining the decoupling of economic growth from the depletion of natural resources. The results of the study show that the selected firms apply collaborative innovation practices, confirming the existence of a relationship between OI and the EC. The size does not seem to affect the type of OI, while with reference to the industrial businesses, OI practices are concentrated on few ones.

By far, the OI coupled practices are the most numerous and it emerges that there are more companies that introduce innovation into the external context than those that use the external environment to acquire knowledge. In addition, findings show a difference in the benefits achieved on the basis of the category of partners involved in the innovative initiatives. According to the results, we identified three research hypotheses which will be explored in a second step of the analysis.

The paper deals with an emerging issue and can foster a better understanding of the drivers, in terms of KM practices, for the development of the circular economy through the OI. Although this study is an explorative analysis of a sample of Italian circular firms, it offers academic and institutional implications regarding the debate on the circular economy at a micro-level. Understanding the experiences that companies are already having can represent a further step for the achievement of a new economic model, stimulating and fostering the implementation of the circular economy at a micro-level, and leading to policies that support the development of circular innovation.

**Keywords** – Circular Economy, Open innovation, Knowledge, Italian firms.

**Paper type** – Academic Research Paper

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# Selling Experience in C2C E-Commerce of Second-Hand: Gen-Zers among Bargaining, Personal Satisfaction and Sustainable Lifestyle

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#### **Abstract**

The Covid-19 pandemic led to a significant increase in e-commerce and digital adoption in Europe, with online consumer-to-consumer (C2C) marketplaces for second-hand goods experiencing newfold popularity. This trend is primarily driven by Gen-Zers, who are leading the way in buying and selling second-hand goods online, motivated by saving/making money, finding unique items and adopting a more sustainable lifestyle.

This research aims to investigate Gen-Zers' attitudes towards online C2C platforms and their motivations for selling second-hand clothes.

In order to investigate this phoenomenon, a qualitative research method has been preferred. The study consists of two parts: the first involves a systematic collection and analysis of users' reviews of the Apps on Trustpilot and App stores in order to identify the most relevant drivers in determining the Circular Customer Experience (CCE) from the sellers' point of view, while the second part involves two focus groups to discuss the evidences emerged from the first study. The research perimeter includes the main Italian online C2C platforms for the clothing category (Vinted and Depop). The reviews were collected using web scraping software and a manual content analysis were conducted to identify topics that emerged from the qualitative data. The focus groups were organized in light of the predominant role of the participants (sellers).

The results show that among Gen Z, the main motivation to sell is to "empty the closet" but the satisfaction of completing a transaction successfully is also important. Although sustainability is not the primary driving force behind the selling choice, some participants are concerned about sustainability and suggest that C2C platforms increase user awareness and provide solutions to be more responsible. The research highlights personal satisfaction and accomplishment as the key reason for sellers to stand out. Our findings suggest that C2C platforms can retain and attract sellers by improving the mobile experience, developing incentive systems to increase the propensity to leave reviews and equipping sellers with signalling systems to protect against buyers' opportunistic behaviours. In conclusion, to create a positive perception of second-hand goods, marketers should emphasize their environmental and psychological benefits. If C2C platforms make it easy, rewarding and eco-friendly to sell second-hand goods, they can change people's attitudes toward used items, so they will no longer be seen as inferior. To the best of our knowledge, this is the first study to adopt the sellers' point of view, specifically focusing on the motivations of Gen-Z, as the main users of these platforms.

Keywords - C2C, second hand goods, online platforms, Circular Customer Experience, Gen-Z

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# **Knowledge Worker Resilience and Creativity**

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#### **Abstract**

Knowledge workers are central actors for organizational performance and also widely in societies. Specifically, they are central sources, producers and orchestrators of knowledge, in which work creativity plays an important role. The goal of this paper is to shed light on determinants of knowledge worker creativity. We investigate resilience and self-efficacy as predictors of knowledge worker creativity by suggesting that effect of resilience is both direct and indirect, that is self-efficacy works as a partial mediator between knowledge worker resilience and creativity. We collected data from 419 knowledge workers in Finland to test the research model. The model was tested using partial least squares structural equation modelling (PLS-SEM). The findings supported our hypotheses. This study contributes to research on knowledge worker creativity and individual resilience in organizations.

Keywords - Resilience, Self-efficacy, Creativity, Knowledge worker

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# Innovation Integrality Index: A Tool to Integrate Rational and Emotional Sides of Innovation in the Organizational Resilience

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#### **Abstract**

Nowadays, we are facing a world in social and economic compulsion. Different kinds of crises and shocks in the economic and social systems crashed in our reality. This is creating a chaos and uncertainty environment among leaders, entrepreneurs and organizations. It is precisely in this moment of uncertainty that an innovator and resilient leader can identify new opportunities to integrate emotions around an organization. These innovators and leaders are struggling with this issue and sought ways of working and continue daily activities. In essence, these leaders are adding resilience into the organizational culture using two sides: rational and emotional sides of innovation. For that reason, understanding resilience and innovation as a symbiosis is a guide for modern organization. This relationship is a priority for many organizations, actors and governments in the current scenario of changing. Under this context, having an index that measures dynamics and main practices (rational and emotional sides) around a culture of innovation allows us to know and recognize how does our organization resilience react front a major economic impact. In the case of the study, the application of the instrument was carried out during the months of September to December 2022 to 177 managers and/or founders of small and medium-sized companies in the state of Guanajuato, México. We use a Partial Least Square Equation Model (PLS-SEM) methodology to prove validity into relationships and sample size. We draw on our findings detecting that managers mostly are focused on the rational side of innovation (resources, processes and successes) and less on the emotional side (values, behaviours and work environment). This finding provides an opportunity to improve this emotional side of innovation, because this is a core element to enhance resilience in organization. We recommend further development and evaluation of future approaches about leadership, innovation and resilience.

**Keywords** - innovation, resilience, emotional, SMEs, management.

Paper type - Practical Paper

# Measurement of Public Service Users' Satisfaction: Lithuanian Study

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#### Abstract

During times of uncertainty and challenges, the role of the public sector becomes even more important in securing public health, economic vitality, national security, and efficient navigation of disruptions. This research conducts a literature review to identify main dimensions for assessing public service quality and evaluates the quality of public services provided by Lithuanian organizations. Improving public service quality is crucial for realizing public interest and ensuring business continuity and resilience of public sector organizations.

To achieve our research objective, we used the Servqual model with a questionnaire consisting of 10 dimensions of service quality. We conducted a survey by interviewing customers of Lithuanian public sector organizations providing public services between May and September 2022. Our sample size of 3609 users of public services is representative of Lithuania's population of 18 and above y.o. We applied ordered logit and probit models to analyze the effect of sociodemographic characteristics and service type on customers' opinions about service quality aspects, using a 7-point Likert scale.

The study aimed to evaluate the quality of public services in Lithuania by analyzing users' perception of service quality. By conducting a literature review, service quality indicators were identified and grouped into dimensions based on common characteristics, which formed the basis for an empirical study. Overall, customers' attitudes towards public service quality in Lithuania were positive, indicating that either the quality of public services is high or customers are relatively undemanding. Further analysis using logit and probit models revealed that the most satisfied customers of public services are higher-educated but inactive females younger than 48 or older than 58 living in families of 4-5 members. On the other hand, less educated 48-58 years old, employed or unemployed males living in relatively small or large families were most likely to have a negative attitude towards public service quality. The study found that factors such as gender, age, family size, educational attainment level, and employment status are significant in explaining the heterogeneity of customer satisfaction, but they only account for a small fraction of variation compared to the place of residence and type of services. Thus, the study suggests that there are considerable differences in the level of public service quality across regions in Lithuania and that customers' demands vary depending on the type of public service.

This research project received funding from European Social Fund No 13.1.1-LMT-K-718-05-0032 under a grant agreement with the Research Council of Lithuania (LMTLT).

**Keywords** – public sector, service quality, Servqual model, systematic literature review (SLR), logit model, probit model.

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# **Leading and Managing Organizational Resilience**

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#### Abstract

There are many types of uncertainties that the contemporary working life – including public and private sector organizations – needs to cope with to operate successfully and to maintain their competitive advantage. Worldwide crises, shortage of labour, and the need to adjust quickly to the changing environment call for a new type of organizational resilience. We propose that in addition to being able to bounce back from adversities, which is the traditional viewpoint for organizational resilience, organizations need to invest in developing their proactive organizational resilience. It is suggested that leadership and management activities play a key role in building and fostering proactive organizational resilience. It is expected that knowledge management practices, such as increasing change capability and creating a continuous learning environment are important elements in improving proactive organizational resilience. As a way of identifying the crucial leadership and management processes in developing proactive organizational resilience, a systematic literature review on recent research literature is currently being carried out. This is still work-in-progress but based on interim results of the systematic literature review, this conference paper presents some key perspectives and discussions together with main research findings. In addition, some interesting future research prospects are described.

**Keywords** – Organizational resilience, Proactive organizational behavior, Systematic literature review, Management, Leadership

# **Energy Inequality Indicators: A Systematic Literature Review for Exploring the Ways for Inequality Reduction**

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#### Abstract

In recent years, resilience of the society has been increasingly tested in the face of major obstacles, and the fight against deepening energy inequality is becoming a major obstacle to the transformation into a climate-neutral society. Starting from the 2020Y two opposite trends have been observed in almost all areas of life as a result of the global pandemic, with industrial activity paussed and stagnation prevailing: a significant reduction in emissions on the one hand, and a severe economic downturn on the other. From the beginning of 2022Y in the face of geopolitical tensions that led to a sharp rise in energy prices and energy affordability are becoming major societal challenges. This raises the question of how the transition to a climate-neutral society should take place in order to coordinate the green course and ecology with a prosperous economy in the future as well as to ensure energy justice and reduce energy inequality. The research aims to conduct a systematic literature review to identify the main indicator of energy inequality and to explore the possible ways for inequality reduction. Such theoretical and empirical research on energy inequality is essential, especially in finding the ways for its reduction.

To implement research objective a systematic literature review was performed. The research is carried out in several stages. Firstly, the main indicators of energy inequality are identified. Secondly, the findings of the systematic literature review are categorised according to the objectives pursued. Finally, recommendations for potential ways for energy inequality reduction are presented. The methodology itself include an integrated analysis of macroeconomic energy justice and energy inequality statistics.

This study in the context of macroeconomic energy justice and energy inequality statistics identifies the main energy inequality indicators, categorizes them and provides a proposal for potential ways for inequality reduction. It is essential, because it is obvious that energy justice, consumer awareness, sustainability inall spheres of life and becoming a climate-neutral society will not be achieved until energy inequality is minimized.

This research project received funding from Research Council of Lithuania (LMTLT) under the Agreement No. S-PD-22-68.

**Keywords** – energy inequality, energy justice, climate-neutral society, systematic literature review (SLR).

# The Digitization Process of the Poorest State on the Periphery of the European Union: Efforts and Trends

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#### **Abstract**

It is contested whether or not developing countries I can achieve economic prosperity through shifting from agricultural to industrial societies. In the face of uncertainty surrounding economic and technological development, policy makers in many developing countries formulate ambitious goals for digitalization and its positive impacts on accelerating structural change [Matthess et al, 2020]. With regards to digitalization, a wealth of studies investigates the relationship between digital technologies and their economic impacts, e.g., on productivity [Qiang et al, 2009], employment [Ju, 2014], or manufacturing [Kohtam¨aki, 2020].

The article is focus on the analyses of the capacity of a developing country as Republic of Moldova is to adopt and implement digitalization policies. In this regards we highlight that in recent years, the governmental e-Development efforts of the Republic of Moldova were guided by the national strategies "Electronic Moldova" (2005), the e-Transformation program (2011), Strategy of development of the ecosystem of the IT industry and digital innovation 2018-2023 and "Digital Moldova 2020" Strategy (2013) [1], which aims to increase the competitiveness of the ICT industry at the regional level and improve the climate for digital innovation.

Why does the information technology sector represent an engine of social innovation and multilateral development of the country?

How necessary are e-Government services for the citizens from the poorest country in Europe? In an attempt to answer these questions, the article will emphasize that in the Republic of Moldova, the ICT sector has become the main engine of digitization and innovation, and it is growing rapidly. In 2020, the IT industry reached a share of more than 3% in GDP, the share of the ICT sector in GDP being more than 7%, and the share of innovative enterprises represents 12.6% of the total number of enterprises. The share of ICT service exports reached 5% of total trade and surpassed traditional export fields (wines, textiles, etc.) in 2020, up 23% from 2019 and 184% from 2015; the sector employs approximately 1% of the total population of Moldova. It is little, but at the same time it is a very attractive sector for young people. (Strategy, 2022) With reference to the Electronic Government Agency [2], it is worth to mention that from 2011 until now, more than 100 e-Governance products have been successfully created within more than 20 e-Transformation and modernization initiatives of public administrative services, building a sustainable platform for the modernization public services and other innovations in governance.

**Keywords** – digitization, e-Government, innovation, services, development

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<sup>&</sup>lt;sup>1</sup> We use the term "developing countries" to refer to low- and middle-income countries according to World Bank Classification.

# **Knowledge Management and Leadership Development Methods for Agile Healthcare Organizations**

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#### Abstract

The increasing importance of agility in healthcare organizations and the fact that there are no studies in the field of agile management in healthcare in Slovenia led us to the decision to prepare research that includes a Delphi study on the importance of adopting agile and flexible business models based on the digital transformation of business in Slovenian health organizations, Knowledge management ensures long-term quality care and provides support in the decision-making process. Most of the knowledge that healthcare professionals learn during their training needs to be renewed during their working period, which is why they need to be agile in their thinking and behavior. The fundamental goal of the study is to answer the research question, what organizational changes need to be implemented in Slovenian healthcare organizations to develop the foundations for creating an organizational culture that will enable the emergence of organizational agility in Slovenian healthcare organizations in the future? The research is focused on organizational adoptions and changes that are necessary for the healthcare organization to become agile. The purpose of this exploratory study is to investigate the consensus among employees in healthcare organizations regarding new pragmatic approaches based on knowledge management that will enable the implementation of organizational culture. We are interested in researching the evolution of organizational agility, where we will discuss organizational culture, models of organizational culture, and the changes it is currently under. We also emphasize how to overcome the resistance towards change to enable acceptance of agility in healthcare organizations. We describe agility as a competence that enables innovation. We highlight the factors that influence a healthcare organization's agile functioning. Our research objective is to present a finished study of knowledge management, and agility management in healthcare organizations.: The methodology used is the Delphi method. Our research empowers healthcare professionals with new management and leadership concepts, such as agile management, and different leadership development methods in healthcare. Sustainable leadership influences healthcare organizations' distribution of human and financial resources. The impact of sustainable leadership is leading healthcare organizations and their stakeholders towards sustainable development according to UN Global Goals. However, this is many times challenging to do. The emergence of a new organisational culture will also contribute to the efforts of employees, which are necessary to ensure the successful transformation of a healthcare organization into an agile one.

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# Manage Integrated Social Health for a Sustainable Home Care Model

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#### **Abstract**

Covid 19 has increased the need to integrate the service chain by imposing transformation processes on healthcare organizations, challenged by the complexity of the demand for health and the evolution of the service chain (public and accredited private). This process increases the need for integration between parts of the health system, such as the social-health district. Alongside the need for integration, "navigability" is developing between operators and users, especially among chronic population targets with greater socio-medical complexity. All this determines a growing demand for connection which sees in the care models in transition a new form of job specialization that requires new role profiles, relationship skills and dialogue between operators, operational management tools relating to the service chain of territorial services, specific information collection, and management systems. In this context, change is activated by Knowledge Management (KM).

**Keywords** – social-health care, relationship, home care, change, and knowledge management.

# Organizing Knowledge Creation Processes in the Agri-Food Business: An Institutional Perspective in the Italian Context

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#### **Abstract**

The purpose of this research is to understand how Institutions influence the knowledge creation process in the agri-food sector. Based on Knowledge Creating theories we aim to examine how institutions shape knowledge creation processes in the Italian context. We employ a qualitative approach by conducting a document analysis that includes several organizational and institutional reports, survey data, and various public records. Our study is carried out in the Italian scenario in which the agri-food business represents a milestone of the Made in Italy economy worldwide, to create meaningful insights. From a theoretical view, this paper will extend knowledge management theories by providing an institutional perspective that will shed light on the important role of institutions in knowledge creation process. On the practical side, the results will be used by agri-food companies to promote new organizational frameworks capable of supporting knowledge creation processes in non-knowledge-intensive contexts, enhancing collaboration with institutional bodies, governments, and regional entities.

**Keywords** – Knowledge Economy, Knowledge management, Agri-food business, Knowledge creation process, Institutional theory

# The Potential of Smart Tourism Destinations

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#### **Abstract**

New technologies are being integrated into the urban space of cities and we are progressively talking about smart cities and smart tourism. Tourism is one of the production sectors with the greatest economic impact internationally, as it directly influences cities, the provision of their services and the way people live together. It is therefore from this that the smart and sustainable tourism destination approach is conceived, influencing city dwellers and the environmental footprint of the tourism experience. In the belief that combining digital intelligence with spatial systems can improve the standard of living and raise the quality of services, the aim of the research is to explore places where the environment and the technological system are closely related, creating a greater dialogue between the various social components of these spaces, with interesting effects also in terms of relational cohesion. Spatiality is not only a physical concept, but it is linked to notions of digital geography, which we define as Phygital, in which the physical and virtual environment are combined to enhance the tourist experience. Considering the strategic axes of innovation, digitisation, accessibility and sustainability, the resulting positive impacts are distributed among economic, social and technological actors, enhancing tourist sites with improved physical and digital accessibility, and generating a competitive and inclusive type of tourism. There are many virtuous examples of STD in the world to take inspiration from, and the article takes the case study of the city of Càceres as a reference to make some reflections on smart tourism.

**Keywords** – Smart tourism, smart city, phygital, empowerment of citizen and tourists.

# **Expanding the Tragedy of the Commons Archetype: A Systems Thinking Reflection**

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#### Abstract

The paper "The Tragedy of the Commons" by Hardin in 1968 highlighted the potential depletion of shared resources due to the self-interested behavior of individuals. This study sparked interest in scholars to understand how individuals make sense of shared resources and how to prevent over-exploitation. Elinor Ostrom challenged the assumption of the rational actor and showed that communities could self-organize and develop effective institutional arrangements to protect shared resources. She introduced systems thinking to understand the interactions between common resources and the broader system of socio-material practices. This conceptual study aims to integrate the failure to refrain and act perspectives by developing a qualitative system dynamics model that expands the tragedy of the commons archetype. Systems archetypes are generalized patterns of behavior that abstract the underlying structure of complex systems. The study aims to discover and summarize archetypical patterns and factors that contribute to their emergence. This approach contributes to the common goods theory and systems thinking literature streams while offering a practical tool for policymakers to see trends and choose effective actions to enhance and regulate the system. Indeed, studying underlying patterns in the behavior of systems helps to distinguish between successful and ineffective actions.

Keywords – common goods, systems thinking, system archetype, sense-making

# Rethinking the Means to Achieve Organizational Efficiency in the Italian Judicial System: A System Thinking Approach

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#### **Abstract**

In this study, we focus on the modeling of the judicial system through a suite of System Dynamics. More specifically, employing a participatory modeling approach (GMB – Group Model Building) based on the System Thinking methodology, we have developed Causal Loop Diagrams, which we have then transformed into quantitative models through the modeling and simulation methodology known as System dynamics. The System Dynamics approach allows the development of context and scenario analysis aimed at identifying bottlenecks and high-leverage strategies for improving the judicial system's performance.

We carried out 50 interviews and 200 hours of participatory observation in shadowing the human resources working within the Italian courts, and the present paper relates to our main findings.

**Keywords** – Judicial System, Public Management, System Thinking, Organizational Behavior, Innovation Studies.

# Knowledge Management Practices and their Effect on Biomaterials Innovation: Distinctive Competencies in Ibero-American Universities

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#### Abstract

In recent years, adequate knowledge management and eco-innovation have been lost in teaching practice. University students in their projects use this type of materials less and less due to their ignorance and opt for other materials that produce more waste and CO2 emissions. Knowledge is a critical resource in professional life and company competitiveness. Well, it is necessary to innovate in the construction industry. In this article, we will address knowledge management in educational and teaching practice, using bamboo, raw earth, and rice husk to realize sustainable projects in three universities in Colombia, Mexico, and Spain during the last year of the university stage. qualitative-quantitative analysis was carried out that began with the analysis of the site, and directdiagnostic observation, which allowed them to identify the available resources. They carried out resource management to verify the availability, and finally, they carried out conceptualization exercises and laboratory tests to confirm the mechanical, physical, and pathology analysis of materials, applying Bruno Munari's methodology; Que consists of 1) Define the problem 2) Elements of the problem 3) Data collection 4) Data analysis 5) Creativity 6) Materials-technologies 7) Experimentation 8) Models and 9) Verification, accompanied by the SAMR method (Specific, Measurable, Achievable, Relevant, Timely) in four progressive levels of ICT and the jigsaw technique (puzzle) in which each member of a group assumes responsibility for the content, and then socialize it and thus build knowledge. It was possible to verify that high knowledge was produced, creating memorable and transformative experiences, where 70% of the students said they learned from multidisciplinary, showing more significant interest. In comparison, 30% preferred the traditional method to be less complex. Of that 70%, 20% are architects, 30% are environmental engineers, and another 20% are from social sciences and humanities, achieving the maximum strategic level during the training process. More than one said: "We should have a more sustainable vision and stop seeing conventional construction systems as the only option... In addition to seeking the right guidance...". It was found that once they know them, they acquire a more significant effect on the innovation of biomaterials accompanied by distinctive, outstanding competencies, detonating their skills to the maximum. For this, three exercises carried out by teams of six people were contrasted, two of them with students of Architecture and Engineering and a third multidisciplinary team, resulting in greater mastery of the subject and acceptance of this type of materials, which leads us to explain that students acquire Greater tools without being limited to a single field of knowledge.

Keywords —Gestión de recursos, gestión del conocimiento, eco-innovación de materiales, práctica educativa, Iberoamérica.

# **High Performance Concretes with a Highly Reactive Rice Husk Ash**

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#### Abstract

The incorporation of active nanopowders, such as pozzolanic materials, has proven to be an effective way to solve many of the problems related to durability in concrete mixtures. These mineral admixtures can be obtained through various processes such as mining, industrial processes, and byproducts, from natural sources or from agro-industrial activities such as rice husk ash (RHA). These additions help to give concrete high rheological properties of fluidity and resistance to segregation, to increase its mechanical properties, and to increase its durability or service life. In addition, the use of these powders reduces energy requirements and environmental impact. This is important because by replacing the quantity of cement used in the production of concrete, the consumption of fossil fuels is reduced, thus reducing the emission of highly harmful gases to the ozone layer, such as NOx, CO<sub>2</sub>, dioxins, and others. These facts indicate that the replacement of cement with active nanopowders such as RHA represents a significant contribution to environmental sustainability. This paper presents the results of-research in which a highly reactive rice husk ash (TRHA) was prepared and evaluated as a replacement for Portland cement in high-performance concretes and cement pastes. Two types of RHA were used as a partial replacement for Portland cement (PC) in this research, the first one was produced by burning the rice husk (TRHA) and the second one was produced by immersing the rice husk in an acid followed by a thermal process (TRHA). The results showed that the second ash was 99% silica, highly amorphous, white in color, and with high reactivity, which could be used as a partial replacement in concrete mixtures to improve its mechanical and durability properties in a similar way to silica fume (SF), a commercial nanopowder widely used around the world.

**Keywords** – Pozzolanic Materials, Rice Husk Ash, Blended Concretes, High Performance Concrete, Sustainability Materials.

# A Knowledge Management Framework for 4D HBIM

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#### **Abstract**

Heritage-specific intervention projects, through the use of the Building Information Modeling (BIM) methodology, are being continuously implemented at the level of data computerisation and process automation, across all BIM dimensions and project stages. In particular, through the 4D HeritageBIM (HBIM) phase, it is necessary to take into account specific classes of intervention of the asset and. specifically, to consider its phases of evolution through the different historical epochs. This is of considerable interest because it allows the reconstruction of the constructive evolution of historical assets. The geometric-informative model can be simulated and computerised to identify situations of degradation and weaknesses, caused by anthropic and non-anthropic factors. In this regard, the present study proposes a Knowledge Management (KM) framework for the 4D HBIM domain, with focus on a bi-directional interoperability component and the "time" variable, which can be implemented through BuildingSMART's open-source IFC (Industry Foundation Classes) format and standard and, moreover, the tasks scheduling in an upstream structured Work Breakdown Structure (WBS), also considering the Critical Path Method for process optimisation. IFC format files were applied for 4D, through the Heritage-specific tasks and their timescales, in order to describe the HBIM entities and relations. Through the implementation of 4D HBIM, it is allowed to share the same model with AEC stakeholders, exporting prepared charts and technical diagrams, obtained in the open-source exchange format to allow interoperability of related data and metadata, between different information and technology systems. The combination of KM techniques and BIM methodology is growing and has enormous potential. Many authors have focused their research on the specific topics of knowledge organisation and structuring, using ontologies, semantic networks and various types of data mining and machine learning algorithms. The work presented, and the related KM framework, is intended to provide new research insights specifically for 4D HBIM.

Keywords - Building Information Modeling, HBIM, BIM 4D, Knowledge Management, IFC

## Methods for Daylighting and its Benefit in Buildings

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#### Abstract

Daylighting tends to be taken for granted, but if we analyze it in detail, it can help us generate strategies for a better performance of buildings; for example, the location of a span on a façade can provide us with greater or lesser illuminance within the building, or glare by albedo. Also, it is essential to remember that daylighting is also linked to other types of radiation related to heat, so it is not convenient to fully receive the sun's rays because it could affect the thermal comfort of the place. This work aims to analyze and compare physical measure and mathematical models; later, they were contrasted with the BIM tool (Building Information Modeling). A Steren line HER-410 lux meter was chosen for on-site data collection, whose sampling frequency is two times per second for digital data. It consists of a measuring range from 0 to 100,000 lx with an accuracy of +/- 5%.

From the geographical location and the date and time of the year, it is possible to calculate the Daylighting Factor. For the calculation of the interior illuminance, we consider the Lumen Method, which is a function of the exterior illuminance, the net transmittance (which will depend on both the albedo and the reflections of the surfaces of surrounding buildings and the optical properties of materials), the surface and location of the span and the dimensions of the premises. Of these variables, the outer illuminance was obtained by the Phillips Model and the Illuminating Engineering Society (IESNA) Module, both as a function of solar height. The other variables are defined by factors given by the same procedure (and according to the conditions of the premises). Thus, the solar height was calculated with the Models of the British Research Establishment (BRE), Brichambaut, and Dr. McCluney. When adding daylighting fixtures, you should consider balancing changes in heat gain and loss, glare control, and daylight availability. To facilitate the design of these strategies, it is essential to know the advantages of illuminance measurement tools. Several reports from the World Green Building Council, Spaces for Humanity, and the International Institute for Healthy Buildings have emphasized the importance of connecting with Nature.

Furthermore, daylighting can change the appearance of a building's structure. The sensitive use of daylighting is critical to creating a warm atmosphere. Light can also be energizing or calming, adding a sense of space or intimacy to a space.

**Keywords** – Daylighting, Illuminance Measurement, energy saving, BIM (Building Information Modelling

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# Complex Systems Approach to Adaptable and Sustainable Heritage Renovation and Valorization: Integrate, Optimize, Build in Sensitive Areas in Sardinia

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### Abstract

The proposal discusses methods and techniques that reduce the environmental impact of buildings over the lifecycle with the objectives of adaptive reuse of cultural heritage buildings. To achieve this goal, an integrated approach to design is used, which involves the analysis of questions, strategies, and actions in a complex system applied to a case study located in Sardinia, Italy. This place is the military battery of Capo d'Orso, once the avant-garde of military technology, today abandoned fossil trapped in millenary granites. Awakening these places, no longer as spaces dedicated to war, but as places full of history and open to new futures is essential. The new function, resulting from careful analysis of the heritage and the surrounding context, required the integration of new additional volumes. Three founding actions guided the project: Integrate, Optimize, and Build. The restoration project presented in the paper was shaped by crucial matters that cannot be overlooked, including energy and water saving, seamless integration between new and existing structures, the economic feasibility of construction, and efficient utilization of resources. These were the fundamental aspects that formed the backbone of the project.

This paper describes in particular the process of integration and optimization of the structure of an added volume necessary for the re-functionalization of the area. The addition is located on top of the underlying historical vaults of pre-existence. Given the great testimonial value of the historic vaults, the design intention was to preserve and protect them. The work describes a multi-objective optimization approach which had evaluated different design alternatives according to constraints given by the context and the pre-established objectives, in order to optimize the structural element as much as possible meeting all the requirements: structural efficiency, visual permeability, lightness, low environmental impact, the possibility of assembly on a particular site hard to access.

The study also shows methods to compare different technologies, configurations, and materials, starting from a structural scheme allowing the significant span and developing a finite element model for each configuration to evaluate structural performances.

Moreover, the design process made use of prefabricated technologies, dry solutions, and modularity to allow easier construction on a site hostile to traditional mechanisms. Eventually, the solution to the initial problem it's been able to achieve sustainability, comfort, and respect for the pre-existence without compromising on performance.

**Keywords** – Complex integrated systems, Multi-objective optimization, Historical built heritage valorization.

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# Comparative Analysis of BEM (Building Energy Modelling) Tools and Adequate Management of Complementary, Innovative, and Emerging Technologies for the Nebraska System

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#### **Abstract**

This article discusses the growing popularity of software that simulates the energy consumption of buildings, Energy Plus, Insight, Green Building, and Revit. These programs allow you to model and analyze different scenarios to optimize the energy efficiency of a building. The use of biomaterials, such as straw and raw earth, is also gaining traction as a sustainable alternative to modern building materials. The Nebraska-type building system is a self-supporting structural design that uses interlocking blocks of straw bales and wood to reduce materials and energy consumption. The article presents a case study in Querétaro, Mexico, demonstrating the benefits of using bioconstruction with the Nebraska system. With Revit, a simulation is developed as an analysis-diagnosis using the complement of Energy Plus, Insight, and Green Building. The qualitative and quantitative method is used to contrast the results with the support of the Energy Modeling of Buildings (BIM) program. The double consumption of resources is evident if it is done with traditional materials such as brick and concrete, being less economical, which also means a more significant impact on the environment from its manufacture abortion to annual energy consumption. Bioconstruction consumes 10,670 KWh per year, and conventional construction 24,417 KWh. The results for the simulation were as follows: a) The maximum value of the cooling load was 12,064 W in bioconstruction and 13,479 W in the building with conventional materials b) Maximum value of the heating load for the simulation of bio construction was 11,351 W of consumption was obtained and for conventional construction a consumption of 12,429 W when using the Software described. SolidWorks and the simulation corresponding to thermal analysis are also used to analyze the heat convection of the primary materials used, consolidating the reliability of Bioconstructions. The simulations showed that bioconstruction provides greater thermal comfort than conventional materials. It is concluded that a bioconstruction is an eco-sustainable option that reduces the direct impact on the environment and can be implemented in multiple construction systems based on straw and bamboo for sustainable buildings with low economic cost.

**Keywords** –Building Energy Modelling, Nebraska System, biomaterials, planning, and management, sustainable buildings

Paper type - Practical Paper and Academic Research Paper

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# **Country's Environmental Performance: Does National Culture and Religiosity Matter?**

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### Abstract

The study of a country's environmental sustainability is an important topic because it allows an understanding of the causes and possible solutions for protecting the environment, human health, and natural resources. Among the drivers of sustainable development, there is also the national culture of the countries, which can play a significant role in the implementation of policies aimed at environmental sustainability and which has been the subject of several scientific studies. This paper is aimed at studying how national culture impacts a country's sustainability performance, starting from Hofstede's cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, indulgence).

Unlike previous scientific literature, this work considers religiosity as one of the cultural variables that can impact a country's environmental performance. In particular, the two most widespread religions worldwide, Christianity and Islam, were taken into consideration.

To evaluate the environmental performance of countries, we utilized the Environmental Performance Index (EPI), since it provides a data-based overview of the status of sustainability worldwide, using performance indicators related to climate change, environmental health, and ecosystem vitality. Additionally, our analysis incorporated socio-economic variables as normalizing factors, including gross domestic product per capita, employment rate, and educational level.

Our research investigates 96 countries across the globe, with 1,056 country-year observations taken into consideration for the period between 2011 and 2021. The study employs a dynamic panel data model that involves a two-step system-GMM. Our results suggest a strong relationship between cultural dimension and EPI.

**Keywords** – Cultural dimensions, Religion, Environmental performance, Cross-country study, Hofstede framework

# The Role of Think Tanks in Megatrends Analysis and Future Research

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### **Abstract**

This paper aims to explore the interconnection between megatrends analysis, future research, and the role of think tanks. Think Tanks are presumed to drive megatrends discourses and make significant contributions to future research and strategic foresight. However, relatively little attention has been paid to think tanks explicitly or implicitly working on megatrends and future research. This paper analyses discourses on megatrends and looks at the evolving global landscape of think tanks. It shines a spotlight on seven think tanks from different countries and world regions that apply diverse strategies of knowledge dissemination and policy advice. Policymakers, business leaders, and asset managers have shown a growing interest in megatrends analysis and future research which is leading to increased visibility for some think tanks. Furthermore, the dynamics of international cooperation and geopolitical developments have also contributed to the expansion and growing diversity of the think tank landscape, including in the Global South.

**Keywords** – megatrends, future research, think tanks, strategic foresight, policy advice.

Paper type -Practical Paper

# **Corporate Museum in Agrifood Sector: Implementing Ba** for Knowledge Creation

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#### Abstract

The agri-food context represents a very complex and dynamic sector, which influenced by the current competitive ecosystem, is experimenting with new way to enhance and implement knowledge. The characteristics of the agri-food organizations impose the need to rethink the "traditional" knowledge management practices (Bresciani, 2017; et al., 2018; Vesperi and Coppolino, 2023). Indeed, even in the agri-food sector, corporate museums are proliferating, with the aim to collect, archive and enhance knowledge, currently considered obsolete and not used within the agri-food organization. In this way, the corporate museum represents a "container" of knowledge (or organizational memory); that is, a space shared between various actors that through interaction, observation and experience between them, collaborate to start a process of co-creation of new knowledge (Durst and Zieba, 2019; Baima, et al, 2020, Vesperi and Ingrassia, 2021). The strategic role of the corporate museum emerges for the agri-food organization as Ba, in other words an ideal shared place for the creation of new individual or organizational knowledge (Nonaka 1994; and Konno, 1998; Del Giudice, et al., 2013). The aim of this study is to analyze the strategic role of the corporate museum, in the agri-food sector, in facilitating the creation of new knowledge. In particular, the corporate museum is considered as a place shared by various actors to implement a process of co-creation of knowledge.

This study is based on a qualitative methodology of an exploratory nature. The complexity of the phenomenon has imposed the need to use a multi-step methodology (Bowen, 2009; Yin, 2009). The first step of the analysis, using the Museimprese database (museimpresa.com), made it possible to develop descriptive indicators in order to understand the diffusion and characteristics of corporate museums in Italy and the connection with the agri-food sector.

A case study was analyzed in order to better understand the main aspects related to the creation of knowledge and the corporate museum. The results suggest the growing importance of the strategic role that the corporate museum plays in the agri-food sector; in fact, it allows to valorise "obsolete" knowledge and through a process of co-creation to generate new knowledge. In fact, the main innovative element of this study consists in the theoretical perspective used to analyze corporate museums in the agri-food sector.

The practical implications of this study can suggest entrepreneurs and the management of agri-food organizations to implement new solutions for the creation of knowledge, through the corporate museum.

Keywords - Agrifood, Knowledge Creation, Corporate Museum, Ba, Italy

# Digital Transformation in the Fashion Industry: Metaverse as an Additional Business Platform or a New Innovative Stakeholder Interaction Model

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### Abstract

Digital transformation changed the way of doing business. In recent years, the fashion industry has undergone a profound change. The climate of uncertainty, the challenges related to the VUCA context, and ethical and environmental issues necessitated implementing digital strategies and increasing sustainability and social responsibility oriented. Creating new and solid links with online Millennials communities sensitive to sustainability is also essential. The priorities are less advertising bombardment to induce purchase and more conversations to build trust, setting up environments of interactions (Noci, 2011). The year 2022 has been marked by the profound participation of many fashion houses, luxury but also fast fashion, in Metaverse, that have not only made agreements to be present within it but have also contributed to its development. They have implemented a presence in the Metaverse as part of their marketing strategies not to lose a competitive advantage. At the same time, new and exciting start-ups have sprung up to a new and flourishing area of business.

This paper aims to understand whether the Metaverse in the fashion industry can be regarded as a new and additional e-commerce platform or if it can be considered a new sustainable business model based on innovative interactions between its stakeholders.

Keywords – Metaverse, digital fashion, new technologies, knowledge

# The Effect of Transformative Ecosystems on Autonomous Social Innovation: A Case Study of Coffee Farmers in Dominican Republic

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#### Abstract

In developing contexts of long and complex supply chains, Corporate Social Innovation (CSI) projects are typically prompted by the MNE in partnership with other powerful local stakeholders (i.e. NGOs and Governments) to catalyse transformative and autonomous social innovation (SI) initiatives that sustain the supply chain's resilience and the social well-being of its local vulnerable stakeholders and communities, who typically are the owners and the workers of key resources. The literature of CSI and autonomous SI is fragmented and interlinks the two streams of research in a seemingly paternalistic way, such as autonomous SI initiatives are conducted by vulnerable stakeholders within CSI projects but still designed by more powerful stakeholders in a logic of support. Most scholarship, indeed, overlooks what remains in an ecosystem once the CSI projects terminate in terms of autonomous SI initiatives that are thought, designed and implemented by local stakeholders without the support of the MNE. Furthermore, it analyses the topics by adopting the perspective of those more powerful stakeholders in a firm-centric view, which might undermine the concept of autonomy of local stakeholders and underestimate their perception of value creation in the design of autonomous SI initiatives.

That is why, our study aims at understanding whether and if the value created through the CSI initiatives has been scaled-up, replicated and sustained autonomously by local stakeholders once the MNEs' involvement in the initiatives comes to an end and identifying which are the enablers of autonomous SI. To do so, we disentangle the autonomous SI initiatives from the CSI projects by adopting the perspective of local vulnerable stakeholders as reference point of investigation.

We do that by developing a case study of autonomous SI initiatives by coffee farmers in Dominican Republic, where a CSI project was previously implemented by a global leading coffee roaster from 2014 to 2021 with the aim of fostering good agricultural practices, favouring gender equality and youth inclusion in the coffee business. After two years from the end of the CSI project, the case study is developed by triangulating the literature with secondary sources; direct observations on field; face to face semi-structured interviews and focus groups with local coffee farmers and their representatives of the Cooperative and the Federation. We demonstrate that, despite stemming from the previous CSI project, SI initiatives are now autonomous and scalable in both contents and intents and contribute to the emergence of new strategic needs in terms of knowledge and relationships for allowing value circulation and business sustainability. This finding sheds light on the importance of adopting the vulnerable stakeholders' perspective, which can improve the understanding of new relational mechanisms for effective autonomous SI and suggest to MNEs further strategic lines of intervention when designing CSI projects.

**Keywords** –Stakeholder Theory; Corporate Social Innovation; Autonomous Social Innovation; Knowledge Sharing; Developing Contexts

## **Towards a Definition of Tourism Ecosystem**

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#### Abstract

Public investment programs consider tourism as a key driver to support the process of territorial development in in-land rural areas. Tourism activities increase production, safeguard tangible and intangible cultural heritage and foster social cohesion due to the high level of collaboration among operators and multifunctionality in a tourism supply chain. A generalised feature of tourism development strategies and projects is to be proposed as an alternative means of solving problems facing rural economies. The goal of enhancing local cultural resources is to stimulate demand for goods and services from external sources, ultimately aimed at mitigating the negative effects of marginalization and demographic decline.

Studies on systems for evaluating the effectiveness of current tourism-related policies adopt a fragmented and sectorial approach that may be useful for identifying variations in structural socioeconomic trend but, mainly, fail to produce a comprehensive picture of the impact of tourism development investments over time.

However, given that tourism is a complex, multifaceted phenomenon that involves the contributions of multiple disciplines in both research and policy-making, the absence of an integrated framework for monitoring is a structural weakness. Such a framework would enable a more comprehensive understanding of the impact of tourism in a specific location. The study sets forward a framework hypothesis which, through the systematic reading of selected practices, introduces evaluation criteria for successful strategies proposing an operative definition of "tourism ecosystems" to be adopted in multidisciplinary research project promoting tourism sustainable development (TechForYou).

The paper, after highlighting the lack of a common metric and the problems relating to tourism strategies, proposes an operational definition of the tourism ecosystem considering the cross-sectoral nature of tourism sector.

**Keywords** – Tourism ecosystem, Sustainable Development, Rural Areas.

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# Legal and Regulatory Innovations: Systematic Literature Review

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#### Abstract

In this paper we explore: What are definitions for legal innovation and regulatory innovation? in the context of the whole lifecycle of regulation. We use systematic literature review (SLR) method. The lifecycle of regulation consists of law drafting, law implementation, monitoring, and sanction of law in act. Definitions of legal/regulatory innovations (LRIs) are interpreted and applied in the field of public regulation as well as private regulation. Our paper has two objectives:

- Provide a holistic account of the literature on legal/regulatory innovations based on current knowledge about a set of key research themes;
- Identifying an agenda addressing new research directions in this field of study.

We found out that only few writers in the selected articles clearly define, what do they mean with the terms legal or regulatory innovation. SLR analyses provided an overview of the topics of legal and regulatory innovations: Topic 1: LRIs in the context of Complex Adaptive Systems; Topic 2: LRIs for social welfare and Topic 3: LRIs in the different levels, networks of actors and phases of the regulatory life cycle.

LRIs develop in complex adaptive systems which means that there is a continuous relationship between legal system and society.

New kind of LRIs were discussed in the context of public and private regulation: Default design, Sandboxes and Nudge are possible tools of new governance approaches to regulation developed by governments. Process standards compared to traditional product standards are seen more innovative as they allow regulates develop most innovative way to comply the standards. Process-based standards and other standards developed by private actors have a lot to offer for the development of new LRIs. Regulatory knowledge is needed in the dynamic, complex society, in order to understand how LRIs can promote the change towards desired goals.

Keywords - Legal innovation, regulatory innovation, transition management, sustainability, SLR

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# The European Digital Decade and the Tourism Ecosystem: A Methodological Approach to Improve Tourism Analytics

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#### **Abstract**

Tourism is a complex and multidimensional phenomenon that involves social, cultural, and economic dimensions. While the economic benefits of tourism are often studied, there is a lack of a solid methodological framework to measure the impacts of tourism on other components such as the environment and cultural heritage. The tourism ecosystem is a network of resources and operators that spans across different domains and industries. This ecosystem is especially important for inland areas, where tourism can drive socio-economic development and prevent land abandonment. However, the COVID-19 pandemic has severely impacted the European Union's economy, including the tourism industry. Small and medium-sized enterprises (SMEs) have been hit hard, with many planning significant cuts in investments after the pandemic. In response, the EU has proposed a renewed New Industrial Strategy to support investments and strengthen the resilience of the EU Single Market. As part of the TechForYou project aimed at promoting and strengthening collaboration in the Calabria and Basilicata Regions, a data-driven approach using Artificial Intelligence and GeoAI is proposed to monitor tourism trends in inland areas in near real-time. The approach focuses on analyzing the huge flow of data and information regarding tourism in a territorial/spatial dimension, and characterizes tourism as a relational phenomenon in a territorial perspective. The European Digital Decade initiative aims to improve Europe's competitiveness and ensure that European citizens can fully benefit from the opportunities offered by digital technologies. A single data space with a standard-based structure among all European countries will be established as part of the European Data Strategy, which will include the tourism ecosystem. This will facilitate the sharing of European data in key economic sectors and create a vibrant data-driven economy. In conclusion, a solid methodological framework is needed to measure the impacts of tourism on all components, including the environment and cultural heritage. The tourism ecosystem is a network of resources and operators that spans across different domains and industries, and a data-driven approach using AI and GeoAI can be used to monitor tourism trends in inland areas. The European Digital Decade initiative will establish a single data space with a standard-based structure for the tourism ecosystem, facilitating the sharing of European data and creating a vibrant data-driven economy. The tools derive from the ML and AI and the perspective to exploit the informative potential of available open data sources seems to be an encouraging research direction.

Keywords – Toursim ecosystem, GeoAi, Spatial Data Infrastructure, Spatial planning.

# Talent Enhancement Does Not Depend on Gender Differences

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#### Abstract

This text discusses the concept of talent management, which is vital for organisations to attract, retain, and develop qualified personnel. With the ever-changing landscape of digital transformation, new technologies, and the current pandemic, companies need agile and flexible talent management actions to manage the life cycle of their employees effectively. This management should enable organisations to equip themselves with the professional figures needed to face external threats and opportunities, leading to better performance over time. The text highlights the importance of investing in human resources and employee experience, evaluating their activities and potential contributions. Talent management should be considered an investment in the value that people can bring to the company over time. It comprises acquiring new talent and identifying and growing talent already in the company, providing targeted training and development paths to retain them over time. The text identifies that the talent management process must be coherent at each stage of an employee's life cycle, including their insertion, development, career paths, and eventual exit. Gender should be considered to ensure equality in career opportunities, contributing to the sustainability of an organisation's talent management practices. Effective talent management is crucial for achieving better performance and addressing organisations' challenges.

**Keywords** – Smart Working, gender inclusion, diversity management, Talent, inclusion, gender diversity

Paper type - Practical Paper

# Developing Sustainable Smart Cities: A Framework for Analysing the Role of Enablers and Barriers Related to KM Strategies

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### Abstract

This paper is a work-in-progress study that focus on the role of KM strategies in the context of sustainable smart cities. Drawing on the previous literature on smart cities and KM strategy concepts, the aim of this paper is to propose a conceptual model to examine the enablers and barriers of KM strategies of codification and personalisation for enhancing sustainable development in smart cities context. The proposed research model will be empirically applied in future study with four qualitative smart city case studies from Finland. The current study's theoretical contribution is to advance the smart city discussion by bringing in KM strategy perspectives to enhance sustainable development among cities.

**Keywords** – Knowledge Management, Sustainability, Smart Cities, Conceptual framework, KM strategies

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## **Gender Equality Certification: An Italian Challenge**

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#### **Abstract**

The 2022 Global gender gap report reveals an impressive figure: total gender equality will be achieved in 132 years (WEF). The discouraging figure reveals not only how far the goal is still, but also how the efforts made aren't enough. The Italian situation doesn't seem particularly comforting, the Gender Index estimates place Italy well below the European average. The gender mainstreaming approach, spread by the European Union and applied in every gender equality strategy, has taught us the problem is not only to "increase" the number of women in a series of processes, but to modify them to give space to the involvement of both women and men. Initiatives specifically aimed at women aren't enough to bring about major changes, as they, often, restrict to the developing female adaptive strategy within structures sized for man. The world of work and organizational structures offer an interesting window from which to observe the systematic nature of the phenomenon. Talking about an «institutionalized prejudice, doesn't seem wrong, because it is clear that jobs are not always gender-neutral spaces.

However, Italian public and corporate policies seem, fortunately, to move in the opposite direction. The Gender Equality Certification for companies, introduced by the PNRR, seems to reveal the intention to make structural changes to the organizational world. This national certification system is designed to accompanies and encourages companies to adopt appropriate policies to reduce the gender gap in all the most "critical" area (UNI/PRR, 2022).

**Keywords** – Gender equity, gender politics, PNRR, inequalities

Paper type - Practical Paper

## The Circular Economy Provenance Effect

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### Abstract

Used clothing carries a story to tell. While the circular economy emphasizes reusing, recycling, and recovering materials to minimize environmental impact, research is focused on technical aspects of circular products, such as materials composition and quality. However, little is known about the impact of a product's provenance on its value perceived. We argue that a product's previous owner can imbue it with a sense of value beyond its physical characteristics. Accordingly, we conducted a between-subject experiment to test this hypothesis. We compared two different background information settings, which we call *status provenance* (socialite vs no-frills previous owner), and the type of circular product (remanufactured vs second-hand). We found that remanufactured products, which are crafted by previous owners, had a higher perceived meaningfulness and purchase intention than second-hand products. Furthermore, the status provenance of the previous owner had a negative effect on perceived meaningfulness, suggesting that the focus should be on the crafting process rather than the identity of the previous owner. The study's findings highlight the importance of recognizing the intangible, value-based aspect of remanufactured products, which can be an important aspect to promote to consumers and ultimately accomplish the transition towards a circular economy.

**Keywords** – Background information, Circular economy, Provenance effect, Second-hand, Remanufactured

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# Does Quality Accreditation Stimulate Effective Leadership in Health Care Organisation?

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### Abstract

Quality improvement is, for most countries, a central objective of health care system reform and service delivery, which is why health care managers must devote a great deal of attention and resources to ensuring a high quality of care for patients and must continuously strive to improve it.

Within healthcare organisations, managers have an important and obvious role to play in the quality of care and patient safety and this is certainly one of their main priorities everywhere.

However, it is not always easy to understand how to improve quality: there are numerous issues that healthcare managers have to deal with. To assist and evaluate health managers in quality development, effective methods have been implemented and promoted at national and local levels, including external quality assessment mechanisms. Many countries have a set of voluntary or statutory mechanisms for periodic external assessment of organisations against defined standards; these include ISO standards, which provide standards against which organisations or functions can be certified by accredited assessors. However, the ISO standards define the minimum level required and their evaluation is only done on documents. For this reason, other bodies, such as The Joint Commission International (JCI), have developed new standards and evaluation methods. The JCI method consists of stimulating the demonstration of continuous and sustained improvement in healthcare organisations through the application of shared international standards, international patient safety targets and the measurement of indicators. This research aims to outline how the JCI method can improve the work of managers in improving organisational performance.

A qualitative approach is used to answer the research question and semi-structured interviews will be administered to a selected sample of CEOs of JCI accredited healthcare organisations in Italy (out of a universe of 24 total accredited healthcare organisations).

The questions to be asked will investigate three main areas: (1) the role of quality accreditation in better defining responsibilities among managers; (2) how quality accreditation can be used as a tool to improve organisational leadership; and (3) how quality accreditation can help health care organisations better achieve their performance goals.

Interviews will be transcribed and analysed using qualitative data management software (Dedoose), which involves the use of a pattern recognition process in which emerging themes become categories for analysis. The coding framework will be developed by all researchers involved in this work using a joint blind coding approach. The expected results of this research will help to shed light on the differences brought about by quality accreditation in organisational performance: already accredited institutions will then have the task of sharing their experience to highlight the positive and negative aspects of accreditation.

**Keywords** – Quality, leadership, Joint Commission International, Organizational performance, Quality accreditation

# The Cultural Dimension of the Board of Directors, like Sex and Age, and its Impact on Firm Value

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### Abstract

This job has the finality to study the existing relationship between the cultural dimension of the board of directors, like sex and age, and its impact on firm value. It is important to stop and focus on the reason why these two parameters are so important to creation of value inside companies.

The board of directors is the centre where major business decisions are made. The future success or failure of the company depends on the decisions that are made today by directors. The idea of the future companies comes from the board of directors. From here we understand the importance of a deep reading of the mechanisms that govern this organization.

If we analyse the etymological sense of the term "value", we consider everything that is worthy of being taken into account: economic benefits but not only them.

In recent years corporate culture has shown to be a discriminating factor when the economic crisis led companies to exercise resilience actions. The covid-19 first and the international unrest then questioned the way of doing business. The market scenarios, in which companies operate, have changed. One element that made the difference was the mental flexibility of administrators. During these years the company culture has made a difference.

The present work aims to analyse how much the cultural dimension of the boards of directors affects the creation of business value. Particular attention will be paid to Italian companies.

In this article we provide to a review of the most significant papers and texts of the academic research dedicated to the study of human capital-intensive firms. In the field of human capital, the analysis is limited to the culture of women's enterprise. The database that was used for the search is Scopus.

A particular aspect of the cultural dimension that is being studies is the percentage of women sitting on company boards. Specifically, we want to study the correlation, if any, between the value of the company and the percentage of women present in its boards of directors. We will examine what are the distinguishing characteristics of female management too.

Deepening the scientific literature on the subject of corporate culture and value creation, we want to quantify the value created by the companies under consideration. The goal is to understand if there is a correlation between the percentage of women on the boards and business success, Primary sources and secondary ones will be used in the study. The analysis was conducted in order to offer a new key to reading these phenomena.

Keywords - Cultural dimension, Firm performance, Decision-making process

# A Performance Measurement and Management System for Representing Economic, Social, and Environmental Impacts: A Pilot Case Study

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#### Abstract

Numerous scholars and scientific areas are investigating sustainability. Usually, it is drawn up by specific reporting which describes the economic, environmental, and social impacts of the organizational activities.

One of the main approaches for drawing up this report has been developed by Global Reporting Initiative (GRI). It defines a list of standards useful for the description of the impacts; however, these standards rarely address business management through performance measurement and management systems.

Through a pilot case study, the paper aims to represent the GRI standards and the stakeholders' needs through performance measurement and management systems.

The findings describe a useful approach to represent the GRI standards and the stakeholders' needs to illustrate economic, social, and environmental performance suggested by the GRI Standards and stakeholders' needs.

**Keywords** – Sustainability report, GRI standards, Performance measurement, Performance management, Performance measurement and management system.

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# Food Supply Chain and Covid-19: Immediate Impact and Post-Pandemic Strategies

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#### Abstract

The food sector has been one of the industry fields most severely affected by the Covid-19 pandemics. The food industry, indeed, manufactures essential items, and as such, it is expected to continue supplying goods, despite the (even exceptional) external disruptions. This is why at the beginning of the pandemic period, there has been a great deal of worry regarding food production, processing, distribution, as well as significant changes in the demand for finished products, with various observed phenomena. The Covid-19 pandemic also had a negative impact on the food supply chain from a financial point of view, because of restrictions in labour, unavailability of suppliers and difficulties in quickly finding alternative vendors.

This paper aims at summarizing the key issues experienced by the food supply chains during the Covid-19 pandemic and then at delineating appropriate strategies for building more resilient chains in the post-pandemic period. To achieve this stated aim, the chosen research methodology is the systematic review of the literature, as the food industry was one of the most investigated systems in the pandemic and post-pandemic era. Results are expected to categories the available knowledge about the role of Covid-19 on food supply chains, as well as to provide some useful guidelines for managing food supply chain in the future.

**Keywords** – Covid-19, food supply chain, resilience, literature review, post-pandemic strategies.

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# Increasing Social Sustainability in Agricultural Sector for Supporting Resilience: A First Preliminary Analysis

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### Abstract

The scientific debate about sustainability in agricultural sector is growing worldwide, thanks to the increasing awareness of customers towards the impact of their consumption behaviors. While a great deal of attention is given to the economic and environmental dimensions of sustainability, social sustainability is more easily left out of the analysis of agrifood supply chains. In particular, research on occupational health and safety (OHS) in agrifood is not vast, although the sector is among the most critical ones for what concerns accidents on the workplace. As an example, agriculture and food industry workers are considered high-risk groups during the handling of equipment, chemicals, and cleaning of contaminated instruments because they are exposed to health hazards that require an effective training program along with personal protective equipment. Similarly, the fishing industry has been identified as an exceptionally precarious occupation compared to other industries due to its high rate of accidents and deaths. This work is a first attempt to fill this gap: starting from the analysis of open data available through a national database provided by the Italian National Institute for the Insurance of Work-Related Injuries (INAIL), a critical analysis of work-related injuries and near miss events in Italian agrifood companies is provided. A discussion on the results is presented proposing some evidence-driven guidelines and research gaps, with the aim of shedding light on OHS in the Italian agrifood sector, its main criticalities, and possible directions.

**Keywords** – social sustainability, safety data, injury analysis, prevention

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# How Digital Transformation May Optimize the Utilization of Healthcare Services: The Case of Italian Screening Programs

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### Abstract

Digital transformation is revolutionizing the healthcare industry, and the use of digital technologies is generating large amounts of data that can be used to support the healthcare decision-making process. The use of data leads to several improvements in healthcare, such as treatment selection or diagnosis process. The utilization of healthcare services is one of the prominent topics in healthcare, but it is still in its infancy in the digital transformation literature. This study aims to investigate the use of big data analytics to improve the utilization of healthcare services, specifically the Italian national cancer screening programs, through a two-step methodology. First, we investigate the relationship between patient characteristics and the utilization of the healthcare services under consideration. In the second step, the collected data are used to build a data-driven model to identify patients who are more likely not to use healthcare services based on their characteristics. This study contributes to the existing literature on digital transformation in healthcare by proposing a data-driven model to improve healthcare service utilization. While we contribute to the practitioner perspective by proposing a real-world data-driven methodology that overcomes the disadvantages of the most common methods to identify patients that will not utilise healthcare services (i.e., survey-based methods).

**Keywords** – Digital transformation, healthcare service, decision making, big data

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# Public Value Creation in Smart and Resilient Cities: An Integrated Framework to Guide Decision-Makers

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### **Abstract**

This research investigates the impact of smart city projects and initiatives on public value. A narrative literature review is performed, which leads to the proposed framework of measurement and evaluation. The model represents a useful information system to better understand the complexity of the process studied, to support policy-makers in defining winning strategies, and to make them accountable, ensuring public value creation and urban resilience. The study is preliminary, but provides broad insights for further research and application.

Keywords – Public value, Smart cities, Urban resilience, Integrated framework.

# The Research Architecture for Transdisciplinary Knowledge Synthesis for an Urban Sustainability Programme: A Meta-Study Methodology

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#### **Abstract**

In today's globalized world, cross-cultural settings, projects, and institutional setups are becoming increasingly common, presenting both opportunities and challenges. Knowledge creation and management plays a critical role in addressing these challenges by facilitating the sharing of information, ideas, and best practices across different cultures and contexts. However, effective knowledge creation and management in cross-cultural settings requires a nuanced understanding of different cultures, as well as a recognition of the potential barriers to communication and collaboration. One specific area where knowledge generation and management is of particular importance is sustainable development in the built environment. As the world's population continues to grow and urbanization accelerates, sustainable development is increasingly recognized as a critical challenge that requires urgent action. To address this challenge, knowledge creation and management approaches that can facilitate the exchange of ideas, best practices, and innovative solutions are essential. However, effective knowledge creation and management in this context requires an understanding of the unique cultural, social, and economic factors that shape different communities' perspectives on sustainability.

Against this backdrop, this paper presents the set-up of the SURE Facilitation and Synthesis Research Project, focusing on the conceptual architecture for its synthesis research. Part of the BMBF funding initiative SURE along with the ten collaborative projects, this project facilitates the synthesis of knowledge about and the development of solutions for sustainable and resilient urban and rural development in Southeast Asia and China. The project focuses on the transdisciplinary synthesis of research outputs from the SURE collaborative projects, the identification of research gaps, and the development of knowledge generation and management approaches to support the implementation of sustainable solutions, while its primary goal is to contribute to transdisciplinary knowledge synthesis, sustainability research, and urban research. The project focuses on utilizing a multi-method approach that combines empirical research with artificial intelligence tools to analyse qualitative and quantitative data. The project team employs digital tools to structure data and turn it into accessible knowledge that can be used in transdisciplinary urban sustainability projects and beyond. The overarching goal of the project is to contribute to a new research approach that synthesizes knowledge in the topic area of urban sustainability.

**Keywords** – qualitative meta-analysis; synthesis research; sustainability science; knowledge creation and management, transdisciplinary knowledge synthesis

## **Sustainable Business Models for Vegan Food Production**

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### Abstract

Recent years have seen a rise in popularity of the vegan or plant-based consumption/production, which is deemed to reduce the environmental burden (Fresán & Sabaté, 2019) since the impacts of animal products can markedly exceed those of vegetable substitutes (Poore & Nemecek, 2018).

Our research focuses on sustainable business models applied to vegan production with the aim to scrutinize how companies may achieve positive impacts on people, the planet, and sustainable economic performance. Surprisingly, academic studies by management scholars on this matter are very rare and we discovered that most contributions come from researchers with knowledge and expertise in other disciplines such as environmental science or agricultural and biological sciences.

In light of the above-mentioned literature gap, our explanatory research, based on secondary data (i.e. academic and grey literature), offers an understanding of how sustainable business models can be applied to vegan production.

Namely, we elucidate the concept of Circular Bioeconomy and its applications through biocyclic vegan production and cultured meat production.

Our research highlights that the production of alternative proteins (AP), such as plant-based ones, mostly produced from legumes, may provide benefits not only for the environment but also for human health. However, there is still an ongoing debate on the controversial effects of APs and their nature of being "ultra-processed" food. To deepen this debate, future research should develop an interdisciplinary approach with input from scholars in biotechnology, human nutrition, medicine and management.

Our research has not only theoretical implications but also managerial implications for vegan food production which is undergoing a phase of evolution both in terms of technologies and markets.

Keywords – Sustainable Business Model, Vegan food production, Circular BioEconomy

# **Building a Knowledge Management Cooperation Model** through TOSCA as a Digital Tool for Urban Development

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#### Abstract

This paper analyses the different adaptations of TOSCA, an open-source geographical information system (GIS) toolkit to different urban contexts across the world and the learnings through these adaptations; involving the synthesis of extracted knowledge, its translation and final adaptation into a location-customised tool for decision-support in the context of planning. Knowledge management and extraction methodologies developed and adapted in the process of implementation of this toolkit in India, Ecuador and Palestine provide insights into the application of digital tools for urban planning and contribute to the streamline of knowledge extraction mechanisms across different cultural contexts.

TOSCA, or Toolkit for Open and Sustainable City Planning and Analysis, has been developed since 2019, between the HafenCity University Hamburg (HCU) as research partner and the German Agency for International Cooperation (GIZ) GmbH as funding partner, to develop strategies and tools for sustainable urban development in two initial pilot locations \_India and Ecuador\_ and from 2022 in Palestine; for each case involving additional local cooperation partners. The tool was conceptualised as an open-source, easy-to-use and scalable tool for accessing complex urban analyses, as a solution to the fact that GIS tends to be an expensive, complex and inaccessible software for many rapidly urbanising contexts with low resources.

The three contexts of India, Ecuador and Palestine presented vastly different urban challenges and actors, which required the customization of a tool development process to carry out the implementation of the project in each location. Necessary steps involved the identification of pressing issues, the definition of a relevant use case, the identification of roles and mobilisation of the local stakeholders, tool adaptation, technical revisions and knowledge transfer for its sustainable take-up. After understanding the outcomes of the three past implementation projects, a model of ideal cooperation for knowledge management emerges as a potential way to systematise the methods for gathering knowledge and rendering it applicable to different scenarios. The identification of four fundamental agents in this model emerge, according to their roles and produced effect in the development process for TOSCA: (the funding agent) dissemination of means for sustainable development, (the R&D agent) incorporation of digital technologies in urban systems, (the local institution agent) consolidating local capacity building and (the local authority agent) public outreach and uptake activities. TOSCA, as a tool intended to contribute to sustainable growth in urban regions, lies at the intersection of these four roles, which are codependent on each other in different ways.

The objective of this paper is a first approximation to the exploration of this model as a potential solution for knowledge management and dissemination of a toolkit such as TOSCA.

**Keywords** – digital planning tools, open source, GIS toolkit, city science, knowledge management, decision-making

# Communicating Circular Economy: Implications of Habermas's Theory of Communicative Action in the Public Sector

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### **Abstract**

The study applies Habermas' Theory of Communicative Action (TCA) to expand research on public sector communication about the Circular Economy (CE).

Theory guides the analysis of a case study of an Italian region ranked among the most advanced in terms of CE legislation. A qualitative study was conducted, with in-depth interviews with officials, communicators and information workers. The research is based on a narrative enquiry approach and uses guidelines to increase methodological accuracy.

The study is relevant from theoretical and practical perspectives. The conceptualisation of CE communication can provide analytical leverage and guide the operationalisation of social change programmes required by the CE paradigm, suggesting the benefits of incorporating the concept of interaction to promote circularity principles. From a practical point of view, the study identifies limitations and enabling factors of the current communication model and generates a set of indications that policymakers and communication/information professionals can use.

The study lies at the intersection between communication and CE and fills a gap in the literature, particularly in the public sector.

**Keywords** - Communication, Circular economy, public sector, Habermas's theory of communicative action, qualitative research

# Female Directors, Critical Mass and CSR: The Moderating Role of Family Ownership

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#### **Abstract**

Using a sample of 76 Italian publicly listed firms for the year 2019, this paper investigates the association between the presence of a critical mass of women directors on the board and the firm's CSR performance. It also examines whether the family firm status moderates this association.

The OLS regression analysis shows that the presence of a critical mass of female directors positively influences the CSR performance. In addition, the empirical analysis shows that the family firm status has a negative direct effect on CSR performance, but has a positive interaction effect with a female critical mass.

Overall, these findings support the conclusion that the effect of female directors on CSR performance is influenced by the family ownership structure. This finding contributes to both the literature on board gender diversity and to the literature on family firms by providing evidence on the role of family ownership as a contingency variable that positively moderates the effect of a critical mass of female directors on CSR performance.

With regard to practical implications, this research calls the attention of board nomination committees on the key role of appointing a critical mass of female directors for achieving a better CSR performance.

Keywords - Female directors, Critical mass, Family ownership, CSR performance

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# **Understanding Sustainable Public Administration through Knowledge Formation**

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### Abstract

The article focuses on collective knowledge formation processes in which an understanding of sustainable public administration (PA) is constituted. We turn the perspective from the production of sustainability data to the epistemic aspects of sustainability: to justifications, rationalities, and knowing in the specific context of sustainability management in public organizations. We approach sustainable policymaking as an ambiguous and complex process that requires collective sense-making of what public organization is and desires to be. This process may lead to a reconsideration of organizational identity, especially concerning core values, purpose and expectations of PA. Through a scoping review of the organizational identity literature, we explore what is known about identity construction and identity work in the PA context. The results of this review will provide insights to further analyze what sustainable PA means through the lens of organizational identity. We suggest that, as an ambiguous policy aim, sustainability will describe the new mission of PA and set strategic ambitions for transformation. In public organizations, identity construction can be used as a tool for collective sense-making and knowledge formation that responds to the critical strategic questions of why PA exists, what it should achieve in the future, and how its tasks are prioritized. The article contributes to sustainability management discussions by linking public and knowledge management studies and extending the understanding of sustainability as a strategic aim in both fields of research.

**Keywords** – knowledge formation; sustainability information; organizational identity, public administration, policymaking. (max 5 words)

# The SURE Knowledge Synthesizer: A Conceptual Tool for Urban Sustainability Research

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#### Abstract

The process of synthesis is key for the consolidation of new insights from existing bodies of knowledge, information, and data. In connection to other knowledge processes, e.g., inspiration, research or analysis, synthesis – as an activity of connection and convergence – is central to creating meaning and understanding. It builds upon principles of integration, unification, and generalisation as prerequisites for the inference of reliable and replicable knowledge. Synthetic processes are significant when dealing with large data sets or disparate and heterogeneous information. Especially in explorative research projects, the synthetic integration of a multitude of inputs is crucial to generating valuable and applicable knowledge output.

As a key idea, the paper puts forward the concept of a Knowledge Synthesiser as a heuristic device to shape the knowledge generated in larger research programmes. Resting on general models of information processing and knowledge life cycles, the Synthesizer is conceptualised as a system that generates meaningful knowledge output by interconnecting different functional layers and modules, e.g., for knowledge collection, structuring, or integration.

The specific case at stake is the German funding priority "Sustainable Development of Urban Regions" (SURE). Ten projects with approximately 150 partner institutions generate a large body of research about urban sustainability and innovation. The Synthesizer has been conceptualised to facilitate the convergence and integration of this knowledge and to create insights about the SURE funding priority and about future urban development in general. Specifically, the Synthesizer has various practical purposes for the research programme:

- Structuring and safe-keeping the results from the ongoing research
- Allowing easy access to the research findings
- Enabling deep analysis of the collected data and information
- Linking information to create new insights.
- Outlining future trends in urban sustainability research
- Supporting research policy-making.

In response to the overarching research programme and its purposes, a system architecture has been created to be implemented as a prototype tool for the SURE funding priority. From the variety of functional and technical requirements, an overall schematic design has been created that eventually led to a Minimal Viable Synthesiser concept – the outline for the technical implementation of the key features and functionalities the Synthesizer needs to supply to the SURE funding priority.

**Keywords** – knowledge synthesis; urban sustainability; digital tools; digital transformation; transdisciplinary research; complexity

# **Knowledge of ESG Factors and Firm Efficiency for Supporting the Bank Risk-Taking: An Empirical Analysis**

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### **Abstract**

Knowledge of the Environmental, social, and governance (ESG) factors is the subject of increasing interest in national and international institutions. Within the banking sector, there is a growing awareness of the need to integrate the non-financial information arising to ESG factors knowledge, into strategies, processes, and financial instruments to generate long-term value. ESG are increasingly considered as a new factor influencing risk in bank's lending activity, and this is the perspective of our paper. Adopting a bank-centered perspective, the main aim of the paper is to investigate, employing a Data Envelopment Analysis (DEA)-based approach whether including ESG factors in the creditworthiness assessment of borrowers increases the firms' efficiency, thus mitigating bank risk taking. The research has been carried out on a sample of European listed firms in the energy sector, which is under increasing pressure from society due to its huge environmental footprint and social importance. Our findings do not provide evidence of the overall significance of ESG factors in affecting firm efficiency. Nevertheless, we provide evidence that high/low ESG scores do not affect firm efficiency, but at moderate level, ESG scores improve the corporate efficiency. The findings contribute (and provide suggestions) for regulators, credit risk managers, and academics.

**Keywords** – Knowledge, ESG factors, Creditworthiness, DEA, Sustainability

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# The Creative Process towards a Smart and Sustainable City Strategy: The Dresden Case

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#### Abstract

This paper presents the co-creation process that led to Dresden city's smart city strategy, channelling the contributions from various stakeholder groups – politics, administration, science, civil society, and industries – into one vision for integrated and sustainable digitalisation-based urban development. This co-creative strategy process aims to overcome technology-centred smart city approaches that often fall short of generating public value, and therefore lack of public support.

Keywords - Smart City, Strategy Process, Participation, Urban Innovation

Paper type – Academic paper

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# Unlocking the Potential of NLP in Text Data Analysis for Sustainable Urban Development

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#### **Abstract**

This paper reports on results of the SURE facilitation and synthesis research (FSR) project for the funding priority SURE (Sustainable Development of Urban Regions) of the German Federal Ministry of Education and Research (BMBF). SURE engages ten collaborative projects which develop concepts and test locally implementable solutions and strategies for sustainable transformation of fast-growing urban regions in Southeast Asia and China. SURE aims to create conceptual, theoretical, methodological, and translational innovations that integrate and move beyond discipline-specific approaches to address issues of sustainable urban development. The paper discusses the application of Natural Language Processing (NLP) as one form of Artificial Intelligence (AI) to support data and knowledge synthesis in sustainable urban development research. The abundant urban data and recent advancements in the field of AI have the potential to transform how urban researchers perceive and tackle sustainable development-related problems of cities. The research team employs various NLP algorithms to assess text data with the goal to analyse patterns in order to explore intra-project synergies and research intelligence on future trends. NLP has exhibited an ability to digest copious textual data and improve the usability of urban corpora, improving study scope and reducing resources required for research. However, the implementation of NLP to study issues related to sustainable urban development is a relatively novel. Predominantly used NLP modules are unable to identify contextual relations amongst multiple words which is essential in urban region study. To overcome this issue, algorithms employed were trained to identify various word classifications related to urban study discipline for precise output. We discuss the preliminary results of the ongoing exploration and show how it could contribute to an understanding of large text-based data sets in urban knowledge management. We examine the possibilities and limitations of such an approach and discuss the implications of AI as part of a multi-methodological approach to carry out a synthesis of sustainable urban development research efforts across an entire region covered under SURE framework. The paper also gives an outlook on utilising new AI based algorithms to generate textbased data analysis channel as well as indicate the limits, successes, challenges and constraints of such approaches.

**Keywords** – Sustainable Urban Development, Natural Language Processing, Artificial Intelligence, Knowledge Management

# How do Open Innovation and Sustainability Practices Affect the Success of Startups?

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### **Abstract**

Based on a multiple case study research, the paper aims at providing some first evidence on the adoption of Open innovation and sustainability practices by innovative startups. The focus is on the underlying motivations and the potential effect on startup success of the combined adoption of both types of practices. Following a literature review, an in-depth qualitative analysis has been performed based on five innovative startups based in the Romagna area (Italy) and in the Republic of San Marino. Results highlight that motivations to Open Innovation adoption are classified in necessity-driven and opportunity driven, differentiating among the lifecycle phases. As for sustainability practices, two main attitudes are recognized in startups: reactive and proactive. Finally, no results on the interrelation between Open innovation and sustainability practices adoption can be found in the investigating sample, leaving room for further studies.

Keywords - Open Innovation; Sustainability; Collaboration; Startups; Startup success

# Female Port Enterprises and their Sustainable Development: A Structured Literature Analysis

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#### **Abstract**

The purpose of this paper is to identify and analyze the main areas of research related to port companies, with a particular focus on sustainability, governance and digitalization impact. Today, port companies must increasingly outline their strategic activities in a sustainable way.

Port activities directly involve local communities, which is another reason why the ability to operate in a 'sustainable' manner is becoming increasingly important.

In fact the objective of social sustainability in a port system aims at the protection, support and valorization of all members of the port community itself and of the territorial community that lives in closer contact with the reality of the port and, more generally, at increasing the wellbeing of all those with whom the system relates.

Considering that port activities involve many players and generate value over a very large territory, the policies implemented are numerous and varied, divided into four main areas: safety/security, relations with the territory, quality training, and seafarers' welfare.

Technological innovation and the implementation of automation processes have also produced organisational changes in port companies, sometimes revolutionising the organisational structure.

To achieve the goal, this paper aims to study how the literature has evolved in recent years in terms of environmental sustainability as it relates to port enterprises. Adopting structured literature review (SLR), this paper aims to answer the following questions:

RQ1. How is research in the literature developing the topic of female port enterprises and their sustainable development?

RQ2. What are the main foci of analysis in the extant literature?

RO3. What are the possible future research areas?

In order to identify the topics dealt with and the investigation methods used, a structured analysis of the contributions present in the literature (SLR) was carried out. The database used by the Authors to extract the information is SCOPUS. Specifically, 424 international contributions were analyzed which included different types of documents (articles, books, book chapters).

The manual analysis of the results of the SLR can be considered a limitation of this work. Another limitation of the work is represented by the use of only one database.

This work stems from the need to provide an overview of the vast and varied literature on such a complex topic the development of port enterprises in a sustainable way.

**Keywords** – Port, sustainability, governance, digitalization

Paper type - Literature review / Academic Research Paper

# Gender Disclosure in Sustainability Reporting under the Lens of the International Comparative Accounting

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#### Abstract

The Directive 2022/2464 on Corporate Sustainability Reporting (CSRD) amended the Directive 2014/95 on Non-Financial Information (NFID) by introducing changes in gender disclosure. Starting by comparing the texts of two Directives, this paper investigates the factors that influenced the new gender information required. The new Directive devotes specific attention to gender equality information, requiring disclosure on equal pay for equal work, training and skills development, and employment. This is the main innovation introduced by CSRD in accordance with the principle of equal gender treatment that has inspired European legislation (EU, 2020). In this respect, CSRD requirements are consistent with the Pay Transparency Directive, which aims to strengthen the application of the principle of equal pay between men and women and the prohibition of discrimination, though also pay transparency mechanisms. These Directives contribute to the achievement of gender equality and the empowerment of all women worldwide, as envisaged in Goal 5 of Agenda 2030 (UN, 2015).

There have been no major changes in the disclosure of diversity on boards and gender policies adopted and their implementations.

This paper contributes to filling a gap in the studies by highlighting an unexplored area of literature related to the changes in quantity, quality and modalities of regulatory gender disclosure requirements.

**Keywords** – Gender research, Gender disclosure, Sustainability reporting, Sustainability standardisation, ESRS

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# Women and Relational Capital in the SMEs Context: A Literature Review

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#### Abstract

Small and medium-sized enterprises (SMEs) are the beating heart of various economies, such as the Italian one. Several shocks have recently hit world economies. Relationship capital can be a useful tool to help SMEs face and overcome the recent challenges caused by events such as Covid 19. This contribution aims to investigate the relationship between relational capital and SMEs in order to highlight the issues most investigated by business and management scholars. Analysing the literature on the subject, 3 clusters have been highlighted following a bibliometric methodology. Subsequently, a focus was made on gender issues and women entrepreneurs since it is believed to be relevant. This work offers useful insights for scholars and provides the basis for outlining future lines of research on women and relational capital.

**Keywords** – Women, Relational capital, SMEs.

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# A Critical Analysis of the Integration of Life Cycle Methods and Quantitative Methods for Sustainability Assessment

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#### Abstract

Life Cycle Assessment (LCA) and related methods have been widely used for sustainability assessment. However, the integration of these methods with quantitative methods such as mathematical models, statistical methods, and artificial intelligence has received less attention. This literature review aims to examine how these methods have been integrated to pursue sustainability assessment objectives. A systematic literature review was conducted using Scopus database. The search was limited to articles published in peer-reviewed journals from 1960 to 2022. The search keywords included Life Cycle Assessment, Social Life Cycle Assessment, Environmental Life Cycle Costing, Emergy Accounting, Sustainable Value Stream Mapping, mathematical methods, statistical methods, economic methods, simulation methods, building information modelling methods, and artificial intelligence methods. The literature review identified a total of 150 articles that addressed the integration of Life Cycle methods and quantitative methods for sustainability assessment. The majority of studies focused on the integration of LCA with mathematical models, statistical methods, and artificial intelligence methods. The studies demonstrated that the integration of these methods can improve the accuracy and reliability of sustainability assessments. Additionally, several studies proposed novel methods, such as the integration of LCA with building information modelling and simulation methods. The integration of Life Cycle methods and quantitative methods has the potential to enhance sustainability assessments by providing more accurate and reliable results. However, the integration process requires careful consideration of the assumptions, data quality, and uncertainties associated with each method. Further research is needed to develop standardized guidelines for integrating these methods and to identify the most effective integration approaches for specific sustainability assessment objectives.

Keywords: Life Cycle Assessment (LCA), Quantitative assessment methods, sustainability assessment.

# The Impact of Circular Economy on Innovative Startup Strategies: A Multiple Case Study

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#### Abstract

In 2015, member countries of the United Nations developed 17 Sustainable Development Goals (SDGs, 2019) that focus on social and environmental issues. To meet the newly introduced requirements, it is crucial to innovate the current system by combining the different dimensions of sustainability, namely social sustainability, economic sustainability, and environmental sustainability. The scientific literature identifies six macro trends, in the area of sustainability, among which the concept of Circular Economy (CE) emerges (Gaudig et al., 2021). To date, CE represents a topic of utmost interest to both the research and business worlds; indeed, CE emphasizes the conscious use of natural resources, promoting their reuse and recycling (Geissdoerfer et al., 2017). In this regard, stakeholders' attention has focused on understanding which are the main facilitators for the adoption and implementation of sustainable business strategies. Recent years have witnessed the emergence and significant growth of a new category of companies: startups. In this regard, the literature points out that this new generation of firms is, at present, the largest producer of radical innovations (Hekker et al., 2007). However, to date, research has mainly focused on the circular approaches adopted by mature firms, while contributions related to startups have been little investigated. The present study aims to focus on the relationship between startups and sustainability, with particular attention to the role of CE on innovative strategies. Indeed, startups, being unstructured business entities, have the opportunity to develop from scratch a new organizational culture that integrates the dimensions of sustainability (Nunes et al., 2022). Startups have the opportunity to build a sustainable business from the beginning by proposing a circular business model or integrating sustainability practices into business operations. The underlying hypothesis is that startups are more open to new ideas because they lack an organizational culture, consequently it is easier to establish sustainable thinking unlike established companies (Pizzi et al., 2021). To achieve this goal, the study was structured in two main phases. First, a review of existing scientific literature was conducted through the methodology of keyword analysis (Fadalla and Amani, 2015). Starting from the results obtained in the literature review phase, the main points to be investigated and then included in the questionnaire were defined. Finally, in the second phase of the study a multiple case study was conducted on a sample of 13 startups,.

Keywords – Startups, Innovation, Sustainability, Circular Economy, Innovative strategies

# Managing Knowledge Transfer in a Team: Insights from a Public Sector Project

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#### **Abstract**

This paper deals with a case of organisational change triggered by a process of digital transformation. It describes the management of change activated in the Supreme Court of Cassation in Italy. The project involved different actors and one of the main criticalities to deal with was the need of communication among people with different background and languages. We analysed how external consultants acted as knowledge brokers to facilitate the knowledge transfer process in a team. The consultants acted in facilitating the alignment of different languages and lenses using visualising tools and focusing on boundary-spanning activities.

**Keywords** - Digital Transformation Project, Knowledge brokering.

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# The Role of Social Impact Evaluation in Megaprojects: Reviewing Literature and Analysing Implications from a Managerial Perspective

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#### **Abstract**

Megaprojects stimulate and challenge public opinion mobilizing wide citizens' reactions. Given their ability to increasingly attract public attention, they may exert an influence on public participation to collective choices and on political decision making.

These issues are relevant for the evaluation of a project, but unfortunately, they are rarely debated in the managerial literature. Our paper wishes to open up a debate related to social issues and how they could be considered according to a more managerial discussion.

**Keywords** – Mega-projects; sustainability; social evaluation

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# Human-Centered Knowledge Management in Start-Up and Innovation Managers: Framework, Peculiarities and Challenges

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#### **Abstract**

The purpose of the paper is to study human-centered knowledge management in start-ups, reveal challenges, its peculiarities, and framework. The technology start-up teams used experiential design thinking, agile and lean approaches to design and validate the hypotheses of minimal viable products and repeatable and scalable business models. The exploratory qualitative research was conducted with 27 cross-functional start-up teams in a period 2019-2023. The research reveals: (1) the necessary knowledge set for start-ups which facilitates entrepreneurial teams to launch new ventures, design products and business models by using human-centered knowledge management framework that includes social-based and technology-based parts for acquisition, creation, sharing/transferring, and application of tacit and explicit knowledge in start-ups; (2) specific set of peculiarities and challenges of KM in start-ups; (3) dominance of the mode "Socialization" in the discovered 3-mode SEI (socialization, externalization, and internalization) knowledge conversion model for early (fuzzy front end) stage of product/business development in start-ups; (4) evidence that conversion "explicit to tacit" knowledge in "Internalization" occurs effectively in combination of explicit knowledge obtained in exploratory prototyping inside of start-up and the knowledge generated by generative AI at the requests of a startup. Practical implication of the research is understanding of framework and challenges of KM in start-ups, and opportunity to use the research results in start-ups management at the fuzzy front-end stage.

**Keywords** – Human-centered, Knowledge management, Start-up, Experiential design thinking, Innovation.

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## **Driving Smart Urban Innovation**

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#### **Abstract**

Cities of tomorrow are planning smart urban future, using information and communication technologies to support smart urban innovation by fostering collaborative processes in order to drive sustainable urban growth and improve the quality of life. Cities are becoming smart innovative communities, adopting a smart city framework to urban planning and development. A smart city helps to shape the city of the future as an engine of urban innovation. Sustainable urban future relies on smart cities and communities that support urban innovation for good life, promoting collaborative and multi-actor innovation, following a human-centred approach to smart urban development. As organisational and collaborative spaces, cities are rethinking the urban planning for sustainable future, promoting a smart city vision and developing a smart community. As smart innovative communities, cities are driving smart urban innovation, rethinking the urban future, planning a smart city view in order to support sustainable growth and construct a wealthy urban future.

Keywords - Urban innovation, Smart cities, Smart communities

## **Towards Sustainable Rural Development and Organization**

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#### Abstract

Sustainable rural development helps to improve the quality of rural environment and relies on promoting multifunctional agriculture and driving rural business and entrepreneurship to follow a path leading to structuring hybrid organizations that combine and reconcile market and social aspects as sources and a vision leading to creating economic, social and public value within rural areas and communities. The aim of this study is to elucidate how to promote sustainable rural development helps to create hybrid organizations driving value creation within rural areas and communities. Rural resources are emerging as a social and economic value to be preserved for future generations and for driving strategy and organization of rural enterprises and community. Rural development and multifunctionality in agriculture should help to reconcile and combine business orientation, territorial identity, social value creation and benefits for communities driving strategic and organizational choices of rural entrepreneurs. Rural development policies contribute to promoting sustainability of EU farm sector and rural areas retaining long-term strategic objectives in terms of competitiveness of agriculture ensuring sustainable management of natural resources and climate action and the balanced territorial development of rural areas. European institutions promote rural development to benefit rural enterprises and communities exerting influence on the organizational and strategic choices of enterprises that are oriented to proceed towards sustainability by following a hybrid pathway.

Keywords - Agriculture, EU framework, Hybrid organizations, Rural development, Sustainability

# The Knowledge Cloud: The Availability and Transfer of Knowledge in Museums

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#### **Abstract**

The knowledge-based theory considers that knowledge is the most important resource of an organization, while knowledge management is increasingly more considered a way of ensuring competitive advantage, an effective tool for valorising resources, helping manage change and being more resilient, and determining enhanced performance for organizations. All these aspects are also relevant for effective museum activity. Thus, through three focus groups, the paper sheds a light on challenges and practices that are shaping the environment in which continuity of efforts and sharing of knowledge is ensured amongst museum professionals in Romania. The findings are useful for museum managers to better organize knowledge flows and manage knowledge effectively, while for various museum professionals, they help understand knowledge gaps, the various sources of knowledge available as well as the specific dynamics in the field.

**Keywords** – Museums, Knowledge transfer, Knowledge acquisition, Knowledge and performance.

# Using Workshop-Based Elicitation of Business Requirements for Co-Creation: An Integrative Approach for Capturing Tacit Knowledge

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#### **Abstract**

Well-conducted requirements engineering (RE) activities account for a significant share of success in IT projects (Wiegers and Beatty, 2013). The RE process starts with identifying business objectives that define a context for eliciting business requirements. Because RE is considered a social interaction (Serna et al., 2017), a share of knowledge about business requirements is stored as unarticulated tacit knowledge possessed by individuals within an organization (Boyer and Mili, 2011). This personalization of tacit knowledge causes barriers to gathering valid requirements (Serna et al., 2017). Moreover, intra-organization knowledge sharing is often complicated by knowledge hiding (Connelly et al., 2012), resulting from a lack of interpersonal trust between employees and (external) analysts (Holste and Fields, 2010). In Knowledge Management (KM) literature, tacit knowledge sharing is mainly discussed from the cultural and psychological perspectives (Chen et al., 2018; Holste and Fields, 2010), which are out of the control of an external business analyst. However, some publications suggested specific methods and tools that business analysts can use to foster requirements elicitation, such as creating engaging environments (Nakano et al., 2013) and utilizing social web-based tools (Panahi et al., 2016, 2013). Although a large amount of focus in KM and RE was dedicated to knowledge and requirements elicitation, we see little integration of KM-based tools and techniques in RE.

Therefore, in this paper, we draw on our experience facilitating a co-creation workshop to help other facilitators effectively deal with collecting tacit knowledge about the business requirements in organizations. We started with a systematic literature search in two areas (knowledge and requirements elicitation) and identified one review for each area that lists elicitation methods (Anwar et al., 2022; Gavrilova and Andreeva, 2012). We used conceptualization of the identified methods to design a workshop. After the workshop facilitation, we reflected on our data from participatory observation and suggested recommendations for similar workshops. We addressed several issues that emerged during the workshop, namely (i) insufficient domain knowledge before the workshop, (ii) lack of validation, and (iii) issues with capturing tacit knowledge during the workshop.

European Union's Horizon Europe program supported this research, grant agreement No 101091536, Digitalised Value Management for Unlocking the potential of the Circular Manufacturing Systems with integrated digital solutions.

Keywords - Requirement; knowledge; elicitation; co-creation; embedded knowledge.

# Human Sustainability – Past, Present and Future – A Bibliometric Analysis

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#### Abstract

Economic, environmental, and social are the three main dimensions of sustainable development (Alsavegh et al., 2020). These basic and essential dimensions can aid the decision-makers of the organisations to decide which decision and course of action should be chosen to make society and its development more sustainable (Kaur and Garg, 2019). The study of sustainability and its many variants, namely human sustainability is recognized as an important subject for both society and organisations (Nilashi et al., 2019). Still, the management process has been clouded by short-term financial goals overlooking long-term human-related goals (Macke & Genari, 2019). Although it is noticeable that there is an emerging focus on sustainability and sustainable development (Ruggerio, 2021) there are still many doubts regarding its successful implementation and the role of organisations in achieving sustainable development. This study aims to analyse the state-of-the-art of human sustainability, determine its current conceptual structure, and describe the main barriers regarding human sustainability found in literature, as well as the gaps and future research guidelines. Considering the research objective for this study, a systematic review and bibliometric analysis were chosen as the preferred methods. A content analysis of human sustainability and its relationship with human resources management was conducted based on 795 documents collected from the SCOPUS Collection that ranged from the period 1983 to 2023. The bibliometric analysis was performed using R-Program. Results show that scientific research on the topic has been increasing in the past years and the USA stands out as the most productive country, closely followed by the United Kingdom. Moreover, results from the content analysis and literature review can provide a broader understanding of the barriers and difficulties in the field of human sustainability. The attention given to all subjects related to sustainability has recently improved the amount of research and means invested in human sustainability, which emerges as a future trend. We sum up the state-of-the-art provided by the analyzed literature to support and encourage human sustainability research. Also, based on the bibliometric and content analysis the authors were able to point out gaps and guidelines for future research.

**Keywords** – Human Sustainability, Sustainable Development, Burnout, Engagement, Bibliometric Review.

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# Building-up Digital Dynamic Capabilities: The Role of Collaboration Programs between Italian SMEs and University Students

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#### **Abstract**

Businesses must digitally transform their organizational mindset to stay competitive and gain sustainable competitive advantage. Previous studies revealed that to achieve digital transformation (DT), organizations require strategic dynamic capabilities (DC) in order to discover new opportunities, sense and measure potential threats, exploit external inputs, and deal with new digital environments.

However, the path to a complete theoretical and empirical understanding of the digital DC domain is yet in its early days. Moreover, prior research has largely concentrated on organizational DC internally, thus paying little attention to inter-organizational processes and not considering the requirement of new people for the development of the latter.

In recent years, academic research has revealed that collaborations between different parties based on the choice of specific and strategic partner are key factor for the effectiveness of the improvement process of strategic innovation capabilities. Universities, especially entrepreneurial universities, are suitable partners for the transfer of both knowledge and ideas, as well as for the development of business innovation.

Framed on these premises and based on a longitudinal case study carried out within an Italian university initiative, the goal of this study is to provide evidence that university-industry collaborations (UICs) are fruitful and key means to support and manage the exchange of stakeholders' digital knowledge within an ecosystem and to develop digital capabilities across the involved firms.

Results show that cross-border academic, industrial, and institutional interactions involve innovative and valuable processes able to develop critical DT dynamic capabilities, also suggesting empirical guidelines to educators, professors, and practitioners to structure and expand the innovation ecosystem between universities, businesses, and institutions.

This study also offers managers and SMEs practical advice on digital transformation and an empirical model to help businesses compete and improve their strategic positioning through internal process digitization and business model innovation..

**Keywords** – Digital Dynamic Capabilities, Digital Transformation, University-Industry Collaboration, Knowledge-Based View

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# Inspiring and Leading Innovation, Digital Transformation and Entrepreneurial Dynamics in Cultural Industries: State-of-the-Art and a Future Research Agenda

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#### Abstract

The main objective of this research article is s to briefly present the current state-of-the-art about the emerging innovation and entrepreneurial dynamics and the impact of the digital transformation in the Creative and Cultural Industries (CCIs) and to delineate potential future research directions.

The paper combines a deductive and an inductive approach.

The research outlines the needs to addressing in a more specific way the dimensions of innovation, the role played by digital transformation and the potential paths of entrepreneurship in CCIs.

The value of the article mainly resides in its attempt to identifying and clarifying relevant themes and unanswered research questions about innovation and entrepreneurial dynamics in CCIs to be effectively declined and investigated according to an inter-disciplinary perspective.

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# Managing Food Waste to Mitigate Food Poverty and Enhance Social Inclusion: Combining the Circular Economy Paradigm and the Social Innovation Perspective

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#### **Abstract**

Globally, 811 million people go hungry and 17 percent of food is wasted at the retail and consumption levels (UNEP's Food Waste Index Report, 2021). This paradox of "food poverty" VS "food waste" and the related zero food waste strategy are at the heart of the European Commission's Action Plan for a Circular Economy 2015 and 2020. To address this paradox, scholars from technical and engineering perspectives called for more circular and sustainable production processes (Bernstad and la Cour Jansen, 2012), while others from consumption (Principato et al., 2018) and behavioural studies (Lazell, 2016) called for sustainable and ethical consumption patterns to avoid and manage food surpluses and waste.

To date, redistribution of surplus food through food banks and charities, social supermarkets, and retailers practicing expiration pricing is the most common practice to reduce food waste (Bech-Larsen et al., 2018). This practice is not a long-term solution and, more importantly, it does not take into account the important synergies between social innovation (Aksoy et al., 2019; Mulgan et al., 2007) and circular economy to address issues such as food poverty and social inclusion.

This study focuses on food surplus management and aims to better explain the link between circular economy and social innovation, and the key role that social innovation practices play in reducing food waste and poverty, and thus in the transition to a good circular economy and an inclusive society.

The study applies a qualitative research approach and an empirical contextualization strategy (Ketokivi and Mantere, 2010). It focuses on Food for Soul (FFS), a nonprofit organization founded in 2016 by Massimo Bottura, chef and patron of a three-Michelin-starred Italian restaurant. Its mission is to build culture as a tool for resilience, create new opportunities for social mobility, and promote a healthy and equitable food system by transforming people, neglected places, and discarded food. Bottura's idea was to reinterpret the monks' refectory and transform it into a welcoming place where the city's most vulnerable population can find a moment of restoration and beauty. Each day, guests are served nutritious meals prepared by volunteer chefs from surplus food (that would otherwise go to waste).

This work addresses new research opportunities and applications for a circular approach to food surplus management as a driver of transformative social change. It also contributes to a better understanding of the valuable links between circular economy and social innovation.

**Keywords** – Circular Economy, Social Innovation, Food waste and food surplus, Service Ecosystem, Food for Soul

# A Morpholgical Analysis of Large Scale Research Infrastructures

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#### Abstract

Large Scale Research Infrastructures are rising in the competitive and globalized research environment, since they offer to external researchers-users, inputs and services for cutting-edge, large scale research. Such researches would not be possible with normal infrastructures and budgets of single Universities and Research institutions. However, despite the strategic relevance acknowledged to LSRI by the nascent literature and by national policymakers, there is a lack of comprehensive frameworks capturing both strategic dimensions and inherent options a LSRI may have. Given the infancy of this topic, and the empirical nature of the literature to date, a holistic framework on LSRI would increase the sense of existing studies and provide the ground for future advancement. This paper aims to bridge this gap, by identifying strategic *dimensions* and relative options, a Large Scale Research Infrastructure can assume.

The research is carried out adopting a mixed research methodology merging a literature review with a survey conducted on a sample of 11 LSRIs; they provided the dataset for the parametrization of a *Morphological Matrix*.

The research led to the identification of the strategic *dimensions* and the *solutions* (i.e. the spectrum of strategic *options*) defining the LSRI's morphology. These findings represent, on another side, the starting point for a future and hopeful Morphological Analysis of LSRIs.

This paper originally proposes the dataset needed to develop a morphological analysis of Large Scale Research Infrastructures.

**Keywords** – Research Infrastructure, Science platform, Large Scale Research Infrastructure, Research strategy.

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# **Urban Resilience: Which Relationships with Sustainability and Well-Being?**

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#### **Abstract**

Resilience is a widely accepted concept to which scholars and policymakers refer to address the complexity of urban systems. Many frameworks to measure urban resilience already exist. In this paper, the main urban resilience frameworks (i.e., City Resilience Index, Resilience Maturity Model, and the Sendai Framework for Disaster Risk Reduction) are analysed to shed light on the common dimensions they present. Additionally, the relationship between (i) resilience and (ii) sustainability and well-being in the urban context is investigated. To do so, Agenda 2030 for Sustainable Development, scaled at city level, and the Equitable and Sustainable Territorial well-being framework are compared with the urban resilience frameworks. In the urban domain, the concepts of resilience, sustainability and well-being partially overlap. Many dimensions (e.g., health, economic prosperity, environmental protection) are considered in the resilience as well as in sustainability and well-being frameworks. Such dimensions are indeed measured with the same or very similar metrics. However, an in-depth analysis of dimensions and indicators showed some interesting differences. The paper provides knowledge advancement on the topic of resilience in the urban context and highlights those aspects that policymakers should consider so as to pursue resilience as well as sustainability and well-being goals in the initiatives they implement to face emerging urban challenges.

**Keywords** – Resilience, Urban system, sustainability, measurement

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# Fostering Digital Transformation and Business Model Innovation of SMART Tourism Ecosystems: Opportunities and Challenges

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#### Abstract

The paper aims to analyze academic literature in the field of digital transformation and business model innovation, with particular reference to the tourism sector, in order to identify challenges, opportunities, and policy directions for stakeholders in the industry to be able to face the challenges of the current socio-economic scenario and gain a sustainable and lasting competitive advantage, as well as to activate development dynamics in the territory. In the digital era, the competitiveness of organizations depends on their ability to adapt and innovate business models to market trends and changing stakeholder needs. These innovations cannot neglect digital dimensions, which have become even more essential after the pandemic situation. However, innovation is not an easy process and presents many risks and barriers, particularly in the tourism sector, which is considered a laborintensive production sector where the competitive advantage depends on the differentiation of the tourism product and the humanization of the experiences offered. As a result, tourism is often hesitant to embrace digital transformation, fearing it will lead to standardization and loss of appeal to the end customer. Despite the growing relevance of this topic, especially in the wake of the Covid-19 pandemic, there has been little exploration of ways to support tourism and cultural organizations in embracing digital innovation journeys. This paper, thus, identifies challenges, opportunities, risks, and needs for tourism organisations involved in digital transformation and business model innovation processes, and propose policy recommendations and future research directions to support their transformation of those tourism organizations.

Keywords - Digital Transformation; Business Model Innovation; Tourism

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# Leveraging Public Innovation Labs for the Adoption of Al in Society 5.0

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#### **Abstract**

The paper examines the role of Public Innovation Labs (PILs) in facilitating the adoption of Artificial Intelligence (AI) in Public Administrations (PAs) and promoting the principles of Society 5.0. PILs are viewed as an essential management model that integrates an organizational initiative and management toolbox to support the implementation, adoption, and exploitation of enabling technologies, with a particular focus on AI, to improve sustainable value creation dynamics, social innovation, and the transformation of cities and communities.

Although many organizations have experimented with innovation labs, there is a lack of understanding of their role, governance models, working mechanisms, and adopted tools in the public sector. PILs offer a space for experimentation and collaboration where PAs can gather feedback from citizens to identify and implement solutions that meet their specific needs, facilitating the adoption of AI in PAs.

The paper conducts a case study of a PIL identified as a best practice in supporting PAs in implementing AI-based solutions to improve the urban context and the life quality of communities. The study outlines the management principles of a PIL and provides a roadmap, guidelines, and policy directions to foster the diffusion of PILs among PAs interested in becoming data-driven organizations.

Overall, the research contributes to understanding the critical role of PILs in facilitating the implementation of AI in PAs and fostering the adoption of Society 5.0 principles in the public sector. The study provides insights into the benefits and challenges of implementing AI in PAs and how PILs can support overcoming these challenges and realizing the potential benefits. The paper emphasizes the importance of human-centric and user-driven approaches and enabling technologies in tailoring the offer of services and products, improving performance, and creating value for people and communities.

Keywords – Public Innovation Labs; Innovation Management; Artificial Intelligence; Society 5.0

# New Work in Public Administration: Translating Workplace and Organizational Requirements into Spatial Patterns: A Methodological Approach

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#### Abstract

Digitalised work processes, fast information flows and flexible project structures also have an impact on the design of working environments and work organisation. Hybrid work and multi-structure offices are concepts that are often implemented in the private sector but rarely in the public sector. Due to the pandemic conditions of the last two years, however, many employees and employers in the public sector have gained experience with remote work in home offices.

The "paperless office" is increasingly becoming reality, filing cabinets are getting smaller and replaced by e-files. Digital screen work, video conferencing as well as extensive data and document exchange via cloud services increasingly determine everyday work. It can be questioned whether spatial-organizational formats such as the conventional two-person office are still appropriate solutions for office work in the future public sector. Are there new (spatial) environments that create more suitable work conditions for the changing requirements? How can employees participate in the design of these new work environments? How can they be empowered to re-organise and re-use their work environment under the changing conditions?

This paper reflects on a feasibility study conducted by TU Dresden for a large Saxon administration. Addressing "Future Work" scenarios, it focused on new concepts for workplace design, work organisation and knowledge management. The feasibility study started with a survey of employees in order to derive spatial, organisational and technological requirements for new work organization and spatial concepts.

The paper introduces – besides the scientific and practice background – the overall procedure of the study as well as new concepts for work organisation and workplace design. On the one hand, it focuses on (online) surveys and co-design workshops as methodological approaches for the assessment of needs. On the other hand it discusses the specific results of the feasibility study. It concludes with the translation of the findings into schematic designs, and outlines how to incorporate the insights in the future planning of new work organization and spatial concepts in public administration.

**Keywords** – Design Science, Co-Design, User driven needs assessment, Office planning, Design-Pattern, Digital Knowledge Management

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# Digital Transformation and Green Transition in the Shipbuilding Industry: Insights from the METROPOLIS Project

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#### Abstract

Collaboration with external innovation drivers is one of the opportunities that companies, especially if belonging to more traditional sectors, can seize to embark on a twofold path oriented towards both a sustainable horizon and a Digital Transformation goal. This is the case of the Palescandolo Lavorazioni Siderurgiche, which works in the traditional sector of shipbuilding, in particular, providing steel beams and sub-assemblies to shipbuilders of the calibre of Fincantieri. In this context, the company developed a project (METROPOLIS) in partnership with the Department of Industrial Engineering of the University of Naples Federico II in order to exploit the potentiality of Digital Transformation to improve efficiency and reduce environmental impact. Once described the production system of the company and the main steps of the project, the aim of this paper is to show how the implementation of a Digitalization Plan represents a fundamental premise in order to allow the development of optimization-oriented approaches for operations management and the collection of data related to the environmental impact, making the latter become a new aspect that can guide decision-makers. In particular, we will analyse the opportunity provided by a DSS solution in managing objectives oriented on one side on efficiency and on the other side on sustainability, letting emerge the need for multicriteria approaches able to capture and drive the complexity of systems in which these objectives conflict.

**Keywords** – Digital Transformation, Shipbuilding, Decision Support System, Green Transition, Operations

Paper type - Practical Paper

# Identifying Future Avenues of Research for Platform Ecosystems: A Topic Modeling Analysis

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#### Abstract

In this study, we employ topic modeling to systematically explore the platform ecosystem literature and identify emerging trends and potential avenues for future research. By leveraging computational techniques, we uncover hidden thematic structures and patterns in text data, providing valuable insights into the current state of research and pointing towards promising directions for future investigation. Our analysis draws from a comprehensive dataset of academic articles and conference proceedings revealing key themes and trends in the platform ecosystem discourse. We examine the evolving research landscape and synthesize the key findings into coherent topic clusters, illustrating the breadth and depth of the platform ecosystem literature. Our analysis highlights the interdisciplinary nature of the field, encompassing various research domains such as business models, governance, value co-creation, entrepreneurship, among others. Additionally, we identify significant research gaps and unexplored areas that warrant further attention from scholars and practitioners alike. Our study provides a robust framework for categorizing and organizing the platform ecosystem literature, enabling researchers to better understand the underlying connections and relationships between different research streams. This facilitates more efficient knowledge accumulation and dissemination, contributing to the ongoing development and maturation of the field.

**Keywords** – Platform Ecosystems, Literature Forecasting, Topic Modeling.

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# Towards a Heritage Digital Guidelines in Planned Preventive Maintenance (PPM)

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#### Abstract

The requirements of building sustainability and the use of information technologies have led to the new vision of continuum building design that considers each stage of a building's life cycle, including the recovery and up-cycling of materials and building components according to the circular economy models. Continuum building design promotes planned preventive maintenance (PPM) and moves away from the current emergency acting on assets compromised by serious pathologies. It allows the optimisation of time and resources and the durability of interventions through sustainable and effective practices. The paper presents the preliminary results of a research activity aimed at identifying and validating guidelines for architectural heritage conservation through the development of an open knowledge platform to dissemination of the best practices currently available. The main goals are promoting preventive and planned maintenance as the main strategy of conservation of the building heritage and overcoming the fragmentation and scarcity of reliable information of scientific and technical literature for diagnostics, interventions and durability monitoring. The guidelines will cover all stages of the conservation process, from the preliminary phase of knowledge of the building. Moreover, type, extent and cause of degradation will be identified, including their resolution or at least their decrease according to the criterion of minimum intervention and maximum effectiveness with the lowest cost and the lowest environmental impact using sustainable and compatible products. The guidelines of the open digital platform will be identified through the study and critical analysis of interventions on monuments belonging to Italian historical heritage. The monuments chosen as case studies have been affected by various forms of degradation, in many cases triggered by the presence of rising damp. This latter one has been stopped using an already verified economical and sustainable device that uses charge neutralization technology CNT-Domodry®. The research provides for the initial activity of identification of digital standardization protocol, information cataloguing and metadata in order to achieve the final comparison of interventions and the consequent identification of best practices. The cataloguing rules of the ICCD and the digital platform for risk assessment of heritage of the ICR have been taken as a reference. Future developments of the research project will consist in the acquisition and critical processing of information on relevant number of case studies in order to have scientific evidence to proceed toward a Heritage Digital Guidelines in PPM.

**Keywords** – Building heritage, Conservation sustainability, Best practices, Cataloguing Information and Metadata, Open knowledge platform

# The Mediating Role of Information Integration Capability between Digital and Human Resources and Resilience Performance

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#### Abstract

In light of recent disruptive events, it is necessary to expand knowledge on how to improve the resilience of healthcare systems. Recent literature on resilience in healthcare considers intra- and inter-organizational collaboration and cooperation as the winning capability for achieving hospital resilience performance. According to the supply chain information integration literature, both collaboration and cooperation depend on integration factors such as knowledge and information sharing within the organizational functions and across the supply chain partners.

Adopting the perspective of resource-based view, a research model reporting resource-capabilities-resilience performance linkages is proposed. This study divides the information integration capabilities in two dimensions, the internal and the external and regarding resources, it considers the digital and human resources as allowing healthcare organizations to develop integration capabilities and obtain resilience performance. The paper intends to investigate the impact of digital and human resources on resilience performance and, moreover, the mediating role of supply chain information integration capability in the relationship between human and digital resources and resilience performance is also considered. This study intends to test this model conducting empirical research which will be based on survey data collected from Italian hospitals. Structural equation modelling methods will be used to test the proposed relationships. This study contributes to the supply chain information integration literature investigating the healthcare sector and provides managerial implications for hospital and healthcare supply chain managers to properly leverage resources and capabilities with the aim of obtaining resilience performance.

**Keywords** – Supply Chain Information Integration – Resilience – Healthcare – Digital resources – Human resources

Paper type - Practical Paper

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# The Hidden Knowledge. A hermeneutic Approach to Sustainable Development of Rock Hewn Settlements: The Case of "Tigray Region, Ethiopia" and "Sassi Matera, Italy"

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#### **Abstract**

The Ethiopian, especially the Tigrian Region, society had been using earth as a construction material since days which cannot be traced back. They chiselled and curved their important shelters out of Mountains. These spaces proved themselves to be of outstanding construction wisdom that they are habitable and sustainable today as they were years ago. Yet the new generation is neglecting these approaches and focusing on techniques from abroad.

Besides the context, Mother Nature had always been the perfect building construction material for ages in different parts of the world where our instinct human nature led us to. These Literature reviews and case studies, we are going to see; will help us to understand the importance of this ancient wisdom, to see if there are meanings and interpretations we missed on noticing. The basic comparison to be discussed in this paper will be the case of Sassi Matera, Italy and Tigray, Ethiopia. These locations are known to be one of the first human settlements in the world with same type of structures.

Building underground provides new perception on all aspects of sustainable architecture and urban design. It presents new opportunities not typically available in conventional above ground buildings to contribute to its above ground environment. Although we cannot suggest that underground space represents the optimal solution for buildings and sustainable developments, it can be considered as a suitable alternative when considering complex sites, programs and building functions. Ethiopia's treasures come in to picture when considering these complex sites. Ethiopia is blessed with these varieties and Tigray region specifically with its beautiful chain of mountains. And from these mountains our Ancestors curved out their living spaces and their worship areas, The Rock hewn Churches. This is an ancient knowledge which sustained its magnificence through the test of time.

This research will find similarities of sustainability among the two regions in their settlements, culture, Religion and 'Being'. Study 1 focused on grouping these construction techniques of both locations into different groups based on their typologies. After exploring some of the typologies from each regions, similar typologies from each were filtered out and further studied. Study 2 Focused on Literary sources of studies and Found that 'Being' to be the basic source of knowledge in Ancient construction techniques. Study 3 Examined the role of Religion and Culture in the regions for the development of 'Being' and its impacts on knowledge development as 'Being in the World'. Study 4 Emphasizes on the importance of Hermeneutic Phenomenology as a knowledge management strategy for sustainable development in the built environment in a globalised setting.

The Research findings will be useful in understanding knowledge as 'Being' and 'Being in the World' for sustainable developments. It also brings us back to translating existing knowledge of a new/modern yet sustainable, an old/ancient yet long-lasting approach to creating the new sustainable development intended in the country or even worldwide.

**Keywords** — Hermeneutics, Ancient Technologies, Sustainable Development, Knowledge Translation, Being-in-the-World

# Working Women to the Top (of the Glass Ceiling)

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#### Abstract

The gender unbalance in leading roles remains noticeable. Additionally, we have been verifying a stagnated evolution of women's ascension to top management positions in the last years, mitigating the rapid evolution of women's roles over the past century. The glass ceiling phenomenon is defined as an invisible barrier that prevents women from moving up the hierarchy ladder and achieving the highest positions in a company, which hinders women's career growth and workplace progression. This is based on biases that can cause barriers to women as they try to advance in their careers. The origin of such barriers has been studied through different perspectives in the literature, whereas a consensual assertion is found - lack of women representativeness depends on gender behavioural patterns perpetuated throughout women's lives. The seek for gender equality has had a positive evolution over the past century, but it still needs further progress. The promotion of gender diversity on corporative boards is a crucial step to achieving general gender equity. Thus, this research aims to analyse the current state of the art of the topic glass ceiling, determine its current conceptual structure, and describe the main barriers regarding the glass ceiling found in literature, as well as the gaps and future research guidelines. Considering the research objective for this study, a bibliometric and content analysis were chosen as the preferred methods. A content analysis of the glass ceiling phenomenon and its relationship with human resources management was conducted based on 915 documents collected from the Web of Science (WoS) Core Collection that ranged from the period 1992 to 2022. The bibliometric analysis was performed using R-Program. Results show that scientific research on the topic has been decreasing in the past two years and the United States stands out as the most productive country. Moreover, results from the content analysis and literature review can provide a broader understanding of the barriers women face nowadays to ascend to top positions, whose common ground rests on gender-biased expectations inside but also outside the organization. The role of predecessor CEOs and the characteristics of the organizational environment highly influence the glass ceiling. We sum up the state-of-the-art provided by the analyzed literature to support and encourage glass ceiling research. Also, based on the bibliometric and content analysis the authors were able to point out gaps and guidelines for future research.

Keywords – Glass Ceiling, Gender gap, Leadership, Diversity Management, Cognitive Bias

# Learning Spaces based on Advanced Technologies: Towards a Management and Assessment Tool

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#### **Abstract**

The increasingly complex and uncertain socio-economic scenario and the new challenges and opportunities of the digital revolution are forcing organizations to anticipate changes and boost more and more their innovation processes in order to maintain their competitive advantage. In such scenario, are emerging new spaces of action and interactions based on tangible and intangible elements that influence learning and knowledge processes and dynamics. These innovative learning spaces include a combination of elements enhancing the learning process, with a strong technological component. In such a context, how to manage and assess the effectiveness of learning spaces, especially based on advanced technologies, has become a key topic. Despite that, to date, how to assess the effectiveness of learning spaces remains under-investigated.

This study proposes a conceptual framework that highlights the relevant variables and dimensions to assess in a learning space. For this purpose, the study adopts a systematic literature review approach. The theoretical findings suggest specific variables and dimensions to consider in assessing learning spaces, especially the ones supported by advanced digital technologies. Moreover, the paper provides managers with a conceptual framework supporting the decision-making process in managing and assessing LS.

**Keywords** – Learning spaces, Advanced technologies, Knowledge management, assessment, conceptual framework.

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# **Exploring Learning Spaces for Innovation Capacity: A Multiple Case Study**

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#### **Abstract**

Innovation capacity is considered a distinctive driver, for organizations, to face the challenges of the current, increasingly complex, scenario. In such perspective, several researchers emphasized the importance of learning orientation, knowledge sharing, and learning environment as key determinants of innovation capacity. In this vein, developing learning spaces and learning environment fostering knowledge and learning dynamics, become a key objective of public and private organizations. In this prospect, this study aims to provide a comprehensive and holistic view of the distinguishing dimensions of a learning spaces, enriching the findings emerged from the literature review that, through the lens of a conceptual descriptive framework, identify dimensions and features that characterize effective learning spaces supporting the development of innovative capacity. The research is carried out through a multiple case study, involving learning spaces designed and developed in Finland. The findings provide an integrative picture of a descriptive conceptual framework that supports the identification of the relevant dimensions to manage and evaluate. Specifically, in terms of theoretical implications, it aims to guarantee and enhance the effectiveness of a learning space supporting the development of more effective and impactful guidelines for management and decision-making. Then, in terms of managerial and policy implications, the analysis of the conceptual model developed and discussed can be helpful to different actors aimed at developing effective learning spaces to foster innovation capacity of public and private organizations.

**Keywords** – Learning space, technology, knowledge-management, innovation capacity.

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# Starting from the Past Knowledge to Manage a Sustainable Present in a Continuum Design: A Best Practice from the City of Bacoli in the Phlegrean Fields

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#### **Abstract**

The cultural landscape of Phlegrean Fields is famous for the variety and value of territory -volcanic and geo-morphological nature, archaeological and historical heritage, naturalistic and high biodiversity, rural areas- that forms the articulation of mutual relations as unique landscape of exceptional value and identity. This landscape has been in continuous evolution over the millennia for different reasons: 1) changes produced by volcanic activity and anthropic impact that it generates; 2) historical processes of settlement, from the Greek and Roman until the periods of depopulation after the fall of the Roman Empire, the reclamation of ninetieth and the industrial settlements of the twentieth century and finally the post II World War urban expansions and deindustrialization; 3) the socio-economic changes interacting with settlement. In this context, the identity of the city of Bacoli territory has acquired a progressive complexity and continuity, despite the current presence of critical elements, its matrix based on the permanence and interweaving of environmental and cultural values remains very strong. Starting from these strengths, the local government works on the KM by minimal sustainable projects that represent important actions to increase the community wellness. Also for the abandoned area of an ex-military site is proposed a green regeneration and reuse.

Keywords - Cultural Landscape, Sustainability, Knowledge management, Best practice

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# Leading Tourism Businesses through Digital Transformation

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#### Abstract

Technological advancements are progressively changing tourism value chains. Tourism value chains are transforming into global value ecosystems and for tourism businesses is becoming essential to evolve their business model to ensure a smart, sustainable and inclusive tourism development and the adoption of innovation strategies which place the user, the citizen, or the tourist at the centre of the destination processes and value co-creation. This means not only adopting digital technologies to improve products and services but also changing and enhancing organisational culture, competencies, structure, leadership, operating model to be more agile, adaptable and innovative. Looking at management literature on digital transformation (DT) and DT in tourism sector, it emerges that the role and skills of leaders in guiding and inspiring their organisations to adopt and leverage digital technologies for creating new business models and value propositions, remain under investigated. By drawing on extensive literature on DT, the study briefly examines some key management issues regarding DT in tourism and discusses leadership traits that help organizations successfully navigate their transformation towards the absorption and exploitation of digital technological knowledge. Then, the research suggests some directions for future research.

Keywords – Digital transformation, management, leadership, tourism

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# **New Scenarios of Integration between Building Circular Design and Heritage Materials Valorisation**

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#### Abstract

Durability, adaptability, and reduction and valorization of waste are the main goal of the European guidelines on circular design of building. These objectives impose a real paradigm shift in design from the current on-ff logic to a continuum building design that includes preventive and planned maintenance, deconstruction design, selective demolition and up-cycling of materials and building components. In circular design, building is conceived as an organic whole of functional parts, which in turn can be broken down into construction materials. The integrated methodology of BIM and the Material Passport (BIM-MP) is the emerging digital tool both in the perspective of circular design and in the context of the sustainability of heritage conservation interventions.

The digitalization of information with the support of BIM-MP tool enables the creation a digital passport for the construction and for single materials. It allows the construction modelling at different scales of detail, from individual components down to materials. The digital passport reports as generalities the initial performance characteristics and updates them during the whole life cycle by making "visas" that indicate transformations and variations of functions and performances. It gives an identity to each component of the construction, which at the end of its life becomes a repository of materials, opening urban mining scenarios that safeguard natural resources and reduce the amount of demolition waste. The provision of a compulsory Digital Product Passport in the European Union for building materials according to the recent Eco-design for Sustainable Products Regulation will foster the development and adoption of the BIM-MP methodology.

The recent European regulatory context and the new approach to building continuum design outline new scenarios of integration between building heritage conservation and new construction with the emergence of a new transversal ethic of sustainability based on knowledge of materials and their circular use in construction. Circular design and building heritage conservation require the same methodological approach with the involvement of different disciplinary fields for the acquisition of a range of information at different scales of detail and different perspectives of analysis. In both cases, the deeper the knowledge of the construction and its components, the greater the possibility of prolonging its life and regenerating its value. Digital tools allow sharing skills and expertise, given the possibility of effectively managing and bringing together roles and professional figures that in the past worked in isolation, with little collaboration.

**Keywords** – Continuum building design 1, Sustainable construction 2, Building heritage conservation 3, BIM-MP digital tools 4, Heritage Materials Passport 5.

# How Digital Innovation became Structural: An Explanatory Case Study in the Luxury Industry

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#### Abstract

Recently, the positive role of digitalization capabilities in supporting organizational resilience has been stated, but there is still little empirical research focusing on how this relationship happens in practice.

This study aims to explore how digitalization capabilities can support organizational resilience through a qualitative approach. A single explanatory case study has been conducted two years after the COVID-19 pandemic in a big international company operating in the jewellery & fashion industry to identify the key practices adopted and the main digitalization capabilities developed during the emergency period.

Interesting solutions, which helped the company in facing the emergency and seizing new opportunities through digitalization, emerged from the results and include, but are not limited to: the usage of AI and automation in operations management and the introduction of a Digital Innovation Department, which significantly redesigned the organizational structure and the strategic direction.

Keywords - Digital transformation, Organizational resilience, Digitalization capabilities

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## PM Role on Sustainability Objectives

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#### Abstract

Very often, sustainability is rooted in the genes of companies, establishing in-house programmes and projects that aim to achieve a level of sustainability over time that is integrated into corporate strategies.

The concept of sustainability initially originated in relation to the environment but recently it has been also implemented in other areas such as social impact and good governance. These three macro aspects are recognised by the acronym E.S.G - Environmental, Social, Governance - and are also indicators that allow to analyse the activity of a company, not only on financial aspects, but also from an environmental, social, and good governance perspective.

Companies will have to move from a model in which they simply consume materials, energy, time, and human resources skills to one in which they instead manage a responsible relationship with materials, energy, and people values. It will be necessary to go through a very important transition to prepare their organisation, their production infrastructure, their people, and their governance to support this new model.

The role of the PM in these transitions is of fundamental and absolute importance.

The research will focus on the following topics:

- Identification.
- PM & Sustainability.
- Environmental.
- Social.
- Governance.

The purpose of the entire research is to analyse the current situation and to assess the maturity of project managers and organisations with regards to the topic of sustainability, measuring in particular ESG (Environmental, Social and Governance) aspects and establishing whether these criteria are used within the project management context.

With this data and information, it will be possible to identify which components have the greatest potential for improvement, and it will be possible to make project managers and organisations aware of project sustainability aspects.

The Department of Innovative Technologies (DTI) of the University of Applied Sciences and Arts of Southern Switzerland (SUPSI), as a training and research institute, will therefore be able, on one hand, to define courses or study programmes to fill these gaps; on the other hand, to continue to disseminate useful information and content on the subject and to raise awareness in organisations of the importance of sustainability in project management.

Keywords - sustainability, project manager, role, ESG, sustainability project

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# Resources Efficiency through Integrated Biophysical Assessment and Processes Optimization in a Knowledge Management Perspective: A Chrome and Vegetable Tanning Processes Evaluation

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#### Abstract

The fashion industrial sector accounted for about 25% of the total industrial carbon emissions in 2019. Italian tanneries, whose 66% production is destinated to this sector, are committed to improving performance and sustainability and already present a reduction in water, energy, and chemical consumption by substituting human and ecosystems hazardous compounds with natural tanning agents. Therefore, this study has the goals of (i) assessing a site-specific tannery in Southern Italy tannery using Life Cycle Assessment (LCA), by scrutinize each processes of two tanning processes - chrome (CrT) and vegetable (VgT), (ii) to identify the significant hotspots throughout all impact categories and (iii) to evaluate circular improvement scenarios. Chromium compounds are the most significant hotspot of the chrome tanning option, while, various chemicals employed during the preparation of the hides were identified as hotspots for the vegetable tanning option. Furthermore, distinct policy should support investments towards resource efficiency progresses in all production scales. Finally, only a multi-perspective integrated evaluation can validate the feasibility and sustainability of the suggested solutions identified in this study to support decision-making.

**Keywords** – Life Cycle Assessment (LCA); Environmental Assessment; Leather Production; Tannery; Circularity.

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# Quantum Computing Impacts and Technological Integration Improving Business Process Modelling and Production Protocols in Industry 5.0 Scenarios

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#### Abstract

The paper discusses the impacts of Quantum Computer (QC) technology in Industry 5.0 scenarios by focusing attention on application fields such as production management in manufacturing and business modelling. The analysed literature allows for comprehending possible QC implementations and integration in technological architectures. Specifically, the work highlights QC impacts on organization, production and marketing and defines QC perspectives, advantages and possible limitations. The study also addressed the design of workflow modelling production protocols in Industry 5.0 environments implementing QC processes.

The analysis of the impacts, together with the technological aspects and the QC process management, are the main topics of the proposed paper. The paper is structured as follows. In section 1, an outline of the main QC applications and potential impacts is provided. Section 2 proposes a framework to explain the role of QC in the technological integration of Industry 5.0 production systems. Section 3 introduces a Business Process Modelling and Notation (BPMN) workflow embedding QC processes and oriented on standardising industrial production protocols. Finally, the conclusion summarizes QC advantages, perspectives and limits matching with the performed analysis.

Keywords - Quantum Computing, Business Models, Industry 5.0, BPMN

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# Human Resources Wellbeing in Innovative Start-ups: Preliminary Results from a Systematic Review of the Literature

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#### **Abstract**

Start-ups are becoming increasingly important in driving economic growth, job creation, and wealth generation. Their success depends not only on innovative products and services but also on the ability of attracting, retaining, and developing talented employees. The enthusiasm, involvement, and effort of founders and early employees greatly impact the success of start-ups. Unfortunately, the high degree of uncertainty, the intense work and multiple roles of employees may lead to several issues like burnout risk and difficulty balancing work and private life.

Although existing research has produced several contributions on , the quality of working life for start-up employees and entrepreneurs, the knowledge generated in the field appears fragmented and the findings are sometimes ambiguous. The reason for this fragmentation can be traced back to the lack of reference frameworks that clarify the most used concepts,

thus providing a shared language.

Therefore, human resource wellbeing is a research theme that deserve to be further investigated. This study aims to provide a first attempt to consolidate the state-of-art of scholarly research in human resources wellbeing in innovative startups.. To this aim, we carried out a systematic literature review by analyzing a set of 41 papers in order to find what are the relevant topics in the investigated research domain. This activity was performed using MySLR software. In particular, we characterized the three relevant topics in the investigated research domain, namely job satisfaction, wages and career development opportunities; work-life balance and psychological wellbeing; women's condition and gender related issues.

Overall, the value of research is to provide a framework for analyzing the phenomenon of human resources wellbeing in innovative startups that can be used as a reference model for envisaging new research directions both entrepreneurship, human resources and innovation management fields of study.

**Keywords** – Start-ups, wellbeing, human resources, literature review

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# **Exploring Urban Resilience: An Analysis of Threats, Goals, and Stakeholder Engagement Practices**

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#### Abstract

In the last decades, a broad scientific debate - which involves the fields of engineering, psychology and ecology among the others - has been developed on the concept of resilience. The broadness of the debate highlights the need to define new models for the management and development of cities and territories in a holistic perspective. Many models and tools developed to improve the resilience of cities converge in recognizing the fundamental role of stakeholder engagement in developing more resilient communities. However, initiatives launched by local, regional, national, and international governments and organizations often fail to involve urban stakeholders, who are the first to suffer the risks of living in fragile systems. In the study, by using a systematic literature analysis protocol, the authors explore the domain of urban resilience initiatives, with a particular focus on resilience dimensions and goals, addressed threats, involved stakeholders, and employed stakeholder engagement practices. The content analysis conducted on 57 initiatives has highlighted the centrality of water management as one of the main objectives in urban resilience initiatives. The analysis showed that the initiatives are mainly designed to manage chronic stresses. Additionally, the results highlight that local governments, citizens and public and private companies constitute the main involved stakeholders, whereas workshops and interviews represent the most adopted stakeholder engagement practices.

From a theoretical point of view, the research contributes to enriching the state of the art on the concept of resilience by collecting knowledge about real-world initiatives. Furthermore, the paper presents some policy implications: it contributes to creating structured knowledge about urban resilience initiatives with a focus on stakeholder engagement so as to inspire and support policymakers interested in increasing stakeholder participation.

Keywords - Resilience, Urban Resilience, City, Stakeholder, Stakeholder Engagement

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# Overcoming Organizational Tensions in a Knowledge Way: The Experience of Smart Working in the Public Sector. A New way of Conceiving and Using Technology

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#### Abstract

The pandemic emergency due to Covid-19 represented a relevant exogenous shock that profoundly changed people's work activities and social lives. The pandemic emergency made it possible to take a new and different view of the possibility of replacing traditional forms of work with more innovative ways of working linked to technological tools (Briggs et al., 2021; Bolisani et al., 2020; Foss, 2020). This has also been made possible by the significant digital transformations of the last decades.

Indeed, the role played by new technologies has been crucial during the pandemic, accelerating the ongoing trend towards the developed forms of work that make remote working easier: one of these is smart working (Todisco et al., 2022; Yarberry & Sims, 2021; Rainero & Modarelli, 2020).

Smart working, however, differs from traditional ways of working not only in the way it is carried out, which is not constrained by defined time and space limits in the performance of the tasks assigned to employees, but also in the different approach by which the organization is designed, linked to projects and objectives, and on how human resources are managed (Bednar & Welch, 2020; Torre & Sarti, 2019; Ellerton, 2015).

Several authors have identified three key dimensions of analysis for the diffusion and implementation of smart working: (1) the technological factor; (2) the redesign of physical spaces (3) a new vision of Human Resources in the organization. In addition to the three dimensions identified, other aspects must be considered to understand whether its deployment in the organization is taking place effectively. The first factor identified is the employee acceptance of this change in working methods and, therefore, the shift towards a more fluid and goal-oriented organization (Rainero & Modarelli, 2021). For example, the spread of smart working during the pandemic represented an essential change for the public sector, as well as an opportunity to implement those reform paths that have redesigned public administration in recent decades to make it more effective and efficient (Pollitt & Bouckaert, 2011; Tomo, 2018).

The other factor identified is employees' willingness to accept new technologies (Bunker, 2020; Jämsen et al., 2022) and the effective one of digital platforms (Agostino et al., 2021). As mentioned above, smart working represents a significant opportunity for change in public administration. While on the one hand, it represents an opportunity to guarantee the delivery of services to citizens (Edelmann et al., 2021), on the other hand, it could be critical in several aspects, opening windows of reflection on the impacts this way of remote working could demonstrate affecting employees' lives. Having to deal with such a disruptive change and the impact of technology on employees' lives has challenged certain aspects, such as planning, assigning tasks, and holding meetings that allow people to share and create organizational knowledge. These aspects of smart working represent a significant challenge for public managers, whose main task is to finalize the creation and management of knowledge.

# The Power of Words? Persuasive Language Style and Performance in Equity Crowdfunding

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### **Abstract**

This study takes the British equity crowdfunding platform Crowdcube as the research object, and explores the impact of the persuasive language style on the final performance of equity crowdfunding. This study uses the Linguistic Inquiry and Word Count Dictionary (LIWC) to carry out classification and frequency of vocabulary in the text. The results show that emotional language style has a significant positive impact on equity crowdfunding performance, which demonstrates that using positive emotions of entrepreneurs can most arouse investors' empathy and then invest. Besides, social discussion provides positive signals for investors and is positively associated with equity crowdfunding performance. However, there is no significant impact on emotional language style on the crowdfunding performance. Finally, the study suggests writing styles of project content for entrepreneurs who raise funds through equity crowdfunding to reduce information asymmetry with investors, and at the same time use rhetorical techniques to improve their persuasive language and improve their fundraising performance. For example, it is suggested that entrepreneurs should make more use of emotional rhetoric when writing ideas, which can improve empathy and reduce psychological distance, so that investors can be more sure of the value of equity crowdfunding projects and attract more investment.

Keywords - Equity Crowdfunding, Information Asymmetry, Persuasive Language style

**Paper type** – Academic Research Paper

# Assessment of Knowledge, Attitude and Practice of University Students towards Sustainable Development Goals (SDGS) in Tanzania

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### Abstract

This paper reports the outcomes of Tanzanian undergraduates and postgraduates' knowledge, attitude and practice towards Sustainable Development Goals (SDGs). University students from eight universities in Tanzania participated in the study. A set of survey questionnaires based on knowledge, attitude, and practice (KAP) was shared online and 269 responses were obtained to analyze the awareness level (95% confidence level with  $\pm 5\%$  margin of error). Data analysis was performed SPSS Statistics version 20. Descriptive statistics showed that the respondents have high knowledge with a positive attitude towards SDGs. Spearman's rho coefficient correlation was applied to determine the relationships between students' levels on knowledge with practice and attitude with practice. The results revealed no negative correlation between the knowledge and practice towards SDGs (r = 0.021, N = 269, p = 0.283). furthermore, there is no negligible correlation between the attitude and practice towards SDGs (r = 0.091, n = 269, p = 0.000).

Keywords - Attitude, Knowledge, Practice, SDGs, University

Nature of proposed paper - Academic Research Paper

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# Market Development Strategies and Growth Dynamics for Health Care Business Innovation Ecosystem

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### Abstract

The COVID-19 outbreak has exacerbated the surge in demand in the global health and nutrition market, and people are paying more attention to nutrition and functional health products. This study explores the analysis of new marketing strategies in the health nutrition market in the post-epidemic period from the perspective of systems thinking. A real word case study is presented for analysis, modelling and analysing a new marketing promotion using a simulation-based Strategic Decision Support System (SSDSS), and empirical data. In terms of scholarly contribution, the results of this study are a general validation of SSDSS that can systematically analyze the impact of strategic business innovations on healthcare promotion and business performance improvement through computer simulations and scenario developments, To identify the different stages of adopters and effective approaches, in terms of practical contributions, this study presents the dynamic background of new business development and describes the link between innovation activities and markets. Enterprises can refer to the framework and strategic framework proposed in this study to achieve their established goals and create market value.

**Keywords** – Business model; Strategy; Decision Support; Business Growth; Systems thinking; Sustainable system development

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### Strategic Supply Chain Management on Customer Loyalty-Case Study for Medical and Health Care Business

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### **Abstract**

The global supply chain crisis caused by the COVID-19 epidemic has made previous enterprises vigorously pursue the concept of global procurement and face major challenges. In the past, in order to find suppliers with good quality and low prices, enterprises had to bear the long transportation distance of goods. Now, due to the impact of international shipping congestion, the import schedule of freight is delayed, which not only wastes resources but also affects long-chain logistics. Environmental groups continue to attack. On the other hand, the pressure we are facing now is not only logistics delays and rising freight costs, but also the complexity and risks of logistics. The storm brought by the new crown epidemic is the biggest crisis in the history of shipping and logistics. It highlights the problems of enterprises in global procurement and supply chain risk management. In addition, because products cannot be supplied on time and in sufficient quantities, customers continue to question delivery dates and quality, which is disintegrating the cooperative and coordinated relationships established by various stakeholders over the years, and customer relationships are also facing challenges. (1) Growth in revenue performance Not as expected (2) Supply chain problems lead to a shortage of raw materials (3) Poor management of logistics delays affects product and service quality (4) Loss of loyal customers is more likely to damage the brand image due to poor satisfaction, resulting in lower revenue than expected growth.

Strategic plan: (1) Expand customer base, (2) Optimize logistics system, (3) Continue product innovation capabilities. The purpose of enterprise interactive integration system dynamics is to present the actual operating system structure in the specific model through the process of system dynamics model construction and to disassemble the structure of complex problems and their impact through simulation to find a solution to system Questions as policy guidelines. By using System Dynamics modelling to help examine the complex causal relationship in various strategies, replace long chains with short chains, increase the proportion of localized production, and adopt regionalization in the procurement of raw materials, production, technical cooperation, sales and inventory management, to shorten the lead time and reduce the carbon footprint, and promote the localization of the supply chain. Reducing carbon emissions in long-chain supply chains can improve supply flexibility and shorten new product development time, which is an important part of corporate social responsibility. The improvement of analytical methods for verifying management policies and the quality of verifying decision-making will enable the sustainable system development of corporate and organizations.

**Keywords** – Customer Relationship Management, Customer Loyalty, Business Model, Supply Chain Management.

# Managing Knowledge for Sustainable City System-Cultural Ecosystem Service Innovation and Social Impacts in Taiwan

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### Abstract

University social responsibility (USR) and practical education initiatives are prevailing among world leading universities, joint research and practices with international cities and regional developments are bridging effective innovation ecosystems with government-academia-industry collaborations. An international iiLABs alliance including MIT-affiliated System Dynamics Society-Taiwan Chapter, National Chengchi University (NCCU), Taipei City (The Capital of Taiwan), and Matera City (The 2019 European Capital of Culture) was initiated to implement education for sustainable development (ESD) and sustainable system development (SSD) programs for fulfilling livable city, cultural innovations, and SDGs.

With a series of SSD projects led by NCCU and Taipei City Government, a multi-year city-based ESD program entitled: "Open the Cultural Ecosystem Service Innovation and Social Impacts—The Livable City and Eco-Museum in Taipei" has been conducted for promoting sustainable development through culture, arts, and interactive communication with global citizens.

The program promotes the concept of using open innovation with a city-based cultural ecosystem service that helps an international city to improve the efficiency and effectiveness of building a livable city and cultural development for social welfare. The program promotes ESD and SSD with the principles of Cultural Ecosystem Service Innovation (CESI) which transforms Taipei City as a learning city that offers diverse public supported learning fields for citizens and participants from worldwide. The operations of green infrastructure for sustainability and eco-museum cultural reforms in Taipei City have been benchmarked and analyzed with empirical data over time. With the top-down policy, strategy map of project execution, and bottom-up public participation, the program demonstrates the benefits of CESI framework aligned with ESD to support policy design, strategic development, public participation, and global value creation for sustainable system development. Through the annual review mechanism, the implications of management were learned to promote multiple positive feedbacks with the government, enterprises, and the general public and jointly strive to support the development of a sustainable city. With the successful experiences of ESD and SSD programs, there are more cities aligned with the program for developing learning cities such as New Taipei City and Taoyuan City.

**Keywords** – sustainable system development, education for sustainable development, sustainable city, innovation, USR

Nature of proposed paper - Research Paper

# Towards Innovations in National Education: An Exemplar of Artistic Roller Skating in Taiwan

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### Abstract

National educational innovation models have been a significant topic of discussion among educators and policymakers worldwide. The educational landscape is changing rapidly, and many countries are exploring new ways to improve their educational systems to better serve their students. One area of interest is the integration of sports into the education system, and artistic roller skating is a prime example.

Artistic roller skating is a highly challenging and innovative sport that has many positive effects on students' physical and mental health, self-confidence, creativity, and teamwork skills. This study aims to investigate the potential impact of artistic roller skating on national educational innovation models. The study will conduct an in-depth analysis of the history, techniques, and characteristics of artistic roller skating, as well as explore how it can be integrated into national education systems.

The integration of artistic roller skating in national education systems will be analysed to cultivate students' interdisciplinary abilities. The study will investigate how to combine artistic roller skating with traditional subjects within the education system to provide an integrated learning experience that enhances students' problem-solving, critical thinking, and creativity. The role and responsibilities of teachers in this process will be analysed, exploring how to enhance teachers' teaching capabilities and educational innovation awareness regarding emerging sports.

Furthermore, the study will compare the strategies and outcomes of different countries in promoting artistic roller skating to uncover the insights it provides for educational innovation. The study aims to analyse the impact of artistic roller skating on students' development and how it contributes to broadening educational perspectives. It also aims to uncover the profound influence of sports on youth development and infuse more innovative vitality into national education systems.

Finally, the study will summarize the application and impact of artistic roller skating in national educational innovation models, providing valuable references and inspiration for future educational reforms. The study's findings will contribute to developing a more comprehensive understanding of national educational innovation models and provide insights into how sports can be incorporated into education to enhance students' learning experiences.

The study's research methodology will combine qualitative and quantitative methods, including interviews, observations, and documents, as well as surveys and statistical analysis. The study's data collection will involve sampling different age groups, genders, education levels, and professional backgrounds, as well as different countries' case studies.

The study's conclusion and recommendations will provide practical recommendations for implementing artistic roller skating in national education systems. The recommendations will include curriculum design and teaching methods, teacher training and support, and assessment and evaluation. The study will also suggest future research directions, such as further exploring the effectiveness of artistic roller skating in different age groups and the implementation of interdisciplinary approaches in education.

In conclusion, this study will contribute to the growing body of knowledge on national educational innovation models and the integration of sports into education. Artistic roller skating provides a unique opportunity to enhance students' learning experiences and foster their interdisciplinary abilities. The study's findings will provide valuable insights for policymakers, educators, and researchers looking to improve their education systems and provide a more holistic learning experience for students.

# Towards K-12 Education Innovation with Systems Thinking and Sustainable System Development in Taiwan

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### Abstract

As the society becomes increasingly complex and globalized, the importance of systems thinking and education for sustainable development has been recognized by United Nations and the education systems in various countries. Many businesses, organizations, and educational institutions internationally have begun to utilize systems thinking to solve complex problems. Systems thinking can help students gain a deeper understanding and mastery of the knowledge and skills they are learning. When learning, students often see knowledge and skills as independent units, lacking a holistic perspective and understanding. However, systems thinking can help students integrate various types of knowledge and skills, forming a systemic understanding that allows them to understand the nature and value of a subject more deeply.

In Taiwan's education policy, the educational value and application of systems thinking have already begun to receive attention. The Ministry of Education strengthened the concept of interdisciplinary integration and subject integration when promoting the "12-year Basic Education Curriculum Guidelines" in 2014, with systems thinking being regarded as an important teaching method to be applied in various subject areas.

In addition, the Ministry of Education is also promoting the "Innovative Education Action Plan," encouraging schools to cultivate students' innovative thinking and problem-solving abilities through systems thinking. In various levels of schools, more and more teachers are incorporating systems thinking and education for sustainable development with project-based learning into their curricula, using various teaching methods and activities to allow students to experience the process and value of systems thinking, and learn how to deal with complex problems. Therefore, it can be said that Taiwan's education policy has already begun to emphasize the teaching application and value of systems thinking and is gradually promoting and applying it in practice that helps the understanding and developments of sustainable systems for their living environments.

This article explores the current situation of utilizing systems thinking and sustainable system development principles in K-12 education in Taiwan, as well as the differences compared to international practices, and provide practical recommendations for areas that need further developments.

**Keywords** – Education, Innovation, Systems Thinking, Sustainable System Development, Early Childhood Education

Nature of proposed paper - Research Paper

# Managing Knowledge for Emerging Markets: The Strategic Configuration Perspective

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### Abstract

Managing knowledge applied in emerging markets is essentially different from those proposed in developed economies. By integrating western weapons and eastern mindsets, this study thus refines a configurative strategic framework for doing business successfully in emerging markets. Many scholars acknowledge that China is undergoing a significant transformation towards a more market-driven economy characterized by rapidly growing business opportunities and increased competition (Story, Boso, & Cadogan, 2015; Zhang, O'Kane, & Chen, 2020; Zheng & Mai, 2013). Since 1978, China has been transformed by incremental economic reforms and is essentially focused on facilitating knowledge creation and knowledge spillover mechanisms in the transition from that of a centrally planned economy to a hybrid free market centrally planned economy (Ramesh, 2020).

Among the world's top 20 countries, the total amount of the United States and China was USD 39.7 trillion, accounting for 51.83% of the total USD 76.6 trillion (World Bank, 2022). Especially in the past 40 years of reform and opening up, China's economy has developed rapidly and risen to become the second-largest economy in the world (Li, Rim, & An, 2022; Wu & Zhao, 2022). This shows that China represents a strong economy and has appealed to some Western researchers, due to its rising leadership in science and technology and the second-highest level of spending on research and development (Basu et al., 2018; Střelcová, Cai, & Shen, 2022).

On the other hand, China's urbanization—a driver of much of China's increased global competitiveness—is expected to rise from around 50% today to near two-thirds by 2030 (Song, Cai, Chahine, & Li, 2021). It indicated that China had a huge domestic market and has emerged as a leading aspirant market that is becoming a world technology leader to drive the economy (Bruton et al., 2021; Wang, Chen, & Scheela, 2022; Zhang, Zhang, Brown, & Yin, 2021). Also, the fast-paced economy represents the market's perception from the perspectives of economic globalization, financial liberalization, and transaction digitization. China is advancing its strategic transformation. In the face of changes in the international financial environment at different stages, Chinese enterprises can maximize their business growth performance by adopting different competitive strategies and portfolios in China's domestic market (Kowalski, 2021).

**Keywords** – Competitive strategy, Portfolio strategy, Hybrid strategies, Emerging market, Strategic configuration

## The Effectiveness of the Competency Training Program for Public Health Nurses in Taiwan

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### **Abstract**

Community healthcare needs and demands have become more complex as the global healthcare environment changes due to aging populations, the prevalence of chronic disease, and the spread of the COVID-19 pandemic. It is of great significance to provide training programs that keep pace with the times to improve the professional competency of public health nurses, thereby enhancing their professional level and improving the quality of community health services. The purpose of this study was to evaluate the effectiveness of the competency training program for public health nurses in Taiwan. The specific aims of the study were (1) to understand the perceived competency levels of public health nurses in Taiwan; (2) to evaluate the effective outcomes of training program among public health nurses in Taiwan.

The study used a quantitative research method with one-group pre and post-test design. The training program consisted of two major curriculum areas (core competency and interdisciplinary competency) and 8 content-oriented courses, lasting 2 days. Through convenience sampling, a total of 110 nursing staffs were recruited to participate in this program. The evaluation of outcomes for this training program is based on the Kirkpatrick model. The assessed instruments consisted of two self-reported questionnaires: perceived competence and practical application ability. The questionnaire was scored using a five-point Likert scale, ranging from 100% (5 points) to 0% (1 point). The higher the score, the higher perceived competence and perceived practical application ability. Data analysis was performed using descriptive statistics and paired-samples t-test, with p-values set at less than 0.05.

The total of 96 staffs participated in the training program. The number of questionnaires received was 92, excluding 14 questionnaires with incomplete answers, the final number of valid questionnaires was 78 (N=78). Most of the participants were female nurses with a college degree and less than 3 years of experience. Perceived competence in this study refers to the degree to which nurses perceive core professional competencies in the workplace. The scale of perceived competence had a total of 8 items. For participants' perceptual competency, post-test score (Mean=62.10, SD=15.94) was higher than pre-test score (Mean=56.04, SD=18.25), reaching statistically significant differences by t-test (t=3.91, p < .05). Practical application ability refers to how nursing staffs apply the content of the training course to the workplace. The scale of practical application ability had 7 items. In terms of the practical application ability of the participants, the post-test score (Mean=60.44, SD=17.73) was higher than the pre-test score (Mean=51.01, SD=18.90), and there was a statistically significant difference in the t test (t=5.29, p < .001).

The results of this study show that after participating in this training program, the participants' awareness of core competence and practical application ability has been significantly improved. In other words, this training course is helpful to the improvement of the core competence and practical application ability of the participating nurses. In summary, the results of this study can provide a reference for planning the continuous advancement of public health nurse training programs to enhance their professional level and improve the quality of community health services.

**Keywords** – Perceived competency, Perceived practical application ability, Training program, Public health nurses

### Methodological Quality of Research on Mindfulness-Based Stress Reduction among Family Caregivers of Dementia

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### **Abstract**

Mindfulness-based stress reduction means that a person uses mindfulness practices to reduce their stress and manage difficult emotions. Research has shown that intervention with a mindfulness-based stress reduction program can improve anxiety and stress in dementia family caregivers (Gonçalves et al., 2020; Jain et al., 2018). However, research methodological assessments of the effectiveness of mindfulness-based stress reduction in reducing anxiety in family caregivers of dementia remain scarce. The aim of this presentation is to assess the methodological quality of research on mindfulness-based stress reduction interventions for family caregivers of people with dementia. The significance of this presentation is to provide evidence and recommendations for researchers and healthcare professionals conducting research on family caregivers of dementia.

Two strategies were applied in this study, including literature review and quality assessment of study methodology using a modified Jadad scale. The first strategy was a systematic literature review through PubMed, Cochrane Library, MEDLINE, Huayi Online Library, and CEPS databases with 4 keywords: dementia caregivers, dementia families, mindfulness-based stress reduction, and psychological stress. Inclusion criteria for this literature review included studies designed as randomized clinical trials (RCTs) involving family caregivers of people with dementia, and interventions including mindfulness-based stress reduction. The second strategy was to use the modified Jadad scale to assess the quality of research methods, which includes eight items: describe randomization, whether randomization is appropriate, describe double blinding, whether blinding is appropriate, describe the number and reasons of withdrawal, and describe inclusion and exclusion criteria, describing adverse events and statistical methods (Oremus et al., 2001). Higher scores indicate better quality of research methodology.

Seventeen articles were retrieved and reviewed by checking the inclusion criteria. After deleting irrelevant and repetitive articles, a total of four articles were rigorously evaluated for this research method. Three studies were single-blind and one was open-blind. Three studies did not specify whether the study intervention had side effects. Three studies reported significant effects of mindfulness interventions on stress and depression among family caregivers. According to the modified Jadad scale, the methodological quality scores of these studies ranged from 5.0 to 6.5, with a mean of 5.625 (scale scores range from 0 to 8, with higher scores indicating better quality). All studies in this review were assessed as having moderate methodological quality for mindfulness-based stress reduction in dementia family caregivers.

The presentation of the study describes relevant criteria of the methodological quality of research on mindfulness-based stress reduction interventions for family caregivers of dementia. The information in this presentation serves as a reference for research experts to plan effective interventions to reduce stress and anxiety in dementia family caregivers.

# A Study on Consumers' Behavioral Intention of Using Green Tableware: Taking Penghu Area as an Example

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### Abstract

Nowadays, the awareness of environmental protection is on the rise, and various stores have also responded by offering discounts for carrying environmentally friendly tableware, such as common supermarkets. Beverage stores have discounts for bringing their own environmentally friendly cups, however, people often eat out, sometimes people forget to bring them home. The large amount of disposable chopsticks, spoons and straws accumulated in one month made people shocked. It turns out that these are the garbage people have accumulated and created for the earth's environment. According to statistics after Taiwan's government implemented the policy of restricting the use of disposable tableware, the waste volume of disposable tableware has been reduced by as much as 86.87% every year, and a total of 22,907 tons of disposable tableware has been reduced. The results are amazing. Whether people use environmentally friendly tableware in response to policies and increased awareness of environmental protection is also one of the motivations for our research.

According to the government's current plan, green energy and tourism will be the two major visions for Penghu's future development. It may even become Taiwan's first "low-carbon island" with 100% green energy power generation and spare capacity to support the island. The purpose of this study is to explore the behavioral intentions of consumers in Penghu area to use green tableware, and conduct in-depth discussions and research on the influencing factors of consumers' use of environmentally friendly tableware and environmental awareness and local stores' participation in community environmental protection, so as to understand environmental knowledge, ecology whether beliefs, external influences, environmental care, green self-efficacy, personal habits, attitudes towards green products, subjective norms, perceived behavioral control, and intention to use green tableware have any impact on the public's use of green tableware.

Based on the theory of planned behavior, this research combines the pre-variables: environmental knowledge, ecological beliefs, external influences, environmental care, green self-efficacy and personal habits, and develops a research model to explore consumer choices, influencing factors of behavioral intention to use green tableware. This study adopts the questionnaire survey method. Questionnaires are sent out to the residents of Penghu County for further data analysis. Statistical methods such as numerical analysis, cross loading and regression were used for the analysis. The statistical analysis include four sections as follows. The first section is the descriptive statistical analysis of the sample structure, which explains the sample distribution of the recovered quantitative data, the second section is the questionnaire validity and reliability analysis, the third section is the discriminant validity, the fourth section is the cross loading, and the fifth section is the path analysis and hypothesis testing. This study uses Smart PLS for hypothesis model testing.

The research results are summarized as follows: 1. environmental knowledge has a positive and significant impact on attitude towards green products, 2.both external influence and environmental care have a positive and significant impact on subjective norms, 3.participation and planning behavior theory have a positive and significant impact on the behavioral intention of using green tableware. Choosing green tableware to achieve resource saving and environmental protection is the reason why consumers are willing to use green tableware; subjective norms are not regarded as the influence of green tableware use intention for some consumers. Merchants' participation in environmental protection activities will affect people's willingness to carry environmentally friendly tableware.

## **Effects of Virtual Influencer Marketing on Purchase Intention: Perceived Characterizations as Mediators**

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### Abstract

The discussion of virtual influencers is rising in recent years. Virtual influencers have massive young fandom because the engagement rate of virtual influencer is three times higher than Youtuber, which made people realize the business opportunity behind the industry (HypeAuditor, 2021). According to Kurtin (2018), Misra and Baettu (1990) and Wu (2020), this study tries to connect influencer attributes (attitude homophily, physical attractiveness and social attractiveness) with perceived characterizations (trustworthiness, parasocial interaction and brand equity). Then, referring to Chang (2020), Liu (2010), Bhatti (2017) and Rizwan et al. (2021), this study correlates perceived characterizations with behavior intention (purchase intention). Therefore, the research purposes are as follows: 1. discuss the effect of influencer attributes on perceived characterizations; 2. discuss the effect of perceived characterizations on behavior intention; and 3. discuss the mediating effect of perceived characterizations between influencer attributes and behavior intention.

This study uses the S-O-R (Stimuli-Organism-Response) theoretical framework proposed by (1974),corresponding to influencer attributes – perceived characterizations—behavior intention (as shown in Figure 1), to explore whether influencer attributes and perceived characterizations would affect consumers' purchase intension. Also, perceived characterizations are regarded as mediators. The corresponding hypotheses development are as follows: firstly, based on the views of Al-Emadi and Yahi (2020), Powell and Richmond (2012) and Hook et al. (2022), attitude homophily has a positive impact on trustworthiness, parasocial interaction and brand equity are proposed. In addition, according to Sokolova and Kefi (2020), Lou and Kim (2019) and Liu and Zhang (2019), physical attractiveness has a positive impact on trustworthiness, parasocial interaction and brand equity are proposed. Then, referring to Toma (2014), Masuda et al. (2022) and Lieven (2016), social attractiveness has a positive impact on trustworthiness, parasocial interaction and brand equity are proposed. Lastly, according to the points of Tharmi et al. (2017), trustworthiness, parasocial interaction and brand equity have a positive impact on purchase intention are proposed.

About trustworthiness, parasocial interaction and brand equity for perceived characterizations, this study suggests that marketers could explore their industry to find the one who is most relevant to the brand and show their expertise on what they are good at to increase the reliability from audience. In addition to improving engagement rate, for example, paying more attention to current trends and frequently interact with targets. Lastly, by inviting virtual influencers who match brand image to enhancing brand association, also can through the promotion to gain more attention from public therefore to increase brand exposure.

Keywords - VTuber, Influencer Attributes, Perceived Characterizations, Purchase Intention

Nature of proposed paper - Academic Research Paper

# Comparison of Environmental Friendliness between Fishery Electricity Co-Construction and Conventionally Aquaculture Pond Embankment Grass Species

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### Abstract

In recent years, Taiwan's demand for electricity has increased, and its energy supply is mostly dependent on external sources. Therefore, under the situation of increasing environmental awareness and lack of natural energy, the development of renewable energy has become a future trend. Combining solar photovoltaics with farming can not only strengthen land use efficiency, but also increase additional income from farming. Few studies have explored the ecological balance of cultured embankment grass species, and there are still many unknowns to be studied in the combination of photoelectricity and photoelectricity, which aroused the interest of this research to compare the differences between the combination of photoelectricity and conventionally aquaculture ponds. Grass species coverage, species, quantity and biodiversity index are mainly closely related to plants, insects, birds and other organisms around the embankment of the breeding pond. The results show that: monitoring began in the spring of the first year, and the species and shading rate of plants were affected during construction in the summer. In the summer of the second year, when some facilities were completed, the number of species in the experimental group was higher than that of the control group, except for the shading rate. The control group had higher values in summer, and the experimental group had higher values in other seasons. After the combination of photoelectricity and aquaculture is set up, the number of plant species on the embankment of the aquaculture pond increases, and the shading rate of the plants needs time to gradually recover. Photoelectric settings affect its surrounding temperature, strong winds weaken, shadows appear and radiation decreases, all of which are variables for plant growth. Sunshine, monsoon, precipitation and temperature are all important factors that cause plant differences. Due to human differences in farming and optoelectronics industry, coupled with the high degree of heterogeneity of the farming space, thinking about how to adjust the farming method, maintain the ecological balance between the farming environment and the natural environment, and protect the survival of local native species and the habitat of creatures on the embankment of the farming pond will become Very important subject. Optoelectronics operators need to pay attention to friendly construction methods to reduce the impact on the surrounding environment and social aspects of construction. The aquaculture industry needs to modify the management methods and strategies of aquaculture, carry out production and sales history or environment-friendly farming, and practice the concept of environmentally friendly farming based on the co-construction of fishery and electricity, so that Taiwan's green power production capacity can be increased, and the aquaculture industry can be upgraded to achieve aquaculture-based, Green energy value-added win-win.

**Keywords** – Solar energy, green energy, environmental friendliness, biodiversity index, species abundance

# **Towards Sustainable Business and Strategic Management** for Large Multi-functional Sports Venues

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### **Abstract**

In the era of global warming, due to increasingly difficult problems such as climate change, economic growth, social equality, and the gap between the rich and the poor, the importance of SDGs (sustainable development goals) has been highlighted. The achievement of goals lies in actions, that is, global goals and Green action is urgent, and the wind is spreading from west to east. ESG (environment, society and governance) has become more prominent in business management. Large multi-functional sports venues are one of the landmarks of an international city. The practice of SDGs and ESG is crucial to the planning and design of an international city It is more indicative of policy management.

The purpose of this research is to discuss the issues of SDGs (sustainable development goals) and ESG (environment, society and governance), how to apply them to the dynamic management of large multi-functional sports venues. Dynamic management is the basic core capability that business should possess. Develop sustainable innovation strategy management evaluation indicators, use AI or data analysis as an indicator tool for venue innovation management, and use SSD (sustainable system development) methodology as the basis for important decision-making in the future planning of large multi-functional sports venues. Under the market competition and dynamic environment, the opportunity for the sustainable operation of enterprises lies in continuous innovation and development. At the same time, through empirical research, we intend to understand the feasibility of the practical application of the SDGs and ESG evaluation index framework established by this research.

The scope and objects of this study are large multi-purpose sports venues, with a scale of more than 15,000 seats, the Taiwan Dome (Kaohsiung Dome, Taipei Arena), the Japan Dome (Tokyo Dome, Fukuoka Dome, Sapporo Dome, Nagoya Dome, Osaka Dome), Gocheok Sky Dome in Seoul, South Korea and American Dome (Mercedes-Benz Superdome in New Orleans, St. Petersburg Tropicana Field), etc., and the Taichung Dome to be built in the future are the research scope and objects.

**Keywords** – sustainable development goals (SDGs), ESG (environment, society and governance), dynamic management, sustainable system development (SSD)

Nature of proposed paper - Academic Research Paper

# Strategic Architecture of Smart Business for Curved Digital Printing Market and Disposable Tableware

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### **Abstract**

With the continuous innovation of digital technology, the future of the printing industry has also witnessed far-reaching changes, with more and more e-books, paperless, and smart business, the printing industry has undergone huge changes. As sustainability and digital manufacturing issues evolve, the printing industry is still under threat of being replaced by technology as it upgrades. Therefore, the production value of global printing industry during 2006 and 2021 is extremely challenging between upgrading and threatening, making this ubiquitous product industry facing a huge change in the foreseeing future developments. In this case, this study was tested on how to enhance competitiveness, retain the remaining market, or use limited resources to make early preparations for transformation.

This study is based on the curved digital printing market of a food packaging company. The case originally purchased customized high-speed curved digital printing equipment to improve digital printing technology, and actively cultivated innovative technical personnel. However, during the transformation and upgrading, the environmental protection policy was also tested due to the printing substrate and printing process in this case are disposable PLA (polylactic acid) materials, which are controversial in environmental protection issues, the test faced by this case is not only a digital upgrading issue, but also a survival test issue.

In the food packaging industry, the study case is one of the first companies to enter curved printing and digitization technology upgrading, the development of the case is promising. However, it is also facing the rapid advancement on environmental protection policies. During this research project, the Taipei city government announced an environmental protection policy, restricting the use of disposable plastic beverage cups, including biodegradable PLA (polylactic acid) cups for 2206 beverage stores in Taipei city. As a result, the high-speed curved digital printing market in this case study was immediately put to an inspection.

Therefore, this study focuses on diversified strategic innovation using smart business and innovative development, seeking the company to use its existing equipment and resources to adjust its strategy and improve its equipment to enter the sustainable development of reusable food packaging products, as well as to design possible marketing strategies to find possible opportunities to escape from the dilemma it is currently facing.

Keywords - Digital Printing, Intelligent Commerce, Environmental Policy, Strategy Dynamics

## **Strategy Dynamics Marketing Model for Musical Instrument Business**

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### Abstract

The musical instrument industry is composed of various factors in multiple industries. In the face of online retail channel, company's incomes has decreased and competitors has increased. Personalize service and instant feedback must be valued in sale process. In order to improve business performance, companies have studied out different strategies to against the problems above. It is a significant challenge for business operators of musical industry to select appropriate development strategies. Current literatures are focus on consumer behaviours and marketing strategies, such as consumption motivation, brand image, service quality, etc. The research on intelligent business operating model are relatively needed.

This research takes musical instrument department of E company as a study case. First, collect the case data and take semi-structured interview to related personnel. With Strategy Dynamics and Management Flight Simulations, this research find out the parameters and factors which could drive customers by strategic architecture. The research results suggest the best strategy for application of digital marketing business model from three strategy models to simulate dynamic changes of various plans in the next 36 months.

The result of this research shows optimizing marketing budgets could increase purchases and improve business performance. Company use management flight simulators to simulate business strategy and identify potential problems and opportunities in early stage. After the development of each item of the quantitative analysis system is completed, plan could be executed with clearer simulation results and optimization strategies. Dynamic adjustment and instant matching of the strategy could increase success rate and profitability. Finally, the result of this research could be a reference to bring out management revelation for musical instrument industry operators to make effective decisions.

**Keywords** – digital marketing, business model, strategy dynamics, musical instrument

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# Modelling Smart Business System and Strategic Planning for FMCG Industry

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### Abstract

The advances of information technology and IT-enabled business innovations has become critical driving forces for enterprises' competitive advantages. This paper introduces a Simulation-based Strategic Decision Support System (SSDSS) to support customer brand development in real world business applications. A Strategy Dynamics approach with computer simulation techniques can enable managers to get insights of resource-driven performance and improve their future performance over time. With the case study, data analytics and quantitative analysis through different scenarios demonstrates how the proposed model did help to formulate business development strategies for better performance. The IT-enabled innovations in strategic thinking and decision making both could be the enabler for business development.

Keywords – digital marketing, business model, strategy dynamics, innovation

Nature of proposed paper - Research Paper

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