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Business
School



Wheeler Institute
for Business
and Development



Business research for impact

A showcase of our successful grant recipients

Updated April 2021

Conducting rigorous research

Our ambition is to be a pre-eminent hub for trusted insights on business solutions to development challenges.

We take a multidisciplinary approach with a systemic view on problems.

Watch our video on conducting rigorous research.



Foreword

How can research help address the biggest development challenges?
How can business be an intervention, a mechanism and a force for good that leads to social and economic impact?

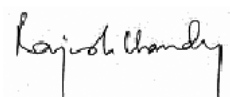
The Wheeler Institute for Business and Development was created to research and amplify the role of business in tackling the hardest challenges in social and economic development.

Twice per year, we call for cutting-edge research proposals from PhD and post-doctoral students, research fellows and faculty. From how mobile data is used in disadvantaged communities to systemic cyber risk to the development impacts of refugee flows, our researchers engage with emerging topics in a wide range of complex issues and environments. Often, they conduct research in the field, seeking to understand first-hand the difficulties communities face in the developing world.

With the support of our faculty, students, extended network and partnering academic institutions we have curated a portfolio of research projects, offering tangible solutions to achieve economic, public health and social impact.

We are delighted to champion our researchers within this brochure and hope to inspire you, too.

Enjoy the reading.



Rajesh Chandy
Academic Director



Elias Papaioannou
Academic Director



Amelia Whitelaw
Executive Director

Wheeler Institute for Business and Development



Supported research projects

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Our research portfolio

Our objective is to stimulate and support research at the intersection of business and development, with an emphasis on the developing world. The following pages showcase our current research portfolio.

Call for proposals

The Wheeler Institute promotes research that applies business insights to address the world's most pressing challenges. We are particularly keen on business research that addresses economic and social challenges in the developing world, although we recognise the often interconnected nature of these challenges and their links to those in the developed world.

PhD award

Our annual Wheeler Institute for Business and Development PhD award is a recognition of cutting-edge research across all subject areas. The award highlights the merit of the PhD student's research and emphasises a strong case of ambition. It is open to all PhD students at London Business School whose research is aligned to the Institute's mission statement.

Early careers support: Pre-doctoral research assistants programme

Our aim is to create communities of engaged scholars who are interested in business for development and who have the potential to make an impact through their research and at their institutions. Our pre-doctoral research assistants programme offers a unique opportunity and excellent preparation for recent graduates to pursue their career in a top business school PhD programme. Prospective candidates will be able to take PhD courses, attend workshops and seminars, and access an intellectually and culturally rich campus life.

Academic conferences and workshops

We develop and deliver academic conferences, seminars and specialist workshops for LBS PhD students and faculty to identify potential research agendas and business insights.



Ethnic favouritism in democracy

The political economy of land and labour in sub-Saharan Africa



The challenge

How resources and wealth are distributed among the population has fundamental implications for welfare. When markets and institutions fail, power relationships between groups shape allocation of resources and yield to inefficient outcomes. These issues are particularly salient on the African continent. Economic inequalities between ethnic groups persist because state institutions are prone to capture by ethnic interests. Individuals or groups who hold political power often favour co-ethnics in the allocation of resources ('ethnic favouritism').

The intervention

The researchers hypothesise that politicians engage in strategic interactions with traditional leaders, granting them control over agricultural land. The study analyses the relationship between electoral outcomes and the allocation of land and employment in African democracies, examining whether individuals of the same ethnicity as elected politicians enjoy a comparative advantage in the labour market, testing whether this effect is concentrated in the agricultural sector, and providing evidence on the role of ethnic chiefs in society.

The impact

This paper will offer the first analysis of the health of African democracies and its interaction with traditional forms of government, such as traditional chieftainship. It uncovers a potential new driver shaping the occupational choices in Africa where, as in most parts of the developing world, most individuals are still self-employed farmers involved in subsistence agriculture. The distortions that ethnic politics may introduce into these markets therefore has critical implications for the lives of hundreds of millions of individuals.



Co-authors

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Giorgio Chiovelli

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Academic focus: Giorgio's research focuses on development economics, political economy and economic growth. He is interested in the empirical analysis of the political economy of development in developing countries, combining theory-based applications with spatial econometrics tools and geographic information systems. His research has been published in the Journal of the European Economic Association.

Pump-priming markets at the base of the pyramid

A randomised controlled trial of push vs. pull marketing strategies in rural India



The challenge

For millions of rural consumers in developing countries, the means used for everyday tasks such as cooking, drinking water, and lighting are potentially lethal acts, even though less harmful alternatives are widely used by their urban contemporaries. The quality, availability and affordability of socially-beneficial products such as non-polluting cook stoves, water filters and 'clean' lights have improved substantially in recent years and marketers of these products have attempted to penetrate rural areas of emerging markets; yet adoption and usage rates remain stubbornly low.

The intervention

This research examines the effects of 'pump-priming' investments targeted at consumer education and behaviour change on sales and use of socially-beneficial products. Through a randomised controlled trial in 240 rural Indian villages, it examines the impact of three marketing approaches particularly salient to marketing new products to rural consumers in emerging markets. Strategies involve substantial investments in educating consumers on problems created by current behaviours and the advantages of the new consumption behaviours promoted through these strategies.

The impact

The researchers hypothesise the return on investment from making these additional investments is, on average, disproportionately higher compared to not making them. The outcome will be of great interest to governments, development organisations and corporations since it would, for the first time, quantify the financial and social returns on pump-priming investments. Insights from the research can lead to more effective marketing decisions and more effective crafting of outcome-based financial instruments.



Co-authors

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Academic focus: Rajesh's current research focuses on the intersection of business, innovation, entrepreneurship and development. His recent projects have covered the impact of business skills among micro-entrepreneurs in South Africa, novel financing approaches in Ghana, property rights in slums in Egypt, innovation among farmers in India, highways and private education expenditures in India, and using big data for development outcomes.

Saving lives and accelerating innovation?

Antecedents and implications of the Expanded Access Programme in the pharmaceutical industry



The challenge

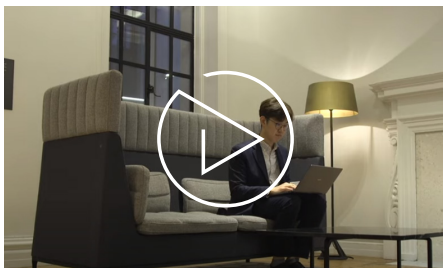
The lack of access to drugs that treat deadly diseases is a massive global health challenge, especially in developing countries. In 2016, of nearly 37 million people living with HIV, one million died due to a lack of effective drugs and therapies. This study examines the relatively understudied strategy of 'early access' in the pharmaceutical industry context, where firms pursue two distinctly different goals: saving lives and making money, with the result that the industry does not focus solely on saving lives.

The intervention

An Expanded Access Programme (EAP), in which a pharmaceutical company provides 'investigational' drugs to patients with a life-threatening condition or severe disease, is a pathway to solving such problems. However, providing such a drug has ethical and financial concerns; hence adopting an EAP is complex for pharmaceutical companies and currently only a fraction have done so. This research examines the concerns and barriers pharmaceutical firms face in releasing products through an EAP to better understand the associated social and economic challenges.

The impact

An EAP is a philanthropic undertaking. By providing insights into how pharmaceutical companies allocate resources in making investigational drugs available to the patient segment that needs them the most, this research will identify ways for business to embrace innovation and corporate social responsibility. In doing so, it will help solve one of the most urgent and socially and economically debilitating global health challenges of our time.



Co-author

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Academic focus: Sungyong's research explores innovation, creativity and firm growth strategies using computational modelling and big-data analysis. His particular focus is on high-tech and cultural industries where innovation and creativity matter most.

Refugees of the Mediterranean

The political economy of displacement and refugee flows



The challenge

Large-scale population movements disrupt the economies and social fabrics of many countries. Understanding how substantial populations of involuntarily displaced individuals fare economically and how host communities are affected is crucial. This research explores the developmental impacts of refugee flows and the effect on host communities, and whether this differs across locations. It also examines the impact of resettlement on the refugees themselves and how mass immigration affects politics and voting patterns.

The intervention

This project aims to assess the short, medium and long-term consequences of the massive refugee influx that Greece experienced in the mid-1920s, when more than one million Greek-speaking people residing in Asia Minor and other parts of the Ottoman Empire had to abandon their homes and settled in Greece. Investigating the economic and political repercussions on the local communities of this historical watershed is the focus of this research.

The impact

As conflict and environmental issues are pushing millions of people to relocate, this research will help understand policy-relevant questions on the political economy of displacement and refugee flows. It will examine the development impact of refugee resettlement and shed light on education, entrepreneurship and occupational choices, as well as the impact of the refugee resettlement on voting and conflict during the Greek civil war.



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Education for all, occupational choice and business formation in Africa

Examining the success of school expenditure in terms of economic payoff



The challenge

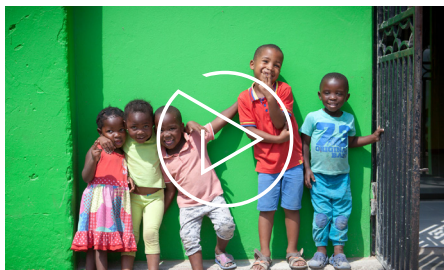
Africa has witnessed an unprecedented increase in access to education in the past decades. Nonetheless, manufacturing employment is tiny, innovation is weak and many large corporations 'complain' that there is a skill shortage. Thanks to large-scale school construction throughout the continent, many more children live within reach of a school today. However, nearly one third of African children still do not finish primary school and more than half do not finish secondary school.

The intervention

This project aims to map the supply of schools across many African countries since independence, quantify the impact of large-scale school construction and major educational policies (including, for example, compulsory primary schooling, educational attainment, occupational choice, employment across sectors and entrepreneurship). The study plans to take a holistic view of connecting schooling with inter-sector employment, occupational choice, entrepreneurship and business formation, using a plethora of geo-referenced data.

The impact

This analysis will contribute to a significant body of research on education in low and middle-income countries that examines the impact of school construction programmes; distinguishing across gender, rural vs urban status, household structure and more factors. By shedding light on the market frictions that have mediated the success of school expansion over the last half a century, this project will provide guidance concerning when increases in educational expenditures are likely to have the largest economic payoff.



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Institutional independence and social media

Providing real-time, market-based evidence on threats to institutional independence



The challenge

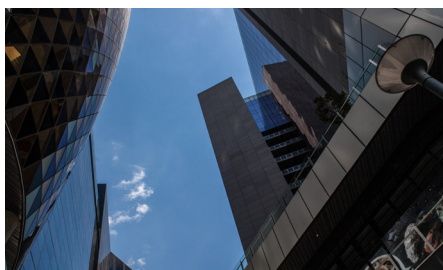
With the rise of political polarisation and populism in recent election cycles, attacks on national and international independent institutions (Centers for Disease Control and the World Health Organisation) have increased. Analysing market-implied expectations around attacks by political leaders allows assessment of the credibility and severity of these statements; this research expects the attacks to be more prevalent in developing countries with weaker executive oversight, either through limited parliamentary opposition or less media independence.

The intervention

The objective of this study is to provide real-time, market-based evidence on threats to institutional independence. Utilising a unique panel dataset of politicians on social media from over 100 countries, this research systematically analyses the impact of political pressure on central banks, the judiciary and news organisations, using market-based, asset-pricing evidence. This identification strategy exploits a short time window around the precise timestamp of politicians on social media in conjunction with tick-by-tick, asset-pricing data.

The impact

This research hopes to identify political pressure on independent institutions across the globe and reinforce separation of power by providing a real-time index that systematically identifies attacks on constitutional independence. Strengthening independent institutions and judicial systems is likely to increase legal certainty and security, which is crucial for expanding business activity and attracting new investment in developing countries.



Co-author

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Howard Kung

Assistant Professor of Finance at London Business School

Academic focus: Dr Howard Kung conducts research at the intersection of asset pricing and macroeconomics. His recent research studies how firms' innovation decisions impact economic growth and asset markets, how changes in uncertainty affect firm investment decisions, and how restructuring the maturity structure of government debt can stimulate the economy.

Informal property rights and innovation in marketing practices among emerging-market micro-entrepreneurs



The challenge

Micro-entrepreneurs constitute the most common type of business in the world and marketing is the primary means by which they earn their livelihoods. In emerging markets there are a significant number of micro-entrepreneurs and many live precarious lives, characterised by poverty and potentially devastating exogenous shocks. Using detailed data on the marketing practices of grocery retailers in a large slum in Cairo, Egypt, this research examines why some micro-entrepreneurs deploy innovation in their marketing practices – and hence perform better – while others fail to do so.

The intervention

This research highlights the effect of a key factor in the use of innovation in marketing by micro-entrepreneurs: informal property rights. Because few of the micro-entrepreneurs studied in this context have access to formal property rights, the threat of expropriation looms large in their lives. Those who possess their stores (without owning them) are substantially less likely to innovate in their marketing than those who lease them. The study makes use of a shock to property rights rules to assess the causal impact of informal property rights on innovation in marketing practices.

The impact

Understanding these marketing practices is of profound importance: how the micro-entrepreneurs conduct their marketing and how well they do are questions that have wide economic, social and political repercussions.

This paper offers a quantitative assessment of marketing practices among micro-entrepreneurs and represents an initial attempt to address significant gaps and opportunities in the literature.



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Academic focus: Rajesh's current research focuses on the intersection of business, innovation, entrepreneurship and development. His recent projects have covered the impact of business skills among micro-entrepreneurs in South Africa, novel financing approaches in Ghana, property rights in slums in Egypt, innovation among farmers in India, highways and private education expenditures in India, and using big data for development outcomes.

Entrepreneurship, ESG and venture capital

Towards a long-term research initiative at the intersection of ESG and entrepreneurship



The challenge

The integration of environmental, social and governance (ESG) factors in investment decisions has increased rapidly, but investing in high-growth startups through venture capital (VC) has significantly lagged behind. Evidence suggests this trend is accelerating, and that VCs tend to invest in highly disruptive business models. Incumbent companies often lack skills, knowledge and experience needed to tackle challenges associated with sustainability; hence are rarely at the forefront of sustainable practices.

The intervention

The successful business models of tomorrow will be the ones that both disrupt their industries and integrate material ESG factors into their strategy and operations. This research envisions a long-term research initiative at the intersection of ESG factors and entrepreneurship by 'seeding' funding for a centre, or an initiative within an institute, that will build the first database at the intersection of ESG/VCs/startups, with guidance of LBS faculty offering deep expertise and experience in these areas. The aim is to conduct in-depth research into this key, uncharted domain.

The impact

This research aims to establish a world-class centre for novel contributions to the academic literature and practice. It aims specifically to produce thought leadership at the intersection of entrepreneurship (VC investment in particular) and ESG factors that influence the early decisions of entrepreneurs, VC investors and other investors in startups in both developed and developing countries, where arguably the impacts of ESG challenges are more pronounced.



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Academic focus: Aleksandra's research covers entrepreneurship, innovation, social responsibility and mobility, and labour markets. She has written papers on entrepreneurship versus intrapreneurship, the impact of stakeholder orientation on innovation, and how trade secrets affect a firm's value.

Dynamic household response to health shocks: The interaction of formal and informal debt

Understanding borrowing decisions to design suitable financial products



The challenge

Where social safety nets are not well developed or funded, a health emergency quickly becomes a financial emergency, potentially preventing individuals from fulfilling their potential as they struggle to meet mounting demands on small and uneven resources. Poor households, particularly those in developing countries with underdeveloped retail financial markets and weak social safety nets, are also likely to have highly irregular incomes and are particularly exposed to the risk that unforeseen emergencies will escalate and cause financial distress.

The intervention

This research asks how the ability to even out domestic consumption varies between access to informal financing sources relative to formal financing sources, and how the two sources of finance complement each other. In particular, it tests how households in Kenya use informal and formal financing sources to meet unexpected income shocks. High-frequency household transaction data is used to study the dynamics of household responses, with particular interest in the often-complex ways that informal and formal financing interact.

The impact

Accessing external financing is the predominant way the world's poor meet unexpected income shocks. Even when individuals have access to formal financing, they still primarily rely on informal sources, even if these appear more expensive. A likely reason is, informal financing can be raised more quickly and repayment schedules are more flexible. Formal-finance providers should respond to this by designing more convenient and flexible products. To do this, we must understand how households use formal and informal finance and how they complement each other..



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Academic focus: Rebecca's research focuses on the intersection of corporate governance and public finance and on small business and household finance, especially in emerging markets. She was recently awarded the AQR Asset Management Institute Fellowship for Academic and Research Excellence for a study using data from Ecuador to show that government tax audits can improve firm value, ultimately reducing the cost of borrowing for audited firms and stimulating firm investment.

Impact of infrastructure improvements in India

Assessing reality of 'trickle-down' benefits of greater connectivity for rural households



The challenge

Increasing infrastructure investment is a key growth strategy in many developing countries; policy debates emphasise the 'trickle-down' benefits of such investment. However, there is a gap in our understanding of what type of infrastructure affects individuals' ability to actualise such opportunities. It is also imperative to understand whether infrastructure improvements disproportionately benefit the rich (who could perhaps better exploit resulting opportunities), or benefit the previously-excluded poor.

The intervention

This project will exploit quasi-experimental variation generated by policy rules in India which created nearly random comparison groups (villages) that received different types of infrastructure at different points in time. Specifically, it will focus on understanding the impact of public provision of critical infrastructures such as rural roads and rural electrification. The programme rules provide discontinuities in the probability of receiving infrastructure at multiple village population thresholds, which will be exploited using a fuzzy regression discontinuity design.

The impact

Findings will be informative to policymakers who frequently advocate the 'trickle-down' benefits of better connectivity for rural households. The project also aims to shed light on the long-term effects of infrastructure investments and how the complementarities between them interact with local institutions. In doing so, the study will further our understanding of the barriers to the progress of rural societies, and whether infrastructure improvements have the potential to mitigate lack of social mobility among certain strata of the society.



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Foreign aid through domestic tax reforms?

Evidence from multinational firm presence in developing countries



The challenge

Multinational firms account for a significant part of resource allocation in the global economy. This is a particularly important issue in developing countries. Multinational firm investment in developing countries can often be associated with growth, however, these firms are often accused of exploiting local markets through resource extraction and the use of sweatshops. While prior research indicates that foreign direct investment (FDI) correlates with GDP at the aggregate level, it is unclear whether developing countries with weak institutions actually benefit from FDI.

The intervention

This research aims to provide new evidence on whether major corporate tax policy reforms in the developed world have (positive) spillovers for developing countries in that they spur additional foreign investment by multinational firms. More specifically, the research investigates how multinational firms respond to major corporate income tax cuts in their headquarter's country and analyses their investment behavior through foreign subsidiaries in developing countries, with a particular focus on Sub-Saharan Africa.

The impact

This research aims to shed light on the fundamental question of how multinational firm investment can benefit the economies of developing countries in Sub-Saharan Africa. Furthermore, it offers insights on an important but unexplored consequence of corporate income tax cuts for corporations in developed countries such as the UK. More broadly, the project investigates the association between the activities of multinational firms and wealth, employment and the quality of infrastructure in developing countries.



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Academic focus: Marcel's research interests focus on the real effects of corporate taxation and disclosure regulation – examining how multinational businesses respond to incentives that stem from their regulatory and macroeconomic environment.

Policy uncertainty spillover and role of institution: Evidence from the mining sector

Examining the role of institutional quality



The challenge

Global markets integration means that policy uncertainty in a national economy can have major ramifications across the world at a macroeconomic level. However, the empirical literature on the microeconomic channels that underlie macro relationships have been less studied. How do global firms reallocate assets across geographies in uncertain times? Are countries always negatively affected by foreign uncertainty, or are there instances where they might gain from it? Does institutional quality play a role in the intensity of policy spillovers?

The intervention

This paper builds on the theory that policy uncertainty in a region makes the business environment for a firm risky, leading to investment decisions that are sensitive to geography. Data of mining firms suggests domestic economic policy uncertainty leads to relatively higher investment in foreign mines. And that the effect is greater when a firm's country of domicile and that of its foreign establishment(s) are signatories to a bilateral investment treaty, thereby providing greater institutional quality for the firm's operations.

The impact

Mining being a major source of income in many fragile economies, this research will help understand how policy uncertainty may actually positively impact business/economic activity in developing countries through reallocation of company assets. It will also help show whether institutional quality in developing countries will help attract those resources in times of uncertainty.



Specifics

Arkodipta Sarkar, PhD student, provides microeconomic evidence of domestic policy uncertainty positively impacting other economies and the role of institutional quality in facilitating it.



Arkodipta Sarkar

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Academic focus: Arkodipta's research focuses on empirical corporate finance, specifically the interactions between politics, policy and culture on financing and investment.

Can user training increase technology adoption and enable women's empowerment?

A field experiment on solar power adoption in off-grid Uganda



The challenge

Over a billion people live without access to modern electricity today, including 75% of the population of Uganda. Rooftop solar technology is providing a revolutionary alternative to grid-based electricity and has garnered great investor attention in the last few years, with studies showing that clean energy technologies, such as solar-power, can increase income and save energy costs in emerging countries. Despite these benefits and the provision of subsidies, technologies such as micro-finance lending and pay-as-you-go payment models have had slow adoption rates.

The intervention

Are customers in emerging markets sensitive to their post-purchase experience, and does it impact technology adoption? What operational interventions can improve technology adoption by women? This project aims to study intangible drivers of solar technology adoption in rural, off-grid communities in Uganda through a field experiment involving an interactive and personalised user-training intervention based on real-time product-usage data.

The impact

This is one of the first studies to test the role of user training in technology adoption and quantify its return on investment. Adoption of novel technology across sectors including energy, healthcare, education and telecommunications has the potential to significantly improve social and economic development and support gender empowerment in emerging markets. The researchers focus on the role of the private sector and how decisions made by businesses serving customers in emerging markets can impact technology adoption.



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Amrita Kundu

Postdoctoral Research Fellow, Stanford University, and former LBS PhD student, Management Science and Operations

Academic focus: Amrita's research focuses on identifying operational levers to expedite technology adoption, aid growth of small firms and improve gender parity in emerging markets. She conducts interdisciplinary empirical operations management research to discover ways in which businesses can create social value.

Indirect marketing through adoption of home solar systems in East Africa

Evaluating a private-sector initiative to increase technology adoption



The challenge

Of the 14% of the world's population that live without access to modern electricity, 95% live in sub-Saharan Africa and Asia. Studies have shown that clean-energy technologies such as solar-powered lighting and cook stoves can increase income and save household energy costs in emerging markets. Rooftop solar-technology solutions provided by companies like SolarNow are a revolutionary alternative to grid-based electricity and are attracting policy and investor attention.

The intervention

Given this ongoing technological revolution in Africa and the need for social and economic development on the continent, the off-grid rural communities of East Africa in which research partner SolarNow operates provide an ideal setting for this study. The research studies a private-sector-led initiative (i.e. after-sales service) to increase technology adoption and spearhead development in emerging markets.

The impact

As the corporate world becomes more active in addressing social challenges, this research will empower corporate leaders with innovative operational strategies to do business in emerging markets. Furthermore, adoption and continued use of novel technologies across sectors such as energy, healthcare, education and telecommunications have the potential to significantly accelerate social and economic development in emerging markets, and inspire next-generation leaders to build successful, technology-focused companies to stimulate development.



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Academic focus: Amrita's research focuses on identifying operational levers to expedite technology adoption, aid growth of small firms and improve gender parity in emerging markets. She conducts interdisciplinary empirical operations management research to discover ways in which businesses can create social value.

Go your own way: Migration, consumption and status

Measuring how business can empower female migrants



The challenge

Given its importance, many studies have sought to examine the phenomenon of migration. Arguably, the most important limitation of the existing literature is its focus on economic outcomes of migration, largely ignoring social outcomes among migrants and their communities of origin. The purpose of this research is to study the social impact that migration has on migrants and their communities as well as to examine the impact of economic migration on consumption outcomes.

The intervention

This research looks at a quasi-experiment involving organised migration of female textile workers from rural parts of Orissa to urban Bangalore and proposes consumption as a unique marketing mechanism to explain the social impact of migration on women's status. The researchers show the proportion of income consumed by the migrant affects her perceptions of her status and behaviour – empowering the migrant – whilst the proportion of income consumed by her family affects perceptions of her status among community and family members.

The impact

This research has the potential to transform the lives of less advantaged people through business practices by exploring the positive and empowering role that businesses can play in migration. It contributes to further understanding and quantification of the social impact of the global phenomenon of migration, and the role that consumption plays in female empowerment. In doing so, it captures both economic and social outcomes as a consequence of a business intervention.



Co-authors

- **Rajesh Chandy**, Professor of Marketing, London Business School
- **Om Narasimhan**, Professor of Marketing, London School of Economics and Political Science



Iris Steenkamp

PhD student, Marketing, graduating class 2021 at London Business School

Supervisor: Rajesh Chandy, Professor of Marketing

Academic focus: Iris's research explores the impact of marketing (as an intervention or a mechanism) on business, consumption, and social outcomes, such as gender empowerment, in emerging markets. Her current projects include field experiments and intervention studies in India and South Africa.

The political economy of climate change negotiations

What factors affect countries' commitment to mitigating climate change?



The challenge

Climate change agreements are negotiated by countries at the United Nations Framework Convention on Climate Change (UNFCCC), but countries differ greatly on who should bear the cost of mitigation initiatives: the greater the costs, the stronger the opposition from the country. These differences are particularly marked between least-developed, developing and developed countries. A recent report by UNFCCC warns that the international community has only 15 years to arrive at climate change accords and implement them before it is too late.

The intervention

Friction between developing and developed economies is the main impediment to progress on climate change agreements. What drives the positions of countries on different aspects of climate change agreement, such as greenhouse-gas reduction, the adaptation fund and voluntary commitments? What factors determine the bargaining power of various countries? This study aims to create a novel dataset of national positions and the bargaining power of countries during negotiations of climate change mitigation treaties.

The impact

This research will provide insights into the factors that determine the commitment of countries towards mitigating the effects of climate change and help identify factors that correlate with the bargaining power of countries in the negotiations. Climate change is one of the world's most pressing challenges: any research endeavour that contributes to its solution could, literally, help save the planet.



Specifics

Varun Sharma, PhD student, has examined the factors affecting least-developed, developing and developed countries' commitment to mitigating climate change.



Varun Sharma

PhD student, Finance, graduating class 2022 at London Business School

Supervisor: Narayan Naik, Professor of Finance

Academic focus: Varun's research interests lie in the field of financial intermediation and political economy. Currently, Varun is focusing on understanding the role institutional, as well as individual, investors and activists can play in improving the environmental impact of firms.

How the poor use their mobile data: A field experiment in India

Can less flexible data plans make users better off?



The challenge

Through their increased prevalence, smartphones have become a key social development tool for slum-dwellers. Particularly, they are considered as a 'force multiplier' to effectively deliver services and information to isolated markets.

Although smartphones carry great potential, accessibility alone may not be enough to make a significant impact on reducing poverty. Success heavily depends how users engage with their mobile devices and the accessibility of practical information.

The intervention

This project addresses the question of how the design of data plans – in particular, smaller data-replenishment cycles – can create value for both user and provider.

To study this issue, the researchers conduct a randomized controlled trial in an urban slum community in India. They provide slum-dwellers with restrictive and flexible data plans, and measure ICT-usage on smartphones.

The impact

This research aims to shed light on the dynamics of smartphone usage of the poor in order to show how restrictions in data plans can make users engage with better content and make them more accessible to information providers. It may help us identify ways to increase the impact of development-related, smartphone-based interventions; based on the assumption that, in resource constrained environments, design of mobile data plans can mitigate undesired consequences of user behaviour.



Co-author

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Alp Sungu

PhD student, Management Science and Operations, graduating class 2022 at London Business School

Supervisor: Kamalini Ramdas, Professor of Management Science and Operations

Academic focus: In his research, Alp is interested in understanding operational restrictions in resource-limited environments, with the aim to improve the delivery of services targeting the poor. Alp's research examines mobile data usage of the poor and nutrition challenges in urban slums.

Increasing the follow-up rate of patients requiring emergency high-consequence treatment

Improving poorer populations' chances of getting necessary care



The challenge

A low attendance rate for urgent, high-consequence treatment is prevalent in the developing world. In poorer countries, ignorance about the illnesses people have, allied to the financial costs of attending for treatment, are two of the main reasons why they fail to show up for medical appointments. Yet, for many diseases, patients may need surgical treatment soon after diagnosis to prevent severe disability. This project aims to identify ways to increase the attendance rate of patients who need emergency high-consequence treatment.

The intervention

Traditionally, in care systems across the world, information about why patients must undergo a particular treatment or care plan is communicated by emphasising medical aspects of the disease, typically in scientific terms. This research, in contrast, analyses the effect of providing emotionally engaging information about how a patient's life experience can be changed by their medical condition. The study runs a two-stage, randomised controlled trial at the world's largest eye hospital, the Aravind Eye Hospital in India.

The impact

Although this paper focuses on urgent high-consequence care contexts in the developing world, poorer patients in both developing and developed countries are less likely to show up for medical appointments for both urgent and non-urgent care. This study hopes to improve the chances of poorer populations receiving the care they need and to help reduce needless blindness. Furthermore, it hopes to inspire other healthcare providers globally to adopt the proposed methods.



Co-author

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Nazli Sönmez

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Academic focus: Nazli's research interests are in healthcare operations and green supply-chain management.

Can selling change the salesperson?

How sales activities can aid community development



The challenge

Typically, research often focuses on what an employee can add to a company – often financially. This research examines the reverse relation and looks at what (sales) employment can do for the employees and their communities, beyond monetary benefits. In particular, what is the impact of engaging in sales activities on women’s empowerment in terms of leadership roles within the household and leadership roles in the community, and on the community members’ perceptions of women?

The intervention

Through a randomised controlled trial with women in three rural districts in Uttar Pradesh, India, the authors show that engaging in sales activities can lead not only to psychological change in terms of IQ and personality, but also to gender empowerment in terms of female leadership within the family and the community. In doing so, they seek to shift the focus from the impact of (selling) employment on company outcomes to the impact on social development outcomes, such as gender empowerment, for the sales person and her community.

The impact

The research aims to derive a deeper understanding of how sales activities can contribute to social development by empowering women and reducing gender biases in their communities. Many multinationals are eager to access the large, relatively untapped 3.4 billion customer base in rural parts of emerging countries (Mahajan 2016). This research suggests that businesses can do so while contributing to social development in some of the most underprivileged areas in the world.



Co-authors

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Academic focus: Iris’s research explores the impact of marketing (as an intervention or a mechanism) on business, consumption, and social outcomes, such as gender empowerment, in emerging markets. Her current projects include field experiments and intervention studies in India and South Africa.

Focused on the goals?

Examining organisational attention to the Sustainable Development Goals (SDGs)



The challenge

Evidence suggests only a small proportion of institutional investors have made meaningful efforts to integrate environmental, social and governance considerations into their investment processes, in line with the United Nations' SDGs. Many commentators believe that significant corporate action on the SDGs will only happen when influential investors demand it of the companies whose shares they own; hence research into what drives investor engagement may be useful in assisting firms and investors as they endeavour to address these issues.

The intervention

This research specifically focuses on the role investors can play in achieving the SDGs. The intervention proposed in this project involves developing a comprehensive and robust text dictionary of terms relating to the SDGs.

Using computer-aided text analysis methods and big-data analytics, the project analyses the Twitter data generated by institutional investors to examine the antecedents and related outcomes of their attention to the SDGs.

The impact

Sustainable Development Goals are global goals. However, the most pressing problems are in developing countries. This research focuses on how investors - particularly those in developed countries - can contribute to helping those in developing countries.

By developing and disseminating an SDGs dictionary, the research community will be able to use the insights to understand how organisations, including corporates and governments, can prioritise SDGs in their strategic agendas.



Specifics

Kevin Chuah, PhD student, has examined how institutional investors attend to, and potentially contribute to, the achievement of the United Nations' Sustainable Development Goals.



Kevin Chuah

PhD student, Strategy and Entrepreneurship, graduating class 2022 at London Business School

Supervisor: Ioannis Ioannou, Associate Professor of Strategy and Entrepreneurship

Academic focus: Kevin's research focuses on corporate governance, responsible investment and corporate social responsibility.

Workplace tools to reduce the wealth-based attainment gap

Helping workers from poorer backgrounds fulfil their potential



The challenge

There is great focus today on providing equal-education opportunities for individuals from poorer backgrounds to help them attain socioeconomic mobility, thereby reducing the attainment gap and inequality. Organisations are the primary source of economic value-generation but, while some studies suggest that large organisations mitigate inequality, a strong body of research points to evidence of a class-origin pay gap; such that, even when people from poorer backgrounds enter high-status occupations, they earn significantly less than those from privileged backgrounds.

The intervention

The reasons why individuals from poorer backgrounds do not attain similar levels of success as those from wealthier backgrounds are not well understood. Using a novel field intervention, this research implements targeted interventions with individuals from poorer backgrounds in selected organisations in India to boost one's sense of 'agency' (control over their work), leading to an increase in performance and reduction in job stress, and examine whether the intervention helps reduce the attainment gap.

The impact

Understanding how employees' background can affect workplace success will contribute to existing literature in this field and lead to further research. More significantly, equipping employees from poorer backgrounds with the tools to fulfil their potential can be utilised by organisations around the world to empower next-generation leaders to create further impact. This research is thus a step towards designing organisational interventions and culture that can help reduce the attainment gap and create a more equitable society.



Co-authors

- **Madan Pillutla**, Professor of Organisational Behaviour, London Business School



Anurag Gupta

PhD Student, Organisational Behaviour, graduating class 2022 at London Business School

Advisor: Madan Pillutla, Professor of Organisational Behaviour

Co-advisor: Pier Vittorio Mannucci, Assistant Professor of Organisational Behaviour

Academic focus: Anurag's research broadly focuses on social class and socioeconomic mobility. His aim is to promote inclusion and effective talent utilisation of workers from poorer backgrounds in organisations.

Establishing an interdisciplinary community of practice



The challenge

Cyber attacks have the capacity to cause great financial and physical harm to individuals and households, disrupt business operations, and destabilise entire communities. These threats are particularly acute for institutionally-fragile environments with poor penetration of training and education. A first-order concern are large-scale, state-sponsored cyber attacks that can potentially affect entire populations and geographies.

The intervention

Quantitative literature on cyber risk is scarce. What are the determinants of cyber attacks? Which institutions and societies are most likely to be affected? Is risk preventable or insurable? This research offers the first systematic analysis of aggregate implications of firm-level malicious cyber attacks. Its main empirical contribution is a novel time-series index of systemic cyber risk. This can be used in a variety of socioeconomic and finance applications to predict and manage determinants of cyber attacks.

The impact

Cyber security consistently ranks in the top three of the greatest threats to welfare and business, hence proactive management of cyber-attack risk is critical for the preservation and improvement of the standard of living of people worldwide. This is an exciting new research area which aims to establish an interdisciplinary community of practice to proactively track and manage cyber risk and protect citizens from its threat globally.



Co-author

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Rustam Jamilov

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Supervisor: H el ene Rey, Professor of Economics

Academic focus: Rustam's research interests include macroeconomics and finance.

Economic and financial risk of climate change in the developing world



The challenge

Climate change is associated with severe economic and financial risks and developing countries are particularly vulnerable to its effects, with evidence suggesting that countries most exposed face higher costs of capital, hindering investment and innovation. The challenge is to make the economic and financial risks associated with climate change transparent to business leaders, investors and other stakeholders, thereby impacting their decision making in environmentally friendly ways.

The intervention

How does climate risk affect financial markets and do markets price it? How does it affect the macro economy and through which channels? The aim of the project is to construct a comprehensive database of climate-risk indicators. Based on these indices, the study analyses the macroeconomic and financial consequences of climate risks, both at the aggregate and the disaggregate level.

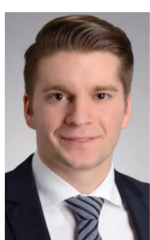
The impact

This research has the potential to change mindsets in business, finance and policy circles, which will contribute to solving the enormous challenges posed by climate change. Improving understanding of how climate risk affects financial markets will help policymakers respond to the threats it poses and create a regulatory framework to enable businesses and communities to manage the associated risks properly. This will help improve the lives, livelihoods and the environments of millions of people.



Specifics

Diego Kaenzig, PhD student, investigated how understanding the impact of climate risk on financial markets will help improve the lives and livelihoods of millions of people, particularly those in developing countries.



Diego Kaenzig

PhD student, Economics, graduating class 2021 at London Business School

Supervisor: Paolo Surico, Professor of Economics

Academic focus: Diego's research interests lie in empirical and quantitative macroeconomics, with a particular focus on the analysis of business cycles and macroeconomic policy.

Regulatory burden: Impact on entrepreneurship

Understanding the effects of regulation on start-up activity and wage inequality



The challenge

Reduced entrepreneurial activity and wage inequality is one of the world's most pressing challenges and a cause of friction between large and small firms. Increased regulatory burden, especially on smaller firms, can explain the 50% decline in start-up activity in the US since the late 1970s.

Despite several attempts, a complete picture of industry-level regulatory costs is lacking, especially for smaller firms, where most entrepreneurial activity starts.

The intervention

This research shows that regulatory burden on businesses in the US has been substantially increasing, and small entities bear higher regulatory costs per employee.

By applying supervised machine-learning and data-mining techniques to documents of all US federal rules and regulations, the author builds measures of the regulatory burden on firms.

The impact

This research throws light on the impact of the regulatory burden on many features and secular trends of the US economy, such as increased mark-ups, stagnation of wages, decreased labour share, wage inequality and jobless growth. It aims to provide evidence on how lobbying by large firms has prolonged this friction and resulted in large advantages for these organisations over time. Additionally, the research will assist in understanding the causes and effects of regulation on wage inequality.



Specifics

Shikhar Singla, PhD student, has explored the regulatory burden on firms by applying supervised machine-learning and data-mining techniques to documents of all US federal rules and regulations.



Shikhar Singla

PhD student, Finance, graduating class 2021 at London Business School

Supervisor: Vikrant Vig, Professor of Finance

Academic focus: Shikhar's research focuses on regulation and political economy. He is interested in using machine learning techniques to empirically analyse the impact of regulations.

Mobile app intervention to improve child health in underprivileged Indian communities

Helping parents make better child nutrition and immunisation decisions



The challenge

Undernutrition contributes to more than half of all deaths of children under the age of five and is directly linked with economic development (Unicef, 2018a). Lack of immunisation is also a widespread problem in poor communities. Liquidity constraints can make food products unaffordable, resulting in low nutrition intake for poor children. And despite comparatively better economic development, children in India are more likely to be undernourished than sub-Saharan African children (Deaton and Dreze, 2009).

The intervention

In this collaborative project with Saathealth, a social enterprise providing digital tools for children's health, nutrition and development, informational videos are sent to users through a mobile app and food subsidies are given to parents at local stores who view the videos. The research examines how providing information through an app affects child nutrition and immunisation decisions of poor parents and child health outcomes. The study also looks at how the aesthetic appeal of the content affects scaling of interventions and the role of parental gender.

The impact

Proper nutrition and immunisation are fundamental to the health of infants and small children. The app is being used by over 100,000 slum-dwellers in India already, with a rapidly growing user base, and the knowledge gained through this research is expected to throw light on how to increase the effectiveness of government and private sector initiatives that target child health and increase immunisation rates.



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Alp Sungu

PhD student, Management Science and Operations, graduating class 2022 at London Business School

Supervisor: Kamalini Ramdas, Professor of Management Science and Operations

Academic focus: In his research, Alp is interested in understanding operational restrictions in resource-limited environments, with the aim to improve the delivery of services targeting the poor. Alp's research examines mobile data usage of the poor and nutrition challenges in urban slums.

Private investment in basic science

Investigating ways to cure disease, reduce mortality rates and improve life expectancy



The challenge

Research and development (R&D) expenditure in the pharmaceutical industry is extremely high. However, developing countries face severe resource constraints and weak institutions, and their urgent need for medicines can only be met by profit-driven, big pharmaceutical firms. Why do (some) firms conduct unprofitable research and why are their R&D decisions so different? These are critical questions as many of these products can cure disease, reduce mortality and improve life expectancy.

The intervention

The literature on innovation and growth largely attributes economic development to technology advancement and, more specifically, the application of science to profitable innovation. It has focused on overall R&D, with little empirical research into investment in basic science. The author studies the determinants of private investment in basic science by linking the academic article database to corporations via author affiliation and funding acknowledgement.

The impact

By understanding the determinants of private investment in basic science, this research will inform the design of public policies that encourage businesses to invest and make technology advances in parts of the world where governments are not equipped to do so. This is an urgent and critical issue, because private investment in basic science can benefit these countries by relaxing resource constraints and assisting governments in basic infrastructure and services provision.



Specifics

Luofu Ye, PhD student, has explored the determinants of private investment in basic science by linking the academic article database to corporations via author affiliation and funding acknowledgement.



Luofu Ye

PhD student, Finance, graduating class 2021 at London Business School

Supervisor: Vikrant Vig, Professor of Finance

Academic focus: Luofu's research interests are labour, innovation, and under-investment in education, art, and areas with high social returns.

Unpacking the black box: Shared medical appointments and patient engagement

Improving engagement for patients with chronic disease



The challenge

Treating patients with chronic disease is the leading cause of congestion in health systems in both developing and developed nations and a primary driver of rising healthcare costs. Most deaths worldwide are due to chronic disease. Although chronic diseases are very common around the globe, the poorest populations exhibit the highest risk of tobacco use, alcohol use and obesity, which leads to a higher burden of chronic diseases over the long term. Poverty also causes greater comorbidity and decreased access to sufficient medical care.

The intervention

Using data from a randomised controlled trial with 1,000 patients at the Aravind Eye Hospital in India, this research examines the impact on levels of patient engagement of shared medical appointments (SMAs), in which patients with similar chronic conditions meet with a doctor simultaneously and each receives one-on-one care. This research aims to show how, relative to traditional one-on-one care models, SMAs affect engagement levels; both during the appointment and after.

The impact

A new way of healthcare delivery, SMAs provide an efficient way of treating patients with chronic conditions, since the long-lasting and shared nature of such conditions yields opportunities for patients to learn from each other's experiences and realisations. The time-savings provided by SMAs, which yield increased capacity in healthcare, are also considerable. Moreover, a growing body of research suggests that SMAs can yield superior medical outcomes for a wide variety of chronic conditions.



Co-author

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Academic focus: Nazli's research interests are in healthcare operations and green supply-chain management.

Can data-driven price-discount policies help in reducing malnutrition?

Models and experimental evidence from Indian groceries



The challenge

Malnutrition, in all its forms, is one of the most pressing challenges in the world, accounting for more than half of all deaths of children under five years old and costing the global economy nearly \$5.5 trillion per year.

This research seeks to better understand and find effective algorithmic approaches to alleviate malnutrition in emerging markets.

The intervention

This study develops a framework that designs nutrition-targeted, price-discount programmes that can effectively and efficiently improve nutrition.

The research strategy involves combining data-driven methods with a randomised controlled trial.

The impact

It is important for policymakers to better understand the food choices of the poor in developing countries and how they react to price changes.

The goal in this research is to achieve better nutritional outcomes through price-discount-based nutrition programmes (e.g. government food subsidies) with the same food budget allocated per household.



Co-authors

- **Ali Aouad**, Assistant Professor of Management Science and Operations, London Business School
- **Kamalini Ramdas**, Professor of Management Science and Operations, London Business School



Alp Sungu

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Academic focus: In his research, Alp is interested in understanding operational restrictions in resource-limited environments, with the aim to improve the delivery of services targeting the poor. Alp's research examines mobile data usage of the poor and nutrition challenges in urban slums.

Solutions looking for problems: Idle capacity and resource repurposing

Is a low oil price only bad for renewables?



The challenge

Oil and gas firms respond to high oil prices by investing in exploration and production within the industry. Following an oil price decline, however, they face a shortage in investment opportunities and stall production.

Such downturns affect both oil and gas producers and the supply chain, and sets up incentives to potentially redeploy and repurpose existing engineering capabilities into new areas.

The intervention

Using text analysis and machine learning methods, this project will explore the extent to which oil price volatility is reflected in firm communications such as annual reports.

In particular, it will aim to study the extent to which oil and gas firms, relative to other firms in the energy industry, focus on redeploying resources and repurposing existing expertise in new settings following an oil price shock.

The impact

Climate change is one of the grand challenges humanity is facing. Developing countries are set to be hit by it the hardest, having contributed to the problem the least.

The ability to build on oil and gas technologies, such as maritime expertise to advance developments in low carbon solutions, such as offshore wind may prove to be an important piece in the energy transition.



Specifics

Aldona Kapacinskaite, PhD student, will explore the impact of incentives, particularly low oil prices, on the propensity to push the technological frontier in the wind energy industry by redeploying existing engineering and technological capabilities.



Aldona Kapacinskaite

PhD student, Strategy and Entrepreneurship, graduating class 2021 at London Business School

Supervisor: Sendil Ethiraj, Professor of Strategy and Entrepreneurship

Academic focus: Aldona's research explores drivers of organisational innovation and technological change. In her dissertation, she studies how external pressures such as industry downturns and knowledge leakage risks affect innovation outcomes within industries, across the supply chain and across industries.

Measuring attitudes towards African-Americans using machine learning and textual data

Identifying determinants of cultural distance to overcome barriers



The challenge

Cultural distance between groups has important economic consequences. Ethno-linguistic fragmentation, for example, has been shown to reduce the provision of public goods, reduce social capital formation and increase the likelihood of conflict. This could ultimately reduce the gains to ethnic minorities of 'moving to opportunity' if the gains from neighbourhood effects are reduced by the negative economic consequences of increased social tensions. In addition, these outcomes worsen when cultural differences across ethnic groups are greater.

The intervention

Measuring cultural distance is crucial but has received limited attention in literature. This research focuses on attitudes of ethnic groups towards other ones; more specifically on attitudes towards African-Americans and other ethnic minorities in the USA over a long period of history. The study does this by examining a historical collection of digitised newspapers, using machine-learning methods to identify attitudes from textual data. The measures will show how attitudes evolve across states and counties over time and the main determinants in their shifts.

The impact

Historically, ethnic tensions have been an important barrier to economic and financial development. This research hopes to shed light on ethnic frictions at a time when the US was a developing country, as well as the determinants and shifts in these attitudes in relation to the economic and financial development of the nation.

The findings will have important lessons for the economic development of countries more generally.



Co-authors

- Shikhar Singla, PhD student, Finance, graduating class 2021, London Business School



Mayukh Mukhopadhyay

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Supervisor: Anna Pavlova, Professor of Finance

Academic focus: Mayukh's research focuses on empirical corporate finance and applied microeconomics, with a focus on large and unstructured datasets and machine-learning methods to answer questions in these areas.

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