

Management School

Learning to make a difference from an enterprising and vibrant world city of culture.

### Issue 03 | Summer 2023







**Professor Julia Balogun** ULMS Dean and Brett Chair in Management







Welcome to the third edition of *Research*, showcasing original and innovative research from across the University of Liverpool Management School (ULMS).

In this issue we present ground-breaking studies from colleagues in six subject groups exploring: development of more sustainable plastics; how brands can utilise Non-Fungible Tokens, gender typicality and labour market outcomes, cybersecurity, the impact of environmental management systems and the role of mentors in career narratives.

There is also an update on the recently launched Centre for Organisational and Employee Wellbeing, with impact studies on workplace racial inequality and the experiences of families bereaved by COVID-19, plus other new developments at ULMS.

This has been a year of celebration for our School, the University, and the City of Liverpool.

As the Management School celebrated its 20th anniversary, we have paid tribute to those who have helped build and grow the institution, from being newly established in 2002, to becoming a triple-accredited School, internationally recognised for highquality teaching and research.

We have also had the opportunity to proudly watch Liverpool host an iconic and widely praised edition of the Eurovision Song Contest.

As part of the heart and soul of our city, the University, staff and students joined in excitement to showcase Liverpool's rich cultural heritage, and promote peace and unity through the power of music.

But the positive news and events have come against the backdrop of a demanding domestic and international context.

Global warming, the cost of living crisis and the impact of disruptive technologies, are just some of the key challenges we face, and the School plays a vital role in increasing our understanding of these problems and finding solutions for a better future. One of the things that makes us who we are is our steadfast commitment to being a world-class research institution, across six subject areas, with a strong impact on academic thought, business practice and beyond.

As well as supporting research in our key areas, we have strengthened our long-standing commitment to promote investigations into pressing societal issues, with the launch of our fifth research centre focused on organisational and employee wellbeing.

We believe it is our civic duty to develop outstanding academic knowledge, with a direct benefit for a wide range of organisations and institutions.

This year we will continue to promote business research collaboration, supporting them in reaching their goals, and embed contemporary topics into our programmes to equip students with the relevant skills for sustained career success.

I am delighted to lead such a progressive and forward-looking School and I trust you will enjoy reading this edition of Research.

### **THE SCHOOL CELEBRATES ITS 20TH ANNIVERSARY WITH A GALA DINNER AT THE ICONIC VICTORIA GALLERY & MUSEUM**

The Management School celebrated its 20th anniversary in early 2023, with a gala dinner which brought together academics, staff, alumni and North West business leaders and policymakers.





Scan the QR code to find out more about the Management School's 20th anniversary, or visit: liverpool.ac.uk/management/20-year-anniversary/ The event counted more than 100 attendees, including Liverpool alumni Sir Robin Saxby and Dr Paul Roy, who alongside Liverpool businessman, John Hargreaves, made possible the establishment of the School in 2002, thanks to their generous donations.

In her welcoming speech the Dean of the Management School, Professor Julia Balogun, expressed her gratitude for the collective effort made during these transformative two decades. She stressed the impressive progress the School has achieved, from being a newly established School 20 years ago, to becoming a triple accredited internationally recognised research powerhouse.

Julia also reflected on the history of the School and highlighted the growth of faculty and professional services staff over the years, the variety of undergraduate and postgraduate programmes on offer at the School, and the increased diversity of students.

Newly appointed Vice-Chancellor and University of Liverpool graduate, Tim Jones, commented on the international impact of the Management School and how it plays an important role in the University of Liverpool's overall success.

Despite being an avid Manchester City supporter, Tim reflected on the School's impressive links to football, from the Football Industries MBA programme to the School's partnership with Sky and Kick It Out, which gives four students from under-represented ethnic minority groups fully funded scholarships to study the programme.

The gala dinner is just one of twenty events organised as part of the School's anniversary, and opportunity to play tribute to 'Our Students', 'Our Network', 'Our Research' and 'Our City'.

### **MANAGEMENT SCHOOL SECURES SMALL BUSINESS CHARTER REACCREDITATION FOR FIVE YEARS**



The Management School has successfully maintained its Small Business Charter (SBC) accreditation by the Chartered Association of Business Schools (CABS) for the next five years.

Developed by Lord Young, the Department for Business, Innovation and Skills, and CABS, the SBC is an award for UK business schools that play an effective role in supporting small businesses, local economies and student entrepreneurship.

In order to maintain the SBC award, the School underwent a rigorous assessment to determine its effectiveness in business support, entrepreneurship education and engagement with the SME community.

The assessment took place virtually over two days in late 2022, and involved a number of Management School staff, students and alumni, as well as external stakeholders.

#### THE RE-ACCREDITATION PROCESS WAS LED BY MEMBERS OF THE BRETT CENTRE FOR ENTREPRENEURSHIP WITH SUPPORT FROM COLLEAGUES ACROSS THE SCHOOL AND THE WIDER UNIVERSITY.

Assessors were provided with compelling evidence demonstrating the School's focus in the three required areas: Support for Growth of Small Businesses; Stakeholder Engagement to Support Growth; and Encouraging Student Enterprise and Entrepreneurship.

The School was first accredited with the prestigious award in 2014 after demonstrating exceptional dedication to helping improve links with and support the local small business community, and was re-accredited in 2020 following the School's focus on growing its entrepreneurship community, as well as delivering the highly regarded Growth Catalyst programme.

Commenting on the reaccreditation Professor Julia Balogun, Dean of the Management School, said:



We are delighted that we have received reaccreditation from the Small Business Charter, which recognises our excellence in teaching and research to support business and enterprise.

The reaccreditation means the Management School can continue to expand its support of small business and enterprise communities for the next five years, via its business growth and leadership programmes and the Brett Centre for Entrepreneurship research activities.

As well as supporting the development of a resilient local business network, the award also demonstrates the School's ambition to support students with an entrepreneurial spirit who want to pursue a career as business leaders.

### **TACKLING THE CHALLENGES OF PRODUCING MORE SUSTAINABLE PLASTIC** PACKAGING



**Professor Andy Lyons** 



Dr Gopalakrishnan Narayanamurthy



Dr Konstantinos Tsiamas

How can packaging manufacturers increase the quality and performance of the resulting products? What are the challenges involved in developing

and Dr Kostas Tsiamas are working with colleagues Green Plastics, on a framework to provide answers

Experts from the Operations and Supply Chain Management (OSCM) Subject Group are working on a three-year multi-disciplinary project, to address the challenges linked to producing more eco-friendly plastic packaging for fastmoving consumer goods (FMCG)

Their goal is to assess the economic, social and environmental impact and viability of more circular supply chains, which use a higher proportion of recycled plastic in the production of packaging for day-to-day consumer products.

Andy, Gopal and Kostas will investigate these issues as part of a combined effort, to develop a framework that explains the implications of increasing plastic circularity for FMCG' plastic containers.

This is a Natural Environment Research Council-funded project, aimed at enabling innovation in the production of smart, sustainable plastic packaging for FMCGs, and reducing plastic pollution by 2025 through cleaner supply chains.

A business case for more sustainable plastic packaging Approximately five million tonnes of plastic are used in the UK every year, nearly half of which is packaging. From this, around 50% is subsequently recycled, with the remainder going to landfill, energy recovery (ie incineration) or ending up in our natural environment.

Most common plastics used in packaging come from petroleum resins that take hundreds of years to degrade, a lifespan that far exceeds the functionally required for day-to-day products.

As a result, the relentless accumulation of plastic waste increases the pressure on the packaging industry, to try and find economically viable ways to reduce, reuse and recycle existing plastics.

While plastic pollution is one of the greatest global environmental challenges, thermoplastics are fantastic materials, with multiple applications in the packaging industry, due to their low weight, strength and durability.

Cost-effectiveness, food-safety and transportation advantages, are the reasons behind the omnipresence of thermoplastics in our day to day lives, from milk bottles to shampoo and detergent containers.

The majority of plastics used in packaging can be recycled, and legislators are driving change towards more sustainable forms of repurposing post-consumer recyclates (PCR) through economic incentives. In the UK, the new 'Plastic Packaging Tax' requires companies that manufacture or import 10 or more tonnes of plastic packaging per year, to pay over £200 per tonne.

However, the tax does not apply to businesses whose packaging contains at least 30% recycled plastic, reinforcing the need for initiatives to create smarter and more sustainable plastics.

#### Not an easy challenge

Replacing a large proportion of virgin plastic with PCR, would be a big step forward in increasing the sustainability of plastic packaging. However, with recycled resins often being more expensive than virgin plastics in Europe, manufacturers and buyers face an important financial barrier.

Alongside higher production costs, formulating high-performing plastics with recycled feedstocks presents a formidable challenge, because an increase in PCR content typically reduces performance, limiting the use of the resulting packaging. Previous work with Unilever indicates that the chemical and mechanical properties of packaging materials depend on the amount and quality of the recylates included in the formula.

Currently, mechanical recycling is the only economically viable method for regenerating the most commonly used types of synthetic resins, such as polyethylene terephthalate (PET) and high-density polyethylene (HDPE).

However, petroleum resins cannot be reprocessed infinitely. The elevated temperatures plastics are exposed to during the recycling process breaks down the polymer chains, compromising the quality and performance of the resulting product.

While fillers and additives can help offset performance issues, further research is needed to inform decisions on the correct mix and quantity of additives needed for products with a larger proportion of recyclates.

In addition, batches of recycled plastic are typically subject to limited characterisation on levels of degradation, odour, fouling, etc, which means there is little information to predict its behaviour and the quality that can be delivered to the end user.

THESE FACTORS REDUCE FLEXIBILITY IN THE MARKET, INCREASE THE COST FOR PCR INCORPORATION, AND ULTIMATELY PLACE AN ECONOMIC PENALTY ON BUSINESSES TRYING TO PRODUCE AND USE MORE SUSTAINABLE PLASTICS.

Therefore, the effective incorporation of PCR into packaging requires a significant optimisation of the final product and a trusted relationship between the supplier and the buyer.

Understanding the **Circular PCR supply chain** In order to respond to the strategic challenges of producing and selling more eco-friendly plastic packaging, Management School researchers will develop and analyse the economic and environmental footprints of the cyclical PCR supply chain across six key players: Local authorities - post-consumer

- waste collection
- Materials recycling firms manual sorting and baling
- Plastics recycling firms crushing and washing Plastic/oil firms - virgin plastic
- pellet production Speciality chemical firms antioxidant production and
- additive compatibilising FMCG firms - recycled plastic transformation into usable products

and service provision to consumers. The research aims to address several key challenges, by modelling potential disruptions to the supply chain. As the first five players operate within a business-to-business (B2B) setting, a significant challenge for the efficient functioning of the supply chain is maintaining PCR demand circularity with different independent actors involved.

With seven different unique plastic types available, based on their resin type<sup>2</sup>, another key challenge to tackle is how to maintain a supply of particular grades, when most recovered plastic from domestic streams comes as a mixture of different polymers and colours.



Alonaside this, through the implementation of additives, recycled materials can be produced from a blend of plastic grades, but research on how to chemically break down mixtures of plastics is still ongoing.

When these used products re-enter the supply chain for recycling, sorting them into specific grades presents significant issues, impacting the availability, affordability, and acceptability of PCR grades and their products, via the players in the supply chain.

To address these problems, a profiling framework will be developed as part of the research project, to analyse how the use of different configurations of recycled plastic perform.

The framework will allow researchers to map results against financial, social and environmental scenarios, depending on changes in demand and supply, to fully understand the business case for using additives.

In addition, the framework is expected to help assess the implications of government environmental policies, including the newly introduced 'Plastic Packaging Tax'.

The ultimate goals of the project will be defining industry-led quality standards for PCR, increasing the use and market value of recycled plastics, and providing a standardised set of tests to allow PCR manufacturers to test and grade their materials.

<sup>1</sup> Source: 'Plastic Waste' Research Briefing (2022), by Smith Louise, House of Commons Library

<sup>2</sup>Plastics are classified according to their resin type into: Polyethylene Terephthalate (PET), High Density Polyethylene (HDPE), Polypropylene (PP), Polyvinyl Chloride (PVC), Low Density Polyethylene (LDPE) and Polystyrene



**Professor Chris Florackis** Professor of Finance and Head of the Accounting and Finance Subject Group

#### ACCOUNTING AND FINANCE

## PREDICTING **CYBERSECURITY NIGHTMARES**

Professor Chris Florackis' research presents a new firm-level measure of cybersecurity risk for US publicly listed enterprises, and examines whether investors expect greater returns from firms that are more exposed to cyberthreats.

Developed alongside colleagues at the University of Hong Kong (HKU), Cyprus University of Technology (CUT) and University of Chicago (UC), the cybersecurity risk score compares language used in risk disclosures of firms that have been hacked, with those which have not.

According to the study's findings, companies that use similar language to that of corporate victims of "major" hacking attacks are more exposed to cybersecurity risk, and thus more likely to be targeted by cybercriminals.

The research also finds that, while performing poorly in periods of heightened concern over cybersecurity risk, portfolios of firms with high exposure to cybercrime, outperform those with lower cybersecurity risk scores.

#### The financial and reputational cost of cybercrime

Widespread cybercrime and cyber insecurity are viewed as the most important technological short- and long-term global risks<sup>1</sup>, which is not surprising, given the rapid increase in major cyberattacks in recent years.

Between 2022-23, UK firms experienced 70,000 non-phishing cybercrimes, with an average cost of approximately £15,300 per victim<sup>2</sup>, and despite substantial investments in security systems, most firms remain highly exposed to cybersecurity risk.

For businesses, a heightened cybersecurity risk means increased exposure to financial loss, disruption and reputational damage, due to a failure in their information technology (IT) systems caused by external attacks.

CYBERCRIME INVOLVING HACKING, MALWARE OR DISTRIBUTED DENIAL OF-SERVICE (DDOS) ATTACKS, CAN GO UNNOTICED FOR MONTHS, AS WAS THE CASE WITH SOLARWINDS ORION, A SOFTWARE USED BY OVER 30,000 PUBLIC AND PRIVATE ORGANISATIONS TO MONITOR AND MANAGE THEIR IT RESOURCES.

In one of the most sophisticated cyberattacks in history, Nobelium hackers (the most likely attackers according to Microsoft) perpetrated a supply chain attack, to illegally access thousands of organisations' IT systems via the third-party software.

Rather than targeting companies and government agencies directly, all hackers had to do was to insert Trojan horse malware into a software update distributed by SolarWinds.

Since March 2020 the malware took control of computers, and in some cases, stole highly important and sensitive files, from top level organisations including the European Parliament, UK Home Office, US Treasury Department, Boeing and AstraZeneca.

Until the attack was discovered in December 2020, hackers enjoyed nine months of unfettered access to over 100 organisations' IT systems, while transfers were disguised as ordinary network traffic.

In addition to the reputational damage to SolarWinds, the attack cost companies 11% of their annual revenue, which translated into approximately over \$12 million (£10 million) per company<sup>3</sup>, with the only fix often being to rebuild entire IT systems.

#### A novel firm-level measure of cybersecurity risk

Alongside hitting the headlines, and rushing IT departments across the world to improve their defences, the SolarWinds attack also caught the attention of Chris and professors Roni Michaely (HKU), Christodoulos Louca (CUT) and Michael Weber (UC).

With the help of a web-crawling algorithm, they undertook a textual analysis and a comparison of cybersecurity risk disclosures found in 10-K forms completed between 2007 and 2018.

Form 10-K is a comprehensive report on a company's financial performance (similar to an annual report, but often more detailed), the US Securities and Exchange Commission requires all publicly traded companies to file every year.

As well as presenting an overall picture of a firm's financial health, Item 1A -"Risk Factors" of the Form 10-K outlines the most significant present and future risks faced by the company.

This includes references to cybersecurity risks such as: severity and frequency of prior incidents, probability and potential impact of future occurrences, operational risks, preventative actions, legal compliance, litigation and insurance costs and potential reputational harm.



After identifying a training sample of corporate victims of "major" cyberattacks, they estimated the similarity in the language used by these firms, and others, which had not been victims of an attack.

They discovered the higher the similarity score between a firm's risk disclosure and those of companies in the training sample, the greater its general exposure to cybersecurity risk.

This means corporate cyber victims are more vulnerable to attacks before they happen, and use similar words to describe concerns over cyberthreats and how to manage them prior to the event, which materialises in:

- Higher emphasis on cybersecurity than firms with low scores
- Separate sections devoted to cybersecurity risk
- More comprehensive and precise cybersecurity risk disclosures, including discussions on legal consequences and preventive measures.

Amongst the sample, scores were higher in industries heavily reliant on IT systems to perform their operations (eq telecommunications, broadcasting, finance, etc), which in practice exhibit a higher cyberattack incident rate.

THE STUDY DEMONSTRATED HOW THE NEW MEASURE RELIABLY CAPTURES EXPOSURE TO CYBERSECURITY RISK AND CAN PREDICT UPCOMING ATTACKS, AS **ONE-STANDARD DEVIATION INCREASE** IN THE CYBERSECURITY RISK SCORE INCREASED THE PROBABILITY OF A FUTURE CYBERATTACK BY 92.70%.

#### **Higher cybersecurity risk** means higher expected returns

Under the premise that investors may require higher expected returns from firms with high exposure to cybersecurity risk, the second part of the study examined whether cybersecurity is priced into stock returns.

After organising stocks into portfolios, based on cybersecurity risk scores, the team tracked returns over time and found portfolios of firms with high exposure to cybersecurity risk outperform other firms, on average, by up to 8.3% per year.

However, the study also showed high cybersecurity risk stocks perform significantly worse than low cybersecurity risk stocks, in times of heightened cybersecurity risk and investors' concerns about data breaches. The results are evidence of cybersecurity risk being priced into stock returns, meaning the premium high cybersecurity risk stocks earn does compensate investors, despite poor performance in periods of high cybersecurity risk.

#### **Better assessment** and management of cybersecurity risks

The study findings, summarised in the paper Cybersecurity Risk<sup>4</sup>, provide further insight into individual firms' exposure to cybersecurity risk, its quantification, and effect on asset prices.

Chris' cybersecurity risk measure, and its underlying methodology, enables a systematic analysis of cybersecurity risk and its implications for firm value, corporate policies and operations.

<sup>1</sup>Source: 'The Global Risks Report 2023', World Economic Forum

<sup>2</sup>Source: 'Cyber security breaches survey 2023', Department for Science, Innovation & Technology <sup>3</sup>Source: '2021 Cybersecurity Impact Report', IronNet <sup>4</sup>Florakis, C., Louca, C., Michaely, R. and Weber, M. (2023) 'Cybersecurity Risk', The Review of Financial Studies, 36 (1), pp 351-407; DOI: 10.1093/rfs/hhac024



Scan the QR code to read Chris' paper or visit: doi.org/10.1093/ rfs/hhac024



#### What is a Trojan horse virus?

A Trojan Horse is a type of malware which can disquise itself as a harmless file, but contains malicious code, aimed at disrupting, damaging or gaining unauthorised access to IT systems.

Once the Trojan has entered an organisation's network, it lets hackers carry out actions that legitimate users could perform.

This includes exporting and deleting files, modifying data, altering the contents of devices, or extorting users into paying a ransom to restore infected devices and their contents.

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## **THE LINK BETWEEN ADHERING TO GENDER NORMS AND CAREER OUTCOMES**



**Professor Ian Burn** 

Does conforming to gender norms impact opportunities for employment, income, hourly wage or hours worked? Are women as affected as men by perceived gender biases in the workplace? Can gender atypicality explain why gay and bisexual men have significantly worse labour market outcomes than heterosexual men?

Professor Ian Burn's research uses a novel measure of gender typicality to provide statistically supported answers to these questions.



Co-written with Bard College professor, Martin E. Martell, Ian's innovative research, provides evidence that gender conformity, in addition to sex, matters in the workplace, particularly for men.

BY APPLYING A NEW MEASURE OF ADHERENCE TO GENDER TYPICALLY (AGT). BASED ON DATA FROM THE US NATIONAL STUDY OF ADOLESCENT TO ADULT HEALTH (ADD HEALTH), THE STUDY FINDS MALE GENDER CONFORMITY IS POSITIVELY CORRELATED WITH HIGHER ANNUAL INCOME, HOURLY WAGES AND WEEKLY HOURS WORKED.

Although to a lesser extent, the analysis shows women who display feminine traits to a greater degree, are also more likely to earn lower wages and work fewer hours than gender atypical females.

Surprisingly, the study does not find a significant correlation between gender typicality and labour market outcomes for LGB people, meaning deviation from socially expected gender roles does not explain the labour market differentials experienced by sexual minorities.

Since its publication, lan's paper Gender typicality and sexual minority labour market differentials<sup>1</sup> has won the inaugural CSQIEP<sup>2</sup> Award for Outstanding Research Paper in LGBTQ+ Economics by the American Economic Association, and the European Economic Association's MinE Best Paper Award.

#### Exploring the impact of gender normativity on career prospects

While sex refers to a group of biological factors related to reproduction, gender is a sociocultural construct linked to a set of artificial "norms" that define personality traits and behaviours typically associated with being masculine or feminine.

Gender conformity is based on these norms, meaning women are generally expected to be gentle, passive, collaborative, emotional or nurturing, and prototypical men are normally perceived to be stoic, strong, protecting, competitive or risk-taking.

Under the premise that individuals who are more gender conforming should act similarly to their same-sex peers, gender typicality has been almost exclusively used in healthcare research, to predict risky behaviours (eg substance abuse, unprotected sex, etc).

lan's research expands the scope of social phenomena gender typicality can explain, by using it to understand gender-based gaps in career outcomes more broadly, and to specifically develop a fuller understanding of labour market outcomes for sexual minorities.

As opposed to exploring if a person's level of gender conformity explains their own behaviour, lan's study is one of the first to examine how gender typicality impacts outcomes determined by others.

The authors developed a new quantitative measure of gender typicality, by leveraging data on personality and behaviours available via Add Health, a longitudinal study that followed a representative cohort of young Americans from 1994-2018 (between 7-12 and 32-42 years old).

According to the new measure, the higher the value of a person's AGT score, the more gender-typical that individual is in relation to the average man or woman.

By combining the AGT score with more standard measures of labour market outcomes, they estimated differences in income, hourly wage, employment and hours worked for heterosexuals and sexual minority groups, in particular lesbians, gays and bisexuals (LGB).

#### Gender typicality matters in the workplace, especially for men

The results provide evidence that gender typicality, in addition to sex, is an important determinant of labour market outcomes in general, but particularly for men.

MALES WITH AGT SCORES ONE STANDARD **DEVIATION ABOVE THE MEAN EARNED 3%** MORE ANNUALLY AND 2% MORE PER HOUR, THAN MALES WHO DID NOT ADHERE AS STRONGLY TO MASCULINE NORMS.

Although they were as likely to be employed as non-gender typical men, gender normative males also worked approximately 25% more hours per week.

Gender typicality was less significantly correlated with labour market outcomes for women, as one standard deviation increase in AGT was associated with just a 1% decrease in hourly wages and a 0.26 hour per week decrease in work.

The evidence that gender-typical men earn more than gender-atypical men suggests these biases may disadvantage men in addition to women.

The results indicate a bias towards male norms of behaviour, on the part of employers, with men who conform less to male-gendered norms of behaviour being penalised, and women who conform less to female-gendered norms of behaviour being rewarded.

The remuneration of gender typicality for men suggests preferential treatment of masculinity persists, and may reflect the impact of implicit biases towards feminine characteristics.

When specifically looking at different occupations, the study found gender typicality was more highly rewarded in male-dominated jobs, with men who were one standard deviation over the average earning 4% more, and working more hours than less gender typical males.

A similar pattern of results was observed for less gender conforming women, with lesbian and bisexual females with a lower AGT score, earning higher wages than heterosexual women in majority male industries. As male-dominated occupations disproportionately reward masculinity, the findings reinforce the idea that gender biases meaningfully affect workers, especially in contexts dominated by one sex, where the rewards and punishment for not conforming to gender norms may be more salient.

#### **Gender typicality does** not explain labour market differentials for sexual minorities

While the results clearly show gender conformity explains differences in career opportunities between sexes, no evidence was found to suggest it impacts the employment inequality suffered by sexual minorities in the United States. The analysis showed that gay and bisexual men earn 11% less per hour than their heterosexual counterparts, but even those with high AGT scores still experienced the same disadvantages as gender transgressive gay and bisexual males.

Likewise, an increase in AGT for lesbian and bisexual women (being more feminine) would decrease wages and income, which is consistent with the existence of negative bias against femininity in the workplace.

Therefore, the study shows the earning disadvantages LGB people experience are not linked to characteristics related to their masculinity or femininity, despite generally being more gender atypical.

The authors suggest policies aimed at promoting gender equality in the workplace should be broader, and aim to safeguard gender non-conforming individuals regardless of other protected characteristics, including sexual orientation.

<sup>1</sup> Burn, I., and Martell, M.E. (2022), 'Gender typicality and sexual minority labour market differentials', British Journal of Industrial Relations, 60 (4), pp 784-814; DOI: 10.1111/ biir.1267

<sup>2</sup> CSQIEP: American Economic Association's Committee on the Status of LGBTO+ Individuals in the Economics Profession



Scan the QR code to watch lan and Martin explain more about their research, or visit: tinyurl.com/ gendertypicality

### A FOCUS ON...

### **CENTRE FOR** ORGANISATIONAL **AND EMPLOYEE** WELLBEING

### Prioritising employee wellbeing for better organisational performance.

As unhappy employees are recognised as a core organisational issue, with an impact on business performance, the Centre for Organisational and Employee Wellbeing (COEW) explores how different workplace dimensions can influence production, working life and health.

Led by Professor Damian O'Doherty, the Centre's research draws on insights from psychology, economics, sociology, political science and other disciplines, to gain a better understanding of what workplace wellbeing is.

THE COEW BRINGS TOGETHER INTERDISCIPLINARY RESEARCHERS TO SHED LIGHT ON HOW BETTER ORGANISATION AND MANAGEMENT STRUCTURES CAN GENERATE A HEALTHY WORK ENVIRONMENT FOR EMPLOYEES (AND ORGANISATIONS) TO THRIVE AND FLOURISH.

Focusing on 'People and Change Management Practices' and 'Equality, Diversity and Wellbeing' research, the Centre provides evidence-based insights for organisations seeking to foster positive health and wellbeing across their workforce.

With 'burnout' recognised by the World Health Organisation as an "occupational phenomenon", the onus is on organisations to manage it, prevent it and promote systematic workplace wellbeing practices.

"Stressed out, burned out and churned up employees are not individual issues, but core business problems with an impact on organisational performance", said Damian.

"Employee wellbeing and mental health need to be addressed at strategic and cultural levels, as they are critical in developing workplace resilience".

"Our research brings together insight from different disciplines to deepen our understanding of what workplace wellbeing is, and provide evidencebased guidance with a practical impact for business practice and policymaking."

Launched in late 2022, this is the Management School's latest Research Centre, and builds on its long-standing track record of wellbeing related studies, and commitment to research relevant to contemporary issues in society.

Its consolidation as a research centre follows impactful inquiries on areas including; gender inequality, work-life balance and employee precarity.

The COEW will develop the School's contribution to established themes, with a strong focus on applying ideas through funding and impact-related work.

### RESEARCH THEMES



**People and change** management practices This research stream focuses on investigating the role of human resource management in facilitating organisational and employee wellbeing, throughout the implementation of strategic changes.

Studies in this area explore the role of senior and middle managers; effective and ethical forms of leadership; restructuring, organisational transformation and culture change; high performance work systems; service innovation; fair and effective recruitment and selection procedures; changing work and career dynamics.



#### **Equality, diversity** and wellbeing

Research in this area focuses on gender, diversity, worklife relationships and health, to provide evidence-based recommendations on how organisations can bolster diversity, equality and wellbeing.

Specific areas of research leading to impactful work include parenthood and employment; glass ceilings; enhancing the lives of rural women in India; developing female leaders.



Scan the QR code to find out more about our research centres or visit:

#### CENTRE FOR ORGANISATIONAL AND EMPLOYEE WELLBEING

## **PROVIDING SOLUTIONS TO FOSTER RACIALLY INCLUSIVE AND FAIRER** WORKPLACES

We follow up on the impact of Professor Lilian Otaye-Ebede's ongoing research, and how it provides organisations with strategies to effectively manage a diverse workforce, reduce discrimination and create a more inclusive working environment.



**Professor Lilian Otaye-Ebede** Professor in Human Resource Management & Organisational Behaviour

Lilian's research explores black and minority ethnic (BME) employees unique experiences of microaggression, bullying, harassment and barriers to career progression in the workplace.

To address these, both Lilian's research and impact activities argue for a paradigm shift towards holistic and tailored long-term solutions to organisational issues surrounding racial inequality and representation.

The direct insight gathered via interviews and focus groups with BME staff, has served as a foundation to generate improved strategies at organisation and system levels.

As evidence of its impact, Lilian has been commissioned by public and private sector organisations, including the NHS Work Race Equality Standard (WRES), Mersey Care NHS Foundation Trust and North West Business Leadership Team (NWBLT).

#### **Helping healthcare** organisations approach racial inequality

As part of a joint project with colleagues from the University of Sheffield, Lilian's research has contributed to a wider effort to improve the WRES Culture Change Programme.

Through evidence-based guidance and best practice examples, the programme identifies NHS trusts needing support and helps transform workplace cultures, including better race representation in patient facing staff and at senior positions.

However, the programme failed to deliver substantial progress in specific areas, despite internal efforts to tackle race inequality and discrimination.

In particular, these indicators referred to the proportion of BME staff:

- abuse from patients, relatives or the public (indicator 5) or staff (indicator 6)
- opportunities for career progression or promotion (indicator 7) • Experiencing discrimination at work
  - from managers/team leaders or other colleagues (indicator 8)

Lilian was commissioned as part of a research team to identifying root causes, consequences and develop robust solutions, to close the gap between BME and non-BME staff perceptions.

• Experiencing harassment, bullying or Believing their trust provides equal

#### THE INVESTIGATION RESULTED IN A BASELINE REPORT HIGHLIGHTING **ISSUES EXPERIENCED BY BME** PARTICIPANTS AND SENIOR MANAGEMENT.

This in-depth understanding of issues surrounding inequality, bullying, harassment and abuse, has created a foundation for fresh strategies to improve indicators 5-8 for the overall workforce.

Future plans include providing further recommendations on how to change deep-rooted cultures of race inequality in the NHS system, and early impacts include the creation of workplaceedi.com.

The website, co-created by WRES and the NHS Race and Health Observatory (RHO), is an evidence-based Equality, Diversity and Inclusion (EDI) knowledge-transfer platform with resources for managers to understand research and implement good practice.

At a local level, Lilian is also supporting the NHS Mersey Care Anti-Racist **Evaluation Project's Perfect Care Goal** of "zero acceptance of racism, discriminatory and disrespectful behaviours."1

Continued over...

... Providing solutions to foster racially inclusive and fairer workplaces Continued



To help scrutinise the credibility and appropriateness of the strategy, and ensure confidence and transparency in the system, the Trust has commissioned Lilian to undertake an independent evaluation aimed at ensuring the effectiveness of the Anti-Racist Perfect Care Project.

The resulting report will inform future changes through recommendations, and annual checks will take place to assess the success of the anti-racist project year-on-year.

These changes are expected to improve not only staff wellbeing, but also the mental and physical care services delivered to more than 1.4 million patients across the North West region.

#### Changing the way businesses think and act about race representation

In the private sector, the NWBLT have commissioned Lilian to support the development of a set of solutions to increase race representation across corporate members. NWBLT is an independent business voice which brings together senior leaders within the North West, and helps shape opportunities to drive positive change.

THE ORGANISATION IS COMMITTED TO CHAMPIONING AND LEADING A CULTURAL CHANGE AMONGST ITS 38-MEMBER ORGANISATIONS TO PROMOTE RACE INCLUSIVITY AND ENHANCE MULTI-ETHNIC REPRESENTATION.



As part of a proposal for a new longterm strategic vision for NWBLT and its members, Lilian is collating good practice examples of corporate strategies to increase race representation across all organisational levels.

The resulting work will act as a guide to compel NWBLT member organisations to take action, and encourage a holistic approach that includes looking at recruitment and selection; training and development; promotion and progression; retention; staffing and infrastructure.

Lilian's proposal will encourage members to take advantage of an anti-racist online toolkit, to help track race and ethnic representation within their workforce.

By utilising this dashboard, organisations will gain insights into the current diversity landscape, identify areas to improve, and make datadriven decisions to promote racial inclusivity and equity.

<sup>1</sup>Source: 'Our Perfect Care Goals', Mersey Care NHS Foundation Trust



Professor Lynn Sudbury-Riley Professor of Marketing

A Management School report on the 'Lived Experiences of People Bereaved by COVID-19' urges the UK Government to make the voices of people who lost loved ones in the pandemic an integral part of the UK COVID-19 Public Inquiry.



Research by Professor Lynn Sudbury-Riley assesses the lived experiences of the pandemic on those left behind in their quest for clarity and transparency in the inquiry.

 FAMILIES WHO LOST LOVED ONES

 DURING THE PANDEMIC HAVE

 BEEN AT THE FOREFRONT OF THE

 SEARCH FOR ANSWERS OVER THE

 UK GOVERNMENT'S HANDLING OF

 THE PANDEMIC, WITH THE RESULTING

 REPORT ADDING THEIR VOICE IN

 SUPPORT OF THE SEARCH FOR TRUTH.

According to Lynn, the study "spotlights the lived experiences of the implications of these failings, the consequences of a wide range of further weaknesses in systems and processes, and the ongoing repercussions of being bereaved by COVID-19".

Lynn's work focuses on listening to the arduous and unprecedented bereavement experiences of those who lost relatives during lockdown, and hearing the voices of those struggling in a post-pandemic environment.

Alongside providing a series of recommendations for the Government to take on board, the document is part

### CENTRE FOR

### 12/13 - Research\_ISSUE 03

### AS STATUTORY PUBLIC UK COVID-19 INQUIRY GETS UNDERWAY, REPORT GIVES VOICE TO BEREAVED RELATIVES

of a wider demand for the opinions of bereaved relatives to become a crucial part of public inquiries.

The report has been endorsed by the COVID-19 Bereaved Families for Justice (CBFJ) group, and has contributed to the Terms of Reference for the Statutory Public Inquiry, as well as being used as part of the Hillsborough Law Now Campaign.

#### 'A death like no other'

The UK COVID-19 Public Inquiry's key objective is to examine 'the UK's reaction to and impact of the COVID-19 pandemic and learn lessons for the future', with further research on a wide range of issues highlighted by the state's pandemic response.

However, a window into the reality of how families are coping after losing a family member shows how the previous Health and Social Care and Science and Technology Committee report, failed to consult with the individuals most affected by death during the pandemic.

Despite early assurances of the Inquiry focusing on the experiences of those bereaved by COVID-19, many bereaved felt they were again being pushed aside.

Following an analysis of pathographies (stories of illness experiences) from 28 people, who lost 30 relatives to COVID-19, Lynn found substantial differences in grieving experiences compared to a pre-pandemic scenario.

Continued over...

#### ...As Statutory Public UK COVID-19 Inquiry gets underway, report gives voice to bereaved relatives Continued

"I went down to London to paint my partner's name and lots of hearts. It was a beautiful, calm, therapeutic day. I could hear people commenting as they walked past. It is such a powerful representation of the lives lost. Each heart represents so many broken hearts."

The narratives highlight recurrent issues, These emotional stories form a wider from a lack of prompt and sufficient system responses, to the impact of restrictions, which triggered traumatic experiences during the mourning process.

Lynn, who lost her father during the pandemic, added: "Being bereaved during a pandemic is very, very different to being bereaved at other times, and that is because of the total absence of contact with loved ones.

"That's not just contact with the person that was sick, and who was dying, it's contact with the person once they were deceased, and contact with family and friends during the grieving process

"There was a denial of what we call death and mourning rituals and they are so, so important for bereaved people.'

## This is a death, that unless

Alongside support from the CBFJ, Lynn worked alongside the group to record an emotional video titled 'A Death Like No Other'.

CBFJ spokesperson Fran Hall, who appears in the video, added to the feeling of upset at a lack of bereavement support: "The people most affected are those who have lost someone to COVID-19.

"Lynn's research is about the lived experience of losing somebody, and what it was like to see them become ill, and then disappear - either to die or be taken to hospital and not see them again."

picture of thousands of families grieving the death of loved ones and frustrated by a lack of information over pandemic planning.

#### Giving a voice to bereaved families

Lynn's report was presented as evidence to Government Ministers in 2022, leading to questions in the House of Commons.

Since then, the document has contributed to the Terms of Reference for the Statutory Public Inquiry, and has informed the All-Party Parliamentary Group's Hospice and End of Life Care's review on "The Lasting Impact of COVID-19 on Death, Dying and Bereavement".

The report urges the Government to consider a series of recommendations during the inquiry process and its future pandemic planning:

Improved pandemic planning across Government, NHS and social care

- Investigation into NHS systems and processes during the pandemic
- Overhaul of communication practices between hospitals and families
- Development of specialist bereavement and counselling services
- A focus on the implications of denying cultural death rituals
- System changes to reduce infections within healthcare settings
- Increase training in end-of-life care for frontline staff
- Overhaul of processes for 'Do Not Resuscitate' and critical care decisions
- Provision of permanent memorials to COVID-19 victims
- Public Inquiry is brought forward and conducted with diligence and integrity.

The report's co-author, Dr Benito Giordano, who lost both his parents to COVID-19, said: "Transparency, the truth, and public awareness emerge as incredibly important to bereaved families.

"Many want senior people held to account but, most of all, these people want change, so that in the future no one else has to endure the lived experiences of these families."

ALONGSIDE ITS IMPACT ON THE COVID-19 INOUIRY PROCESS, THE RESEARCH HAS ALSO BEEN USED AS PART OF THE HILLSBOROUGH LAW NOW CAMPAIGN, A COALITION WHICH BRINGS TOGETHER A VARIETY OF GROUPS STRIVING FOR JUSTICE.

During the Labour Party Conference held in Liverpool in September 2022, Lynn was invited to the Hillsborough Law Now Coalition rally, to speak on behalf of the CBFJ group, and she explained how COVID-19 bereaved relatives fear becoming the next Hillsborough families.

This is part of a wider campaign led by Labour, for the approval of 'The Public Advocate and Accountability Bill' (also known as 'The Hillsborough Law'), which seeks to create a new legal duty of candour on public authorities to prevent future cover-ups.

The proposed bill also demands a new framework to ensure victims of disasters or state-related deaths are entitled to parity of legal representation during inquests and inquiries.



Scan the QR code to watch 'A death like no other', or visit: liverpool.ac.uk/management/ families-reveal-why-its-adeath-like-no-other

#### MARKETING

## **HOW CAN NON-FUNGIBLE TOKENS BRING VALUE TO BRANDS?**

As Non-Fungible Tokens (NFTs) reach record sales numbers, Professor Anatoli Colicev discusses the opportunities they offer brands to reach and engage consumers at different stages of the marketing funnel.

With whopping sales of more than £13.5 billion in the last year<sup>1</sup>, NFTs have come a long way since the early days of CryptoPunks and cryptokitties, as the market has evolved into more than just an opportunity to monetise digital art and collectives.

The importance of NFTs is expected to increase with the development of Web3, and innovative and forwardthinking brands have started to unlock the potential of NFTs to enhance their story telling strategies, generating buzz and connecting with consumers in exciting new ways.

From a conservative perspective, NFTs can be seen as representations of brand components, such as the product (eg a digital twin of a physical product), the logo or the image.

However, in his paper How can nonfungible tokens bring value to brands<sup>2</sup>, Anatoli argues NFTs have immense potential to become standalone brand assets that contribute to the overall brand equity.

THIS IS BECAUSE NFTS OPEN UP NEW **OPPORTUNITIES TO ACHIEVE TWO KEY OBJECTIVES AT THE PRE-PURCHASE,** PURCHASE AND POST-PURCHASE LEVELS: SERVING AS BRAND PRODUCTS AND FOSTERING BRAND COMMUNITIES.

By relating NFT strategies to the marketing funnel stages, Anatoli explores how brands can leverage NFTs to target consumers at different steps of the decision-making process, from increasing brand awareness, to encouraging purchases and enhancing after-sale satisfaction.

#### **Reaching new audiences and** leveraging the power of NFT brand communities

The NFT hype cycle is fuelled by cryptocurrency enthusiasts, Gen-Z Discord users and a more technologically oriented crowd.

An NFT product launch can be used as a catalyst to generate brand awareness among these previously unreachable audiences, and Anatoli suggests collaborations with established NFT collections can enhance the PR potential of NFT launches further.

Typically, the NFT market is organised in collections of digital assets released by an artist, or group of artists, with a limited number of individual NFTs that conform to the same artistic style, with slight variations across each individual token.

Reputable collections such as the Bored Ape Yacht Club (BAYC) or World of Women, have entry prices of tens of thousands of dollars on OpenSea, the largest marketplace for NFTs.





**Professor Anatoli Colicev** Chair in Marketing, Strategy and Analytics

Hence, NFT collaborations with established collections hold exceptional potential to expose the brand, and trigger conversations among an already captivated audience.

NFT enthusiasts often gather in highly engaging, decentralised and anonymous social media platforms, including Discord, Telegram or Reddit, which allows conversations to flow more organically, almost emulating real-life connections and friendships.

These NFT communities can be utilised as an amplifier for a brand's marketing efforts in the pre-purchase stage of the marketing funnel and beyond.

For example, TIME Magazine's TIMEPieces project is a Web3 community initiative that brings together artists, collectors and fans, offering NFT collections of artworks inspired by actual pictures from the magazine.

**TIMEpieces NFT holders receive** subscription rights, exclusive invitations to events and art drops, with established and emerging artists.

The project utilises its Discord community of more than 8,000 subscribers and Twitter channel, to fuel conversations and hype, as well as enabling engagement by hosting daily games, challenges and even private rooms for NFT holders, which facilitates exposing the brand to Gen-Z readers.

#### ...How can Non-Fungible Tokens bring value to brands? Continued

#### **Increased loyalty via NFT** ownership and online/offline bundles

NFT products from reputable brands allow consumers to digitally "flex" their purchases online, for example with pieces of virtual clothing or accessories used to dress-up avatars in a virtual world, known as with NFT wearables.

#### HOWEVER, BRANDS CAN INCREASE THE VALUE OF THESE PURCHASES BY PERSUADING CONSUMERS TO BUY **BUNDLES OF NFTS AND PHYSICAL** PRODUCTS THAT PROVIDE ACCESS TO A COMBINATION OF UNIQUE SYMBOLIC AND FUNCTIONAL BENEFITS.

The Nike-RTKFT Cryptokicks iRL is a collection of co-branded customisable digital sneakers, inspired by the Nike Mag shoe, from the movie Back to the Future II.

In late 2022, Nike announced the selling of 19,000 bundles of digital and physical Cryptokicks iRLs, and gave Nike Trillium Lace Engine NFT<sup>3</sup> holders priority access to purchase four limited editions of the iconic trainers.



Alongside giving access to exclusive physical products, early drops, merchandise or premium services, bundles open up opportunities for cross-selling, for example via gamified experiences where consumers earn tokens redeemable for discounts for physical products.

In terms of community brand building, NFT ownership can be used as the key to membership programmes that provide extra perks, invitations to private events, or access to locked channels in Discord for people who have purchased an NFT, a physical product or both.

### **NFTs and the stages** of the marketing funnel

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#### **The Marketing Funnel**

The marketing funnel, or purchase funnel, describes the sequential customer decision-making that occurs in several stages: pre-purchase, purchase and post-purchase. Brands design tailor-made marketing strategies appropriate for each stage to encourage the development of customer-brand relationships, before and after the sale is completed.

For example, in 2021 the BAYC NFT community organised a private yacht party in New York with famous basketball players, artists, musicians and investors, for owners of the exorbitantly priced digital cartoon monkeys (at least £160K on OpenSea<sup>4</sup>).

#### IN ADDITION, SEVERAL RESTAURANTS **USE NFTS FOR RESERVATIONS THAT** PRIORITISE SEATING, WHILE CONCERTS CAN ISSUE TICKETS AS NFTS TO GIVE EXTRA BENEFITS TO HOLDERS.

#### Influencing post-purchase consumer experiences

Although consumers generally display the lowest sensitivity to marketina stimuli in the post-purchase stage of the funnel, Anatoli argues NFTs can help brands create stronger consumer involvement and brand attachment.

Compared to traditional legal approaches, where copyright belongs to the original creator(s), NFTs allow a flexible design of ownership rights.

For instance, BAYC NFT owners have the right to use their NFTs on digital fashion (eg 10KTF), books (eg Jenkins the Valet) or even movie characters.

By owning the rights to such NFTs, consumers might develop stronger perceived ownership of certain brand elements, which can increase closeness and encourage them to serve as ambassadors or shareholders.

However, Anatoli points out the critical challenge for brands consists of deciding the optimum trade-off between releasing copyrights and protecting the brand owner.

From a community building perspective, companies can enhance post-purchase experiences by creating authentic and creative storytelling around the brand's identity, via stories, lore, and characters with which consumers can connect.

For example, the Adam Bomb Squad (ABS) is an NFT project inspired by The Hundreds streetwear brand's mascot, an anthropomorphic bomb called Adam.

Later ABS NFT collections featured new characters, such as Adam's love interest, Madam Bomb, or his alter ego, Badam, with existing NFT holders being given preferential access to sales and free NFT airdrops<sup>5</sup>.



Similar strategies can be applied to different chapters of a book or story, and physical aspects can also be incorporated into brand loyalty programmes, for example via physical merchandising or treasure hunts in real life for QR codes.

#### Plenty of opportunities, but an uncertain future

Despite the potential for marketers, Anatoli stresses NFTs are still in their infancy, and the lack of regulatory frameworks mean important challenges are looming for the NFT market, including decentralisation, design of ownership rights and mining's environmental impact.

In addition, from a user perspective, buying NFTs requires a certain level of financial literacy, such as understanding the basics of cryptocurrency and Web3 wallets.

On the bright side, brands have the potential to benefit from the firstmover advantage and are on the right side of history.

<sup>1</sup>Source: 'Value creation in the metaverse' (2022). McKinsey & Company <sup>2</sup>Colicev, A. (2023) 'How can Non-Fungible Tokens bring value to brands', International Journal of Research in Marketing, 40, pp 30-37; DOI: 10.1016/ j.ijresmar.2022.07.003

<sup>3</sup>The Nike Trillium Lace Engine NFT is a digital asset resembling the virtual engine that powers the Cryptokicks auto-lacing and fit technology <sup>4</sup>Source: 'How to sneak into a Bored Ape Yacht Club party' (2021), by Adlan Jackson, The Verge <sup>5</sup>An NFT airdrop is a distribution of free NFTs large number of crypto wallets, often used as a marketing strategy to promote new tokens or reward existing NFT owners



Scan the QR code to read Anatoli's paper or visit: doi.org/10.1016/ j.ijresmar.2022.07.003

### **WHAT ARE** NFTs AND WHY **DO PEOPLE BUY THEM?**

When a digital asset, for example an image, is turned into an NFT, it is uploaded to the blockchain infrastructure to be "certified" as a unique photo which receives a specific digital signature that no other version will ever have.

This is called tokenisation: the NFT is attached to a digital certificate of ownership, and therefore it can be purchased, sold, and traded.

However, unlike other tokenised digital assets that can be divided and exchanged for something similar or equal in value (eg Bitcoin), NFTs are non-fungible or interchangeable, meaning they are singular and unique.

Each NFT is one of a kind, with no equivalent, as many of the world's most valuable assets, such as rare gems, antiques or original masterpieces like the Mona Lisa.

The rarity and exclusivity of NFTs is what makes them attractive as an investment to then sell in the secondary market for profit, or pleasure, as is the case of serious collectors of unique artwork or cool digital assets.

ANOTHER INCENTIVE TO BUY NFTs IS THAT OWNERSHIP PROVIDES ACCESS TO SPECIAL PERKS, INCLUDING UTILITY, COMMUNITY BENEFITS, MERCHANDISE, ETC.

In summary, NFTs are the digital answer to valuable collectibles, under the premise that if non-digital assets can sell for millions, digital assets can achieve that too.



## **DO ENVIRONMENTAL** MANAGEMENT **SYSTEMS ENHANCE ECO-INNOVATION AND ENVIRONMENTAL PERFORMANCE?**



**Professor Jordi Surroca** Chair in Strategic Management and Head of the Strategy, International Business and Entrepreneurship Subject Group

Using a comprehensive dataset of publicly traded firms from polluting industries, research by Professor Jordi Surroca provides evidence of the positive impact green patents have on environmental performance.

However, the results dispute the idea that environmental management systems (EMS), such as the ISO 14001 standard, always foster the development of green knowledge and technological capabilities.



As part of an international research project with academics from British, Spanish and American universities, Jordi's study<sup>1</sup> seeks to assess the environmental impact of ecoinnovations and test whether EMS with standardised guidelines enhance this relationship.

While the study supports the expectation that green patents reduce firms' environmental footprint, findings highlight the complex relationship between eco-innovation, EMS and environmental performance.

Surprisingly, the analysis shows how the adoption of the ISO 14001 standard undermines, rather than boosts, the positive impact of green innovations on environmental performance, as it introduces organisational rigidities that hinder the evolution of a firm's green dynamic capabilities.

The study provides evidence of the inhibiting effects of EMS, which are particularly noteworthy for companies with less complex and more bureaucratic organisational structures, that compete in turbulent industries, and whose headquarters are located in liberal market economies (LME).

THESE FINDINGS CHALLENGE THE WIDELY HELD VIEW OF EMS AS PLATFORMS THAT ALLOW NEW GREEN TECHNOLOGICAL KNOWLEDGE TO FLOURISH AND HELP DEVELOP SOLUTIONS TO IMPROVE CORPORATE SUSTAINABILITY.

#### **Developing green knowledge** and dynamic capabilities

In the face of increasingly pressing sustainability challenges, firms have a wide range of choices to improve environmental performance, including eco-innovation and the adoption of EMS.

Eco-innovation is the capacity to generate technological knowledge and develop solutions to reduce environmental impact.

Eco-innovators can do this by, for example, delivering new or improved products and services, or implementing processes, practices, and systems to save resources (eg energy, water, raw materials) and reduce emissions.

A useful measure of eco-innovation are green patents, which represent a way to transform experience into meaningful learning, through three subsequent knowledge building processes:

- 1. Experience accumulation employees generate tacit green knowledge via experience, which is then shared within their teams and across the firm
- 2. Knowledge articulation disseminating this knowledge generates a better collective understanding of causal links between actions and outcomes (ie eco-innovation and environmental performance). This results in adaptive adjustments to existing routines that contribute to ecoeffectiveness
- articulated knowledge is codified into written tools (eg manuals, blueprints, patent filings), facilitating green knowledge diffusion and the generation of new proposals and changed routines.

Jordi's research starting point was that these processes involved in the generation of eco-innovation, are also critical for the development of dynamic capabilities linked to environmental improvements.

In other words, eco-innovation enhances the ability to integrate, build and reconfigure internal and external competencies and knowledge, for embedding social and environmental considerations into practical solutions to tackle growing and rapidly changing sustainability challenges.

Based on these premises, the study's main thesis is that only firms with relevant green dynamic capabilities will be able to develop novel sustainable solutions to cope with current environmental demands.

Alongside this, the team hypothesised the positive influence of eco-innovation on environmental performance is strengthened when firms adopt an EMS, such as the ISO 14001.

This internationally agreed standard sets the requirements for an environmental management system, aimed at improving the organisation's sustainability output.

3. Knowledge codification - finally, the

The team expected adherence to the ISO 14001 norm to enhance the three learning processes by:

- Generating routines (eg via staff training, standardisation of processes, etc) that develop green tacit knowledge through experience
- Encouraging firms to take a more systematic approach to how green experiential knowledge is shared and articulated (eg via periodical monitoring)
- Including guidelines, models and an extensive list of documentation requirements, that illustrate how firms can codify knowledge

#### The impact of EMS on the relationship between green patents and environmental performance

To evaluate if the ISO 14001 norm helps to boost eco-innovation and corporate sustainability, the team first tested the strength of the green patentsenvironmental performance link.

They assembled a unique data set, for the period 2014-16, from over 250 corporations distributed across 13 industries and headquartered in 7 countries, bringing together firm-level eco-innovation, EMS and environmental performance, and financial data from five different sources

A quantitative analysis showed that, while green patents positively impact environmental performance, EMS adoption unexpectedly hampers, rather than enhances, this relationship.

A series of additional tests indicated the negative influence of EMS adoption varies depending on the firm's institutional framework, industry turbulence and structural complexity.

Accordingly, firms with headquarters based in coordinated market economies (CME), such as Germany and France, demonstrated a greater ability to adjust their eco-innovation processes to the requirements imposed by the EMS, than those located in LME, such as the UK and US.

This finding highlights how disturbing the rigidities imposed by EMS are for firms competing in institutional contexts (ie LME) which require high levels of flexibility to improve their competitive positions, through continuous change an innovation.

**Continued over...** 

...Do environmental management systems enhance eco-innovation and environmental performance? Continued



For highly turbulent industries (newer and more competitive), where firms need to constantly update their knowledge and technological capabilities to survive, results showed EMS adoption has a stronger hindering impact on innovation than in more mature industries.

Finally, the analysis also confirmed the lower the corporations' geographical reach, as an indication of the structural complexity of the organization, the more likely the EMS adoption will become an obstacle for eco-innovation and, subsequently, environmental performance.

### EMS adoption and organisational rigidities

The team interpreted the results as evidence that EMS may act as an obstacle rather than a facilitator for the evolution of firms' green dynamic capabilities.



To investigate further, they conducted a qualitative analysis of 20 post hoc interviews with elite informants, including business scholars, EMS consultants and auditors, and senior managers.

An overwhelming majority of interviewees mentioned EMS could act as a deterrent to achieving sustainability from eco-innovation.

Informants highlighted the rigidity and bureaucracy of standardised EMS as factors that can diminish the employees' (and the firm's) predisposition to build new green capabilities, with standardisation being perceived as a hassle, rather than a tool to enhance environmental performance.

Although these results cannot be generalised, they are consistent with previous studies that point to over-documentation<sup>2</sup>, over-





procedurisation<sup>3</sup>, extra unnecessary routines<sup>4</sup> and increased internal control<sup>5</sup>, as mechanisms likely to cause organisational rigidity.

In light of the study findings, firms in highly polluting industries need to promote flexibility in their green innovation processes to achieve better performance outcomes.

The results also stress the need for standard-setting organisations to find the right balance in the standardisation of practices when redesigning standards, such as ISO 14001.

Standardisation should provide some degree of structure, whilst leaving room for the flexibility firms need to deploy dynamic capabilities, and achieve superior green performance.

<sup>1</sup>Valero-Gil, J, Surroca, J.A., Tribo, J.A., Gutierrez, L, Montiel, I. (2023), Innovation Vs. Standardization: The conjoint effects of eco-innovation and environmental managements systems on environmental performance, Research Policy, 52, pp 1-15; DOI: 10.1016/j.respol.2023.104737

<sup>2</sup>Boiral, O., Guillaumie, L., Heras-Saizarbitoria, I. and Tayo Tene, C.V. (2018), Adoption and outcomes of ISO 14001: a systematic review, International Journal of Management Reviews, 20, pp 411–432

<sup>3</sup>Boiral, O. (2011), Managing with ISO systems: lessons from practice, Long Range Plan, 44, pp 197–220

<sup>4</sup>Lopez-Mielgo, N., Montes-Pe´on, J.M. and V´azquez-Ord´as, C.J. (2009), Are quality and innovation management conflicting activities?, Technovation, 29, pp 537–545

<sup>5</sup> Alonso-Pauli, E. and Andre, F.J. (2015), Standardized environmental management systems as an internal management tool, Resource and Energy Economics, 40, pp 85–106



Scan the QR code to read Jordi's paper or visit: doi.org/10.1016/j.respol.2023.104737

### SUCCESSFUL SCHOLARSHIP PARTNERSHIP WITH SKY AND KICK IT OUT CONTINUES

For the second year running, the Management School is partnering with Sky and Kick It Out for the Kick It Out Scholarship Programme, supporting Black and other under-represented ethnic minorities in the UK applying for the Football Industries MBA (FIMBA).



As well as providing complete funding for four student places on the prestigious one-year course starting in September 2023, Sky will pair the scholars with prominent mentors in the football industry and Sky's Diversity Advisory Council.

Sky Sports and Kick It Out will also use their extensive networks in the football industries to help accelerate the most talented individuals into jobs at senior leadership level and helping to improve diversity at senior levels.

Dr John Byrom, Associate Dean of MBA Programmes, said: "It's fantastic to once again be working together with Sky and Kick It Out to offer scholarships to students from under-represented ethnic groups who successfully apply to our Football Industries MBA programme.

"This unique programme offers students the opportunity to hone the skills needed to meet the demands of working in the global football industry.

"It's been great to see our current scholarship holders engage with the everything the MBA has to offer and we're looking forward to building on this success providing the same opportunities to four more students next academic year."



Students who were awarded the first round of scholarships for September 2022, visited Sky's London Headquarters in Isleworth to meet with Participation Lead at Sky Sports, Jack Eatherley.

This visit to Sky HQ is one of three that the students undertake during their MBA to meet the team, develop mentoring opportunities and help with their future career progression.

Shaun Watson, one of the students awarded a scholarship, said: "This scholarship has given me an incredible opportunity to work with some great guys at Unique Sports Group.

"I want to take the experiences I've gained during the MBA into a Sporting Director's role within a club to try and bridge the gap between football business, strategy and player recruitment, using my knowledge to bring all the different areas together."

Fellow student, Yusuf Molade, said: "The course thus far has already provided great insight into the football industry, not only through our modules but the high-profile guest speakers we have had.

"I have also taken up the role as club captain for our course football team; whilst Sarah (another scholarship holder) is a course representative. We're all very much looking forward to deepening our understanding of the football industry throughout the year."

As part of the programme, FIMBA students enjoy two international trips, with this year including a six-day break to the most important football clubs in Madrid and La Liga headquarters in January, and a 2-day visit to FIFA and UEFA headquarters in Switzerland, in March.

Talking about her latest international trip, Sky Sports-Kick It Out scholarship holder, Sarah Faiz, said: "It was an amazing trip! The quality of the experience and the learning was first class.

"The information and insights I learnt gave me so much to think about as to the future of football, as well as what career I want to pursue once I've completed the programme.

"The memories and connections I've made are invaluable."

In December 2020, Sky committed £3m for Kick It Out over three years, in a mix of cash and value in kind support, with the media giant pledging to use its powerful voice, extensive reach and established channels to support the fight against discrimination and drive for inclusion in football. As part of Sky's investment in supporting talent Kick It Out highlighted the need to gain more off-field representation and a particular need in the most senior positions in the football business, with the MBA scholarship is one strategy Sky is supporting Kick It Out with in addressing this challenge

This MBA scholarship is one strategy Sky is supporting Kick It Out with in addressing this challenge.



Scan the QR code to find out more about the Football Industries MBA, or visit: liverpool.ac.uk/courses/2023/ master-of-business-administrationfootball-industries-mba

liverpool.ac.uk/management/

## THE ROLE OF MENTORS IN THE CONSTRUCTION OF MEANINGFUL CAREER NARRATIVES

Mentors and employers play a powerful role in an individual's early career, often leaving a lasting imprint. However, when that mentor or organisation is particularly well-known, employees can feel overshadowed as they seek their own personal career story.

Through a qualitative study of former staff of the Eames Design Office, Dr Greg Fetzer examines how individuals integrate the role of mentors as they construct retrospective career narratives.

Developed in collaboration with professors Spencer Harrison, from INSEAD, and Elizabeth Rouse, from Boston College, the study focuses on ex-employees subjective interpretation of their careers.

Looking beyond objective career success, the research addressees how employees construct subjective success, in the face of tensions related to associating with a prominent mentor, whilst seeking a distinct creative career.

The analysis revealed employees build retrospective career accounts based on various sources of meaningfulness, which result in three types of narratives with a focus on belongingness, self-expression and achievement, respectively.

These narrative strategies place different levels of importance on the values and skills learned in the formative years at a firm, or via the influence of a one-to-one mentor.

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#### The paradox of promise: association vs differentiation

Starting points are critical to the unfolding of a person's career narrative, but these are particularly salient when they occur with a prominent mentor or firm.

#### WORKING WITH A MENTOR CAN OFFER MANY BENEFITS, SUCH AS SKILLS, RESOURCES AND VALUES WHICH CAN LEAVE A LASTING IMPRINT ON EARLY CAREER STARTERS.

However, these promising first steps also present a puzzle when people try to make sense of their careers further on, as they must acknowledge association with a mentor, without being overshadowed by them.

Greg and colleagues refer to this tension as the paradox of promise, or the tricky task of recognising the influence of a prominent mentor, while still authoring a narrative that expresses career ownership and remains meaningful.

In order to understand how individuals navigate this dilemma, the team undertook a qualitative analysis of semi-structured interviews with 40 ex-employees, who worked at the influential Eames Design Office from 1957-1978.

Funded by Charles and Ray Eames, two of the most important 20th century American designers, the Eames Office offered a collective scenario in which mentorship came from a high-status firm, where young employees could develop skills and values, before leaving to forge their own careers.

Interviewees were asked about career progression, with an emphasis on the role Eames played in their formative years and on their future steps.

#### Narrating early career experiences: values-dominant vs skills-dominant imprints

Through an inductive analysis of their career narratives, the team first found Eames' ex-employees interpreted their early experiences as imprints.

During particularly sensitive periods, such as an employee's formative years, individuals are strongly influenced by external factors, including organisational culture, other individuals, etc. These events leave imprints which shape how people respond to later environments, and often have an enduring impact on an employee's behaviour and ways of thinking, including attitudes, ideology and values.

While all interviewees described how the Eames Office left a lasting impression on them, the imprints revealed two distinct emphases: values vs skills.

Values-dominant imprints highlighted how the Eames experience provided a "know why" in the form of significant values, which became anchoring beliefs for their career.

On the contrary, skills-dominant imprints emphasised the "know how" gained during their time at Eames, which included mastering design, creative techniques or collaboration skills.

#### Sources of career meaningfulness: embracing, contrasting or supplanting values

Building from the different imprints, the team found that individuals crafted their career stories by 'reprinting' (or reinterpreting) early professional experiences at Eames.

These reinterpretations revealed study participants found three distinctive sources of career meaningfulness via embracing, contrasting or supplanting the Eames values.

Through the process of reinterpreting imprints, the team identified three corresponding types of retrospective career narratives: belonginess (embracing values), self-expression (contrasting values) and achievement (supplanting values). Individuals who embraced the Eames' "know why" (values imprints) crafted 'belongingness narratives', which show a long-lasting impact of the company's values on their interpretation of future career events and success.

In these cases, the original values become the lens through which later experiences are interpreted, with narratives that emphasise collaboration and contribution with others.

In contrast, an emphasis on skillsdominant imprints left empty space for discovering a "know-why", with informants using the reprinting practices of contrasting and supplanting values, to explain how later experiences provided the dominant values within their career stories.

Due to the lack of values in their formative years, some individuals built narratives around a search for guiding principles through subsequent career experiences (eg new environments, projects, colleagues, etc).

The team categorised these retrospective interpretations as 'self-expression narratives', in which employees looked for values that contrasted, and allowed them to distance themselves from Eames.

These narratives focus on differentiation, as they explain how employees find their "self-generated" creativity, describing later career experiences as more significant, with an emphasis on authenticity and freedom.

In self-expression narratives, employees describe their journey to find personally fulfilling work that resonates with their values as worthwhile, even as these stories are often circumscribed by struggles for economic viability, which is viewed as trade-off for self-expression.





Dr Greg Fetzer Lecturer in Work, Organisation and Management

Finally, some employees highlighted the role of Eames' values to stress how later career events introduced them to values they perceived as superior to those provided by the company.

These individuals crafted 'achievement narratives', where they acknowledge Eames' values, but view these as a stepping stone to their own success.

While in self-expression narratives Eames is a backgrounded early experience, in achievement narratives Eames is something to be superseded by their own accomplishments, both as a predecessor and a foil.

By acknowledging the skills gained at Eames and differentiating themselves through subsequent success, individuals can drive a sense of meaningfulness, by claiming personal achievements and experience, and emphasising expertise and accomplishment.

By exploring how individuals derive meaning (or not) from their early experiences, the study<sup>1</sup> expands the understanding of how employees interpret their career as a whole and make decisions moving forward.

THE RESEARCH ALSO PROVIDES SOME IDEAS FOR HOW INDIVIDUALS CAN THINK ABOUT THEIR OWN CAREER STORY, AND HOW OTHERS, PARTICILI ARLY MENTORS

HOW OTHERS, PARTICULARLY MENTORS, FIT INTO THAT STORY.

Greg's research contributes to interpretive perspectives of career success, mentor relationships and how meaningfulness is constructed, as well as addressing the larger question of how individuals may reconcile diverse career episodes, a fundamental concern of career theory.

<sup>1</sup> Fetzer, G., Harrison, S.H. and Rouse, E.D. (2023), Navigating the Paradox of Promise through the Construction of Meaningful Career Narratives, Academy of Management Journal (in press); DOI: 10.5465/amj.2021.0292



Scan the QR code to read Gregory's paper or visit: doi.org/10.5465/amj.2021.0292

## SCHOOL'S PHD STUDENT **WINS BEST PAPER AWARD AT SUSTAINABLE FINANCIAL INNOVATION CONFERENCE**

PhD student, Jingjing Wang, won the Best Paper Award at the prestigious Sustainable Financial Innovation Centre (SFiC) Annual Conference 2022, hosted in Dubai by Birmingham Business School and Florida Atlantic University.

Co-authored by Professor Chris Florackis and Dr Xi Fu, the awardwinning paper is titled 'Political Connections, Environmental Violations and Punishment: Evidence from Heavily Polluting Firms in China'.

The study used hand-collected data on violations of environmental regulations by heavily polluting firms in and hope to produce findings that are China, and examined the relationship between political connections and the probability of punishment for breach of such regulations, following the implementation of Rule 18.

The enactment of this anti-corruption legislation in October 2013, forced a large number of politically connected independent directors to resign from their board positions, in order to avoid favourable treatment and avoidance of punishment connected to abuses against the environment.

THE FINDINGS HIGHLIGHTED RESIGNATIONS RESULTED IN A SIGNIFICANT INCREASE IN BOTH THE LIKELIHOOD OF EVER BEING PUNISHED FOR ENVIRONMENT-RELATED VIOLATIONS AND THE FREQUENCY OF PUNISHMENT.

The evidence indicated that in the absence of effective regulation, political connections can be costly to the environment, as they strongly affect the enforcement of relevant regulations.

Commenting on the award, Chris and Xi said: "We are excited for the best paper award and very happy to see that our hard work paid off, especially that of Jingjing, our brilliant PhD student, who has put a lot of time and effort on this project.

"We look forward to finalising this work relevant and have direct implications for policy makers and firms operating in institutional environments that suffer from corruption, political interference and weak enforcement mechanisms."

Jingjing added: "It is a great honour to attend this prestigious conference and receive this award on my final year of PhD studies at the Management School.

"As a PhD student, I am grateful to have a chance to work with my supervisors and so thrilled that our joint work can be recognised.

"This achievement will

"I would also like to thank the funding

support from 'ULMS PhD Conference

Support Scheme' that allows me to

take advantage of this opportunity!"

connections, environmental violations and punishment

Review of Financial Analysis (in press); DOI: 10.1016/j.

<sup>1</sup> Florackis, C., Fu, X. and Wang, J. (2023), 'Political

boost my confidence and help me move forwards in my academic career.

"Big thanks to my supervisors Professor Chris Florakis and Dr Xi Fu who always encourage and support me as much as they can during the process!



## MANAGEMENT **SCHOOL ONLINE MBA RANKED TOP 10 BY FINANCIAL TIMES**

Following the submission of data and an alumni survey carried out earlier this year, the Management School's online MBA has reached the top 10 of the Financial Times (FT) 2023 ranking of online MBAs.

Ranking first overall for 'career progression', the Management School excelled in alumni job seniority and the size of the organisations they now work for, compared with three years ago.

ALSO, THE AVERAGE ONLINE MBA GRADUATESAW AN INCREASE OF 32% IN THEIR SALARYON COMPLETION FROM THE ONLINE MBATO NOW.

On the basis of 'value for money', the FT's 2023 survey found the Management School's online MBA to be third overall by taking into consideration alumni salaries, scholarships, fees and other costs as reported by graduates.

'International mobility' and 'carbon footprint' were also areas of success as the School ranked fourth across both categories.

Commenting on the success of the Management School Dr Lisa Day, Director of Online Programmes and Director of Studies Online MBA, said: "I am delighted that the Online MBA programme has been ranked in the top 10 FT ranking.

"Inclusion in this ranking reflects the quality of our triple accredited Management School, the experience and expertise of our faculty, the diversity of our global students and the career progress of our alumni.

"The Online MBA FT ranking underlines the University of Liverpool's position as one of Europe's leading providers of online postgraduate degrees."

This year's FT online MBA ranking features a number of Schools from across the country plus international Schools from Spain, United States and Italy.

Additional criteria that the School was measured on include the number of international students, environmental, social and governance, overall programme satisfaction, delivery of teaching and value for money.

The University of Liverpool's online MBA programme is delivered in partnership with Kaplan Open Learning.

Commenting on the announcement, Nicola Pittman Managing Director of Kaplan Open Learning said: "We're delighted to see the online MBA from the University of Liverpool Management School achieve this important external recognition by the Financial Times.

"We have worked very closely with the University to bring Kaplan's renowned expertise and award-winning virtual learning environment to the MBA programme and others.

"This influential ranking confirms the truly global appeal and reach of the University of Liverpool's online study programmes, including the MBA."



Scan the QR code to find out more about the Management School's online MBA, or visit: https://online. liverpool.ac.uk/programmes/mba









### **NEW PARTNERSHIP WITH INDUSTRIAL REFRIGERATION AND ENGINEERING BUSINESS, SURE SOLUTIONS**

The Management School has welcomed a new partner to its business network, following the signing of a new corporate agreement with locally-based industrial refrigeration and engineering business, SURE Energy Solutions Ltd.

URE Solutions took part in the University of Liverpool Management School's Growth Catalyst programme in 2020, which added vital scaleup skills and leadership experience to the team during their early phases of growth.

SURE Solutions has a long history of collaboration with the School, as the team has regularly worked with business and management students over the parts few years on a number of initiatives, including the MBA work-based projects.

"As an SME based in Wirral, this corporate partnership will enable us to expand our reach, access student and graduate talent and promote the benefits of a career in the RACHP industry," said Operations Director at SURE Solutions, Craig Shaw.

As a business that has scaled rapidly, it will also enable us to enhance our competitiveness and access new ideas and ways of working as we continue to grow.

External Engagement Manager at the University of Liverpool Management School, Hazel Kennedy said: "We are really pleased that the Management school has been able to secure this partnership with SURE Solutions and formalise a basis for further collaboration.

We are looking forward to working with the SURE Solutions team and developing some new and exciting opportunities."



## **SHAPING PREFERABLE FUTURES FOR A SOCIAL** VALUE FRAMEWORK IN THE **LIVERPOOL CITY REGION**

Research by experts at the Management School's Centre for Sustainable Business (CSB) has supported the Liverpool City Region Combined Authority (LCRCA) in shaping their future Social Value Framework.



Research by experts at the Management School's Centre for Sustainable Business (CSB) has supported the Liverpool City Region Combined Authority (LCRCA) in shaping their future Social Value Framework.

WITH CHANGES IN LEGISLATION NOW **REQUIRING A MINIMUM WEIGHTING OF** 10% TO BE EXPLICITLY ASSIGNED TO SOCIAL VALUE IN ALL PUBLIC PROCUREMENT TENDERS, THE RESEARCH COLLABORATION HAS HELPED DEFINE SOCIAL VALUE FOR THE LIVERPOOL CITY REGION'S SPECIFIC COMMUNITIES AND CONTEXTS.

Lead by CSB Director, Professor Jo Meehan, the research primarily focused on a series of innovative participatory 'futures' workshops, where LCRCA decision makers constructed multiple 'probable' and 'plausible' futures.

This allowed them to 'step into and look around' to explore and challenge how social value might impact the region in 2032, in each of those scenarios.

Holistically analysing the complex and interacting factors at play in desirable future scenarios helped reveal deeprooted assumptions, as well as the tasks, policies, responsibilities and actions needed today to shape preferable and socially equitable futures.

Collaboration between the Combined Authority's Social Value Policy Team and CBS researchers has resulted in the LCRCA Social Value Policy and Framework 2022, which provides insights into how social value should be embedded in policies and processes to maximise its impact across the region.

"Social value means the Combined Authority getting a 'bigger bang for its buck' than simply the lump sum we invest in any given project," said LCR Metro Mayor, Steve Rotheram.

"Our new Social Value Framework will guide how we invest our resources, so that we grasp every possible opportunity to deliver a fairer, more socially just City Region, where no one is left behind."

LRCA Chief Executive, Katherine Fairdough, also highlighted the value of the new policy, and its potential to improve the wellbeing of the region's communities and residents:

"It can really help to understand what's needed, and connect with our residents and the people who use our services, so that the way we design our services meets their requirements.

"Across the world people are really getting their heads around social value, investment for social gain, equality, diversity and inclusion, and also net zero, and there's a really clever way of joining up those agendas.

"The CSB Team share my passion for equality, diversity and inclusion, and those really strong values that the city region has around promoting inclusive growth."

"The problem with social value is trying to tie it down and measure it, and trying to understand how it affects people's everyday lives," said Jo.

"There's a number of key takeaway messages from this research.

"Social value is everybody's job; we all have something to contribute to social value, and we all have something to gain and something to give, so we really want this to be inclusive."



Scan the QR code to read a full case study on this research.

# UPCOMING **EVENTS**

### 26 June

#### **Big Data Analytics Roundtable**

Roundtable organised by the Liverpool Advanced Methods for Big Data Analytics (LAMBDA) Research Cluster, where delegated will gain firsthand insights from industry experts, on the benefits and challenges of integrating big data analytics within business decision-making.

### 27-29 June

#### Operations and Supply Chain Management (OSCM) **Conference and 1st Symposium on Blockchain Research**

Three-day conference where early researchers will learn publication tips from editors at leading journals specialised in OSCM, and participate in the first Symposium on Blockchain Research within supply chain contexts.

### **28 June**

#### **Centre for Sustainable Business Summer Conference 2023**

First in-person Centre for Sustainable Business Summer Conference, where researchers, business practitioners and policymakers will discover the potential of a 'purpose-led' approach to tackle the climate emergency and social justice issues.

### **4–5 September**

#### British Accounting and Finance Association Northern Area Group (BAFA-NAG) Annual Conference

Hosted by the Management School's Accounting and Finance Subject Group, this year's BAFA-NAG Conference will focus on the significant role of accounting and finance in promoting business sustainability.







Scan the QR code to find out more about the Management School's upcoming events, or visit: liverpool. ac.uk/management/conferencesand-events/



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