UNIVERSITY OF LIVERPOOL

Management School

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

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Research.

Contents

02 CRYPTOCURRENCIES: HOW THE FEAR OF MISSING OUT DRIVES POOR INVESTMENT DECISIONS

05 NURSES ARE NOT HEROES: CHALLENGING POLITICAL INVISIBILITY THROUGH SOCIAL MEDIA

08 TURNING THE LIVERPOOL-BELFAST GREEN SHIPPING CORRIDOR INTO REALITY

10 "FINANCIAL STAKEHOLDERS VALUE BETTER QUALITY INFORMATION AND MORE SUSTAINABLE BUSINESS PRACTICES"

13 REVOLUTIONISING SUSTAINABLE TRANSPORTATION IN SUBURBAN AREAS

14 LIVERPOOL ADVANCED METHODS FOR BIG DATA ANALYTICS (LAMBDA) RESEARCH CENTRE

17 DO MUNICIPAL AND NON-PROFIT BUSINESS MODELS HOLD THE KEY TO SUSTAINABLE OUTPATIENT CARE IN GERMANY?

18 RESEARCHERS SECURE RADICAL CHANGES TO MODERN SLAVERY GUIDANCE

19 FROM 'YOU' AND 'ME', TO 'US': THE VALUE OF INFORMAL INTERACTIONS BETWEEN MIDDLE MANAGERS IN CROSS-BORDER ACQUISITIONS

22 THE UNWELCOME EFFECTS OF LIMITING PRICE INFORMATION SHARING AMONG OLIGOPOLY RIVALS

24 HELPING THE BANK OF ENGLAND MAKE BETTER POLICY DECISIONS WHEN FINANCIAL UNCERTAINTY HITS

26 HOW LIVESTREAMING CAN HELP BRANDS OVERCOME INFLUENCER FATIGUE AND ENGAGE GEN ZERS

30 FT RESEARCH RANKING UNDERPINNED BY MANAGEMENT SCHOOL STUDY

31 EMPOWERING THE FUTURE ECONOMICS RESEARCHERS FROM UNDERGRAD YEARS

32 "MUSICFUTURES IS A CHANCE FOR LIVERPOOL TO SHOW HOW RESEARCH, INDUSTRY AND EDUCATION CAN SHAPE THE FUTURE OF MUSIC"

Welcome to the fifth edition of *Research*, highlighting the vibrant and impactful work taking place across the University of Liverpool Management School.

We start this issue with groundbreaking research on how investors make decisions in the crypto market, nurses' use of social media to gain political influence and the next steps to bring the Liverpool-Belfast green corridor to life. Then we move on to insightful investigations into the key role of middle managers in international acquisitions, the effects of asymmetric information in oligopoly prices and how livestreaming can be integrated into influencer marketing to effectively engage Gen Zers.

We also take a closer look at our Liverpool Advanced Methods for Big Data Analytics Research Centre and provide examples of how our researchers are impacting businesses and policymaking. **We hope you find it interesting!**

During the past 12 months, our School has continued to demonstrate its leadership in research-informed education and commitment to addressing the challenges facing today's organisations and society.

OUR RESEARCH CULTURE CONTINUES TO THRIVE, WITH NOTABLE EXAMPLES OF INFLUENCE IN POLICY AND PRACTICE ACROSS CRITICAL AREAS, SUCH AS MODERN SLAVERY LEGISLATION AND AMBITIOUS MARITIME DECARBONISATION PROJECTS.

We are proud to support and grow our academic community, with trailblazing events, like our *AI Technologies and the Future of Management Symposium*, which offer interdisciplinary insights on urgent challenges.

This exciting journey continues with the hosting of the *Spring Servitization Conference and Doctoral Symposium in May*, and the third Operations and Supply Chain Management PhD Summer School in June 2025, following two prior very successful workshops.

All while we get ready to welcome the international research community to Liverpool for the *43rd European Group for Organisational Studies (EGOS) Colloquium* in 2027.

This year, we also celebrate retaining our top-tier position in the CEO Magazine Global MBA Rankings, recognising the strength and relevance of our programmes and the dedication of our entire team.

We are pleased to see our international reputation growing with an upward trajectory in the QS World University Rankings by Subject 2025, rising from the 201–250 to the 151–200 band in Business and Management Studies and Accounting and Finance.

Alongside these achievements, we also entered the Marketing subject ranking for the first time at 51 – 100, while we continue to do well in the Statistics and Operations Research ranking at 101-150.

In line with global trends and employer needs, we have expanded our postgraduate portfolio with the launch of cutting-edge MSc programmes to ensure graduates are prepared to lead in an increasingly dynamic world.

Drawing on our academics' expertise and experience with industry leaders, we have developed master's programmes to equip students with in-demand skills in business sustainability, green finance, tourism marketing analytics and sports business analytics.

As ever, I am proud of what our staff, students and partners have achieved this year, and I'm inspired by the impact we continue to make together.

I look forward to another prosperous 12 months for the School and I hope you enjoy reading this edition of Research.

Professor Julia Balogun
Dean of the University of Liverpool Management School

CRYPTOCURRENCIES: HOW THE FEAR OF MISSING OUT DRIVES POOR INVESTMENT DECISIONS

Professor Charlie Cai
Professor of Finance and Accounting and Finance Group Director of Research

Professor Charlie Cai's research confirms the unsophisticated and risk seeking behaviour of specialised crypto investors, often driven by the fear of missing out (FOMO) rather than objective return valuations.

In a joint study with Fowler College of Business' colleague, Dr Ran Zhao, Charlie introduces a new salient effect measure that offers a close description of the current price dynamics in the crypto market.

They document how crypto investors tend to follow the crowd, putting money into cryptocurrencies which stand out due to price peaks that hit the headlines and trigger social media buzz.

This salience effect driven by the fear of missing out on cryptos with significant upward returns, causes overvaluation that results in profit loss.

The analysis reveals this investment strategy yields substantially lower returns over the following month than investing in cryptocurrencies with salient price drops.

The investigation also confirms the salience effect is more pronounced in the crypto market than in equity markets, making it a significant risk factor for this developing asset class.

Price volatility in the crypto market: a story of peaks and troughs

Offering a groundbreaking blend of financial freedom, growth potential and technological intrigue, the crypto market has attracted a diverse range of individuals and institutions, reaching £2 trillion in value in just over 15 years.

This period has also seen an unprecedented surge in popularity among novice crypto-curious investors with little experience in dealing with extreme price volatility.

A glance through historical price charts in the crypto market shows a rollercoaster scenario with extreme spikes and slumps which occur quicker and more often than in mainstream markets.

Extremely sensitive to signs of mainstream acceptance and government bans, recurrent fraud scandals and even social media posts, the value of cryptos is difficult to gauge due to high uncertainty and limited fundamental information.

Most cryptocurrencies don't have a clear, tangible use, or their use is less obvious compared to companies in the stock market.

Unlike fiat money, cryptos lack economic fundamentals, such as being backed by governments, centralised, legally recognised and widely accepted.

Compared to traditional financial assets, they don't generate cash flows, and unlike precious metals, crypto coins don't have a long history of trust or cultural preferences as a means of storing value.

Despite the growing number of cryptos in the market, they are one of the most speculative assets to invest in, which gives rise to the question: How do investors decide which coins to invest in or whether to invest at all?

How concentrating on price spikes translates into profit loss

Investment decisions are not necessarily driven by rational risk-return trade-off, with evidence suggesting subjective estimations often prevail over objective valuations in the crypto market.

For example, investors may try to maximise future returns by favouring assets with salient payoffs that capture their attention, against average alternatives.

This behaviour closely matches that of the crypto market, which due to its emerging and non-mainstream nature creates an environment more likely to attract those with a salience bias.

USING MARKET VALUE DATA OF OVER 4,000 COINS[1] FROM COINMARKETCAP.COM FROM JANUARY 2014 TO JUNE 2021, CHARLIE AND RAN'S STUDY EXPLORES THE LINK BETWEEN SALIENT THINKING AND CRYPTO PRICING.

To do so, they first constructed a salience measure (ST) that quantifies how much salience bias distorts expectations of future returns compared to objectively realised past returns.

The analysis revealed coins with salient upsides yield lower returns over the following month than those with salient downsides.

Specifically, the average return for an investment strategy that involves buying high and selling low ST cryptocurrencies results in:

- 26% monthly loss in profit for an equally weighted portfolio, in which the same percentage of funds is allocated to each coin regardless of its size or market capitalisation
- 32% monthly loss in profit for a value weighted portfolio that favours larger cryptos with a higher percentage of funds, reflecting their greater market value.

CONVERSELY, PURCHASING DOWNWARD SALIENCE AND SELLING UPWARD SALIENCE CRYPTOS, WOULD BE A LUCRATIVE STRATEGY THAT YIELDS THE OPPOSITE (POSITIVE) RETURNS.

These figures are over 20 times greater than those reported in the US equity market and considerably larger than the microcap stocks[2] results.

This finding implies that there is a disproportionately large group of salience-driven investors who struggle to fully understand what crypto assets represent, underscoring the importance of regulations and investor protection.

Continued over...

[1] The sample included crypto coins with a market value greater than $1 million (£760K) and didn't contain stablecoins - cryptocurrencies with value pegged to another asset, eg fiat currency or gold.

[2] Microcap stocks are small publicly traded companies with a market capitalisation between $50-$300 million (£38-230 million).

[3] This includes significant and insignificant anomalies identified in Liu et al. (2022) – see next footnote –, plus new anomalies relevant to the prospect theory and skewness.

[4] See Liu, Y., Tsyvinski, A. and Wu, X., (2022), Common risk factors in cryptocurrency, Journal of Finance, 77 (2), 1133–1177.

Risk-seeking behaviour dominates the crypto market

When compared to other investment opportunities, the results show a strong salience effect is not observable in traditional markets, where fundamental information is essential for investors' decisions.

In other words, allocating capital among assets in the global financial market is more efficient and less influenced by salience bias.

ZOOMING IN ON THE BEHAVIOUR OF CRYPTO INVESTORS, THE ANALYSIS INDICATES THEY ARE MORE ACTIVE DURING LESS VOLATILE PERIODS IN THE STOCK MARKET AND THE ECONOMY, AND WHEN ATTENTION TO THE CRYPTO MARKET IS HIGH.

This means investors influenced by salience bias are likely to be risk-seekers, drawn to cryptocurrencies when other asset markets are calm and attention-grabbing cryptocurrency fluctuations occur.

So, the next question is: does this type of behaviour influence the price of crypto coins?

The salience effect as a mispricing phenomenon

Anomalies occur when an asset or a group of assets perform contrary to the notion of efficient markets. This can be caused by, for example, behavioural biases.

If the salience effect captures one of the key trading behavioural biases of crypto investors, it may be behind other return anomalies in this emerging asset class.

If so, this would mean the salience effect is an important risk factor, influencing mispricing.

To investigate this, the authors tested to what extent this behavioural bias was able to explain several pricing anomalies in the crypto market[3].

The analysis indicates the salience effect is on par with the strongest risk factors documented so far[4], and therefore can be considered a distinct measure or crypto risk.

This means, it can not only predict future returns, but most importantly, influence prices and expected returns.

Although the salience effect is more prominent in the crypto market, its impact on prices varies depending on investor sophistication.

The largest cryptos are more likely to attract institutional investors' attention given their size and liquidity.

With more experienced investors putting money into big cryptos, the salience bias effect on pricing reduces.

This finding suggests that, as cryptocurrencies develop and become more regulated and integrated with mainstream finance, sophisticated investors will reduce the influence of salient thinking on this market.

Mispricing is more relevant to micro cryptos. While they account for just 3% of the market capitalisation, these assets represent approximately 87% of the number of cryptos.

This result is still economically important, as the market efficiency of the small but numerous cryptos will be essential for cryptocurrencies to consolidate as an asset class.

The study confirms salience thinking is more relevant for emerging assets with high uncertainties, but it's possible that once the market becomes more mature other pricing mechanisms may dominate.

Before then, Charlie and Ran's study offers a solid explanation of crypto market return dynamics.

Scan the QR code to read Charlie's paper or visit: **doi.org/10.1016/j.jbankfin.2023.107052**

NURSES ARE NOT HEROES: CHALLENGING POLITICAL INVISIBILITY THROUGH SOCIAL MEDIA

Professor Charlotte Croft and Dr Trishna Chauhan's research explores the influence of social media to challenge professional stereotypes and gain political influence in nursing.

Professor Charlotte Croft
Professor of Organisation Studies and Head of the Work, Organisation and Management Group

Dr Trishna Chauhan
Lecturer in Organisation Studies

As part of an ongoing research project focused on social media activity before, during and after COVID-19, they investigate whether nurses' increased visibility has resulted in better working conditions and influence in healthcare.

The preliminary results suggest that while a more accurate social perception of nursing was achieved at the pandemic's most critical times, the effect was short lived and generated limited political leverage.

The authors argue spotlight visibility, leading to political (in)visibility, may be more damaging and restrictive to evolving forms of professionalism than stereotypical invisibility.

In the context of a long-standing NHS workforce crisis, the research provides important insights on the power of social media to develop political influence over more powerful actors.

Nurses: A fundamental but "invisible" piece of the healthcare system

Nurses are the largest professional group in global health systems and a key resource in the drive for high quality care, cost improvement and service innovation.

However, the UK is struggling to maintain adequate staffing levels despite government efforts, (ie NHS Long Term Workforce Plan[1]), as waiting lists grow faster than the workforce.

THE NHS HAS UNDERGONE A RECRUITMENT AND RETENTION CRISIS SINCE THE LATE NOUGHTIES, EXACERBATED BY THE SCRAPPING OF NURSING BURSARIES IN 2017, BREXIT AND THE CORONAVIRUS PANDEMIC.

[1] The NHS Long Term Workforce Plan, published on 30 June 2023, sets out how the NHS will address existing and future workforce challenges by recruiting and retaining thousands more staff over a 15-year period, and working in new ways to improve staff experience and patient care.

Continued over...

In nursing, this translates to more than 43,000 vacant roles in England[2], a scenario deepened by a staggering 35% decline in student nursing applications for 2025[3].

Despite the increasing technical skills and academic education required, nursing has been traditionally perceived as a "girl's job" with professionals often seen as passive angels, sex objects or unskilled handmaids.

Outdated stereotypes have contributed to the "invisibility" of their skills and exclusion from organising processes by political leaders who devalue the non-medical, caring work central to nursing.

As a result, nurses have struggled to secure an influential role in the organisation of care beyond their professional jurisdiction.

But the unique circumstances of the pandemic, refocused public and political attention on nurses, who were applauded (literally and figuratively)[4] and celebrated on social media.

Exploring social media's potential to change models of professionalism

Charlotte and Trishna explore the potential of social media to change models of occupational professionalism, by analysing over 1,300 UK posts from nurses and the general public between 2018-2024[5].

The goal is to better understand the impact of the evolving social media rhetoric on nurses' role in the organisation of healthcare, ie moving from 'controlled' to 'organising professionalism'[6].

Although still ongoing, the analysis suggests four stages of professional (in)visibility before, during and after the acute phase of COVID-19.

COVID-19: An opportunity to dismantle stereotypes and gain political power

Prior to the pandemic, nursing was in a state of **stereotypical invisibility** (2018-2020), with the profession characterised as feminised, dirty and underpaid work, performed by "angels".

Nurses on social media stressed the need to defy these misrepresentations reinforced by media and political rhetoric, as they undermined their ability to construct a professional identity aligned with a demanding role.

However, the pandemic led a period of **spotlight visibility** (2020-2021), which brought two key changes.

Firstly, an increased social recognition of nursing work, demonstrated through public clapping, social media images, the return of retired nurses and new staff joining the workforce.

COVID-19 gave nurses an unprecedented opportunity to communicate their pivotal role in managing the crisis, the highly skilled nature of their job and the physical, mental and emotional pressures associated to it.

Secondly, enhanced organising professionalism, with nurses turning to social media to point out the government's shortcomings in healthcare planning during – and before – the emergency.

SOCIAL MEDIA ALSO GAVE NURSES A PLATFORM TO REJECT THE NEW "HERO" STEREOTYPE, AS IT NORMALISED THEIR HORRIFIC WORKING CONDITIONS, INCLUDING INADEQUATE INSUFFICIENT PERSONAL PROTECTIVE EQUIPMENT (PPE)[7], LOW PAY, AND OVERWHELMING COVID-19 DEATHS AMONG HEALTHCARE PROFESSIONALS.

For example, nurses shared PPE images to highlight the physical struggles of working in such conditions[8], but also used them to lambast the government for the lack of equipment.

[2] Source: Royal College of Nursing - 'Dangerously inadequate staffing levels': NHS waiting list growing 4 times faster than nurse workforce

[3] Source: Royal College of Nursing - 'Hammer blow for NHS reforms', as student nursing applications fall again

[4] The 'Clap for Carers' campaign was initiated in the UK during the first wave of the pandemic. Every Thursday at 8pm people would stand outside their door and clap to show appreciation for NHS workers.

[5] The dataset included publicly available X (previously Twitter) and Instagram post, plus nursing blogs, assessed via thematic analysis, a qualitative method commonly used in social sciences., where data is closely examined to identify common themes, topics, ideas and patterns of meaning that come up repeatedly.

[6] 'Controlled professionalism' refers to occupational models where professionals are controlled by top-down processes, encouraging them to behave in organisationally desirable ways. Conversely, in models of 'organising professionalism', professionals embed managerial processes in their work, to establish connections across multiple domains to jointly tackle complex issues. This concept goes beyond controlled professionalism, as staff become involved in organisational decisions to buffer the profession from managerial intrusion.

[7] PPE includes masks, visors, hazmat suits, aprons, etc.

[8] Eg swelling, sweating, dehydration, difficulty to see and breathe, etc.

The short-lived effect of spotlight visibility on political influence

Their strengthened professional identity allowed nurses to use social media to leverage increased political influence and position themselves as healthcare leaders alongside doctors, managers and politicians.

On the one hand, they became a reputable voice in promoting social responsibility, by aligning themselves with government messages, including #StayAtHomeSaveLives, #StayAtHome and #StopTheSpread.

On the other hand, nurses used social media to fight government decisions to exclude them from the public sector pay rise and their refusal to pay student nurses who worked through the pandemic.

This materialised in trending conversations around the #NHSWorkersSayNO and #IamProvidingAService hashtags, which gained significant traction outside the profession.

While a public outcry forced the government to honour the payment contracts for students, nurses were unsuccessful in securing better pay and working conditions.

In a period coined by the authors as **sanctioned invisibility** (late 2021), nurses started to lose political and social influence when the government challenged the skilled nature of their job.

As a result, hostility against nursing work returned to social media and became exacerbated after a series of strikes, which negatively skewed public perceptions.

Social media conversations went back to diminishing the value of nursing, suggesting they could be easily replaced by international workers willing to work for less.

At the same time, nurses reduced social media activity due to concerns of their posts being used to undermine or penalise them.

While this could be seen as a return to 'stereotypically invisibility', the ongoing data analysis does not indicate the situation is straightforward.

Instead, the authors argue nursing has entered a novel period of **political (in)visibility** (2022 onwards), where politicians alter their rhetoric depending on their interests.

POLITICAL PARTIES SIMULTANEOUSLY RENDER NURSING WORK INVISIBLE TO AVOID CHALLENGING CONVERSATIONS ABOUT WAGES AND WORKING CONDITIONS, WHILE THEY PROMOTE IMAGES OF NURSES IN THE PANDEMIC TO SUPPORT THEIR AGENDA.

Examples like referring to the altruistic heroism of healthcare workers in the pandemic to deflect questions about pay rises, illustrate how nursing may have reached a stage of being paradoxically (in)visible.

Learning how to use social media to improve the future of nursing

While increased visibility of nursing via social media temporarily resulted in a return of retired staff and more student applications during COVID-19, the effect was brief.

If anything, research now suggests COVID-19 exacerbated a pre-existing workforce crisis, with recruitment and retention dwindling in the face of poor public understanding or political respect for nursing work.

Although the research is still not completed, Charlotte and Trishna's analysis illustrates how this shift in public perception has played out on social media.

It provides valuable insights from a range of different audiences, with potential for future impact on nursing education and developing strategies to use social media to gain political influence.

The study also sets out a research agenda to explore how under-represented professional groups may communicate, perpetuate or change perceptions of their profession through social media.

TURNING THE LIVERPOOL-BELFAST GREEN SHIPPING CORRIDOR INTO REALITY

Dr Cagatay Iris
Senior Lecturer in Operations and Supply Chain Management

Dr Cagatay Iris' investigation looks into the pathways and associated challenges of port, shipping and logistics decarbonisation, and identifies the priority initiatives to take a leap forward for a green shipping corridor in the Irish Sea.

In a joint research project involving British and Northen Irish universities, industry partners and innovation agencies, Cagatay and colleagues have defined a feasible roadmap to decarbonisation in the Liverpool-Belfast corridor, with potential to be rapidly initiated for regular sailings.

The results, summarised in the Liverpool-Belfast Green Shipping Corridor (2024) report, explain the technical and policy changes needed to establish a green shipping corridor between the two cities and regions.

The report also identifies 29 suitable pilot projects to develop the corridor further and secure a leading international role in green ports and shipping for the UK.

As well as the potential to scale up and catalyse the energy transition in similar maritime operations, the project presents opportunities for expansion into the hinterlands and port-rail connections with other cities.

Urgent need for action to reduce emissions in the maritime sector

In Liverpool and Northern Ireland alone, maritime transportation generates nearly 14,000 direct jobs and contributes almost £5bn per year to the UK economy.

However, the shipping sector's financial impact comes with an important environmental cost, as it is responsible for around 3% of global greenhouse gas (GHG) emissions.

Shipping emissions have accelerated in recent years, and with maritime transportation expected to grow, we could see a 50% increase in GHG emissions by 2050, relative to 2018 levels[1].

The urgent need for action is demonstrated by international initiatives to achieve net zero carbon emissions by the mid-century.

In line with the Paris Agreement, the International Maritime Organisation[2] seeks to reduce shipping GHG emissions by 100% by 2050, with a global shift away from fossil fuels by 2030.

In the UK, the Sixth Carbon Budget sets strict limitations[3], and for the first time includes the national share of international shipping GHG emissions, increasing pressure on the maritime sector to decarbonise.

Defining a feasible roadmap to maritime decarbonisation

In a move to develop practical solutions, the Clydebank Declaration – signed by 24 nations at COP 26 – set the commitment to establish six green shipping corridors by 2026.

A green corridor is a maritime route between two or more ports, aimed to support the transition to zero emissions, through the route and at port facilities.

The concept involves all initiatives deployed to lower the environmental impact of domestic and international trade, when vessels are stationary (berthed) and sailing.

With the full value chain[4] approaching barriers to decarbonisation together, green corridors help break down existing silos and develop collective solutions.

Green corridors present challenges in several areas, from energy supply and land-based logistics to regulation and safety implications, plus commercial viability.

To provide realistic solutions, Cagatay is working as part of a research consortium involving Connected Places Catapult[5], Royal HaskoningDHV[6], Mersey Maritime[7], the University of Liverpool, Queen's University Belfast and Liverpool John Moores University.

The project aims to kickstart the Irish Sea green shipping corridor and inspire collaboration with local authorities, shipping lines, port authorities, investors, regulators and energy providers.

[1] According to the International Maritime Organisation's Fourth Greenhouse Gas Study 2020, shipping related emissions increased nearly 10% between 2012 and 2018.

[2] The International Maritime Organisation is the United Nation's Global Maritime Regulator, to reduce emissions in the maritime sector as per the Paris Agreement 2016.

[3] The UK's Sixth Carbon Budget sets limits on the volume of GHG emitted over a five-year period between 2033-37 to take the UK three-quarters of the way to reaching net zero by 2050.

[4] The value chain refers to all the business activities involved in creating a service.

[5] Connected Places Catapult is the UK's innovation accelerator for cities, transport and place leadership.

Bringing the green corridor to life

Although vessels use energy when they are berthed and sailing, the latter is typically responsible for the highest GHG and air pollutant emissions.

Operating a fully electric vessel in the Irish Sea can be challenging beyond short distances, due to, for example, energy storage constraints and available in-port charging facilities.

Low-carbon liquid fuels might be a suitable alternative to diesel, but the most efficient, safe and cost-effective option must be identified[8].

Based on stakeholder preferences and a technical review of available energy sources, methanol and shore green power emerged as the preferred potential options, but this requires infrastructural changes at both ends of the corridor.

While methanol is emerging as industry-preferred, it needs 2.3 times the volume of fuel compared to marine diesel, thus new in-port operational procedures and storage tanks are needed to safely handle this fuel.

Alternatively, the existing supply pipe networks could be modified to transfer methanol from nearby production sites, with the most suitable candidates being Liverpool's Stanlow Terminals[9] and/or Hynet[10], and Port of Larne[11] in Belfast.

A significant investment in the National Grid would also be necessary to increase electrical capacity, either via new Energy System Operator (ESO) substations[12] at ports or by improving connections with existing ones[13].

Changes in terminal infrastructure are also required to support new shore power systems and facilitate energy independence.

[6] Royal HaskoningDHV is a consulting engineering company specialised in climate change, digital transformation and energy transition.

[7] Mersey Maritime is the regional cluster organisation for the maritime industry and wider supply chain in the Liverpool City Region and the greater Northwest.

[8] Low-carbon liquid fuels present their own challenges. Due to lower energy densities, larger volumes of these fuels are required for the same journey compared to diesel. A larger challenge is the sourcing and supply of new fuels to vessels within regional geography, either via local generation or transport from fuel hubs.

[9] Stanlow Terminals in Ellesmere Port (Cheshire) is developing the UK's first CO2 import terminal, essential in the production of e-methanol.

[10] HyNet North West is a low carbon and hydrogen energy project aimed at reducing CO2 emissions from industry and support economic growth in the North West of England and North Wales.

This may include new quayside structures, alongside high-voltage cable networks and on-site renewable energy facilities.

But technical solutions are not the only issue, as stakeholder collaboration holds the key to low carbon sea freight.

The report includes several recommendations for government leaders to address ecosystem barriers:

- Stricter environmental legislation, policies and strategies to support and enforce decarbonisation, ideally aligning with EU policies
- Subsidies and incentives for shore power installations and to reduce the cost of alternative fuels and electricity
- Commitment to public-private co-investment in green maritime
- Support to close local skills gaps for the green shipping corridor
- A single management board to oversee the regional green shipping transition and future direction of the corridor.

Where to start?

The report also sets up a future course of action, with a series of practical initiatives for asset owners, operators, investors and government to engage with.

Following a rigorous assessment and stakeholder feedback from 29 pilot projects developed in collaboration with industry representatives, several pilot projects emerged as priority first steps.

The 'Incentivised commercial model for shore power investment' project, seeks to design a bespoke commercial model for investment in shore power, so faster infrastructure and vessel investments are attracted.

The goal is to appeal to private investors with financially attractive options, such as leasing, construction and electricity subsidies, etc, to provide capital.

[11] Port of Larne is part of the Power-to-X Project aimed at facilitating the use of green methanol as a scalable zero emission fuel for maritime industry. The plans include developing facilities to synthesise e-methanol at the port.

[12] In Liverpool, this would include building a new ESO substation near the port and additional high-voltage distribution within Seaforth Dock, supplied by renewable energy.

[13] In Belfast, this might involve laying a new high-voltage cable across Belfast City to establish additional connections with existing ESO substations at a 5km distance.

[14] Feed/waste fuels are made from organic matter, such as food waste, animal manure and wastewater.

'Shore power implementation at one berth' is a project that focuses on direct carbon savings from berthed electrification and aims to test the feasibility of providing shore power to one single berth before scaling up.

The idea is to build an onshore power supply berth at Victoria Terminal 2 (Belfast) or 12 Quays (Birkenhead), and quantify carbon savings, fuel reduction, GHG emissions, air quality improvement and demand spikes, alongside learning from the construction process.

The 'Irish Sea energy simulation model for electricity/alternative fuel demand' project aims to evaluate and forecast the economic feasibility of supply chain options for electricity and alternative fuels use, to guide capital investment.

The project estimates future energy demand and considers available energy sourcing and generating opportunities in the Irish Sea and the wider region.

'TRIAL PRODUCTION OF E-METHANOL AND METHANOL DIESEL BLENDS AS MARINE FUEL' FOCUSES ON TESTING THE PRODUCTION OF THESE FUELS, USING OFFSHORE WIND ENERGY AND FEED/WASTE FUELS[14].

Finally, 'Energy management system for ports', focuses on delivering smart energy management frameworks to create extra capacity and reduce power waste, through a smart meter and sub-station monitoring installation.

Scan the QR code to read the full report:
cp.catapult.org.uk/report/green-shipping-corridors-a-holisticapproach-to-decarbonising-maritime/

“FINANCIAL STAKEHOLDERS VALUE BETTER QUALITY INFORMATION AND MORE SUSTAINABLE BUSINESS PRACTICES”

Professor Shantanu Banerjee
Professor of Accounting and Finance

We speak to Green Finance expert Professor Shantanu Banerjee about the future of sustainable accounting and finance, and academia’s role in how we will tackle the upcoming environmental, social and governance (ESG) challenges.

CUSTOMERS ARE BECOMING INCREASINGLY MORE SENSITIVE TO THE ENVIRONMENTAL AND SOCIAL FOOTPRINT OF THE PRODUCTS THEY PURCHASE.

Companies are becoming increasingly vulnerable to public scrutiny over their approach to the climate emergency and social justice issues. However, are the rules of the game really changing for the corporate sector?

Non-financial stakeholders, such as customers, employees and local communities, have had minimal control over companies’ choices, despite the impact these could have on them.

The negative externalities have historically been ignored by managers and investors, and at best this was something to manage ‘strategically’ to avoid lawsuits.

However, years of environmental damage have brought us to the brink of a climate crisis.

This has driven non-financial stakeholders to take actions which are directly influencing firm behaviour and changing the priorities to succeed in a competitive business environment.

Customers are becoming increasingly more sensitive to the environmental and social footprint of the products they purchase.

Regulations are being developed to account for sustainability within production processes and business practices, and governments in most countries are designing incentives to achieve their net-zero targets.

There is also a growing majority of investors and financial intermediaries valuing the importance of sustainability of their portfolios and clients.

As a result of all these, the rules of the game for standards of sustainability practices and the requirements for related disclosures are changing rapidly in the corporate sector.

From a sustainability perspective, how are non-financial stakeholders influencing the financial management strategies of firms and investors?

Traditional financial theories often underestimate the role of non-financial agents in long term value creation, but there is increasing acceptance that such framework fails to generate business models which lead to sustainable value creation.

Retail customers with purchasing power are making educated choices about the products they purchase, and the environmental and social policy preferences of these end users are transmitting through the supply chain.

Social media is making it easier for customers, employees and other concerned stakeholders, to influence a company’s reputation on social and environmental responsibility.

For example, responding to customer preferences, Unilever launched its Sustainable Living Brands[1], which include Dove and Ben & Jerry’s, focusing on reduced carbon footprints and ethical sourcing. These brands grew over 50% faster than others in Unilever’s portfolio.

The regulatory scenario is also evolving fast. For example, the announcement of the International Sustainability Standards Board (ISSB)[2] at COP26 (Glasgow, 2021) set out the commitment to create a global baseline for sustainability reporting.

THE UK GOVERNMENT IS A STRONG SUPPORTER OF THE ISSB AND IS WORKING TOWARDS ADAPTING THE NEW REPORTING STANDARDS INTO UK LEGISLATION.

This means the Financial Conduct Authority will soon be able to introduce requirements for UK-listed companies to report sustainability-related information[3].

SEVERAL OTHER COUNTRIES ARE ALSO PRIORITISING STANDARDISED SUSTAINABILITY ACCOUNTING AND DISCLOSURE.

Social impact of corporations and working conditions of employees are also attracting a lot of surveillance.

For example, the 2015 Modern Slavery Act[4] obligates firms with a turnover of over £36m to report on the steps taken to tackle human exploitation in their supply chains.

Corporations can expect increasing social and legislative demands on the transparency and accuracy on the information they share in all aspects of sustainability.

However, many hold the perception that companies are just ‘ticking the box’ with generic reports and statements on sustainability. Is there real change or are they simply paying lip service?

Here we need to look at the role of all financial stakeholders, not just companies, and the value they place on corporate financial and non-financial reporting.

Unfairness and inequality grow in the system due to the self-serving nature of agents, but conflicts can be resolved by better quality information, and this also includes sustainability-related issues.

Long-term equity investors are pushing for businesses to safeguard the future of their investments and banks understand they cannot diversify away systemic climate risk of their lending portfolio, unless the overall impact of economic activity on climate is slowed down and reversed.

These financial stakeholders value better quality information and more sustainable business practices.

Climate risk exposure and carbon footprint impact borrowing costs, insurance and asset valuations of companies.

Firms integrating sustainability into financial strategies enhance resilience, attract responsible investors and secure long-term profitability while mitigating ESG risks.

Continued over...

[1] From 2010-2019 Unilever shifted its corporate identity towards sustainable living with its Sustainable Living Plan aimed at repositioning the fast-moving consumer goods giant as a purpose-driven company. In 2018, the company’s Sustainable Living Brands grew 69% faster than the rest of the business, delivering 75% of Unilever’s growth.

[2] The International Financial Reporting Standards (IFRS) is a set of accounting rules that govern how public companies report their financial information, to make financial statements consistent and comparable across borders. Following strong market demand, on 3 November 2021 trustees of the IFRS Foundation announced the formation of the ISSB, aimed at developing standards for high-quality, comprehensive global baseline of sustainability disclosures focused on the needs of investors and the financial markets.

[3] Based on the global corporate reporting baseline of IFRS Sustainability Disclosure Standards, the UK government is working on the development of the UK Sustainability Reporting Standards (UK SRS).

[4] The Modern Slavery Act 2015 provides law enforcement the tools to fight modern slavery, ensure perpetrators can receive suitably severe punishments and enhance support and protection for victims.

So, business organisations are trying to manage climate risk and improve business practices in a verifiable manner.

HIGH-QUALITY FIRMS ARE TRYING TO GO ONE STEP FURTHER BY ESTABLISHING BEST PRACTICES WHILE THE REGULATION OF STANDARDS FOR SUSTAINABILITY REPORTING DEVELOPS, TO SIGNAL THEIR QUALITY AND DIFFERENTIATE FROM COMPETITORS.

For example, IKEA uses Global Reporting Initiative (GRI)[5] standards and have set up ambitious goals (eg becoming climate positive by 2030) and clear performance indicators.

Unilever follows the Task Force on Climate-related Financial Disclosures (TCFD)[6] recommendations and is demonstrating clear indicators and roadmaps for carbon reduction with third-party verification.

[5] GRI is an independent, international organisation which has developed a common global language to assess and report on environmental, social and economic impacts.

[6] Established in December 2015 by the G20 and the Financial Stability Board, the TCFD provides recommendations on the types of information companies should disclose to support investors, lenders and insurance underwriters, so they can appropriately assess and price a specific set of risks related to climate change.

How can academia support the transition to a greener future, specifically in the area of accounting and finance?

The industry needs a new generation of professionals with their finger on the pulse of sustainable accounting and finance, to change the course of development to a greener future.

From our University's perspective, it all starts with a strong research foundation and industry links, that help us improve our learning environment and benefit our students.

Several researchers in the Management School's Accounting and Finance Group are already developing research projects on environmental, social and governance policies for different firms.

MY AIM IS TO TAKE UP A LEADING ROLE TO MAKE THIS IMPORTANT RESEARCH STREAM MORE PRODUCTIVE AND IMPACTFUL.

In terms of financial reporting there is potential for exploring, not only information content, but also how standardisation impacts the quality of sustainability disclosures and practices at company level, and the climate crisis overall.

Another area of particular interest is how firms respond to regional initiatives on biodiversity preservation and incentives to implement cleaner production methods, measure and manage climate risk exposure and benefit from sustainable human capital management.

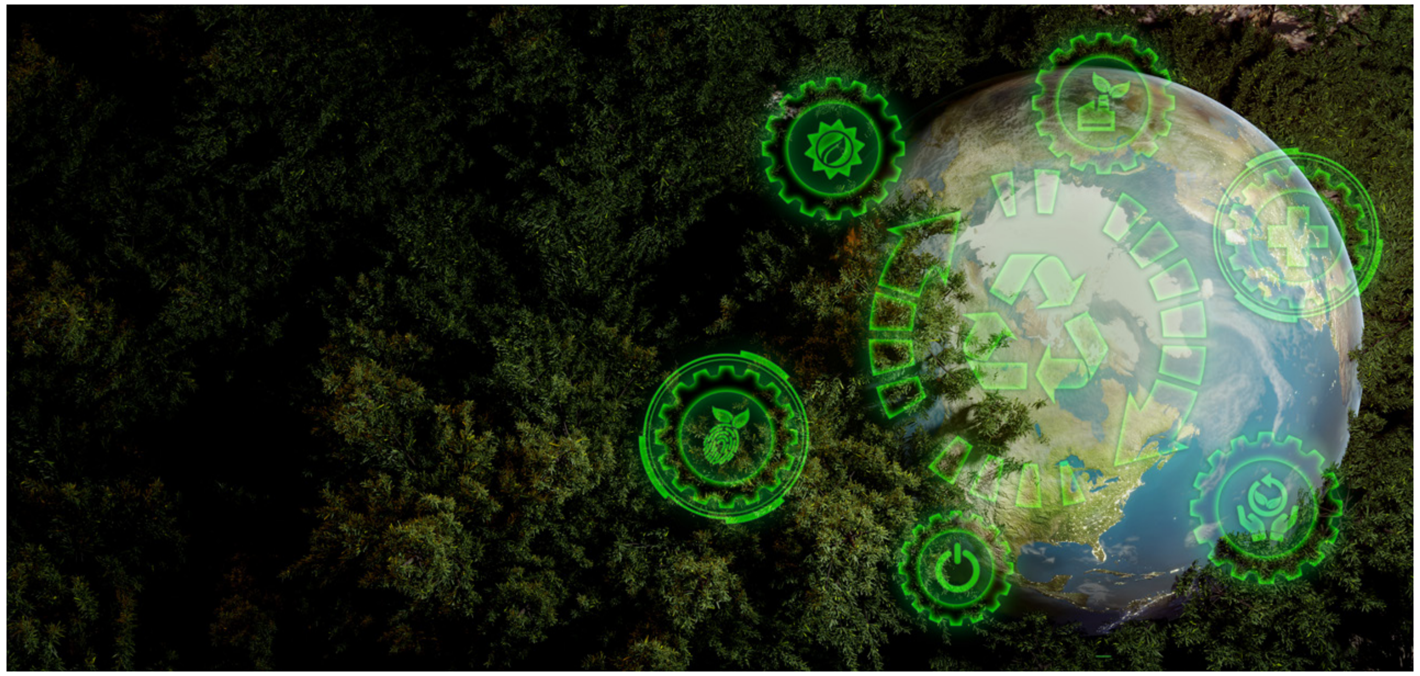
These lines of research will lead to collaborations with researchers in the Management School's Centre for Sustainable Business, the School of Environmental Science and other relevant multidisciplinary research groups within the University.

We are also looking at expanding our national and international impact, by enabling joint projects with business partners and other research institutions within and outside the UK.

From a teaching perspective, we are not only working to embed sustainability within our existing programmes, but we are also launching a specialist Green Finance and Sustainable Accounting MSc.

This programme integrates the mainstream principles of traditional accounting and finance, with specialist knowledge of modern sustainability concepts.

Our goal is to enhance employability for our students, as businesses, investment funds and banks are embracing new models that reduce environmental costs and create sustainable value for employees, customers and suppliers.



REVOLUTIONISING SUSTAINABLE TRANSPORTATION IN SUBURBAN AREAS

Professor Dongping Song
Professor of Supply Chain Management

Sustainable transportation experts from the School's Centre for Supply Chain Research are developing a groundbreaking green solution to optimise the way people and goods move in suburban areas.

Supported by a consortium of international industry leaders and academic institutions, the 'ERGODIC: Combined passenger and goods transportation in suburb traffic' project seeks to develop innovative, efficient and sustainable solutions to suburban mobility and the last mile challenge.

As suburban living relies heavily on private vehicles for commuting and getting everyday supplies, conventional public transport and delivery methods cannot provide high levels of service as they do in urban areas.

This is due to a lack of options to complete the last leg of the journey (last mile or last kilometre), in which passengers and goods move from a transportation hub to their final destination.

As finding sustainable solutions to the last mile problem is crucial to turn the 15-minute city concept into a reality, the project's partners are working on an ambitious multimodal transport system.

This a green alternative with great potential to reduce the use of (or even replace) private vehicles with comparable services, addressing some of the pressing challenges to urban mobility and sustainability.

The new system is compatible with the current public transport infrastructure, and integrates passenger and goods transport into a single and flexible network that combines:

- Electric modular vehicles for last-mile travel/delivery service: these can flexibly change capacity by adjusting the number of connected and segregated cabins that carry either passengers or goods
- Active micromobility: small, lightweight devices driven by users, such as e-bikes and electric scooters
- And cutting-edge digital technologies.

Commenting on the impact expected, leading expert in data-driven logistics and transportation systems, and the project's Principal Investigator, Professor Dongping Song, said:

"The new multimodal transport system developed in this project would offer a wide range of strategic, economic, environmental and social benefits, including reduced traffic congestion, lower pollution levels and improved accessibility and social inclusivity."

A well as maximising transportation resources and meeting the needs of communities living in the city outskirts, the project contributes to building a more sustainable and efficient future, as it tackles challenges connected to three UN Sustainable Development Goals (SDGs).

These are 'Gender equality' (SDG 5), 'Affordable and clean energy' (SDG 7), 'Sustainable cities and communities' (SDG 11). The project is funded by national agencies, including VINNOVA in Sweden, the Austrian Research Promotion Agency (FFG) and the Economic and Social Research Council in UK, under the Driving Urban Transitions programme with a total amount of £1 million.

HAVING STARTED IN LATE 2023, THE PROJECT IS EXPECTED TO CULMINATE IN 2026 WITH A PILOT IN THE CITY OF LINZ.

Lead by Chalmers University of Technology, the consortium includes international partners from Sweden (WSP and Einride), Austria (Johannes Kepler Universityv and City of Linz) and Italy (getPlus, NEXT Modular Vehicles).

The UK's project partners include the University of Liverpool, ESG Consultants Limited and British and Irish Trading Alliance, with the Management School acting as the lead British research partner.

A FOCUS ON...

LIVERPOOL ADVANCED METHODS FOR BIG DATA ANALYTICS (LAMBDA) RESEARCH CENTRE

Professor Abderrahim Taamouti
Professor of Applied Econometrics and Director of LAMBDA Research Centre

Exploring big data analytics and artificial intelligence's (AI) potential to improve business, finance and policymaking.

Since its launch in December 2023, the LAMBDA Research Centre has rapidly emerged as a dynamic hub for interdisciplinary research and thought leadership in AI, machine learning and data science.

Led by Professor Abderrahim Taamouti, the Centre develops and applies machine learning methods and algorithms to explore, describe, visualise and synthesise complex relationships commonly observed in a variety of problems.

These include strategic decision making under different market conditions, the economic impact of monetary, fiscal, trade and industrial policies, machine learning application in finance and new methods for econometric and big data analyses.

Building resilient investment portfolios in turbulent times

As part of the Centre's research activities, Abderrahim has worked with Dr Weidong Lin[1] and Professor Jose Olmo[2] to develop a transformative way to construct resilient investment portfolios during financial crises[3].

Systemic events can ripple through financial systems, affecting everyone from large institutions to individual investors.

Using advanced statistical models and machine learning techniques, they analysed how different assets behave during periods of widespread instability and identified those which are more resilient.

Testing this approach on US stock data from 2007 to 2020, the resulting investment portfolios performed better – compared to those built using traditional strategies – at key periods, such as the 2008 meltdown or COVID-19.

THIS PROVIDES INVESTMENT MANAGERS WITH A RELIABLE METHOD TO WEATHER THE STORMS OF THE FINANCIAL WORLD, WHILE STILL ACHIEVING THEIR GOALS.

On a broader scale, the research highlights the need for regulatory frameworks that go beyond individual risks, addressing financial interconnections to prevent cascading failures.

Policymakers could use this methodology to design regulations to encourage systemic risk-aware practices and contribute to create robust market structures able to withstand shocks.

Understanding the behaviours of gender-based violence (GBV) perpetrators

Following preliminary work with Merseyside Police, the LAMBDA Research Centre is working on the launch of an innovative research project, to better understand and address the behaviours of GBV perpetrators.

The project is supported by the Economic and Social Research Council and the Netherlands Scientific Council for Government Policy.

It involves a team of interdisciplinary experts form the University's Management School and School of Law and Social Justice, University of Manchester and Vrije Universiteit Amsterdam.

Employing longitudinal and life-course methodologies, the project aims to inform data-driven and effective interventions in collaboration with statutory and voluntary sector partners.

Some of the key challenges the project addresses include measuring behavioural change, tackling in-person and online harm, and developing interventions that ensure victim safety while engaging perpetrators meaningfully.

The research spans a broad range of GBV-related issues, from coercive control to digital abuse, and considers trauma history, risk factors and pathways into and out of offending.

Discussing the power of data analytics in business and social science

The Centre has also hosted a series of high-impact events, bringing together leading academics, industry professionals and students, to explore the transformative power of data analytics in business and social science.

These workshops and roundtables are designed to foster collaboration and advance understanding at the intersection of data science, AI and decision making.

For example, the 'Data Science, AI and Social Science' workshop, gathered distinguished scholars and practitioners to examine how AI is reshaping the analytical landscape across business disciplines.

In April 2024, the Centre held a second workshop, 'Machine Learning and High Dimensional Analysis', which tackled the complexities of working with high-dimensional data.

With expert contributions covering prediction, inference and robust decision making frameworks, the event underscored the importance of methodological rigour and the growing relevance of machine learning in social science research.

In June 2024, they shifted focus to the practical implications of AI integration in industry, with a roundtable titled: 'AI: Benefits and Challenges for Business'.

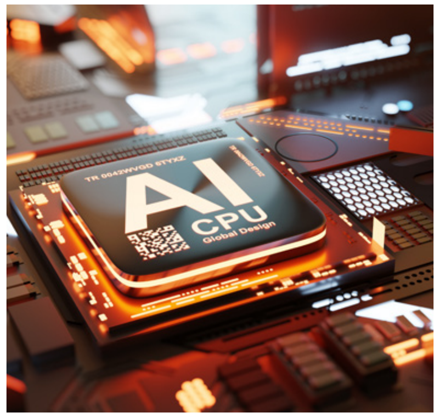
FEATURING EXPERTS AND LEADERS FROM AMAZON, AXA AND ANEKANTA AI, IT OFFERED AN OPEN FORUM TO DEBATE OPPORTUNITIES AND RISKS POSED BY AI-DRIVEN TECHNOLOGIES, BRIDGING THE GAP BETWEEN ACADEMIC INSIGHT AND BUSINESS INNOVATION.

More recently, the Centre hosted its 'Machine Learning and AI' interdisciplinary workshop, which explored cutting-edge applications of AI across finance, computer science and geography.

With keynote sessions on financial volatility modelling, human mobility and language models, it reaffirmed LAMBDA's position as a catalyst for groundbreaking, socially relevant research.

Each event reflects the Centre's core mission of promoting robust, cross-disciplinary engagement in big data analytics and translating theoretical advances into actionable insights.

Through these initiatives, they continue to foster a vibrant research community, dedicated to tackling the most pressing challenges of the data-driven era.



[1] Dr Weidong Lin is a Lecturer in Finance at NEOMA Business School.

[2] Professor Jose Olmo is a Professor of Financial Economics at the Universidad de Zaragoza and University of Southampton.

[3] See: Lin, W. and Taamouti, A. (2024). 'Portfolio selection under non-gaussianity and systemic risk: A machine learning based forecasting approach', *International Journal of Forecasting*, 40(3), 1179–1188; and Lin, W., Olmo, J. and Taamouti, A. (2025). 'Portfolio Selection under Systemic Risk. Journal of Money', *Credit and Banking*.

Firm behaviour and performance

Researchers specialised in this area investigate key aspects of firms' strategic decisions and their aggregate economic implications using large micro datasets.

The aim is to answer questions, such as how companies price products and compete in the global and local markets, manage supply chains and interact with business partners, and grow by upgrading their technologies.

Economic policy analysis and evaluation

Studies within this theme evaluate the impact of monetary, trade and industrial policies on economic outcomes, to make solid recommendations for policy makers.

This includes how training programmes and grants influence firm and labour market outcomes, the effects of innovation policies and impact of trade agreements on UK exports.

Big data and machine learning in finance

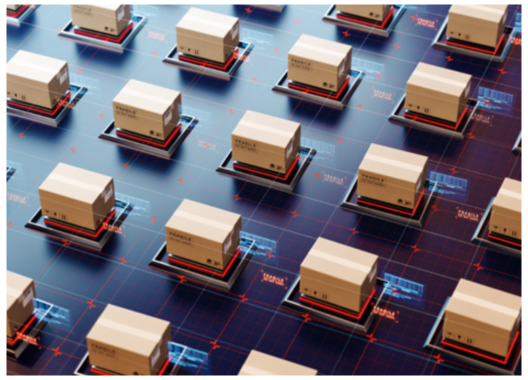
Research in this area focuses on the increasingly popular application of machine learning techniques in finance.

Projects under this theme include portfolio management using estimation, error minimisation via machine learning, account information fraud detection using textual analysis and machine learning, etc.

Econometrics and big data methods

LAMBDA Research Centre's members are at the forefront of theoretical and methodological research for modern econometric and big data analyses.

They lead world-class research in several areas, including Bayesian and machine learning methods, semi and non-parametric techniques for high dimensional or high frequency data, etc.



Big data analysis for business and management

In this area, big data analysis assists firms of different sizes and policy makers, to devise well informed strategies and accurately assess business outcomes at operational levels such as sales, cost, R&D expenses, etc.

Alongside analysis based on data obtained from firms' daily operations, researchers also use further parameters to enlighten critical business decisions.

DO MUNICIPAL AND NON-PROFIT BUSINESS MODELS HOLD THE KEY TO SUSTAINABLE OUTPATIENT CARE IN GERMANY?

Professor Zlatko Bodrožić
Professor of Digital Enterprise

Professor Zlatko Bodrožić's research project will explore the untapped potential of municipally and non-profit run outpatient medical care services in Germany, as a sustainable, community-oriented alternative to investor-driven models.

In 2004, the German Bundestag created the conditions for the establishment of Medizinische Versorgungszentren (MVZs).

SIMILAR TO GENERAL PRACTICES IN THE UK, MVZS ARE COMMUNITY CARE CENTRES – MULTIDISCIPLINARY AND SPECIALISTS – THAT PROVIDE PATIENTS WITH EASY ACCESS TO A RANGE OF MEDICAL SERVICES OUTSIDE OF HOSPITALS.

MVZs enable general practitioners and specialists to come together and set-up new models of care, under contracts funded by the Statutory Health Insurance (SHI) – equivalent to the UK's National Insurance contributions .

This is part of the German government's efforts to ensure equal and timely access to SHI services throughout the country, promote prevention and enhance patient rights.

MVZs are normally owned by healthcare professionals or hospitals, but the introduction of the Statutory Health Insurance Strengthening Act in 20215 made MVZs an attractive business venture.

According to recent estimates, approximately 21% of the 4,179 MVZs in Germany are owned by private equity firms, which have primarily invested in profitable services such as dentistry ophthalmology, radiology and orthopaedics.

Private equity investors have also poured money into affluent towns, leaving deprived and less populated rural areas behind.

This has made politicians and SHI decisionmakers uneasy, as well as practitioners who fear profit-oriented investors might restrict their autonomy and therapeutic freedom within MVZs.

In this context, less discussed municipal and non-profit models present an alternative that may bring opportunities to link outpatient healthcare with community needs and structures across sectors.

To shed light on this, Professor Zlatko Bodrožić, is working in a joint project with researchers from German universities, to explore the strengths and weaknesses of municipal and non-profit (or cooperatively run) business models vs investor-driven options.

Using a case study research design, the investigation will compare different MVZ ownership models and legal forms, organisational and business management factors, and performance dimensions (eg patient care, working conditions, diversity, co-determination and social space development).

From a legal perspective, the research will assess whether social, professional and municipal law regulations are suitable or detrimental to promoting public-interest-oriented medical care centres with good working conditions.

The goal is to examine the status quo of ideal MVZ models in Germany and possible paths toward a sustainable transformation of the healthcare system, which will provide important lessons for other countries like the UK.

"German MVZs offer a unique lens through which to examine the diversity of healthcare delivery models in Germany," said Zlatko.

"This project presents a great opportunity to study different organisational forms and assess which models are most effective in meeting healthcare needs.

"Of particular interest is the potential to strengthen the role of local communities within these models.

"Through this research, we aim to generate insights that can contribute to improving healthcare in Germany – and potentially offer inspiration for reforms in other systems, including the NHS."

RESEARCHERS SECURE RADICAL CHANGES TO MODERN SLAVERY GUIDANCE

Researchers at the Management School and the School of the Arts have successfully contributed to substantial changes to Government guidance on how UK businesses should report on methods to tackle modern slavery in their supply chains.

Dr Bruce Pinnington
Senior Lecturer in Operations Management

Dr Jessica Hampton
Lecturer in English Language and Linguistics

Nathan Davies
PhD Candidate in Operations and Supply Chain Management

On 24 March 2025, the UK Government published updated guidance[1] on the reporting obligations set out in Section 54 of the Modern Slavery Act 2015[2], following its latest update in 2017.

This guidance helps UK business complete statutory statements with details on the steps taken to address modern slavery in their global operations and supply chains.

Modern slavery expert, Dr Bruce Pinnington, environmental sociolinguist, Dr Jessica Hampton, and PhD candidate, Nathan Davies, have argued for such an update for two years, alongside experts from another three UK universities.

The guidance is non-mandatory and the updates don't involve changes to existing law.

However, as stated in the Minister's Foreword, it provides "practical advice to support businesses to undertake meaningful action to tackle modern slavery, incorporating the learnings from the past 10 years since the Act was introduced."

There are three major improvements:

- More detailed information on six recommended categories of disclosures
- A new section containing general principles on anti-slavery activities, including information on modern slavery frameworks, stakeholder engagement and continuous improvement on modern slavery disclosures
- Stronger messaging around the importance of tackling modern slavery.

Bruce, who advocated for stricter legislation and rewards for compliant firms at the House of Lords back in March 2024, commented on the changes:

"The revised guidance emphasises conforming with the spirit of the law, not just the letter; stronger language based around expectations, rather than options; and detailed content descriptors for each of the six sections of the report.

"Even without a change in the law, the much stronger wording is important in signalling to businesses that much stronger action is now expected.

"The detail now included in the guidance gives investors, NGOs and academics a much clearer foundation for critical appraisal of Section 54 statements".

In reference to the practical impact of the update, Nathan said: "It was a privilege to contribute to such a crucial topic which is a real-world business problem.

"Drawing from my research and professional experience, the new guidance brings the spirit of the law to life.

"It offers clearer, practical guidance that will improve transparency, strengthen compliance and hopefully drive meaningful change."

The new guidance was introduced at a closed event by the Home Office Safeguarding Minister, Jess Phillips, at the Central Westminster Hall in London.

During her speech, she drew on points made by the team, including why null findings in modern slavery statements should be negatively connoted, as the evidence suggests this is a symptom of insufficient action[3].

The School's research on modern slavery is part of a long-standing effort involving cross-faculty experts and members of the Centre for Sustainable Business, such as Director, Professor Jo Meehan, and PhD Candidate, Oliver Kennedy.

[1] See Home Office's 'Transparency in Supply Chains (TICS): statutory guidance' – www.assets.publishing.service.gov.uk/media/67dd67b4c6194abe97358c26/Transparency_in_supply_chains_a_practical_guide.pdf

[2] See: www.legislation.gov.uk/ukpga/2015/30/section/54

[3] See: Meehan, J. and Pinnington, B.D. (2021), 'Modern slavery in supply chains: insights through strategic ambiguity', International Journal of Operations & Production Management, 41(2), 77–101.

FROM 'YOU' AND 'ME', TO 'US': THE VALUE OF INFORMAL INTERACTIONS BETWEEN MIDDLE MANAGERS IN CROSS-BORDER ACQUISITIONS

Dr Carola Wolf
Senior Lecturer in Strategy

Dr Carola Wolf's research delves behind the scenes of the acquisition process and highlights how vital casual interactions between middle managers (MMs) are to achieve the anticipated strategic and operational benefits for both firms.

Drawing on interviews with acquiring and acquired MMs involved in cross-border agreements, Carola and Professors Gustavo Birollo (Laval University) and Linda Rouleau (HEC Montreal), present a model that explains how actionable intersubjectivity is developed in the unfolding stages of an acquisition.

They discovered formal, but particularly informal encounters, facilitate getting to know 'the other' and acknowledge their needs and concerns during the implementation of strategic decisions made at headquarters.

The study suggests these interactions allow both organisations to strike a satisfactory balance between strategic interdependence and organisational autonomy.

The paper, published in the Journal of Management Studies, unpacks the relational dynamics between MMs and highlights the benefits of a more bottom-up approach to acquisition integration.

Balancing strategic interdependence and organisational autonomy

While CEOs often hit the headlines for new mergers and acquisitions, these are complex processes involving many internal stakeholders from both firms.

A core challenge is to reach sufficient strategic interdependence – creating joint strategic capabilities – while simultaneously maintaining a level of organisational autonomy that preserves the crucial capabilities of each company.

WHILE SENIOR MANAGERS OFTEN LEAVE MMS TO THEIR OWN DEVICES, PREVIOUS RESEARCH IDENTIFIES THEM AS KEY PLAYERS IN THIS BALANCING ACT, LEADING THE DAY TO-DAY INTEGRATION PROCESS.

It is generally assumed acquiring MMs focus on generating strategic interdependence, while acquired MMs aim for organisational autonomy.

However, there is limited knowledge on how they interact before, during and after the acquisition, and how they manage to reach this balance.

These questions are crucial to understand how actors with divergent interests and views achieve collaborative and synergistic outcomes in a mutually satisfactory manner.

Developing actionable intersubjectivity

To fill this gap, the research team undertook a fine-grained analysis of narrative interviews with MMs from both sides of international acquisitions[1], which unveiled four consecutive and interlinked relational dynamics:

- 'Dancing from a distance' – pre-acquisition
- 'Seducing the other' – acquisition approval (signing the agreement)
- 'Confronting the other' – post-acquisition I
- 'Co-orienting each other' – post-acquisition II.

These dynamics emerge at various interaction spaces, allowing MMs to develop actionable intersubjectivity, a core ability to proactively put themselves in the place of the other while accomplishing integration tasks.

As a result, MMs from both ends of the negotiation learn to balance the simultaneous need for strategic interdependence and organisational autonomy.

The team also found that, while intersubjectivity develops in the first two stages, it becomes actionable in the post-integration stages.

'Dancing from a distance' and 'seducing the other'

The complex relationship between acquiring and acquired MMs starts before the purchase agreement is signed, as both acknowledge the presence of the other group when the transaction is announced.

At this pre-acquisition stage, MMs get a sense of the other in occasional, primarily formal encounters, via factory visits, informational meetings and audits.

During these interactions, they search for clues on their counterparts - acquiring MMs seek to contextualise and validate information on the target company, and acquired MMs look for signals on what a joint future would look like.

Despite the limited information, managers generate interpretations of how they believe the other side operates and assess the potential for strategic interdependence.

The signing of the agreement marks the beginning of a new stage in which acquired MMs are left in organisational limbo for several months.

Although encounters between both parties are limited for legal reasons, MMs seek opportunities to meet with host firm managers to pave the way for their integration strategy and target firm managers looking to reduce uncertainty.

While top management establish formal interaction spaces (eg transition teams, events), MMs initiate informal spaces to reach out to the other side.

These include spontaneous corridor talks, unofficial encounters and working teams, etc, where they can interact more openly, allowing both groups to start deciphering how the other thinks.

Interestingly, these interactions are often initiated by acquired MMs to show proactiveness and willingness to start working for the future, and acquiring MMs typically enter this seduction game with open arms.

During these pre-integration stages 'the other' becomes present in the managers' thoughts, which is essential to recognise the possibility of establishing strategic interdependence between merging firms.

This emergent intersubjectivity among MMs from both organisations sets the foundation for their relationships during the post-acquisition stages.

From confronting to understanding 'the other': the impact of informal interactions

The official takeover starts the implementation of the integration plan (post-acquisition I), where the two groups of MMs work together, but with a significant change in the balance of power.

As the acquiring side now formally holds sway, the relationship built in the previous stages moves into a more confrontational pattern.

[1] The purposeful sample included a similar amount of acquiring and acquired MMs distributed across 24 acquisitions in different activity sectors (insurance, banking, equipment and engineering, consulting, food industry, automotive industry, brewery, information technology, petrochemical, chemical and biotechnology) in North America, South America and Europe. All selected MMs played an important role during the acquisition and were experiencing different stages of the acquisition process at the time of the interviews.

[2] Examples in informal interaction spaces at this stage are informal conversations, implementation of integration projects including project meetings, conjoint planning, conjoint field work, conjoint supervision of progress and conjoint start-ups.

[3] For example, the acquirer's procedures (including clear documentation processes) and the acquired firm's pragmatism to support and push customers' projects forward.

Acquiring MMs are pressured by their superiors to implement the integration projects swiftly, often neglecting the acquired MMs' efforts to adjust the new strategy to the local context.

Although acquired MMs try to provide feedback at every interaction (eg sharing operational performance indicators, highlighting customer needs, etc), these attempts are usually unsuccessful.

This imposed unilateral vision of strategic interdependence is often ineffective, as it neglects the acquired firm's need to keep a degree of organisational autonomy, to deliver the benefits envisioned in the original agreement.

Although some acquisitions get stuck at this point, MMs who overcome these challenges do so when their relational dynamic becomes more collaborative.

When acquiring MMs actively participate in integration projects, both groups enjoy privileged interaction spaces to co-experience the practical day-to-day struggles around concrete problems.

AT THIS POINT, INFORMAL INTERACTION SPACES BECOME MORE PREVALENT AND IMPORTANT, ALLOWING MANAGERS TO TEMPORARILY ABANDON THEIR OFFICIAL POSITIONS, FOSTERING COLLECTIVE ENGAGEMENT IN THE INTEGRATION PROCESS.

These spaces are forums to gain a practical understanding of how operations and processes can be integrated, thereby adapting and challenging the mandate received from top management in more formal spaces.

Without these informal interactions, it would be impossible to develop knowledge of how the other thinks and works in specific circumstances and achieve actionable intersubjectivity.

Co-orienting 'the other' and regaining operational autonomy

At the post-acquisition II stage, a new co-orienting approach consolidates MMs' understanding of the position of 'the other'.

Even when they do not agree, MMs jointly re-negotiate the strategic interdependence between both organisations.

On the one hand, acquiring MMs recognise the importance of protecting the target organisation's day-to-day operations, including the need to 'back off' to maintain certain boundaries and preserve their unique strengths.

On the other hand, acquired MMs back up their acquiring colleagues' work by adopting and adapting to integration changes, as well as accepting necessary trade-offs.

By building an ability to act together, MMs engage in a 'we' relationship that is nourished by the practical experience they extract from their interactions.

As a result, they can balance the need of both organisations, seize the impact of their possible actions on both sides and generate plausible solutions that acknowledge the specific capabilities each organisation brings to the transaction.

Why does this matter?

The study challenges the idea that the relationship between MMs is static and predetermined during the pre-acquisition stage, as normally requested by the top.

The investigation stresses that balancing strategic interdependence and organisational autonomy requires managers to remain flexible, to adapt to the contextual reality and opportunities.

Specifically, it highlights the value of informal interaction spaces created by MMs throughout the acquisition process, as they have been found to be a fruitful breeding ground for actionable intersubjectivity – a prerequisite for reaching the right balance between strategic interdependence and organisational autonomy.

Scan the QR code to read Carola's paper or visit: **doi.org/10.1111/joms.13067**

THE UNWELCOME EFFECTS OF LIMITING PRICE INFORMATION SHARING AMONG OLIGOPOLY RIVALS

Professor Nick de Roos
Professor of Economics

Professor Nick de Roos's research shows how limiting access to competitor prices in an oligopoly triggers undesired effects, such as higher prices and increased profits for rival firms.

Co-authored with researchers[1] from University of Melbourne, Clemson University and Duke's Fuqua School of Business, and funded by the Australian Research Council, the investigation analyses how a shift from symmetric to asymmetric information sharing affects oligopoly prices.

Using a natural experiment from an Australian retail gasoline antitrust case, the study confirms price competition softened when one of the five main retailers lost access to high-frequency and detailed price data from rivals.

The research empirically demonstrates the change led to higher prices and an 8-figure annual profit jump for gasoline retailers, effects opposite to what the antitrust agency intended.

The results provide a cautionary tale for antitrust agencies and industrial organisation (IO) economists on the potential unintended consequences of limiting price information sharing among firms.

The Informed Sources service raises concerns about price collusion

In a sector where consumers are very sensitive to price differences between stations, petrol retailers adjust prices across their networks daily to stop drivers from swapping to a more affordable option.

THIS UNDERLINES THE VALUE OF HAVING ACCESS TO COMPLETE, REAL-TIME AND RELIABLE RIVAL PRICE DATA TO QUICKLY IDENTIFY AND RESPOND TO ADJUSTMENTS MADE BY COMPETITORS.

And this is exactly what the price sharing platform Informed Sources (IS) offered: digital access to station-level price data of all subscribed retailers, updated every 15 or 30 minutes.

The dataset is complemented with non-subscriber station-level price data that the company collects manually at daily, weekly or other frequencies.

Historically, IS has been available to the supply side of the market, but not the demand side, meaning only subscribed retailers can gain 24/7 access to competitors' prices obtained by the platform.

However, this creates a unique symmetric information sharing setting that can facilitate tacit collusion, an anticompetitive practice where rival firms coordinate to rise prices without having to engage in explicit communication.

Due to the limited number of competitors, oligopolies are particularly sensitive to collusion, raising concerns about the potential role of IS data in facilitating price fixing in Melbourne's retail gasoline market.

Following a two-year investigation into the IS platform, in August 2014, the Australian Competition and Consumer Commission (ACCC) launched a case that put Australia's five major gasoline retailers in the spotlight.

The ACCC alleged the IS platform, BP, Caltex, Woolworths, Coles and 7-Eleven, had violated section 45 of the 2010 Competition and Consumer Act, which makes illegal "contracts, arrangements or understandings that have the purpose, effect, or likely effect, of substantially lessening competition."[2]

The shift from symmetric to asymmetric information sharing

The case eventually resolved in December 2015 with two settlements, with which the ACCC expected to increase competition and allow buyers to make better informed purchasing decisions.

In the first settlement, the largest petrol retailer in network size and market share, Coles, 'went alone' and agreed to stop subscribing to IS – or similar service – for five years.

In the second one, BP, Caltex, Woolworths and 7-Eleven, were allowed to continue their subscription, but IS was required to make price data available to third parties, including consumer search apps developers and research organisations.

While the case had no significant impact on app-enabled consumer search[3], on the supply side, IS began manually collecting Coles' prices using human spotters immediately after it exited the platform.

Spotters collected one daily price observation per station from three-quarters of Coles' network, meaning the remaining subscribers could still observe their prices.

With Coles 'unplugged' from the platform, the firm faced an informational disadvantage with comparatively limited ability to observe and quickly react to price adjustments made by other retailers.

Limiting price information sharing doesn't always reduce market power

This real-life setting provides a unique opportunity to examine the competitive effects of transitioning from symmetric to asymmetric price information sharing among oligopolists.

Using pre- and post-settlement daily station-level pricing data (May 2015-December 2017), Nick and colleagues undertook a high-frequency event analysis[4] that demonstrates settlement's effects were the opposite of what ACCC expected.

Not having up-to-date information on what other retailers were doing, meant Coles drastically reduced the frequency of price adjustments and became less likely to modify the cost per litre for consumers when nearby rivals did.

BUT WHEN COLES ADJUSTED PRICES, THESE WERE HIGHER THAN WHEN IT WAS ON THE PLATFORM, WHICH ALLOWED COMPETITORS TO RESPOND WITH PRICE INCREASES, ALBEIT SMALLER THAN COLES'.

As a result, price-cost margins raised by 5.9 and 3.4 cents (AUD) per litre for Coles and rival firms respectively, increases similar to those caused by tacit collusion from the same retailers in Perth between 2010-2015[5].

Although rival firms had to set prices below Coles', by offering more competitive alternatives (relative to the new scenario) their share of the market expanded by an average 45%, while Coles' reduced by 33%.

So, how did this translate into profit for Melbourne's gasoline retailers?

Coles saw a small (4%) increase in average daily profits, which shows the relatively large price increase was roughly offset by its loss in market share.

In stark contrast, rivals experienced a substantial 38–77% settlement-induced growth in average daily profits, reflecting both the increase in prices and market share.

Annually, Nick and colleagues estimate a combined $33 million (AUD) – £19 million – surge in annual profit due to the IS case settlement, which was intended to promote competition.

Lessons for antitrust agencies and IO economists

At the time, policy discourse was aligned with the idea that restricting the sharing of detailed, real-time price data within a tight oligopoly was procompetitive.

What this research suggests and was not well understood, is that creating asymmetries like those from the IS case settlement, can empower uninformed firms to stick to higher (non-competitive) prices for longer.

As price commitment from one player leads to higher prices across the board, trying to limit price data sharing can have the unintended consequence of bolstering market power.

These are timely and important lessons for IO experts and those involved in the development of antitrust legislation.

The investigation provides valuable insights to consider in price-fixing settlement negotiations and creating safe information sharing harbours that promote efficiency while still limiting tacit collusion.

Nick and colleagues are already looking into the latter, with the initial follow-up work showing information sharing structures can be potentially altered – eg having more than one uniformed firm – to disrupt tacit price coordination and generate consumer benefits[6].

The study also underscores the power of information sharing platforms to mitigate the effects of case remedies that negatively affect their subscribers.

The authors anticipate these issues will continue to be at the forefront of policymaking in increasingly digitised and data-driven industries where information sharing is a key part of the market structure.

Scan the QR code to read Nick's paper or visit: dx.doi.org/10.2139/ssrn.4513435

[1] The study's co-authors are Professor David Byrne (University of Melbourne), Professor Matthew Lewis (Clemson University), Professor Leslie Marx (Duke's Fuqua School of Business) and Dr Andy Xiaosong Wu (University of Melbourne).

[2] The ACCC alleged fuel retailers could used IS to propose competitors a price increase and monitor their reaction. If, for example, the response was insufficient, they were able to quickly withdraw the proposal and punish those that didn't accept the price increase.

[3] This was due to the lack of popularity and availability of consumer search apps in Australia.

[4] A high-frequency event study design involves analysing the impact of a specific event by examining high-frequency data surrounding the event, instead of relying on daily or weekly information. The goal is to capture the immediate and subtle price changes that might be masked by coarser data, allowing for a more nuanced understanding of the event's impact.

[5] See Byrne, D.P. and De Roos, N. (2019). 'Learning to Coordinate: A Study in Retail Gasoline', *American Economic Review*, 109, 591–619.

[6] See Byrne, D.P., De Roos, N., Lweis M.S., Marx, L.M., and Wu, X. (2024b). 'Price Coordination with Asymmetric Information Sharing: Theory and Evidence', Working Paper, Duke.

HELPING THE BANK OF ENGLAND MAKE BETTER POLICY DECISIONS WHEN FINANCIAL UNCERTAINTY HITS

Professor Costas Milas
Professor of Finance

Dr Michael Ellington
Senior Lecturer in Finance

Financial economists, Professor Costas Milas and Dr Michael Ellington, are working with the Bank of England (BoE) to assess how UK interest rates should be set along other unconventional policy measures, to hit the 2% inflation target and boost economic growth during periods of heightened uncertainty.

The views expressed here are solely the authors and are not necessarily the views held by the Bank of England.

SINCE THE 2008 FINANCIAL CRASH, THE BOE HAS SUPPORTED THE UK ECONOMY THROUGH A SERIES OF SHOCKS, BY PUMPING BILLIONS OF POUNDS INTO THE UK ECONOMY IN A PROCESS CALLED 'QUANTITATIVE EASING' (QE).

QE is an unconventional monetary policy in which a central bank injects liquidity into the financial system by buying government bonds from the private sector, which increases their value.

As the price of government bonds goes up, interest rates on many loans normally go down, making it easier for people and business to borrow and spend money.

Alongside its key policy of keeping interest rates down to near zero levels, the BoE has launched several rounds in response to the: Global financial crisis (2007-09); Eurozone debt crisis (2009-14); the Brexit referendum (2016); and the COVID-19 pandemic.

However, as the UK recovered from the pandemic and the Russian invasion of Ukraine started, prices have been rising fast and persistently, reaching a 10.1% in March 2023.

As well as raising interest rates, the BoE also reverted its QE policies to bring inflation down.

This process, known as 'quantitative tightening' (QT), started in 2022 when the BoE became the first central bank for a G7 country to start actively selling bonds to investors.

QE's potential for pushing prices up is unclear, but there are reasonable concerns about whether the scheme let inflation take root, as the economy became reliant on "cheap money" due to the BoE's actions[1].

In May 2023, BoE Governor, Andrew Bailey, recognised they had "very big lessons to learn" about the conduct of monetary policy in its battle to bring down inflation in the presence of large economic shocks.

Following this, the Bank commissioned a review of its models[2] that – among other recommendations – stressed the importance of a new forecast process that better supports the Monetary Policy Cammitee's (MPC) decision making.

In an effort to address this, Costas, Michael and BoE's Senior Economist, Ryland Thomas, are developing empirical models to help the MPC understand the implications of QE/QT policies while setting the Bank's policy rate.

The preliminary results provide empirical evidence that the economic impact of QE/QT policy decisions varies across rounds.

The analysis indicates the effects QE/QT policies depend on period-specific factors, including the:

- Existing monetary policy stance
- State of financial markets
- Conditions in the real economy.

A CLOSER LOOK AT THE 2009-24 PERIOD SHOWS HOW QE AND QT CONTRIBUTED TO CHANGES IN GDP, INFLATION AND GOVERNMENT BOND LONG-TERM YIELDS.

When compared to a fictitious scenario where these policies had not been implemented, they show QE policies helped improve the UK's economic performance, in terms of propping up output, avoiding deflation and facilitating credit conditions; especially following the coronavirus pandemic.

WHILE QE POLICIES HAD SOME INFLUENCE ON INFLATION, ON AVERAGE THEY SUPPORTED THE BOE IN MEETING THE 2% INFLATION TARGET DURING PERIODS OF HIGH UNCERTAINTY AND SAVED THE ECONOMY FROM DEFLATION IN LATE 2020.

Interestingly, the results indicate rising inflation from early 2022 following the Ukraine invasion is not attributable to QE policies triggered by the coronavirus pandemic, and that QT measures introduced in 2022 helped bring it back to the 2% target toward the end of 2024.

Consistent with the BoE's current approach, their analysis suggests a gradual approach to QT policies is preferable over an immediate unwinding of QE.

Next on the agenda for the team is to obtain a better understanding of the economic implications of QT policies as more data emerges.

[1] In June 2023, former secretary to the Treasury, Nick Macpherson, said the central bank's £895bn bond-buying stimulus programme had gone "too far" and made the inflation shock hitting Britain worse.

[2] Led by former chair of the US Federal Reserve, Dr Ben Bernanke.

HOW LIVESTREAMING CAN HELP BRANDS OVERCOME INFLUENCER FATIGUE AND ENGAGE GEN ZERS

Professor Michael Haenlein
Professor of Responsible Research in Marketing

Dr Rachel Ashman
Reader in Marketing

Oliver Buckley
PhD Candidate in Marketing

Professor Michael Haenlein, Dr Rachel Ashman, and Oliver Buckley's investigation underlines the potential of livestreaming to enrich influencer marketing activities and foster deep, authentic connections with Gen Z consumers.

They present a model that describes the core dynamics of livestream influencer marketing and provides practical guidance for brands to develop effective influencer marketing strategies.

Through its immediacy, indeterminacy and interactivity, livestreaming can enhance viewer engagement and perceived authenticity, enabling influencers to cultivate tightly knit virtual communities ideal for brand promotions.

The study introduces key considerations for developing partnerships with livestream influencers and advice on producing meaningful brand content to reach the elusive Gen Zers effectively.

A nascent opportunity in the context of increasing influencer fatigue

In September 2023, one of Twitch's[1] most popular streamers, Félix Lengyel – AKA xQc –, signed a $100 million (£75+ million) non-exclusive deal with competing livestreaming platform, Kick, to produce content for two years.

This deal is impressive, more than LeBron James' two-year contract[2] with the Los Angeles Lakers, but should you really care if you own a brand not connected to the gaming world?

If you are fighting for the attention of the evasive Gen Zers, you certainly do.

Generation Z consumers[3] have very different media preferences than previous generations.

Today's twentysomethings rely heavily on technology for entertainment and social interaction, and the channels they engage with grow and change quickly.

For marketers, this means costlier and more complex strategies, further hindered by Gen Zers rejecting overt promotional messages[4].

Social media has provided brands an oasis to connect with Gen Z audiences through authentic, relatable and fresh interactions with their favourite influencers for several years.

However, there are growing signs of influencer fatigue and resistance to overly scripted and disingenuous endorsements[5].

As Gen Z consumers become less interested in pre-edited influencer brand content, there has been a marked shift towards more genuine digital communications, with livestreaming at the forefront.

Today, 63% of 18–34-year-olds regularly watch online livestreams[6] and the global livestreaming industry is projected to grow to more than $3 billion (£2.3 billion) by 2027[7].

Livestreaming offers influencers a space to connect with followers in real-time with unscripted interactions that meet consumer expectations for transparency and authenticity.

Content with high degrees of liveness reportedly engages consumers for 10-20 times longer than pre-recorded media[8], making it easier for consumers to process marketing messages.

[1] Twitch is the second largest livestreaming platform worldwide (by hours watched) after YouTube Live.

[2] In 2022, LeBron James signed a two-year contract with the Los Angeles Lakers basketball team signed for £97 million (just over £73 million).

[3] Loosely, people born between 1995 and 2010, aged between 15 and 30 today.

[4] For example, by using ad blockers and ad-free premium subscriptions, such as Spotify Premium and YouTube Premium.

Livestreaming can also help generate positive brand associations. 76% of Twitch users develop a positive perception of brands that actively support their favourite streamers' careers and communities[9].

Additionally, when successful, livestreaming yields high conversion rates of around 50% from sponsored streams with micro-streamers[10] on Twitch[11].

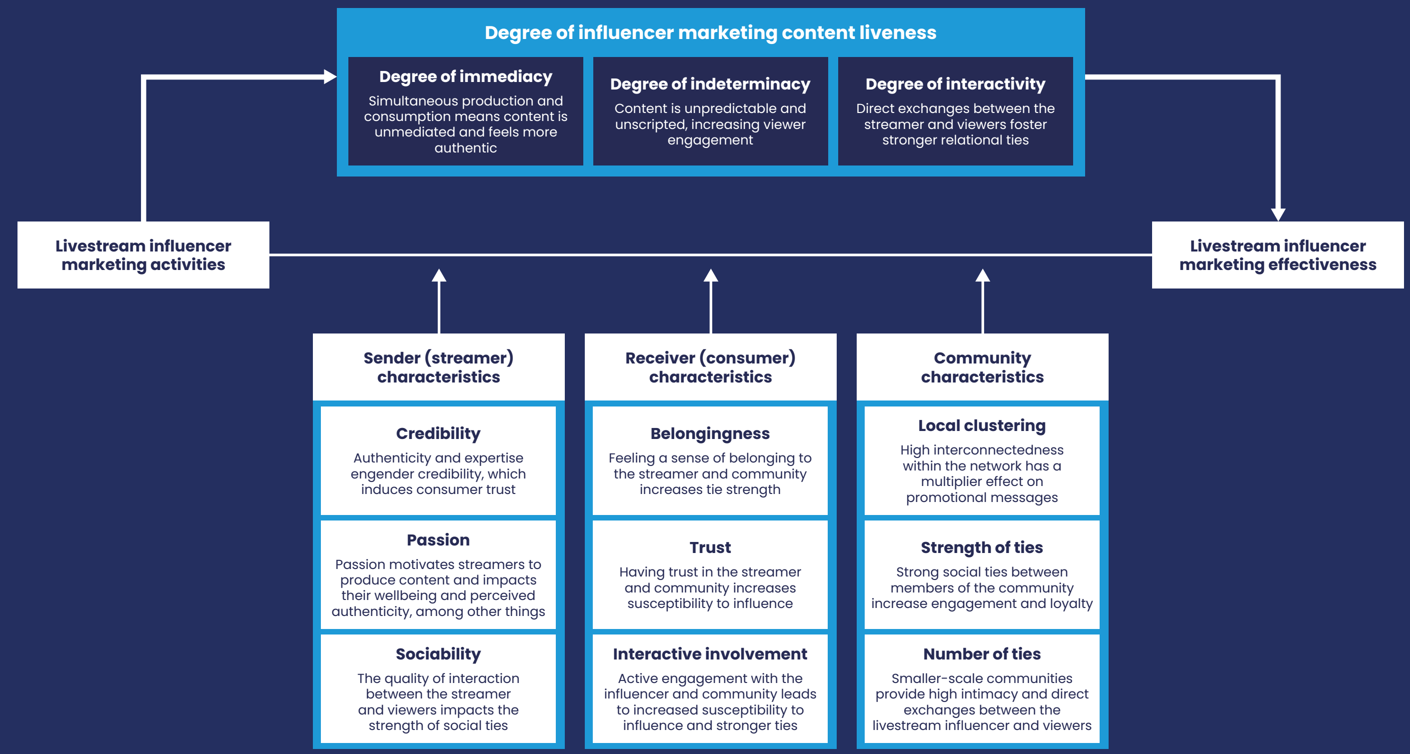
Despite its potential to enrich influencer marketing, livestreaming is not yet widely used by brands, as its liveness also introduces an additional layer of complexity for marketing managers.

To shed light on this, Michael, Rachel and Oliver propose a model of livestream influencer marketing effectiveness, based on its three core characteristics: immediacy, indeterminacy and interactivity.

Although these characteristics are not exclusive to livestreaming, they coexist simultaneously and to a high degree, making it a distinctive and engaging digital medium.

The framework stresses the importance of understanding these characteristics and associated challenges, providing practical advice to plan and implement livestream influencer partnerships successfully.

A model of livestream influencer marketing effectiveness



How to manage the immediacy of livestream influencing

In contrast to pre-recorded media, livestreaming's content production and consumption happen simultaneously, so there is no intermediate stage where raw footage can be edited.

This format creates a more transparent viewing experience and enhances the fear of missing out, as not tuning in means missing out on an interactive shared experience[12].

Viewers likely prioritise the live stream over pre-recorded content, which increases the chance to generate immediate marketing impressions.

However, the instantaneous nature of livestreaming can make mistakes or unpredictable events (eg technical issues, online harassment) immediately visible to the audience, potentially impacting the brand's image.

As there is no option to refine online personas through editing and scriptwriting, selecting streamers with credibility, passion and sociability is important to maximise real-time engagement.

Streamers often broadcast several hours a day, three to five days a week, which makes these personal features essential to ensure they can consistently entertain audiences for long sessions.

BRANDS SHOULD ALSO ENSURE PROMOTIONAL MESSAGES ARE THREADED SEAMLESSLY INTO LIVESTREAMS TO AVOID DISTRACTING VIEWERS AND REDUCING THE QUALITY OF THE EXPERIENCE.

[5] Alongside a steady flow of influencer controversies in recent years, in early 2023, the popular trend, "deinfluencing", saw social media personalities and regular users create content on products and services to avoid in order to buy more consciously and combat overconsumption.

[6] Source: www.marketsplash.com/live-streaming-statistics

[7] Source: www.influencermarketinghub.com/live-streaming-stats

[8] Source: www.twitchadvertising.tv

[9] Source: www.influencermarketinghub.com/influencer-marketing-statistics/

[10] Streamers with up to 2,000 average concurrent viewers.

[11] Source: www.influencermarketinghub.com/guide-for-brands-to-twitch-streamer-partnerships

[12] Streamers don't always make streams available on-demand, and even when they do, viewers miss the opportunity to engage in live interactions.

This seamless integration means presenting brand messages subtly and non-intrusively, for example, by using branded on-screen overlays, displaying call-to-action buttons during the description section and with naturally integrated product placements.

As streamers can explicitly discuss the sponsored items, demonstrate their key features, and respond to viewers' questions in the live chat, it is also important to refine real-time promotion using analytics and social listening tools.

Managers can look at traditional metrics (eg peak viewership, average watch duration, likes, and shares) and indicators of deeper investment in the content, such as positive live chat interactions, subscriptions and donations.

How to manage the indeterminacy of livestream influencing

Livestreaming has a degree of indeterminacy similar to other live events, such as theatre performances and sporting competitions, which are generally perceived as more exciting and captivating than watching recorded content.

This indeterminacy makes each livestream session a unique experience full of spontaneous reactions that neither the streamers nor brands can fully control, even with a clear agenda.

Livestream influencers generate a substantial amount of their income through viewer donations and subscriptions, but these contribute to the unpredictability of each session (see 'What happens during a live stream?' on page 29).

This monetisation model amplifies the importance of authenticity and viewer loyalty, so brands should aim to establish long-term, symbiotic partnerships with livestream influencers.

Short-term partnerships can undermine the streamer's perceived authenticity, potentially depicting them as "selling out" and alienating their paying followers.

Instead, long-term partnerships present brands as supportive allies for the streamer and their community.

Brands can facilitate genuine and engaged promotion by providing streamers early access to products and features, collaborating on content creation or involving them in brand events.

The spontaneous nature of livestreams also implies unique challenges derived from unexpected comments or shifts in discourse.

TO MANAGE THIS EFFECTIVELY, BRANDS SHOULD ADOPT AGILE STRATEGIES, INCLUDING THOROUGH BRIEFINGS FOR INFLUENCERS ON HANDLING OFF-SCRIPT SCENARIOS AND BRINGING DISCUSSIONS BACK TO THE PROMOTIONAL NARRATIVE.

Through real-time monitoring, brands can give streamers instantaneous feedback and suggest changes based on audience interactions, which, combined with post-stream analysis, helps shape future streams and refine strategies.

It is also important for brands to mandate clear guidelines and oversee livestream influencers to reduce the risk of streamers behaving in ways that do not align with brand values.

Contractually, this involves setting expectations on acceptable behaviour, especially concerning sensitive issues, such as racism, substance use, derogatory comments and toxicity.

How to manage the interactivity of livestream influencing

Livestreaming is all about real-time exchanges that make the audience feel connected to the streamer and create a strong sense of community (see 'What happens during a live stream?' on page 29).

These interactions make the livestream more dynamic.

Viewers can spark a conversation about an unrelated topic or vote in polls to encourage the streamer to move on to a different activity (eg play another video game) or decide the focus of the next session.

Brands can become involved in these exchanges by providing streamers with value-adding gifts, early product access and exclusive event invites.

THESE ACTIONS FACILITATE ALIGNING THE FIRM'S VALUES WITH THOSE OF THE AUDIENCE AND ENGAGING THEM NATURALLY TO ENHANCE VIEWERS' WILLINGNESS TO RESPOND TO PROMOTIONAL MESSAGES.

Brands can also actively nurture relations with consumers through direct and personalised interactions.

In practice, this involves responding to viewers' questions and offering exclusive deals – to both the audience and specific users – to incentivise participation and engagement.

Running polls is also a clever option for brands to gather instant consumer insights to inform future initiatives.

Finally, brands should guide livestream collaborations proactively with crisis management, real-time monitoring and experienced moderators.

For the streamer, brands should advise on how to handle potential disruptions from online trolls and clarify certain off-limits topics.

For the streaming sessions, brands need dedicated monitoring staff who can quickly identify and address harmful comments to steer discussions in real-time.

While streamers usually have a team of (often voluntary) chat moderators, brands should also incentivise and brief them, given their pre-existing familiarity with the streamer and their community.

Scan the QR code to read the full paper or visit: doi.org/10.1177/00081256241300730

Advice for brands: how to manage the core characteristics of livestream influencing

Immediacy	Indeterminacy	Interactivity
Select streamers with credibility, passion, and sociability to maximise real-time audience engagement	Establish long-term, symbiotic partnerships with livestream influencers to increase marketing effectiveness and support streamers	Invest in streamers by providing value-adding gifts, early product access, and exclusive event invites to position your brand as a community ally
Thread promotional messaging seamlessly into livestreams to enhance real-time audience engagement	Adopt agile strategies to navigate the unpredictability of live content and capitalise on audience engagement	Nurture consumer-brand relations actively in live chat during sponsored livestreams, including direct, personalised interactions
Refine real-time product promotion using livestream analytics and social listening tools	Mandate clear guidelines and oversee livestream influencers to maintain brand alignment and manage risks	Guide livestream collaborations proactively with crisis management, real-time monitoring and experienced moderators

What happens during a livestream?

If you are new to the world of livestreaming, here is a quick summary of the most important things you need to know.

Livestreaming is the online version of live broadcasting, in which a streamer speaks and interacts with their audience using dedicated platforms, such as Twitch or Kick, or the live options on Instagram, TikTok or YouTube.

Most content is open, but you can subscribe to your preferred channels with a monthly payment in exchange for various benefits.

A livestream standard interface normally includes:

- A main screen showing an activity undertaken by the streamer (eg playing a video game) or other types of images they are commenting on
- A face cam(s) showing the streamer and sometimes guests connected from a different location
- A live chat window showing real-time interactions between the streamer and audience, and amongst viewers themselves

LIVESTREAMING IS VERY INTERACTIVE. FOR EXAMPLE, STREAMERS OFTEN USE POLLS TO VOTE ON ASPECTS RELATED TO THE BROADCAST OR WHAT THEY SHOULD DO NEXT.

In platforms like Twitch, not only can you type into the live chat, but you can also use 'bits' to cheer for your favourite streamers.

Bits are a form of virtual currency you can buy – or earn by watching ads – that look like colourful gems called 'cheer emotes' and can be shared in chat messages during live streams.

When you accompany your message with bits, it appears in the chat with animated cheer emotes – and sometimes read aloud – creating an engaging and interactive experience.

Livestreaming communities often use unique acronyms and emotes to reference inside jokes, which can be confusing if you are unfamiliar with them.

If that is the case, give it some time and you will get to learn them all.

FT RESEARCH RANKING UNDERPINNED BY MANAGEMENT SCHOOL STUDY

Professor Michael Haenlein
Professor of Responsible Research in Marketing

The Financial Times (FT) is applying new impact metrics in a standalone experimental research ranking based on a conceptual framework co-designed by Professor Michael Haenlein.

Developed in collaboration with the FT's Global Education Editor, Andrew Jack, the framework introduces new indicators to precisely measure the long-term impact of business and management research.

As well as including author and institutional related metrics, they identify short-term signals and medium-term measures to assess the future impact of academic publications on different stakeholders.

Depending on the primary stakeholder group the research addresses, long-term impact is classified based on its influence on the behaviour of fellow academics, consumers or policymakers, students and managers.

The new set of metrics is applicable to a wide range of outputs beyond articles in peer-reviewed journals, including academic conference presentations and proceedings, books, book chapters and teaching cases.

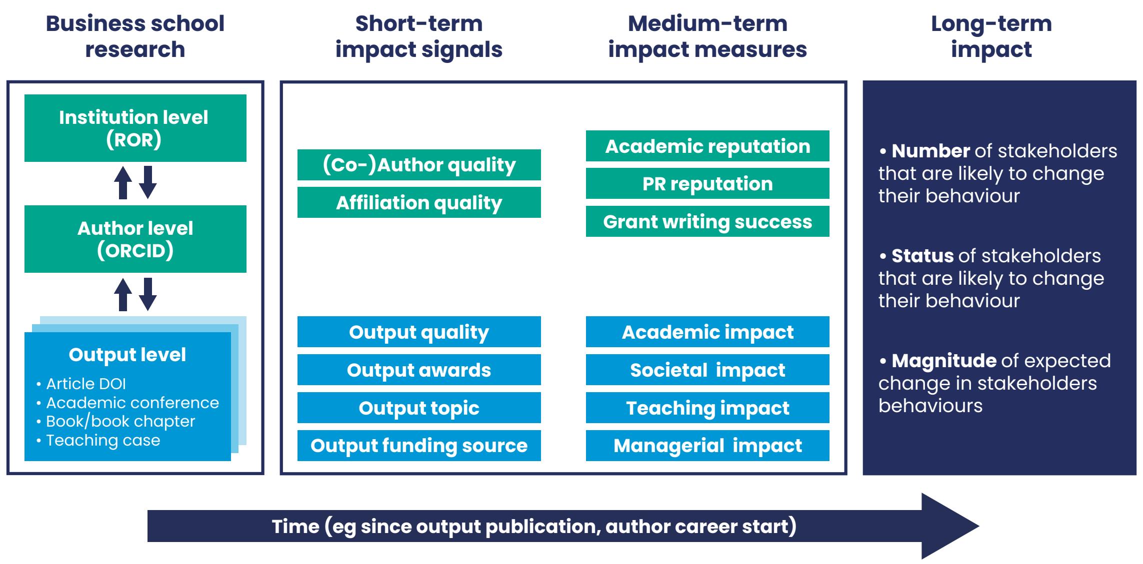
The framework highlights the potential to generate long-term impact through aggregated efforts at faculty, output and school level, which facilitates going up in rankings and attracting impactful researchers.

As well as being the underlying foundation for the FT research ranking, it offers actionable insights to guide efforts aimed at enhancing visibility and future influence of academic outputs.

[1] See www.ft.com/bsis

[2] See Haenlein, M., Jack, A. (2024). 'Measuring the long-term impact of business school research on academia, teaching, society and decision makers', International Journal of Research in Marketing, 42(1).

The path from business school research to long-term Impact
ROR = Research Organisational Registry ID; ORCID = Digital Object Identifier; DOI = Open Researcher and Contributor ID



Category	Signal/ Measure	Exemplary Indicators
Author impact signal	(Co-) Author quality	Degree and related information, author/article impact measures for past outputs
Author impact signal	Affiliation quality	Ranking of current and past affiliations based on ROR ID
Article impact signal	Output quality	Academic journal rankings, academic journal impact measures
Article impact signal	Output awards	Awards recognising likely long-term impact by academic journals or associations
Article impact signal	Output topic	Importance, relatedness to RRBM and SDGs
Article impact signal	Output funding source	Funding source (internal, external corporate, external public), competitiveness
Author impact measure	Academic reputation	Cumulative citations, h-index, i10-index, scite
Author impact measure	PR reputation	Earned media impact (ie cost of reaching equivalent press and social media mentions through paid advertising)
Author impact measure	Grant writing success	Share of grants accepted, total amount of external grant money obtained
Article impact measure	Academic impact	(Normalised) citations from commercial or open-access platforms
Article impact measure	Societal impact	SSRN downloads, press/social media mentions from Altmetric and Dimensions
Article impact measure	Teaching impact	Coverage in textbooks, case studies and course syllabi
Article impact measure	Managerial impact	Reference in patents and public policy documents, coverage in transmission outlets like HBR, SMR, CMR
Output variety challenge	How can we track and measure diverse research outputs beyond articles in peer-reviewed journals?	
Time/attribution challenge	How can we measure long-term impact and attribute credit accurately?	
Data availability challenge	How can we provide consistent, open, and trackable data across research impact metrics, available on a large scale?	

EMPOWERING THE FUTURE ECONOMICS RESEARCHERS FROM UNDERGRAD YEARS

Dr Yuyi Li
Lecturer in Economics

The Economics Student Research Assistant Scheme (SRAS) offers undergrads an invaluable opportunity to work alongside world class researchers while they complete their degree.

By getting involved in real-life research projects, students can have a taste of what is like working in a professional research environment, while they learn highly sought after skills in academia, policymaking and business practice. Led by Dr Yuyi Li, the scheme offers an enhanced student experience open to those currently undertaking the School's BSc Economics and BA Business Economics.

"With support from our students, economics colleagues and the School, this scheme has achieved great success", said Yuyi.

"It's highly competitive yet immensely rewarding, equipping students with transferable skills that enhance their academic, further studies and career prospects."

In the past three years, the projects have covered a broad range of topics, including music, sports, gender, health, environment, AI, crime, housing, banking, fiscal and monetary policies. During this time, the scheme has received very positive feedback, with one of the students saying: "I have found this experience is very meaningful."

"Not only I got a chance to have a taste of academic life but also feel like finally I can put what I have learnt into practice.

"The whole process is well designed and formal, starting with the application and guidance of how it works, not to mention we are also getting paid."

The Economics SRAS provides an advantageous starting point for those who want to progress to an MSc or PhD, as they become familiarised with dissecting problems, gathering and analysing data, and presenting complex information.

"I strongly believe this research greatly improved my competitiveness when applying for a Year in Industry programme", said another Economics SRAS student.

"It enabled me to secure a placement where I can apply the transferable skills I gained from the economic research I was involved in, such as data analysis and Microsoft Excel."

Beyond academia, it gives graduates a competitive edge for roles that require an understanding of quantitative methodologies and various research techniques. This includes job opportunities in banking, consulting services, government departments and regulatory bodies, international organisations and NGOs, think tanks and policy institutes. Talking about how the scheme has opened the door to new professional opportunities, another student commented:

"Thanks to this research experience, I secured a summer intern job at JP Morgan, and now I have received an offer from the LSE Health Policy Department where I can concentrate on health economics study."

"The scheme is so valuable for students, especially undergraduates like me, as it seems to be fewer research opportunities in research for us. "Some of my friends from other departments "envy" such excellent opportunity, so I will definitely recommend other schoolmates to be part of this scheme."

"*MUSICFUTURES* IS A CHANCE FOR LIVERPOOL TO SHOW HOW RESEARCH, INDUSTRY AND EDUCATION CAN SHAPE THE FUTURE OF MUSIC"

Dr Jennifer Davies
Lecturer in Project Management

We have spoken to musician and blockchain expert, Dr Jennifer Davies, to find out more about the Management School's role to put the Liverpool City Region (LCR) at the forefront of music innovation, as part of the *MusicFutures* Creative Cluster.

The University of Liverpool is leading a new national Creative Cluster for the music sector[1], funded by the Arts and Humanities Research Council, part of the UK Research and Innovation.

Arts and Humanities Research Council

UK Research and Innovation

MUSICFUTURES IS AN AMBITIOUS FIVE-YEAR PROGRAMME WHICH WILL POSITION THE LCR AS A GLOBAL HUB FOR INNOVATION, STAINABILITY AND RESEARCH AND DEVELOPMENT (R&D) IN MUSIC.

With support from Liverpool John Moores University (LJMU), *MusicFutures* will catalyse new forms of collaboration between academia, industry, local government and the creative sector.

The cluster unites over 20 regional partners, key industry bodies (UK Music, LIVE, UKIPO) and several national challenge partners to drive a diverse programme of R&D, intellectual property development and skills training to drive economic growth.

Building on our city's storied past, the programme brings together researchers from eight disciplines across the Faculty of Humanities and Social Sciences to deliver a truly interdisciplinary response to the challenges and opportunities facing the sector in music production, policy, technology and entrepreneurship.

At the Management School, the project provides a platform for researchers and educators to shape the future of business models, talent development and growth, through evidence-based insights and collaboration with industry stakeholders.

Supporting creative entrepreneurship and business growth

One of the key areas focuses on supporting entrepreneurs across LCR's music ecosystem.

THROUGH BESPOKE BUSINESS DEVELOPMENT SUPPORT PROGRAMMES AND MENTORSHIP, THE SCHOOL PLANS TO WORK WITH EARLY-STAGE MUSIC VENTURES AND FREELANCERS, TO BUILD SUSTAINABLE, SCALABLE MODELS IN AN INCREASINGLY COMPETITIVE MARKET.

"Nurturing creative entrepreneurship is vital to ensure the music industry can evolve sustainably," said Jennifer.

"We're focused on equipping early-stage ventures and professionals with the business skills, networks and strategic thinking, they need to thrive in a fast-changing landscape.

"As more artists forge independent careers, we're also equipping them with essential project management skills, supported by our academic accreditation providers, the Association for Project Management."

Advancing inclusive talent and skills development

A second major strand centres on designing talent development initiatives to foster widening participation in the music industry.

This involves working with underrepresented groups to reduce access barriers and develop leadership and business capabilities for emerging music professionals.

"If we want a future-facing music industry, we need to invest in talent that reflects the diversity of our communities across the LCR.

"Education has a key role to play in removing barriers and opening meaningful opportunities in the creative sector."

Driving research into sustainable business models

The School also draws upon expertise from its Centre for Sustainable Business and leading research into new models for music organisations, labels and venues.

With pioneering investigations on |how digital technologies, changing consumer behaviour and ESG[2] priorities are reshaping the way value is created and shared in the music industry, these insights will inform sector-wide strategies and policy recommendations.

"We are combining rigorous research with close collaboration within the sector.

"By working with colleagues across the Faculty of Humanities and Social Sciences and with our institutional partner, LJMU, we are developing sustainable frameworks to guide the future of music production, particularly in the live sector.

"Other creative industries, like film and TV, have already established sustainability standards, such as BAFTA's ALBERT.

"Through *MusicFutures*, we aim to create similar benchmarks for the UK music industry and lead the way globally."

Liverpool as a music innovation leader

The *MusicFutures* project places the Management School at the heart of a national programme, with the potential to redefine how academic research supports the creative economy.

By helping position the LCR as a leader in music innovation, the project seamlessly aligns to the School's broader mission to generate impactful, interdisciplinary research that benefits society and the economy.

"*MUSICFUTURES* IS A CHANCE FOR LIVERPOOL TO SHOW HOW RESEARCH, INDUSTRY AND EDUCATION CAN COME TOGETHER TO SHAPE THE FUTURE OF MUSIC.

"This project strengthens our School's commitment to supporting the creative economy through impactful research and practical business education.

"We are building something rooted in place with global relevance – a truly local-to-global approach that Liverpool has always done well and must be supported to continue.

"With the right frameworks, support and partnerships, the UK can lead the world in creating an innovative, sustainable and fairer music industry."

[1] The LCR was announced as the new £6.75 million UK Research Innovation Creative Cluster for the music sector in late 2024.

[2] Environmental, social and governance (ESG) is a framework used to evaluate a company's sustainability and ethical performance.

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