COUNCIL on BUSINESS & SOCIETY
A GLOBAL ALLIANCE OF SCHOOLS OF MANAGEMENT

Global Voice MAG

N°17

WALK ON

Nature-based solutions
Giving pace to entrepreneurship in Brazil
Social Accounting and measuring sustainability
The contrasting colours of women directors in family firms
Agile sustainability governance and global supply chains
4 scenarios for the future of global energy

An alliance with a purpose

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Recognising the enormous role business can and must play in helping solve large-scale, global issues facing the world, seven business schools from around the world have formed a partnership: The Council on Business & Society. Through our individual and collective efforts, we strive to create and disseminate knowledge about those issues and train future business leaders capable of and committed to solving them.

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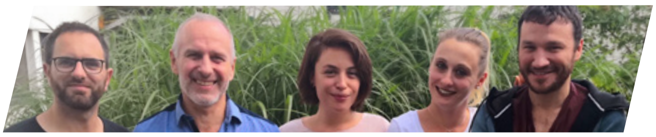

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/EDITORIAL

BUSINESS EDUCATION AND THE INEVITABLE CHANGE

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Just like in business, in business education the winds of change are always blowing. Unlike business, however, these winds usually seem to pass without significantly impacting the industry. In recent years, however, the pressures have been mounting. And the Covid-19 pandemic has spread the view that profound change is inevitable.

What fate awaits incumbent business schools in this future? Broadly speaking, there are two different scenarios. The first one involves a massive disruption, in which the bulk of traditional business schools are rendered obsolete by new kinds of providers, which bring specialized, up-to-date knowledge at much lower costs and with a global reach. In one version of this scenario, degrees are broken down into micro-certifications, customized to particular job profiles and employers' expectations.

The other, less dramatic, scenario echoes the famous line in Giuseppe Tomasi di Lampedusa's The Leopard, "If we want everything to stay as it is, everything has to change." Business schools will keep up with the times and survive with some minor adaptations, like drafting new missions, doing some nice seminars, and perhaps launching some well-intentioned programs. In the end, incumbent business schools will occupy a shrinking portion of the growing market for management education and development.

We believe both scenarios are unlikely for two reasons. The first reason is the business school model itself, which is a curious combination of academic rigor and business flexibility. Many people think that a commitment to scholarly values and the ability to adapt are incompatible, and thus the former represents the greatest weakness of business schools in a changing world. Yet, this model has stood the test of time. Only business schools have managed to articulate research (i.e. the search for truth) with education (i.e. the dissemination of truth). No other organization attempts this delicate balance, nor has the capacity or incentive to do so.

Even while sticking to their scholarly roots, business schools have been remarkably adaptable over time. They have reinvented programs, pioneered pedagogies, invested in enabling technologies, built value-creating collaborations, and developed new markets. The wide variety of circumstances faced by schools, have given rise to a remarkably diverse set of opportunities and responses. Every school has its own situation, its own set of resources, its own challenges. And each school must find its own way.

The second reason why the both scenarios are unlikely is that education technology is not the only driver of change, or even the most important one. We believe instead that the most significant development in business education is on the demand side. Simply put, the world is expecting more from business schools—to go beyond business to help address the most complex, important challenges of society. There are mounting social pressures for business schools to create more positive social impact, locally, regionally, and globally.

At the same time business schools embrace the incredible opportunities, they must also address the challenges. Making a bigger difference in society will require profound changes across many dimensions, including curriculum foundations, faculty disciplines, program offerings, community engagement activities, funding mechanisms, and faculty models. To be clear, we see academic independence and rigor as key strengths for business schools in this transformation, but the methods and metrics must evolve to align with the shifting purpose.

In this context, technology is viewed more as enabler than a disruptor. It provides new tools for improving research, personalizing education, simulating practice, and more. It steers and supports the industry towards collaboration. Business schools will leverage their core strengths and working with each other, and with online providers and other players, such a consulting companies, to serve new markets, especially in the continuing education space. Other parts of the business education ecosystem, such as rankings, assessments, and accreditation, will also change in order to support business schools in their new role.

In the end, we believe this is indeed a pivotal moment in the history of business education. But it is hardly the end of business schools. It is the rebirth of business schools, nay each business school, in the context of society.

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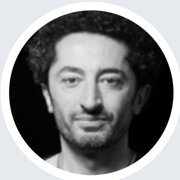

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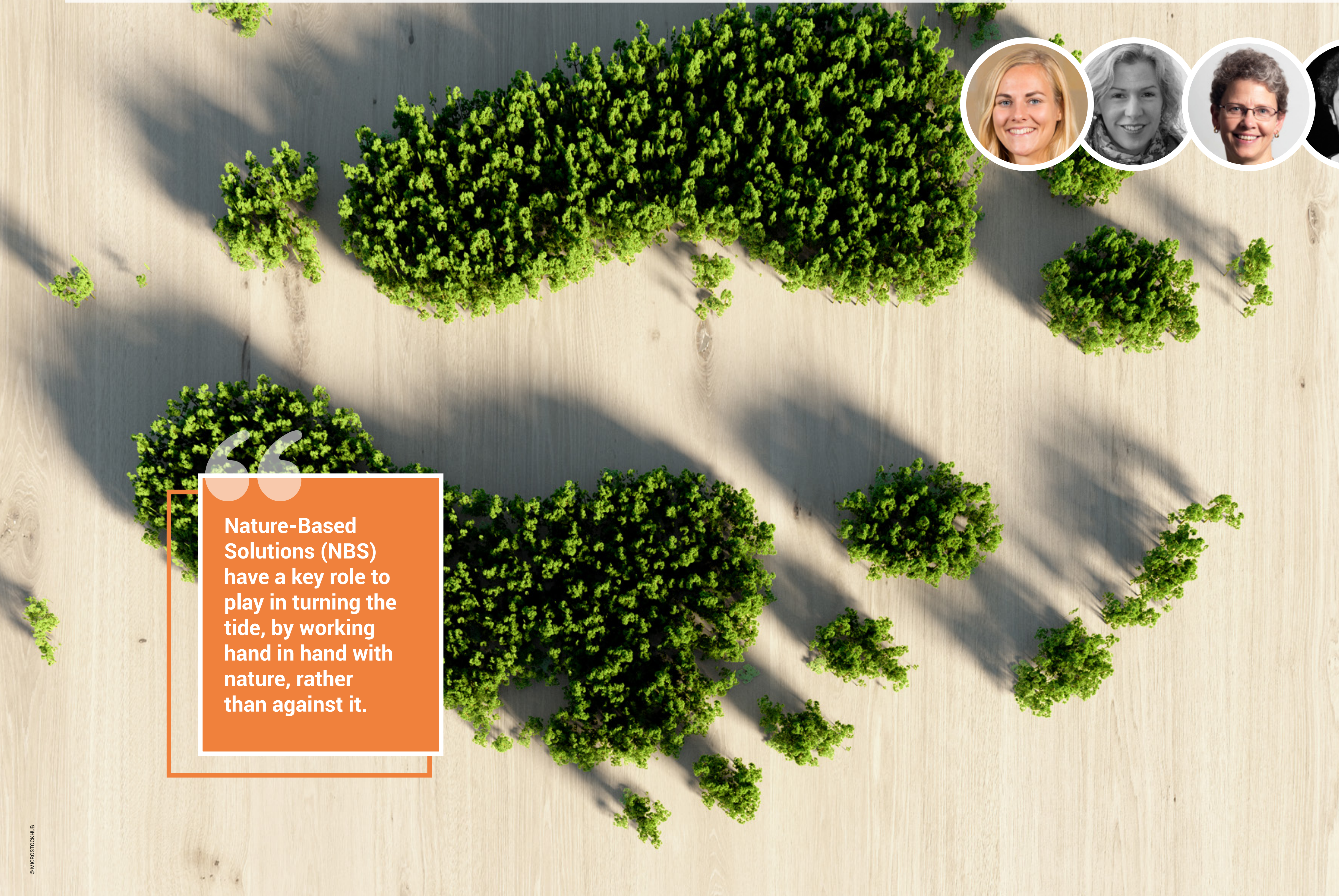
BUSINESS & SOCIETY

FROM NATURE-BASED SOLUTIONS TO NATURE-BASED ENTERPRISES: INNOVATING WITH NATURE TO ADDRESS SOCIETAL CHALLENGES



> **Nature-Based Solutions (NBS) have a key role to play in turning the tide, by working hand in hand with nature, rather than against it.**

Nature-based solutions (NBS) have been widely recognised by governments in climate change and biodiversity strategies. But significant barriers exist for their large-scale implementation. **Esmee Kooijman** and **Siobhan McQuaid,** together with Profs. **Mary-Lee Rhodes** and **Marcus J. Collier** from **Trinity Business School,** Trinity College Dublin, and **Francesco Pilla** from **University College Dublin,** take the first step in a thousand-mile march toward market development of the sector by proposing a classification for organisations delivering NBS and categorising their economic activities.

There is no question that the Earth is a giving planet. Its 'gifts' – natural ecosystems – provide services of crucial importance to human well-being by sustaining the quality of air, water, and soils, providing resources and energy, regulating the climate, and reducing the impact of natural hazards. Yet, human activities have significantly altered ecosystems, and biodiversity loss ranks among the most pressing issues we face today. The world lost an estimated USD 4 - 20 trillion per year in ecosystem services from 1997 to 2011, as a result of global land-use change.

What can be done to improve this alarming situation? Nature-Based Solutions (NBS) have a key role to play in turning the tide, by working hand in hand with nature, rather than against it.

BRIDGING THE GAP

NBS protect, effectively manage, and restore natural or modified ecosystems. In doing so, NBS generate a wide range of benefits locally and for society as a whole. These actions improve ecosystem functions and biodiversity, and decrease the vulnerability of climate change effects by increasing resilience for adaptation and mitigating greenhouse gas emissions. For example, stewardship of terrestrial ecosystems and improvement of agricultural methods have the potential to provide up to 30% of the greenhouse gas mitigation required until 2030 to keep global warming to less than 2oC compared to pre-industrial levels.
Examples of NBS include ecosystem-based adaptation and mitigation, eco-disaster risk reduction, green/blue infrastructure, and natural climate solutions. The benefits of implementing NBS to solve environmental challenges – as opposed to traditional approaches – have led to the adoption of the concept by policymakers, though not universally and to varying degrees of success. Nevertheless, implementation of NBS on the scale needed to contribute to these societal challenges requires the involvement of all stakeholders. NBS are increasingly viewed as a means to diversify and transform business for sustainable development, and the private sector could contribute to upscaling of NBS.

However, what kind of organisations contribute to the delivery of NBS? And what kind of activities do they undertake? As the market development is still in its infancy, industry classifications of sectors of economic and financial activity – Statistical Classification of Economic Activities in the European Community (NACE), for instance – do not account for NBS-related activities. As such, the research team and her co-researchers address this gap by exploring the characteristics and activities of organisations supporting the delivery of NBS using 174 data points collected by a literature review and an enterprise survey.

ENTER THE MATRIX

In order to capture all relevant types of organisations delivering NBS, the researchers propose a categorisation based on the criteria: First, engagement in economic activity, i.e., sell products or services for a given price on a market; and second, the use of nature. The fruit of this effort is summarised in the typology proposed below.

	Nature is at the Core of Activities	Nature is Not at the Core of Activities
Economic activity	Nature-based **enterprise**	Enterprises delivering nature-based products and services
No economic activity	Nature-based **organisation**	Organisations delivering nature-based products and services

Table. Types of establishment delivering nature-based solutions.

In essence, **Nature-based enterprises** - the most common organisation type uncovered - use nature as a core element of their product/service offering for the planning, delivery and/or stewardship of NBS and engage in economic activity. For example, community benefit enterprises specifically involve communities in governance and management of forests, to provide direct and indirect benefits for the public and the community with additional objectives such as conservation, poverty alleviation, development, cultural revitalisation, and political empowerment. Another case in point – nature-based tourism enterprises – cover a large range of services in the wilderness or related to wilderness, for example, accommodation and adventure activities, while providing benefits to nature conservation.

Nature-based organisations use nature as a core element of their product/service offering for the planning, delivery and/or stewardship of NBS but do not engage in economic activity. Examples of nature-based organisations include public-private companies, community groups and network organisations in forestry, community gardens and tourism.

Nature-based products and services may be offered by enterprises or organisations where nature is not a core element of their product/service offering. For instance, there are privately-owned forestry enterprises engaged in the development and utilisation of forest resources for timber production. As part of their management, they might contribute to conservation.

Once the types of establishment identified, the research team proceed to go one step deeper and explore the economic activities of organisations delivering nature-based solutions. 11 categories of economic activities are put forward, 7 in which nature is used directly, and 4 where it is used indirectly.

DIRECT NATURE-BASED ACTIVITIES

To begin with, activities under *ecosystem creation*, restoration, and management focus on the conservation and protection of not only natural ecosystems, but also urban ecosystems, such as allotments, community gardens and derelict areas.

- *NBS for public and urban spaces* involve urban regeneration projects in addition to green areas, parks, gardens and playgrounds, green infrastructure, and urban forestry.
- *NBS for green buildings* relate to solutions for air purification and water retention, such as green living roofs, and enterprises are involved in different activities around the design, implementation, and maintenance of their products.
- *NBS for water management and treatment* include natural solutions for the management of flood and surface water, in rural, peri-urban, and urban contexts, and wastewater management and treatment, and resource recovery.
- Activities under *sustainable agriculture and food production* encompass agroforestry, regenerative agriculture and horticulture, beekeeping and natural plant and soil improvement.
- Activities included under *sustainable forestry and biomaterials* use nature as a sustainable input for construction and manufacturing for buildings, industry, and products. Examples are the manufacturing and application of biomaterials for construction of agricultural and irrigation systems (such as hydroponics), growing algae for food products, and sustainable forestry.
- Finally, *sustainable tourism and health* and well-being cover eco-tourism activities and outdoor workshops for wellbeing purposes, such as forest bathing.

While comparing the aforementioned categories with their NACE counterparts, the fact that the latter misses the nature-based and sustainability focus at the heart of the economic activities, was brought to the fore.
Indirect nature-based activities
Initially, there are advisory services that include technical activities in the planning, design, implementation, and management of NBS, as well as social components, for example, community engagement. A second category covers education, research, and innovation activities focusing on knowledge collection and dissemination, and mainly comprise innovation and feasibility projects for NBS from environmental and social perspectives. Third, financial service enterprises offer services to businesses and individuals to finance ecosystem restoration projects, for example as a way to offset carbon impact, mainly in the form of reforestation. And lastly, activities under smart technology, monitoring and assessment of NBS use satellite imagery, environmental sensors, spatial tools, and data analytics for creating an inventory of tree species or analysing soil health, among others.
Once again, the closest NACE categories do not account for the level of detail of these activities, nor acknowledge the business models used.

TAKING THE NEXT STEP

Through the study of the characteristics of organisations delivering NBS and the categorisation of their economic activities, the researchers assert that this sector should be considered in future policy as a stand-alone sector with significant potential to contribute to the EU goal of achieving a climate-neutral economy by 2050.
The recognition of nature-based enterprises as important actors in the implementation of nature-based solutions is an essential first step in market creation for the products and services they offer. And through them, we achieve a higher goal – of giving back to nature as many or even more gifts than we take from it. ///

KEYS TAKEAWAYS

- Nature-based solutions (NBS) cover different approaches that work with and enhance nature to help address societal challenges, including climate change and biodiversity loss.
- A categorisation is proposed for organisations involved in the planning, delivery, and stewardship of nature-based solutions, based on economic activity and the sustainable use of nature.
- The different types of organisations introduced are: nature-based enterprises that use nature as a core activity in their product/service offering and that engage in economic activity, nature-based organisations with core use of nature but no economic activity, and nature-based products and services delivered by enterprises or organisations in which nature is not at the core of activities.
- In addition, eleven categories of economic activities were identified, ranging from ecosystem restoration and eco-tourism to smart technologies and community engagement for NBS.
- Nature-based enterprises contribute to a diverse range of sustainable economic activities, that standard industry classification systems such as NACE do not adequately account for.
- The recognition of the value created by these activities is essential for designing effective policy support measures, and for market development of the sector and its potential to facilitate the wider adoption of NBS.

BRAZIL'S ENTREPRENEURSHIP POLICY: HOW TO GIVE IT PACE

> Governments should focus on drafting policies which consider the specific requirements of each phase of the entrepreneurial process and also meet the needs that entrepreneurs face in the early stages.

Why does entrepreneurship policy matter? And how can policies make or break the entrepreneurial spirit? Profs. **Tales Andreassi** and **Éder Danilo Bezerra** of **FGV-EAESP** and their fellow co-researchers propose a set of recommendations for facilitating entrepreneurship in Brazil.

"Whatever you can do or dream you can do, begin it. Boldness has genius, power and magic in it!" – powerful words by German author Johann Wolfgang von Goethe that capture the essence, energy and magic of the entrepreneur.

Entrepreneurs occupy a central position in society. They serve as the spark plug in the economy's engine, generating economic value by identifying new business opportunities or expanding existing businesses, and launching products, processes, or services that could be exploited economically. As such, countries use entrepreneurship as a strategy to improve their economic performance and establish policies which can effectively promote and drive enterprise creation.

ONE AND THE SAME

In the public sector, the concept of public policies takes on the same meaning as the concept of strategies in the private sector, i.e., plans or guides for future action and processes. Public policies can be seen as the process of implementing government projects through programmes and actions, involving different organs and agents, in both government and society. They play a decisive role in the development of entrepreneurial activity

and the consequent creation of jobs, economic growth, regional development and innovation.
Knowing the public entrepreneurship policies designed and put into practice means knowing the direction a country is taking in terms of entrepreneurship. On that basis, Prof. Andreassi and his colleagues work on the entrepreneurial canvas of Brazil using a few gentle strokes of the Lundström and Stevenson model to paint a picture of public entrepreneurship policies in the country and unravel which fields are benefitted or are neglected by such policies.

THE BRAZILIAN CANVAS

The entrepreneurship environment in Brazil is not favourable when compared to that of other countries. According to the World Bank's Doing Business, Brazil is one of the countries with the highest levels of difficulty when it comes to opening a business. In the 2015 classification for Starting a Business, Brazil ranks 167th of the list of 189 economies analysed by the World Bank. A second study, the Global Entrepreneurship and Development Index, places Brazil in 100th position in an evaluation of the set of factors which facilitate the development of entrepreneurship in a country. So, what is the reason for this unfriendly business environment?
This question calls for an exploration of the country's public entrepreneurship policies by classifying them according to the aforementioned Lundström and Stevenson model, which presents eight categories – promotion of entrepreneurship; entrepreneurship education; reduction of entry/exit barriers; start-up financing; start-up support, target group measures; infrastructure; and technology and innovation. And the aim is to use the model to make recommendations for government action to build a fertile environment for new businesses. Let's begin by taking a closer look at each category.

PROMOTION OF ENTREPRENEURSHIP

Creating an environment which enhances entrepreneurship, with a view to make it more visible in the eyes of society and promoting it, encourages more people to opt for entrepreneurship and as a result, set up new businesses.
The objectives which allow public entrepreneurship policies to be classified in this dimension include: improving the visibility of entrepreneurship in the eyes of society; increasing awareness of entrepreneurship; presenting success cases to show situations of achievement in entrepreneurship; stimulating attitudes favourable to entrepreneurship and its role in society; generating interest in exploring entrepreneurship as a career option; and increasing support in society for entrepreneurship.

ENTREPRENEURSHIP EDUCATION

Entrepreneurship can be embedded in the education system by undertaking certain actions: helping students develop entrepreneurial competencies; introducing the concept of entrepreneurship into the school curriculum at all levels so that it can be considered a career option from the outset; and engaging teachers as partners in entrepreneurship by encouraging them to work with their students to shape up the necessary spirit and skills.
These measures would lead to entrepreneurship being seen as common practice in society from basic education onwards. Entrepreneurship would, as a consequence, gain more prestige and help in the formation of possible future go-getters. From early on, students would have the social support, develop invaluable technical and managerial business skills, inculcate entrepreneurial characteristics such as creativity, business vision, leadership and self-confidence and understand the various challenges to be faced in the ultra-competitive business world.
In addition, entrepreneurship education should go beyond traditional approaches and introduce initiatives such as entrepreneurship centres, entrepreneurship internships, consultancy and research.

REDUCTION OF ENTRY/EXIT BARRIERS

Entry/exit barriers exert a strong influence on micro and small enterprises and on entrepreneurs, who cannot always afford to pay high taxation rates. Entrepreneurs also face strong pressure from the market to compete and do not have sufficient funds to put certain market actions into practice or, in the long term, handle the legal and fiscal aspects which impact their businesses.
The objectives for the categorization of public entrepreneurship policies in this dimension include: facilitating entry criteria for companies so as to increase the number of new enterprises in the market; increasing opportunities for new enterprises; reducing the stigma of exiting and failure in order to encourage entrepreneurs to have faith in their businesses; reducing the cost of labour and increasing flexibility; reducing the administrative workload involved in dealing with the new rules for existing small businesses; reducing taxation rates; facilitating transfer of ownership for family businesses; promoting investment in research and development; stimulating informal investments and risk capital; and simplifying tax returns.
Many firms do not innovate because of the entry barriers which hinder innovative entrepreneurship. These make it difficult for enterprises to remain operational and consequently entrepreneurs do not invest in the business. As such, policies should encourage enterprises to enter the market by lowering these barriers.
Many countries, such as Brazil, continue trying to reduce or eliminate obstacles for entrepreneurs. These include bureaucratic procedures and transparency issues, such as a lack of accurate information and time-consuming procedures. Inefficiency often results in delays and unnecessary financial costs for the opening of new businesses. Measures to promote start-ups include reducing the number of licences, processes and administrative fees; introducing fast-track mechanisms to cater to specific demands; and introducing electronic procedures to register enterprises.

START-UP FINANCING

Finance policies deal with the availability of financial resources to boost entrepreneurship. The fact that small enterprises have fewer resources than large companies affects their competitive power and, consequently, their performance in the market.
The goals of the finance category include: improving access to finance for all groups of entrepreneurs at all stages of business development, especially the early stages; reducing risks and loan costs for small enterprises; raising investments from the private sector; increasing the supply of risk capital; and finding angel investors.
The availability of credit plays a major role in the formation of new businesses. One of the main challenges for small and medium-sized entrepreneurs in countries such as Brazil is the cost of financing which is still expensive. There are many bureaucratic barriers to accessing funds and banks can be insensitive to small businesses. Difficult access to credit is one of the reasons for the demise of micro and small enterprises, as entrepreneurs who are not always able to obtain sufficient funding have to resort to using their own capital and are incapable of expanding their businesses or taking advantage of a business opportunity. The solution to this is the creation of specific credit facilities.

START-UP SUPPORT

Support for start-up businesses deal with information, training and consultancy to provide entrepreneurs with greater skills to conduct their activities. This dimension is defined by the goals of reducing information asymmetries; improving the scope of information and counselling services at each stage of development of the enterprise; improving the quality of services for newcomers; and meeting the needs of people at different stages of development.
Entrepreneurial activity can face many initial problems such as a lack of customers, legitimacy, relationships, and a turbulent economic environment. More innovative countries have more dynamic activity because they perceive the significance of understanding the entrepreneurial context of the country and the need to support both new and established companies.
This aspect is paramount because it specifically addresses the internal actions of entrepreneurs in the management and general operations of their new businesses. Such firms generally experience strategic and organisational problems – no business plan, lack of innovation, difficulty in finding and maintaining customers, keen competition, entrepreneurs with low levels of schooling and few managerial skills – that directly affect the business and influence their chances of survival in the market.
The entrepreneur's knowledge of the enterprise and the market is decisive for organisational success and is a necessary skill if the enterprise is to remain operational. In this sense, policies to support entrepreneurs could help them institute measures to guarantee the development of their businesses.

TARGET GROUP MEASURES

The aim of policies to support target groups is to use entrepreneurship as a means to bring about the social and economic development of the less privileged or priority groups in society. Support for female entrepreneurs, for instance, is included in this category.
The objectives for this aspect take into account: increasing the business of groups that are under-represented; reflecting the different self-employed social groups; introducing new people to the labour market by providing them with opportunities to join; helping reduce unemployment rates; enabling certain groups to gain access to finance and training at the early stages of their venture; broadening the scope of government action in support of entrepreneurship; and ensuring that entrepreneurship is accessible to all.
Public entrepreneurship policies in certain countries indicate "affirmative" policies. Their actions have the power to alter realities and provide opportunities for social belonging and improved quality of life for the less privileged and are a basis for reducing inequality and social problems, such as poverty, prejudice and exclusion. Such policies also provide these groups with a chance to enter the entrepreneurial scene.
Depending on the main challenges of each country, special entrepreneurship programmes, such as those that improve the employability of the young, create economic opportunities for women and overcome ethical divisions, could also play a vital role.

INFRASTRUCTURE

The infrastructure category involves policies for designing infrastructure to aid and leverage new businesses. It includes building projects or the provision of services involving roads, telecommunications, energy, safety, qualified labour, renovations and extension. Each emerging venture influences the economic dynamic, so the infrastructure underlying a business should be thought through carefully and should create the basic conditions to make the enterprise viable.
Adequate infrastructure makes it possible for enterprises to perform better by providing entrepreneurs with a more attractive environment which is suitable for the development of new businesses.

TECHNOLOGY AND INNOVATION

The technology and innovation category has to do with policies to exploit innovation and emerging technologies as a means of developing entrepreneurial ventures.
The goals concerning this dimension include: making innovation a vector for local development; providing technological scholarship; extending government investments in innovation; providing enterprises with greater security in terms of protection of intellectual property; providing means for viable innovative post-graduate and outreach projects; and appreciating businesses related to the sustainable use of biodiversity.
These policies provide enterprises with greater accommodating and proactive qualities which, when seeking new or improved processes, products and services, could ensure their stability in the market or embeddedness in the business environment with a certain degree of differentiation. Innovation is a vital driving force for development and social advance, as it is a major channel of government action.
Indeed, many businesses do not present innovation with any significant economic impact. To improve their potential for development and provide positive results for society, businesses should be encouraged to innovate and expand their R&D capacity.

FINDING OUT A THING OR TWO

Research on entrepreneurship in Brazil through the lens of eight different dimensions – promotion of entrepreneurship; entrepreneurship education; reduction of entry/exit barriers; start-up financing; start-up support, target group measures; infrastructure; and technology and innovation – led Prof. Tales Andreassi and his co-researchers to probe the websites of 39 ministries, secretariats and agencies listed on the Federal Government website and inspect 94 public entrepreneurship policies in the country.
Results showed that Brazilian public entrepreneurship policies focus more on issues related to financing, start-up support and technology and innovation, but there are only few policies directed towards increasing the number of entrepreneurs in Brazil, such as policies on the reduction of entry/exit barriers and infrastructure. Policies related to target groups witness a small representation too. There are also few policies on the promotion of entrepreneurship and entrepreneurship education, which are essential if entrepreneurship is to be seen as a career option by a larger number of people.

WHAT THE NUMBERS SAY

The smaller number of policies prior to setting up an enterprise and aimed at generating more entrepreneurs and new businesses (promotion of entrepreneurship and entrepreneurship education), when compared with policies for existing businesses (start-up financing), reflect Brazil's stage of development in the field of public entrepreneurship policies. It is at the efficiency stage, where policies prioritise support for small enterprises as a way of improving the entrepreneurial climate, while countries such as Canada are at the innovation stage with policies focus on the promotion of entrepreneurship itself. There is still no policy in Brazil to promote entrepreneurship as a coordinated mechanism that is necessary for the development of an entrepreneurial culture in the country.
Results in the technology and innovation dimension confirm that innovation could be used as a driving force in the drafting of public policy. They also indicate that Brazil, like several other countries, sees innovation as the impetus it needs for growth.
Similarly, target group measures play a significant role in society as they promote economic development and social inclusion. Low priority for target groups, such as women, youth, and the vulnerable, indicate the need to create more policies with this focus.
Despite their low percentage rate, policies related to infrastructure are vital to the creation of a suitable and accessible setting for the development of new businesses and those already in existence. This could be a reflection of the embeddedness of these policies in the panorama of entrepreneurship policies in Brazil. As infrastructure policy is considered basic, it should be formulated to guarantee the survival of existing enterprises and create conditions for the operation of new businesses, and make them more dynamic.
A further problem related to the formation of public entrepreneurship policies is the fact that entrepreneurship has never received due attention at the national level, as initiatives are more local or regional. As such, there should be interaction between the people and institutions in order to form a national entrepreneurship system capable of creating an entrepreneurial environment.

BROADENING THE SCOPE

With gaps identified in the Brazilian agenda for entrepreneurship support, Prof. Andreassi and his colleagues propose a number of actions to improve national policies. The suggested measures focus on five main aspects – consideration of all stages of the entrepreneurship process, reduction of entry and exit barriers, formulation of policies for target groups, macro- and microeconomic considerations, and wider interaction between actors of the national entrepreneurship system.

ADDRESSING WHAT'S UNDER THE RADAR

The entrepreneurial process – from the birth of an idea to the consolidation of a new business – involves different stages. First, there is the entrepreneur's intention to set up a company. Next comes the stage where the enterprise is considered nascent – it is being created and does not yet exist. Later, it is regarded as new during the first months of its existence and goes on to consolidate and expand. At each of these phases, the difficulties and requirements of the entrepreneur and the enterprise are different and require different policies. Brazilian entrepreneurship policies mainly focus on maintaining established businesses and there are fewer policies for the early stages. As such, governments should focus on drafting policies which consider the specific requirements of each phase of the entrepreneurial process and also meet the needs that entrepreneurs face in the early stages.

EASING ENTRY AND EXIT

There is the need for expanding policies to reduce entry and exit barriers. Barriers to setting up new businesses is one reason why many people decide not to create one. In the World Bank's Doing Business, Brazil is one of the countries with the greatest number of demands and costs when it comes to opening a business. Simplifying these procedures and reducing the costs of opening a business could lead more people to take the road to entrepreneurship.

PILLAR OF SUPPORT FOR TARGET GROUPS

More policies should be formulated for specific groups. This would lead to the development of entrepreneurship among groups that would result in greater returns in terms of job creation. For example, there could be incentives for high-impact or rapid-growth entrepreneurship. This type of entrepreneurship is formed by a small group of enterprises which expand rapidly and generate greater dynamism in the economy.

MACRO-MICRO SIDES OF THE POLICY COIN

Another recommendation is related to the recognition that there are policies which are essentially macro- and microeconomic. Policies can be formulated from a macroeconomic perspective, which includes those directed towards infrastructure, adequate education, flexible labour markets and research and development. However, there can also be microeconomic policies which focus on individual entrepreneurs or enterprises, information flow and financing. This understanding leads to a better grasp of the economic effect of public entrepreneurship policies and their effectiveness.

GOING NATIONAL

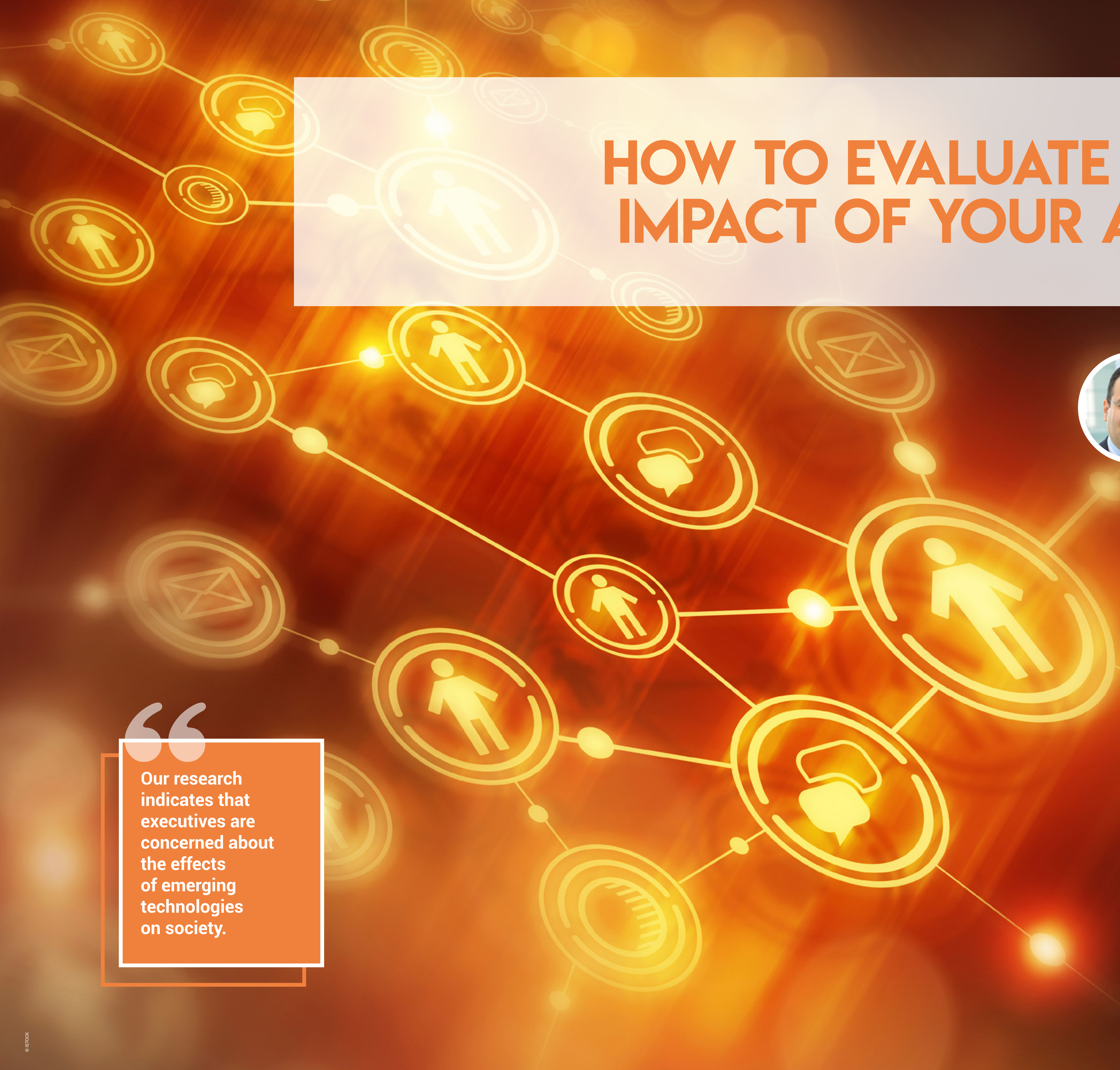
Public entrepreneurship policies should also consider more intense interaction between society and institutions in order to form national entrepreneurship systems. These systems should be made up of an interconnected set of agents responsible for creating an environment conducive to entrepreneurship and should include policies with a clear role and focus for this purpose. National entrepreneurship systems recognize the role of each country's institutions in the formulation of public entrepreneurship policies and as a result, have the potential for making entrepreneurship a consistent activity at national level.

A NEW FERTILE GROUND

Equipped with a clear understanding of their country's entrepreneurial climate, public policy formulators should consider the relevance of potential entrepreneurs and the small number of policies directed towards them, and create more policies to promote an entrepreneurship culture and entrepreneurship education. As Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, rightfully points out, "Entrepreneurship is the engine fuelling innovation, employment generation and economic growth. Only by creating an environment where entrepreneurship can prosper and where entrepreneurs can try new ideas and empower others can we ensure that many of the world's issues will not go unaddressed". ///

KEYS TAKEAWAYS

- Public entrepreneurship policies play a significant role in promoting new businesses and developing those already in existence.
- They can be classified as policies which: (1) Promote entrepreneurship; (2) Undertake entrepreneurship education; (3) Reduce entry/exit barriers; (4) Provide access to start-up financing; (5) Give start-up support; (6) Target group measures (such as female entrepreneurs); (7) Build adequate infrastructure and (8) Exploit technology and innovation
- When the focus of a public entrepreneurship policy is known, one can understand the actions undertaken that are considered priority in the entrepreneurial practices of each country and also those which are little exploited or ignored in the entrepreneurial context.
- The environment for entrepreneurship in Brazil is not favourable when compared to that of other countries. In the World Bank's Doing Business, Brazil is one of the countries with the greatest number of demands and costs when it comes to opening a business.
- Public entrepreneurship policies in Brazil focus more on maintaining existing businesses, with only a few policies directly contributing to increasing the number of entrepreneurs in the country. Policy formulators should recognize the urgency of differentiating between policies for existing enterprises and policies for the creation of new enterprises, as their results are different.
- Governments should focus on drafting policies which consider the specific requirements of each phase of the entrepreneurial process and also meet the needs that entrepreneurs face in the early stages.
- Other recommendations include expanding policies to reduce entry and exit barriers, having more policies formulated for specific target groups and creating national entrepreneurship systems.



HOW TO EVALUATE THE SOCIAL IMPACT OF YOUR AI STRATEGY

Luciano Oviedo, Founder and CEO of tech start-up **Tempugo WAITX,** and Prof. **Sotirios Paroutis** of **Warwick Business School,** share the why, what and how of their innovative Social Impact Strategy Analysis (SISA) tool.

Related research: Knight, E., Daymond, J. and Paroutis, S. (2020) "Design-led strategy : how to bring design thinking into the art of strategic management", California Management Review. Oviedo, L.C., Paroutis, S. and Smith, M.A. (2020) "So, you think you have an AI strategy? Think again", Industrial Internet Consortium paper.

The range of topics discussed at the big tech antitrust hearings on Capitol Hill in Washington in July 2020 – from 0, from the regulation and censorship of speech to the commercial exploitation of user data – highlighted the pervasive impact on our lives of many emerging digitally-enabled technologies.

Increasingly, it seems that these technologies – from AI to automation and blockchain to the Internet of Things – are double-edged, creating significant challenges for business and society, as well as providing unprecedented opportunities for growth and prosperity.

> **Our research indicates that executives are concerned about the effects of emerging technologies on society.**

MOVING BEYOND TRADITIONAL FARE

Indeed, beyond the reputational hazards of appearing in front of a US congressional sub-committee, there are many reasons why organisations might wish to integrate a social impact assessment for the emerging technologies they develop and use into their strategy development. And, in doing so, move beyond the traditional, but many would argue outdated, focus on the standard strategy fare of financial and market competition oriented metrics.

It might be to fulfil a corporate duty to make a positive impact

on society, as with benefit corporations in the US, for example. Or that executive decision makers believe the effects of emerging technologies on society so profound that it is the 'right' thing to do, part of new social contract that gives organisations license to operate.
Another possible impetus is the commercial considerations associated with consumer demands for greater ethical and social responsibility from product and service providers. At its most basic, given the additional burdens imposed by the introduction of data protection regulations following widespread, digitally-enabled, commoditisation of data and pillaging of privacy, it might simply be for risk mitigation purposes.

SISA

It is not indifference that prevents action, either. Our research indicates that executives are concerned about the effects of emerging technologies on society. Instead, the issue for many organisations is a glaring gap in their strategy toolkit, limiting their ability to make social impact evaluation a proactive part of operations, and the creation and development of products and services.
As a result, and with so many companies heavily investing in AI technologies and adapting business models accordingly, we have created the Social Impact Strategy Analysis (SISA) strategy tool. It was developed based on our experience of more than 30 one or two-day workshops, involving more than 500 internal and external stakeholders, at a Fortune 50 multinational technology corporation headquartered in Silicon Valley, California.
The SISA methodology can be used to evaluate plausible systemic risks and benefits associated with AI technologies (or other emerging technologies) and related products and services, across a range of social factors such as environment, energy and 'society' (ethics, economics, gender, culture and language). It is a flexible tool that can be used by emerging technology innovators and users, as an individual or group process, to investigate social impact at a number of levels, from individual communities to society more broadly.
Importantly, the SISA approach is an open and participative process designed to incorporate a range of stakeholder perspectives, including those of affected communities and citizens, before any deployment of an innovative technology enabled product or service.

3 STEPS TO SOCIAL IMPACT STRATEGY

Once the technology associated challenge or opportunity has been established, the SISA strategy exercise follows a number of distinct steps. These can be loosely divided into three stages: the initial setup; understanding the value ecosystem; and the social impact factor analysis.
The four steps in the initial set-up – participation, prioritisation, use case and content – cover the selection of participants, deciding on and prioritising the social factors to be analysed, clarifying and describing the use case, and gathering factor and use case related information to be used during the second and third stage.
Our methodology is designed to accommodate the analysis of up to eight factors relevant to the use case. It is important to select social factors that allow for a discussion about the dynamic interaction and interplay between the technology and factors (rather than just the one-way impact of technology on the factors).
The second stage establishes the context for the proposed use case using three separate questions: 'Where are we?' maps out the existing platform ecosystem landscape for the specific technology; 'where might we go?' explores the likely evolutions of that landscape; while 'why should we go there?' identifies potential benefits and opportunities available in that future landscape.

HOW TO USE THE SOCIAL IMPACT STRATEGY ANALYSIS TOOL

For autonomous vehicles (AVs), for example, the platform landscape might include elements such as safety and security, autonomy, intelligent manufacturing and on-board sensors. In turn the on-board sensors layer would contain sub-categories, such as location, vision/camera, and LIDAR and RADAR navigation systems.
Exploring the evolution of the landscape using two dimensions – the nature of the passenger-vehicle contract and type of driving control (for example, human or autonomous system) – might suggest that a shift from ownership and human control to ride-sharing and autonomous systems is highly likely. Lastly, in terms of the potential opportunity, further analysis could outline the predicted economic impact of AVs (some $7 trillion in relation to consumer and business products and services).

Having established the platform landscape and the organisation's position within it, present and future, the next stage is to analyse the interaction between technology and selected social factors. For AVs, that might include energy and environment, with risk-benefit analysis considering the impact on emissions, the energy consumption of different AV technologies, and the energy and environmental effects of battery manufacture and disposal.
Analysis of an economics factor might weigh potential benefits arising from reduced healthcare costs due to lower accident frequency alongside issues such as predicted job losses. The final step is to summarise the aggregate results of the SISA exercise. A simple way of doing this would be using a risks/benefits scorecard covering all of the factors.

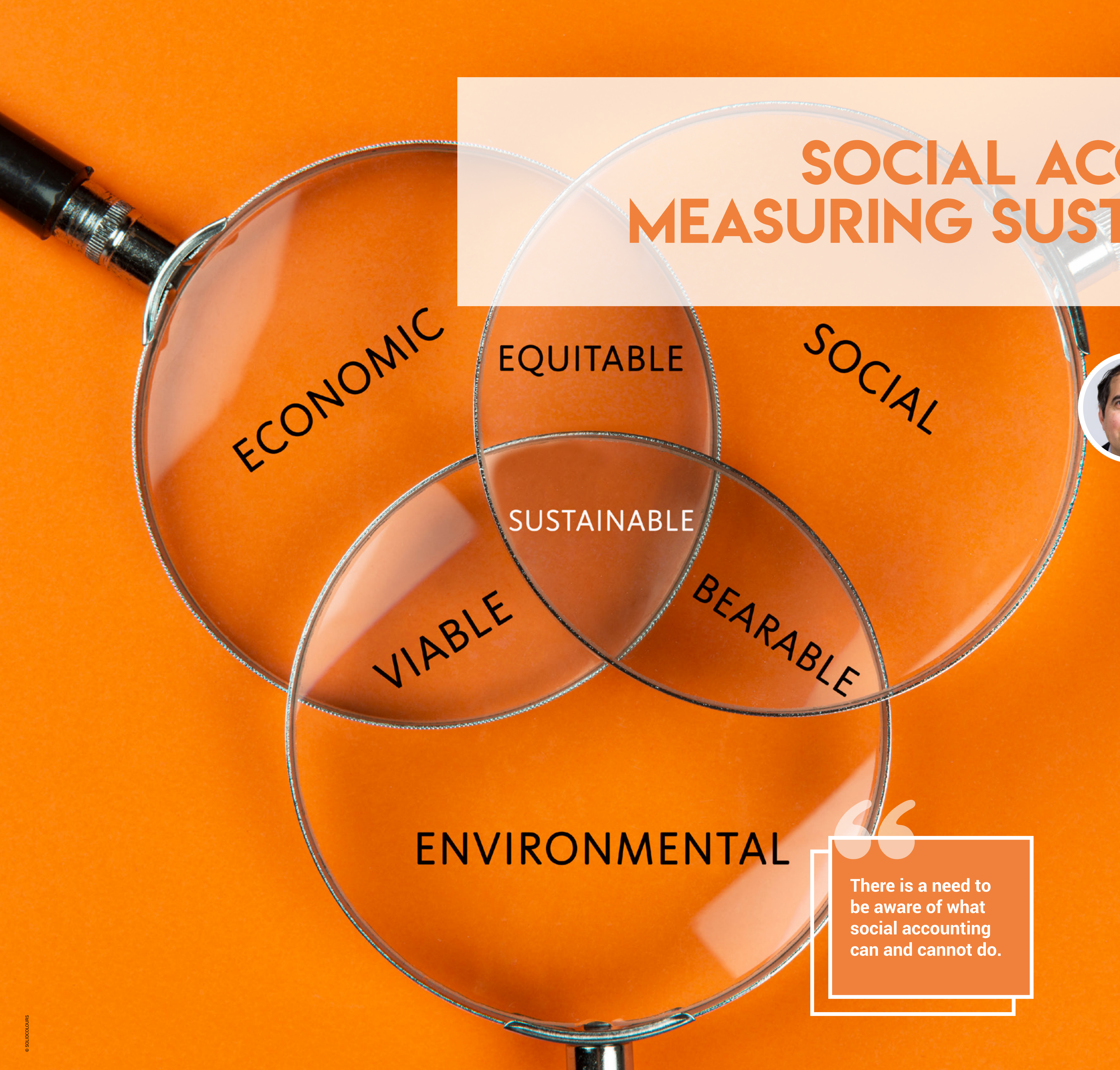
STAKEHOLDERS ARE IMPORTANT

Adopting an open, design thinking approach to strategy development is a fundamental part of the SISA methodology. Rather than having small group, closed, top-down decision-making, the aim is to design an open middle-out, bottom-up process. A range of stakeholders from the technology's ecosystem should be included, from frontline and mid-level staff outside the relevant business unit, but still inside the organisation, to suppliers, customers, regulators and government agencies.
One of the main benefits to this approach, besides accessing specialist knowledge and insight, is the potential for creating buy-in for a proposed strategy while, at the same time, identifying blind spots, pitfalls and maximising risk mitigation.
It is unlikely that any single tool will deliver solutions for all of the strategy challenges an organisation faces. However, adopting an open, participative, design thinking perspective alongside the SISA tool, should at least improve the overall quality of strategy development.
It provides organisations with a means of evaluating, re-presenting and sharing the potential impact of interactions between technology enabled use cases and relevant social factors. All stakeholders in a platform ecosystem with access to this information can use the analysis to game a range of scenarios and inform relevant decision-making processes.
In a broader context, there is an ongoing debate about the evolution of capitalism, prompted by criticism concerning the fairness of capitalism in its traditional and dominant form. If the status quo persists, the effects of introducing emerging technologies into almost every aspect of our lives may only serve to accentuate and exacerbate any problems with the current system.
Conversely, providing the people affected by these technologies with an opportunity to influence their development and use through open strategy tools such as SISA is likely to benefit creators, consumers and society more generally. ///

KEYS TAKEAWAYS

- Digitally-enabled technologies are double-edged: they create significant challenges for business and society, as well as providing unprecedented opportunities for growth and prosperity.
- Reasons for organisations to integrate a social impact assessment for technologies: to fulfil a corporate duty to make a positive impact on society, to tie them in with corporate purpose and a social contract, and pressure from consumers for greater ethical and social responsibility from product and service providers.
- The issue for many organisations is a glaring gap in their strategy toolkit, limiting their ability to make social impact evaluation a proactive part of operations, and the creation and development of products and services.
- The Social Impact Strategy Analysis (SISA) strategy tool developed by the authors can be used to evaluate plausible systemic risks and benefits associated with AI technologies and related products and services.
- It operates across a range of social factors such as environment, energy and 'society' (ethics, economics, gender, culture and language).
- The SISA approach works upstream from technology products or services deployment and is an open and participative process designed to incorporate a range of stakeholder perspectives, including those of affected communities and citizens.
- The SISA strategy exercise follows three stages: the initial setup; understanding the value ecosystem; and the social impact factor analysis.

SOCIAL ACCOUNTING: MEASURING SUSTAINABILITY



Putting a value to the impact people and their organisation have on the world around them is not an easy task, says **Prof Adrián Zicari,** of **ESSEC Business School,** especially in the context of ethics in finance.

> **There is a need to be aware of what social accounting can and cannot do.**

WHAT THE NUMBERS CAN'T – AND DON'T – SAY

Sustainability has become one of the most pressing issues of the day, with the entire world becoming more aware of problems such as environmental degradation, inequality, and climate change. As such, sustainability involves maintaining 'a social and environmental balance' that reduces negative impact in the future.

In light of this, it is important that a form of measurement—or accounting—be developed. This measurement has been given the name 'social accounting', and can also be replaced by terms such as 'sustainable accounting' and 'nonfinancial accounting', says Prof Zicari. Yet, what it actually measures is not very clear, for there are various parameters that represent the complex nature of social and environmental impact.

The growing volume of information contained in reports on sustainability published by corporate houses is proof of this problem, for there is a distinction between 'comprehensiveness' and 'comprehension'—as the reports become larger, the more difficult it is to understand them. To top it all, social and environmental indicators are not always accounted for using currency units, which are widely understood.

Moreover, conventional accounting dates from around the fifteenth century, and has well established practices and conventions. By contrast, social accounting took its first steps in the 1970s and gained traction in the 1990s, mainly in Europe, with the idea that accounting should encompass more than just economic impact. This means that the field, while more developed today, still has some ground to cover before being as uniform as its financial counterpart.

REPORT TO IMPRESS

One issue that needs to be addressed is that of reporting. Until now, social reporting has generally been voluntary, although some regulation does exist, mostly in Europe. Yet, given the freedom to report, many companies choose to report essentially to gain legitimacy, for companies need to address societal expectations.

In addition, a study of corporate reports in the USA reveals that companies with not-so-stellar environmental performance tend to use more optimistic language, which suggests that some environmental disclosure is strategic. Even if one assumes that companies do not provide misleading information, companies can't be expected to provide open-access to all their social and environmental information.

This brings us to the question of whether regulation will help—for even though CSR actions may be voluntary, and thus out of the scope of a firm's duties, there is some consensus that some form of compulsory reporting will increase the information available and also comparability among various reports.

SPARE THE ROD

Soft-law deals with existing reporting frameworks—such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Boards (SASB), and Integrated Reporting (IR)—and even though compliance to these frameworks is voluntary, compliant companies have to conform to a certain structure when publishing data. Despite this standardization, 'comparability among companies using the same reporting standard can still be difficult', according to Prof Zicari. But it is not a lost cause, for voluntary social reporting can still be used to engage with stakeholders.

Hard-law, on the other hand, requires mandatory social disclosures and while it increases social reporting, as evidenced in some studies in both Spain and Italy, quantity does not mean quality. Further, social reporting is merely a means to an end—sustainability—not an end in itself. Achieving sustainability will perhaps require more—an active civil society that will use social reporting tools to drive the change needed.

To this end, previous research suggests that regulations should foster involvement of civil society, promote easy access to sustainability data, and presentation of the said data in a comparable manner.

AN INSIDER'S ACCOUNT

But reporting only takes into account half the story, for it doesn't really capture what goes on inside the firm. For instance, a case study focused on a small industrial company in New Zealand, with a CEO genuinely committed to CSR, facing no internal resistance, and with initiatives such as inclusive hiring—shows that implementing social accounting is not a piece of cake, no matter how favourable conditions may be.

This is perhaps because of the level of integration between a firm's internal indicators, also known as the 'management control system' (MCS) and the firm's CSR indicators. The ideal case is one where the firm's CSR indicators are a part of the MCS, allowing the firm to pursue a developed sustainability strategy.

Given how managers acting in good faith and little internal resistance in their companies can also fail at achieving sustainability, a need for an integrated approach is felt. This integration may come from a clearer definition of CSR together with corporate performance, as opposed to an approach where CSR is the responsibility only of a certain team within the overall organisation.

INTERTWINED

The next step is to consider how social reporting relates to its traditional counterpart—the financial result. And while one may assume these to be isolated from one another, the reality is a little more nuanced. This is because there is an overlap of audiences—an expense by a company to say, buy a new equipment to reduce pollution has an impact on the bottom line, as well as on the environment.

Similarly, an investor could like to look at the finances to see the where the company is headed and also at the social report to better understand the risks involved.

And while several frameworks have attempted to identify a cause and consequence relation between social and conventional accounting, a clear link is yet to be found. As such, managers may implement sustainability strategies when deemed appropriate, even if a business argument for one cannot be made.

Managers may also want to choose their framework carefully, for each one of them has different indicators. For example, the GRI includes a large set of varied indicators, targeting multiple stakeholders, while the SASB's indicators differ by industry.

THE BIG PICTURE

One should also not lose sight of the fact that social accounting is not the end goal. Sustainability is. This brings the debate to a crucial argument—whether social accounting will help achieve that objective. And while some research suggests that is indeed the case, the big picture tells a different story.

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This is because studies suggest that social accounting can lead to 'institutional appropriation'—marginal improvements without significant change. This is not to say that the entire exercise has been in vain—large companies across the globe now release social reports and social reporting is now a mainstream academic discipline rather than being a niche field.

One problem is that improvements in large corporations do not compensate for business-as-usual trends in small and medium companies that form the bulk of the production and employment bandwagon.

Furthermore, social accounting increases disclosure that may lead to token improvements without challenging the status quo. This is akin to treating the symptom but not the cause. For example, transportation-related accounting may lead to improvements in numbers such as fuel efficiency and tonnes of emissions. Yet, it does nothing to answer more fundamental questions such as the need to travel so much. The COVID-19 crisis is a good example of how it took a global pandemic, not social accounting, to make real change possible—business meetings only now started to be increasingly held online despite this being possible before.

As such, there is a need to be aware of what social accounting can and cannot do. For it is not a magic wand that when waved will simply replace problems with sustainable solutions. To that end, a concerted effort from an active citizenry and the use of tools from other areas such as design thinking can also go a long way to save us and our future, from ourselves. ///

KEYS TAKEAWAYS

- Sustainability involves maintaining 'a social and environmental balance' that reduces the negative impact in the future. In light of this, it is important that a form of measurement—or accounting—be developed.
- There is some consensus that some form of compulsory reporting will increase information available and also comparability among various reports.
- Regulations should foster involvement of civil society, promote easy access to sustainability data, and presentation of said data in a comparable manner.
- Implementing social accounting is not a piece of cake, no matter how favourable conditions may be.
- Social accounting is not the end goal, sustainability is, and social accounting has led largely to 'institutional appropriation'—marginal improvements without significant change.
- There is a need to be aware of what social accounting can and cannot do. A concerted effort from an active citizenry and the use of tools from other areas such as design thinking is required as well.

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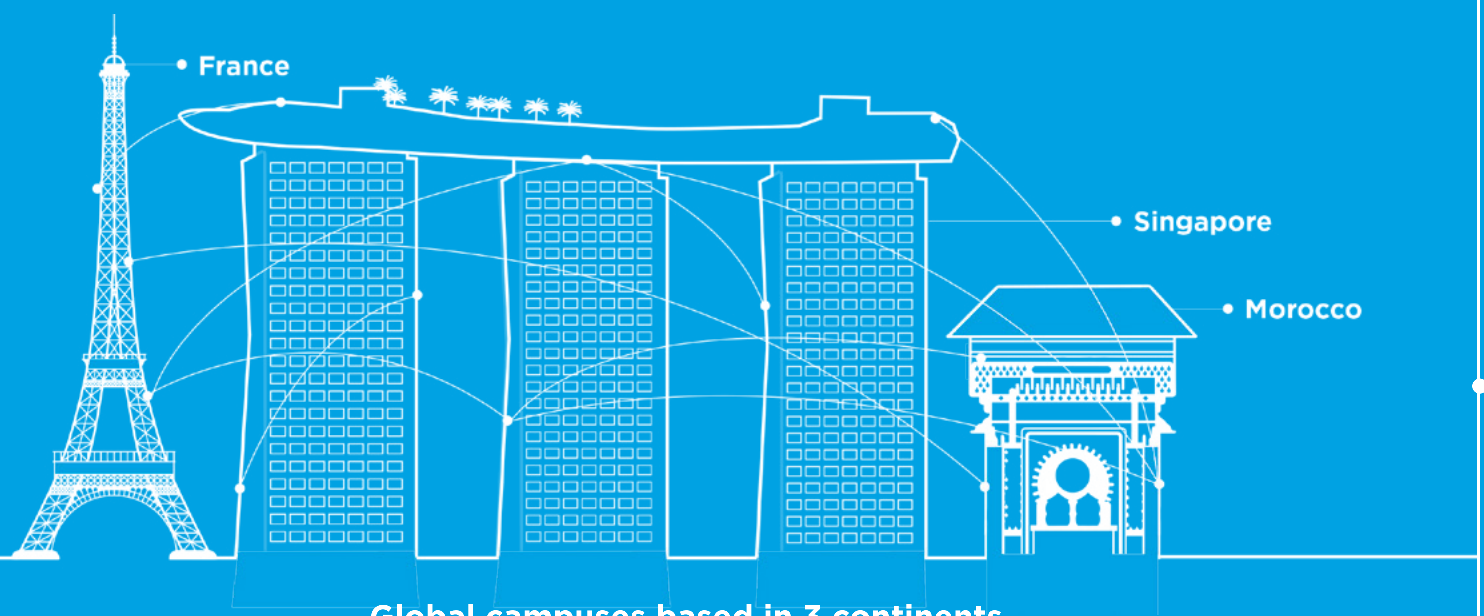

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Stephenie Teo
Head of Learning and Talent Management, Bank of Singapore


Divya Tolath
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Mo Dirani
Associate Director, Transaction Banking | Liabilities & RWA Optimisation, Standard Chartered

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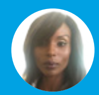
Academic Director, Executive MBA Asia-Pacific


Aminetou Gaye
Vice President, Head of Legal and Compliance India and Asia-Pacific Regions, Airbus


Timothy Kooi
Business Unit Digital Manager, International Fuels & Lubricants, Chevron


Aileen Dualan
Asia Pacific Medical Affairs Leader, MSD

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Prof. Jan Ondrus
Associate Academic Director, Global MBA, Asia-Pacific


Divya Tolath
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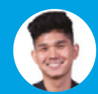
Jeff Fraser
Digital Strategist, MOI Global

Job Prospects For Postgrad Holders – What Lies Ahead?

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Larry Medina
Director of Career Services, Alumni and Corporate Relations, ESSEC Asia-Pacific


Frederic Marcerou
Managing Director, Singapore & Brunei, Bollore Logistics Singapore Pte Ltd.


Christophe Gonet
Director, Global Sales Performance Management & Asia-Pacific Sales Operations, West Pharmaceutical Services

CAN CSR CODES UNLOCK SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES?

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> CSR Codes play a key role in improving the quality of life in places where multinational companies operate.

What happens when the CSR Codes of Brazil's oil and gas industry meet the international legal framework system on sustainable development law? Are there more similarities than differences between the two? Prof. **Ligia Maura Costa** of **FGV-EAESP** explores how CSR Codes can be used as a tool towards sustainable development in developing countries.

In 1968, Garret Hardin, ecologist and philosopher, wrote an essay titled 'The Tragedy of the Commons'. He argued that if individuals act independently, rationally and focused on pursuing their own individual interests, they would end up going against the common interests of their communities and exhaust the planet's natural resources.

Truer words couldn't have been said. All too often, development is driven by needs going against an awareness of the environmental, social and economic limitations we face as a society, without fully considering the wider or future impacts. From large-scale financial crises caused by irresponsible banking, to changes in global climate resulting from heavy dependence on fossil fuels, the world abounds with worrisome examples of damage brought about by turning a blind eye. This vital realization is why the concept of sustainable development has become ubiquitous today – the catchphrase for international organizations, the jargon of development planners, the theme of conferences and academic papers, as well as the slogan of environmental activists.

POWER OF CONNECTION

Sustainable development comprehends human¬ity's present needs without compromising the needs of future generations. Having emerged into the global setting during the 1980s, the idea of sustainable development is linked to the notion of global economic growth. Our Common Future, also known as the Brundtland Report, published by the World Commission on Environment and Development (WCED), collects a progressive view of economic devel¬opment, entailing social justice, income distribution, full employment, safe and healthy working environ¬ment, environmental protection, among other issues. At the international level, a number of legal instruments deal with sustainable development, such as the Universal Declaration of Human Rights (UDHR), the Fundamental Conventions and Recommendations of the International Labour Organization (ILO), the United Nations Frame¬work Convention on Climate Change (UNFCCC), among others. It is an undisputed fact that labour and human rights, environment and socio-economic issues have a negative impact on sustain¬able economic growth especially in emerging markets.

A SAFETY SHAKE-UP

In the early 1990s, Codes of Conduct of Social Respon¬sibility (CSR Codes) emerged. CSR Codes represent a change in the companies' traditional paradigm. CSR Codes' goal is to provide safety for companies' global level activities by establish¬ing a minimum standard of sustainable conduct. Through CSR Codes, multinational com¬panies have an important role to play in order to improve quality of life for communities where they are operating in particular and to sustainable development in general, as long as their codes fully comply with the international legal framework on sustainable devel¬opment.
CSR Codes play a key role in improving the quality of life in places where multinational companies operate. Their compliance with a legal framework is necessary, even if this framework system is still under evolution and does not establish any manda¬tory enforcement rule. The respect of these premises may allow companies, through their CSR Codes, to improve human and socio-economic welfare at global level.

EXPLORATION

Using 13 companies from the oil and gas industry, Prof. Costa explored to what extent CSR Codes can be used as a tool towards sustainable development in an emerging country such as Brazil. Given the usual structure that the Codes tend to follow, the investigation was developed around the three most emphasized issues – namely, labour and human rights, environment, and socio-economic issues. Her findings point to the fact that most of the statements present in the CSR Codes of the major oil and gas companies operating in Brazil do indeed com¬ply with the international framework on the emerging sustainable development law*. But the catch is that states and their respective domestic legislation are unable to exert full control on trans¬national players such as mul¬tinational companies. But despite this lack of control, compliance of CSR Codes with the international legal system can be seen as a 'global commons' understanding framework to improve sustainable development.

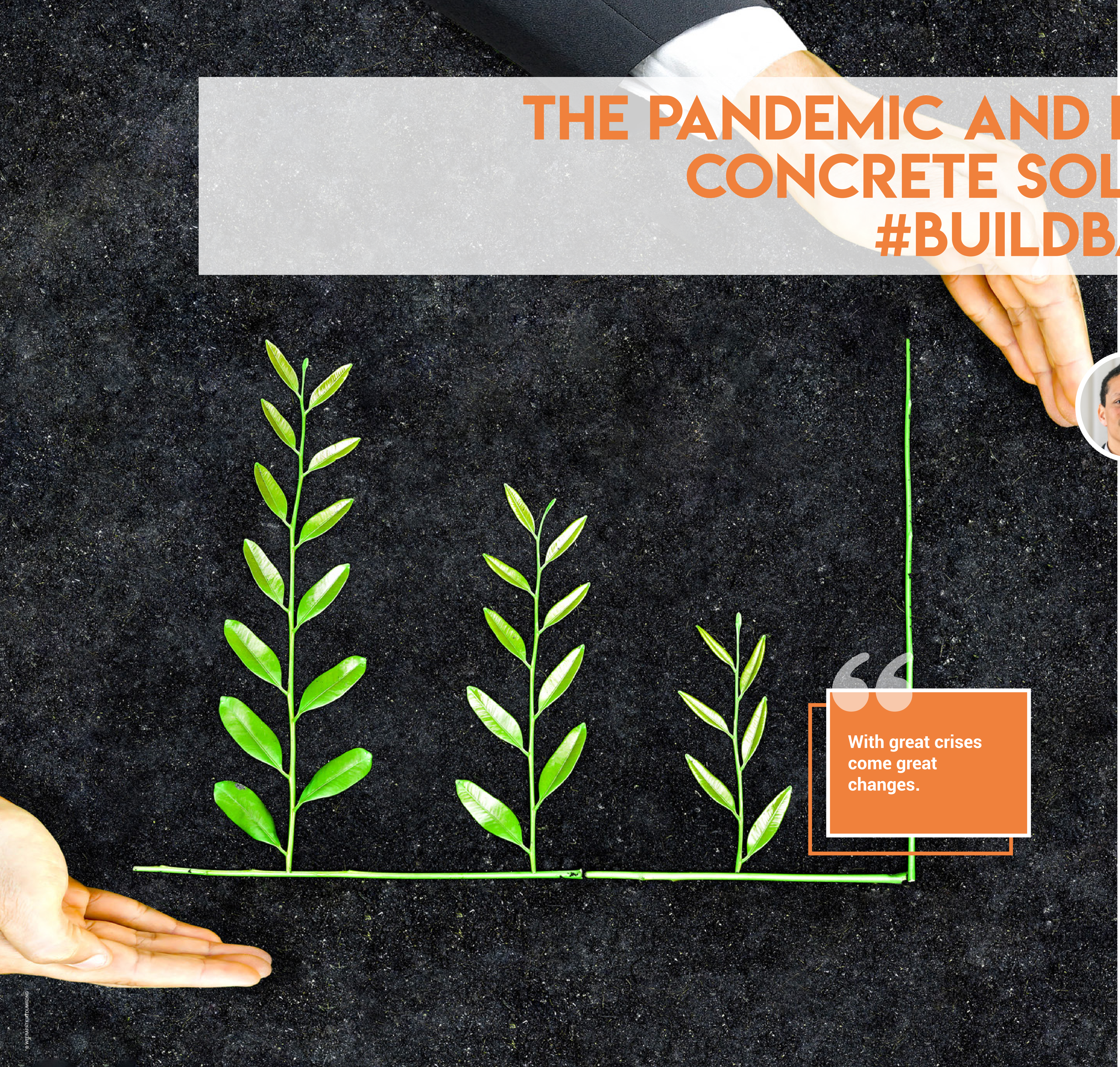
TOWARDS AN IMPROVED CSR CODE?

Even so, a number of questions may be raised to move towards an improved type of CSR Code: 1) How to control en¬forcement of CSR Codes of the oil and gas indus¬try at the global level? 2) How to monitor the enforcement and compliance of all CSR Codes industries with the international framework on sustainable develop¬ment law at the global level in an efficient way? 3) Can CSR Codes' statements be judi¬cially used against companies when compliance of these statements is not fulfilled? 4) Are CSR Codes of the oil and gas industry an effective mechanism for globally integrating responsible practices of all other industry sectors? 5) And finally, are CSR Codes of less complex industries in accordance with the international frame¬work on sustainable development law as well? By working on these questions and getting the mix right for the future, both companies' CSR Codes and the international bodies that guide them will indeed play their essential role in avoiding the tragedy of the commons to the full. ///

Frameworks and Codes typically include the following broad dimensions: Labour and human rights; Environmental issues; Socio-economic issues. For a detailed insight into these dimension, download the UN Global Compact Guide to Corporate Sustainability.

KEYS TAKEAWAYS

- Sustainable development comprehends human ity's present needs without compromising the needs of future generations. At the international level, an important number of legal instruments deal with the notion of sustainable development.
- CSR Codes' goal is to provide safety for companies' global level activities by establishing a minimum standard of sustainable conduct.
- Through CSR Codes, multinational companies can have an important role to play in order to improve quality of life for communities where they are operating in particular and to sustainable development in general, as long as their codes fully comply with the international legal framework on sustainable development.
- Companies' statements present in CSR Codes belong to well-known areas of sustainable development law, such as labour and human rights, environment, and socio-economic issues.
- With the analysis developed around these three issues, it was found that most of the CSR Codes' statements of the major oil and gas companies operating in Brazil conform to the international framework on the emerging sustainable development law.
- As a result, CSR Codes can be seen as a 'global commons' understanding framework to improve sustainable development operations in emerging markets such as Brazil.



THE PANDEMIC AND RECESSION: CONCRETE SOLUTIONS TO #BUILDBACKBETTER

Ksapa CEO **Farid Baddache** with Susan Winterberg (Harvard Belfer Center for Science and International Affairs fellowship), Romina Boarini (OECD Center for Wellbeing Inclusion, Sustainability and Equal Opportunities) and Žiga Žarnić (OECD Head of Country Reviews Unit), explore solutions for corporations and investors to #BuildingBackBetter.

> **With great crises come great changes.**

COVID-19 COULD PUSH UP TO 100 MILLION PEOPLE INTO EXTREME POVERTY IN 2020-21

Amazon stock prices have shot up from $1,850 to $2,600 since January 2020. Technological giants not only have recovered their value lost to Covid-19, some have enjoyed a sustainable boost in demand for their products and services from the pandemic. Meanwhile some estimates would suggest Covid-19 could push up to 100 million people worldwide into extreme poverty. With a second outbreak of the Covid-19 pandemic upon us, the OECD's worst-case scenario would appear to be verified, forecasting the world economic output to plummet 7.6% in 2020. Unemployment in OECD economies could be more than double the rate prior to the outbreaks, with little hope for job recovery by 2021.

LEARNING FROM PAST RECESSIONS: CONTRAST AND COMMONALITIES

A look back the 2008 financial crisis shows how uneven efforts to restore sustainable economic growth have been. An OECD report 6 years down the line pointed to a subdued recovery, with emerging-market economies facing a generalized slowdown where advanced countries only saw a lower growth potential. Indeed, the income of the bottom 10% earners rose 1.6% between 2010 and 2014, compared to a 5.2% growth rate at the top. Illustrative of the resulting income disparity, the top 10% had recovered pre-crisis wages by 2014, when the most vulnerable 14% less than they did prior to the subprime scandal.
When the United States were in the throes of the 2008 subprime crisis, government stabilization measures included a bank bailout for the sake of short-term recovery. Pre-existing inequalities were entrenched in the process, which the Covid-19 pandemic brought to light – this time with bottled-up resentment. There is growing concern the current recovery package is immoderately banking on the trickle-down effect from a wealthy few, when Covid-19 so disproportionately affected the most vulnerable.

1. THE UNPRECEDENTED SCALE OF THE COVID-19 GLOBAL CRISIS

A key characteristic of the current crisis is its scale, owing to the fact a socio-economic upheaval arose on top of a global pandemic, all set against a background of high climate alert. In a globalized economy, our increasingly interconnected ecosystems have created a backlog of virtually unresolved crises and inequalities. Despite the difficulty of taking on different crises that so clearly feed off one another, short-termism in recovery measures would entirely miss the mark, given the broader societal volatility and climate urgency of this next decade.
The OECD is indeed finding it challenging to fully assess the cost of the health crisis. As the global collective infers lessons from the first wave of Covid-19, studies are emerging to ascertain its underlying wellbeing and health impacts. Psychological distress has for instance been linked to confinement measures and/or recovering from the virus, akin to a post-traumatic syndrome. Meanwhile, patients suffering from chronic diseases have struggled to access the treatment they needed given hospitals were overwhelmed and global supply chains disrupted. In all likelihood, they have not been able to get their medicine, which may cause them to develop graver symptoms and become all the more vulnerable to respiratory distress. Lockdown measures have also impacted how we work and care for our families, causing a surge in domestic violence, made altogether more frequent, severe and dangerous and with literally no way out. Just in the city of Jinzhou (China), domestic violence calls to the police tripled in February.
Another reason for concern is that the Covid-19 recession or even just the spectre of new lockdown measures could spell out further violations of human rights around the planet. In the United Arab Emirates, laws have been loosened so businesses could break the work contracts of non-nationals, squeeze wages or pressure workers to take unpaid leave. Thousands of Indian workers are left to choose between work without pay or repatriation, with little transportation options at that. With as many as 100 million pushed into extreme poverty by the coronavirus, households go into survival mode and resort to child labour, with studies correlating a 1 percentage point rise in poverty to a 0.7 percentage point increase in child labour.
These are just some of the issues brought to bear by Covid-19, so that effective recovery policies must move beyond economic growth and job creation statistics, focusing instead on well-being indexed on income, job quality, housing and health. More specifically, where stimulus packages target environmental objectives, a focus on people's well-being is also crucial to cement the social and political acceptance of environmental measures.

2. AN ACCELERATED SOCIO-ECONOMIC TRANSFORMATION

With great crises come great changes. Already in the 1950's Schumpeter theorized the key role of creative destruction, as a continuous process of industrial mutation endlessly reinventing the economic structure from within. From recession to depression, the linchpin lies in technological innovation which allows for recovery, more innovation and ensuing prosperity.
Innovation comes in many forms – chiefly process, organizational, product, raw material sources and market innovations. Given the impending recession, we can expect the general upheaval and aspiration for change could foster exponential innovation. For instance, the digital revolution has been prophesied for at least a decade, but organizations were struggling to effectively plan and activate their digital transition. Now, with Covid-19 contagion concerns and lockdown measures pushing households and workers online, the situation would appear very different, both from an investment and a corporate viewpoint. For one, social distancing measures have boosted digital interactions to such an extent one study estimates 92% of surveyed companies redirected stakeholder dialog platforms to digital channels and boosted a long-awaited digital transition in the process. For another, digital services companies are directly profiting from the crisis, with record high stocks prices cementing their market dominion.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3. OUR BUSINESS ELITE ITSELF IS INCREASINGLY QUESTIONING THE BENEFITS OF GLOBALIZATION

In contrast, another trend is emerging that would question the benefits of globalization altogether. What is so unique about the present crisis is that such concerns would arise from the elite. According to the Edelman 2020 Trust Barometer, 56% consider capitalism as it exists today does more harm than good in the world. There again, inequalities have eroded trust, to the point 57% of the general population considers governments serve only special interests as opposed to a wealthier, education and connected public a lot more trusting of instated powers. Meanwhile, less than 30% trust businesses to pick up the slack, notably in terms of paying decent wages or training workers. According to the 2020 Deloitte Global Millennial Survey, in December 2019, 51% of Millennials saw business in general as a force for good, down from 76% three years ago. Fast-forward to May 2020, that number is down to 41%. Likely to reinforce this trend is the coming of age of Generation Z who, despite enjoying more disposable income, generally relate to public and private institutions in a much more pragmatic manner.

3 LEVERS FOR AN INCLUSIVE RECOVERY

Ksapa would contend the only way out of the present crisis is through cooperation. The pervading uncertainty of an international community dealing with a second wave of the pandemic would appear to hinder such a vision from emerging. That said, the decision-makers capable of laying the foundations for an inclusive recovery now will be all the likelier to come out on top. As we collectively wait to see where the chips will fall, 3 key levers emerge that would support an inclusive recovery from the coronavirus-induced recession.


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1. STRIKING THE RIGHT BALANCE BETWEEN CONVENTIONAL CRISIS MANAGEMENT AND LONG-TERM INVESTMENT

Now more than ever, businesses must strike a balance between conventional crisis management and long-term investment. Confinement measures have caused a major drop in consumption and orders, to such an extent operating efficiency measures do not suffice. Past recessions have convinced business layoffs are unavoidable instead of accepting temporary productivity slumps to address financial and competitiveness challenges. With the Covid-19 pandemic set to last, it generates durable and unprecedented uncertainty in terms of supply continuity, new ways of working and value creation. As a result, past approaches may no longer prevail. Based on pre-crisis figures, unemployed workers more than double their risk exposure to illness, addiction and depression. Companies opting for layoffs now jeopardize their license to operate – and at the worst possible time.
The choices leaders make during an economic downturn drive performance during a recovery. It is tempting for business to go in an all-out survival mode and make deep cuts in staff, or sink strategic suppliers by cancelling orders. In contrast, Harvard Research stressed how companies capable of focusing on operational improvements instead generally outperformed the competition and reunited with growth. The rationale is layoffs are expensive for companies – and they durably harm already vulnerable low income and minority groups. For instance, despite having saved their jobs, survivors tend to be so traumatized their job performance can drop by as much as 20%. This creates short-term quality and safety risks and ultimately challenges the company's capacity to recover because it has lost top talent, cannot secure new patents or deliver new products on time.

2. INVESTING IN A CONTINGENCY PLAN TO ADAPT TO UNCERTAINTY AND MINIMIZE BUSINESS DISRUPTION

Harvard Belfer Center fellow researcher, Susan Winterberg joined Ksapa in stressing the importance of preparing contingency plans at the earliest opportunity, for the immediate future and the coming decade. Alternatives in hour reductions, furloughs and performance pay have proven effective to address the 2008 subprime crisis, particularly among the companies most severely hit by the recession and those with the highest levels of debt.
To anticipate on a better future, companies will find stakeholders increasingly expecting them to invest in sustainable transitions both from within and for the broader society. On a short-term basis, that would mean developing inclusive workplaces for employees through business continuity plans with sufficient flexibility to adapt to uncertainty and minimize business disruption. This notably calls for efforts to zero in on safe working environment and work-life balance for employees. It would also entail safeguarding wages and job with the appropriate work schedules re-arrangements, working in unison with public interventions. Looking to longer-term organizational transitions, companies could develop proactive programs ranging from capacity-building to research and development and digital transformation, to name a few options. Addressing the generalized appetite for change and corporate societal activism may take the form of repatriating initiatives to cut outsourcing, infrastructure development in key territories to boost asset autonomy and reinforcing internal efforts with highly-localized capacity-building for even greater relevance across their territories of operations.

3. COOPERATION, COOPERATION AND MORE COOPERATION

Ksapa has stressed its commitment to multisectoral co-construction. Now the stakes could not be higher, we need greater efforts to align public and private decision-makers, multinationals and small or medium-sized enterprises, investors and trade unions or civil society organizations. Collaborative initiatives offer a way forward to create more inclusive ecosystems and value chains, despite the economic downturn and shore up vulnerable clients and communities when they need it most, for now and the future.
The OECD indeed reiterated a call for all-around cooperation to secure service supply continuity for companies and the provision of essential inputs (water, food, energy, etc.). This in turn helps vulnerable clients and suppliers, notably by streamlining payment or deferring credit repayments among other likeminded financial mechanisms. Finally, collective financial support and facilities totalling more than €38 Bn have been unlocked by B4IG membership to support communities and governments manage the crisis wherever partnering companies may operate. These in-kind and financial donations may help address the immediate sanitary crisis by funding healthcare centres, hospitals or research institutes to find an antidote, providing emergency medical supplies and other critical health-related essentials. They can also see to providing broader socio-economic impact through food, essential goods and services distributions to the most vulnerable.

FOCUSING ON SYSTEMIC ISSUES

Different crises reinforce fragmentation and call into question the notion of overarching sense of purpose. Ksapa supports businesses in refocusing on values, in the form of a purpose statement that formalizes a new value proposition, expectations for employee engagement, commitment to supporting their extended value chain and action toward addressing the broader sustainability challenge. Ksapa also leads consulting and impact investment programs to enable corporations and investors to focus on systemic issues and aggregate resources toward #BuildingBackBetter, with ambition, scale and impact.
This in turn calls for expert methodological input to help companies (and decision-makers in general) consider how they will uphold their commitment to commitment to sustainable change, who they will place in charge to manage it and which metrics they will use to monitor and demonstrate progress.
Regardless of the current uncertainty and cost-cutting policies threatening to put action on hold,' states Ksapa CEO Farid Baddache, 'fair and sustainable corporate transitions could not be more timely. In that regard, businesses and investors cannot go wrong with socio-environmental excellence. It comes down to not just weathering, but anticipating sweeping regulatory developments to sustain value creation amid uncertain times. ///

KEYS TAKEAWAYS

- A key characteristic of the current crisis is its scale, owing to the fact a socio-economic upheaval arose on top of a global pandemic, all set against a background of high climate alert.
- In a globalized economy, our increasingly interconnected ecosystems have created a backlog of virtually unresolved crises and inequalities.
- Now more than ever, businesses must strike a balance between conventional crisis management and long-term investment.
- Past recessions have convinced business layoffs are unavoidable instead of accepting temporary productivity slumps to address financial and competitiveness challenges.
- To anticipate on a better future, companies will find stakeholders increasingly expecting them to invest in sustainable transitions both from within and for the broader society.
- We need greater efforts to align public and private decision-makers, multinationals and small or medium-sized enterprises, investors and trade unions or civil society organizations.
- Collaborative initiatives offer a way forward to create more inclusive ecosystems and value chains, despite the economic downturn and shore up vulnerable clients and communities when they need it most, for now and the future.

& MANAGEMENT LEADERSHIP

THE CONTRASTING COLOURS OF WOMEN DIRECTORS IN FAMILY FIRMS

> The true power of a person is often defined by how people perceive them.

Profs. **Rachida Justo** and **Cristina Cruz** of **IE Business School,** and fellow researchers Martin Larraza-Kintan and Lucia Garces-Galdeano of the University of Navarra, make an in-depth assessment of how different kinds of women directors exert an influence in the decision-making process when it comes to Corporate Social Performance in family firms.

Related research: *When Do Women Make a Better Table? Examining the Influence of Women Directors on Family Firm's Corporate Social Performance*, Entrepreneurship Theory and Practice 2019, Vol. 43(2) 282–301.

Is just the presence of women in decision-making roles sufficient to effectively measure the influence of women on the Corporate Social Performance (CSP) of a company? Does the number of women in authority also matter? And are different kinds of women directors perceived in a different way and hence have varying degrees of influence overall?

This is what profs. Rachida Justo, Cristina Cruz, Martin Larraza-Kintana, and Lucia Garces-Galdeano tackle – addressing the gap in existing research where only the presence and number of women were taken into consideration to measure CSP. Here, they dig deep into the varying power dynamics of different types of women directors in a family firm. They do so to find out if there is a certain combination of characteristics that make women directors more influential.

It is indeed true that the role of gender diversity in boardrooms is frequently examined. This is mostly done to analyse the performance of a company with respect to advocating different social and environmental problems. It is convincingly proven that women bring in different perspectives and help a company to better achieve its goals. Additionally, the gender roles from years ago dictate women to be more compassionate and supportive. In this context, how are different women perceived by the other employees?

POWER DYNAMICS OF FAMILY FIRMS

In an environment where a family owns a business, it is not uncommon to see an overlap between ownership and management roles. Firms appoint certain family members to powerful roles simply to strike a balance between the interests of the family and other key stakeholders.

Within this framework, the authors make a clear distinction between the different kinds of women in power in family firms, referring to female directors who are part of the executive board as insiders. They term those women directors who form the non-executive board as outsiders, as they bring in an objective perspective. And women who belong to an owning family are referred to as family directors, and those who do not as non-family directors.

As such, the researchers measure family-firm CSR performance against the power and influence the different kinds of female directors wield in the company.

THE VARYING POWER OF FAMILY FEMALE DIRECTORS

Firms can either appoint family female directors as part of the executive board or the non-executive board. Women family members appointed as non-executive directors may be considered as "token women" when their professional qualifications do not match the job they are hired for. Indeed, firms can choose them for the role without taking into account their professional qualifications. This carries with it a risk that other senior employees see such women as a representation of the family firm and their opinions may not be as valued. Consequently, the authors hypothesize that women directors who are part of the non-executive board are not influential enough to affect the performance of CSR of the family firm.

On the other hand, female family directors who are part of the executive board are valued. This might be the case as executive directors do not work independently. When making decisions, the entire board of members play an equal role. This is not the case with respect to non-executive directors as they are hired solely to bring an independent external view. As a direct result of this pivotal difference, female directors who are part of the executive board of the company are valued more and hence have a greater influence in driving up the CSP of the firm.

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ROLE OF INDEPENDENCE FOR NON-FAMILY FEMALE DIRECTORS

Non-family female directors who are part of the non-executive board are not considered as "token women". This is for the simple reason that they are hired because of their expert knowledge. They come with a certain sense of mastery that is considered legitimate by other employees. Further, they don't just represent a common stereotype that women carry – that is, to be more active in CSR activities – but also speak from domain knowledge. Even when their suggestions contradict those of the family's views, their opinions still weigh in. Owing to this fact, the authors prove that these women are seen as more influential.

In contrast, non-family female directors who are part of the executive board may not be as influential as they face greater risks and accountability for the performance of the family firm. They may often be in a tug of war between their gender roles to be in favour of CSR activities and as directors of an executive board.

PERCEPTION OF POWER MAKES ALL THE DIFFERENCE

The true power of a person is often defined by how people perceive them. This perception is either based on expertise the person brings in, or on the prestige they hold. It is indeed interesting to observe that the presence of a controlling family environment does not take away the credibility that some female directors bring with them. In essence, non-family females who are part of the non-executive board and female family members who are part of the executive board both succeed in being influential entities in the firm. ///

KEYS TAKEAWAYS

- Women in general enhance decision-making processes and enable a company to take better decisions, in terms of CSR activities.
- While examining the impact that female directors in the decision making process, it is important to consider the dimensions of legitimacy and authority, besides just presence and number of women
- On the executive board, family female directors are considered influential as they are believed to have insights on the internal working of the company due to family affiliations.
- On the non-executive board, non-family female directors are considered to have more domain expertise and perceived to bring in an objective point of view to the decision making process.
- In both the above scenarios, female directors tend to "humanize" the company and increase the CSP of the firm.

ETHICS & COMPLIANCE IN FIRMS: WHY IT HAPPENS AND WHAT MAKES IT EFFECTIVE?

Prof. **Qinqin Zheng, School of Management Fudan University,** with co-researchers Profs. **Ajai Gaur, Rutgers Business School,** and **Koustab Ghosh, Indian Institute of Management,** explore why Asian organisations adopt ethics & compliance management within their CSR and, more importantly, if and how they implement it.

Like many other activities under the CSR umbrella, ethics and compliance management is largely undertaken on a voluntary basis.

Related research: *Corporate social responsibility (CSR) in Asian firms: a strategic choice perspective of ethics and compliance management, Ajai Gaur, Koustab Ghosh and Qinqin Zheng. Journal of Asia Business Studies,* DOI 10.1108/JABS-03-2019-0094 VOL. 13 NO. 4 2019.

In 2015, the Volkswagen emissions scandal drove straight into the headlines. The car manufacturing giant integrated microchips into their cars to activate emissions controls only during regulatory testing to meet the official standard. But at that time, in reality, the engines emitted over 40 times the permitted level of nitrogen oxides during real-world driving. The company has no doubt come a long way since 2015 and cleaned up their practices. But the scandal was a telling example of how firms can hastily adopt and create ethics & compliance programme to shield their top management from blame.

Of course, Volkswagen has not been alone in dabbling in dodgy business dealings and greenwashing with many big names – Petrobas, Tesco, Kingfisher and Enro among them –

having traversed the stormy seas of investigation prior to returning to the right path. Such regular occurrences over the last few decades have spurred Profs. Qinqin Zheng of School of Management Fudan University, Ajai Gaur, Rutgers University, and Koustab Ghosh, Indian Institute of Management, to lead research into what makes the difference between effective ethics & compliance management (ECM) in firms and those which use ethics & compliance as a veneer – only to feel the backlash when things do go wrong.

CSR, ETHICS, AND COMPLIANCE

Ethics & Compliance Management has gained importance in the last few decades, encouraged by governments, national and international guidelines, stakeholders including customers and communities, and also professional organisations such as the ECOA. But despite this, like many other activities under the CSR umbrella, ECM is largely undertaken on a voluntary basis – something that is seen to enhance social good beyond the usual interests of the firm and the requirements of law. This is all very good, though the voluntary dimension naturally brings with it the question of choice and interpretation.

Interviewing the Chief Ethics & Compliance Officers from 5 major firms participating in the Asia Ethics Summit, and gleaning data from questionnaires sent to 152 companies members of Globethics.net, a good number of which had secured their place on The Forbes-Ethisphere most ethical companies list, the researchers tackle the issue through two dimensions – ECM adoption and ECM implementation.

On the one hand, adopting Ethics & Compliance Management in a firm corresponds to initial compliance to external pressures and crises but with little strategic intention inside the organisation. Implementation, on the other hand, is when ECM caters for a need for largescale ethical improvement and moral awareness and behaviours within the firm. In a nutshell, adoption amounts to a ceremonial taking on of ECM, while implementation is actual adoption and a conscious strategic choice to make it part and parcel of the organisation's operations. Why do firms do this? And what are the implications?

OF THE LAW AND THE MIRROR

The law is also a major factor influencing the taking on of ethics and compliance management in firms. This is also more salient for Asian companies, not least because they face huge hurdles when wishing to compete in US or European markets. The compliance requirements in those areas are especially stringent for Asian industries dealing in sensitive products such as processed food, pharma and child care products. And although firms in such sectors may not have a dedicated ECM department, certain quality and standards mechanisms already in place, as well as

external levers such as the Sarbanes-Oxley Act in the USA, may well help firms to take things up a notch and consider full implementation.

Mirroring exists too, or as the researchers put it – mimesis. We do this as children, we do this as adults, sports teams do it and firms do it too. When the country's institutional framework is weak and volatile, and uncertainty reigns over market conditions and playing rules, firms tend to imitate their peers, choosing companies that are perceived as successful and influential in managing the pressure from such an environment. It's a little like choosing a role model, except that size and financial punch count. Research has shown that when firms imitate their bigger cousins and adopt ethics and compliance, they are more readily accepted by regulatory agencies and the general public. In short, it is the risk reduction factor – and risk-assessing behaviours – that can offer an insight into how much incentive a firm has to adopt ethics & compliance management.

ADOPT ME

Simply adopting ethics and compliance isn't all negative as such. It can even serve as a positive signal to a firm's stakeholders – shareholders, suppliers, customers and communities – and can also be subject to scrutiny through the increased visibility it offers. Whether through it is the firm's attempt to gain in legitimacy or through pressure from its ecosystem, adopting ethics & compliance management can still protect and lessen the penalty if straying from the ethical path occurs. It can also, through gaining the approval of its stakeholders, contribute to the long-term survival and sustainability of the organisation and lower the risk of a breach of ethics happening.

But simply adopting – and perhaps purchasing off-the-shelf ethics & compliance packages from consulting firms along the way to create a framework – carries its shortfalls. Not least is the danger of adopting ECM in an environment where pressures are many and conflicting, leading the firm to adopt only a few practices included in the ECM gamut to avoid making too many waves. In turn, this can easily lead to managers and employees within the firm to lose commitment and faith in the ECM initiative: after all, who wants to put their energy and values into a half-hearted policy that makes exception the rule? And it also may well drive away some of those very external stakeholders the firm was trying to convince too. All in all, adopting ethics & compliance does not represent the real responsible ethical intent of the firm. Like those companies involved in scandals mentioned at the beginning of this article, adoption is usually sparked by crisis, public scrutiny, external pressure and when top management is threatened. In essence it is reactive in nature, a hastily erected screen to cover up the warts.

EMPLOY ME

Implementing ECM is a different matter. If treated as a prime function in the firm like others – sales and marketing, quality, production, for example – it gains in legitimacy within the firm and necessarily packs punch as dedicated E&C Officers are created who sit in on meetings and on boards. If a firm makes the decision to adopt and implement ethics and compliance, it amounts to an integrity-based approach. Much more effective in creating commitment and motivation among employees and a clear message from the firm to promote managerial responsibility and ethical behaviour. Putting value on ethical conduct also strengthens the firm's emphasis on its cultural values with employees becoming more likely to report on transgressions.

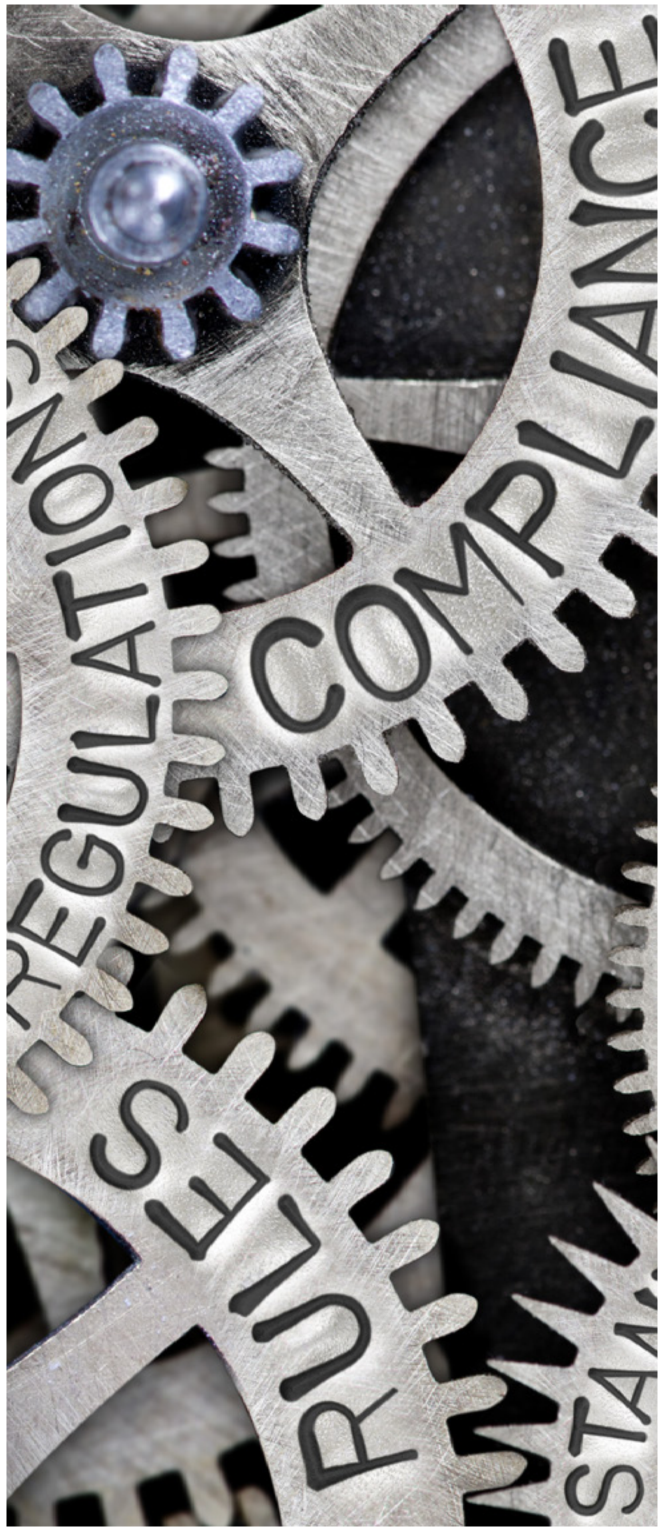
As such, by implementing an ethics and compliance policy, structure and processes, ECM becomes a strategic choice in line with achieving the organisation's goals over the long term. In essence it is active – and proactive. But the benefits do not stop there. Research has shown that top-down support and implementation of ECM adds to the learning and knowledge creation of a company, generating a range of associated initiatives such as developing a code of conduct, organisation-wide ethics training, audit programmes, speak up policies and whistleblowing procedures and help lines.

Legitimacy is of specific importance for firms in emerging areas of the world – S.E. Asia, Africa and South America – given the general perception of weak government institutions and lack of appropriate law which may encourage unethical behaviour such as bribery and corruption, abuse of power and opaqueness regarding business practices or sustainability footprint. And while it might be external factors that determine the risks and benefits to a firm of adopting ECM, it is internal factors and moral orientation of a firm's managers that determine the effective strategic implementation of ECM.

DON'T JUST TALK, WALK

Of course, not all firms are created equal. It may be that in a large number of cases firms are spurred to adopt ECM through external pressures and critical incidents, but it is also the differences in size and finances that shape a firm's intention, capability and commitment of resources to adopt – or to adopt and implement. Nonetheless, the impact and effectiveness of ECM are boosted when internal factors play a significant part – through top-down endorsement or tying in ECM to the firm's strategic and long-term goals.

To make the link between adopt and implement, Profs. Zheng, Gaur and Ghosh assert that a firm requires a thorough understanding of both their external environment – law, regulations, institutional strengths and weakness, stakeholders impacted by their firm's activities – and their internal features. What is the strategic and moral intention of top management? What values does the firm promote and build in to its offer to its customers? What is the overall ethical ambience within the firm and is it sufficient to be capable of rolling out a full-blown transition from adoption to implementation? A strong recommendation is for companies



to create an Ethics and Compliance Officer position prior to adoption and as an independent function, thereby gaining legitimacy within the organisation. ECM has to be operational and tied in to results too. And lastly, the support of senior management is primordial – a positive message of commitment to both internal and external stakeholders that the firm is prepared not just to talk, but to walk the talk.

By doing so, proactively, you will alleviate risk, gain in legitimacy and earn brownie points among the auditors and public alike. Your firm may not completely avoid a major crisis like those born of Volkswagen, Petrobas and Tesco's erring and errance of the past. But it won't feel the backlash when things do go wrong. ///

KEYS TAKEAWAYS

- Ethics & Compliance Management has gained importance, encouraged by governments, international guidelines, stakeholders and also professional organisations.
- Like other activities under the CSR umbrella, ECM is largely undertaken on a voluntary basis.
- This leads firms to simply adopt ECM or adopt and implement it.
- Organisations adopt ECM because of: law and regulations, external pressures, unstable and volatile environments, crisis, imitating peer firms, risk reduction. It is reactive in nature.
- Organisations adopt and implement because of: the above + top management support, strategic intent. It is proactive in nature.
- Adopting ECM can: serve as a positive signal to a firm's stakeholders, give a degree of protection, lessen penalties. But it can lead to few practices adopted, lack of employee commitment and disengagement, and does not represent the real responsible ethical intent of the firm.
- Implementing: If treated as a prime function in the firm ECM gains in legitimacy within the firm. It is an integrity-based approach. It creates motivation and commitment. It puts value on ethical conduct and employees are thus more likely to report on transgressions.
- Top-down support and implementation of ECM adds to learning and generates codes of conduct, organisation-wide ethics training, audit programmes, speak up policies and whistleblowing procedures and help lines.
- Legitimacy is of specific importance for firms in emerging areas of the world given the general perception of weak government institutions and lack of appropriate law.
- It is internal factors and moral orientation of a firm's managers that determine the effective strategic implementation of ECM.

GREENING UP GLOBAL SUPPLY CHAINS: HOW AGILE SUSTAINABILITY GOVERNANCE CAN MAKE IT HAPPEN

> **Agile sustainability governance lies somewhere in-between top-down and bottom-up governance approaches.**

Multinationals have a hard time governing sustainability practices in their global supply chains – even more so during times of crisis. Profs. **Tanusree Jain, Trinity Business School,** Vivek Soundararajan, University of Bath, Sreevas Sahasranamam, University of Strathclyde, and Zaheer Khan, University of Aberdeen, lay out the blueprint for agile and effective sustainability governance.

Related research: *Multinational enterprises and the governance of sustainability practices in emerging market supply chains: An agile governance perspective,* Journal of World Business.

CHAINS CAN BE GOOD FOR EVERYONE

From raw materials, spare parts, finished goods and masks to protect us from Covid, global supply chains are an essential link for modern economic development and trade. They not only offer multinationals in advanced economies low-cost products and services without the need to invest heavily in overseas jobs and infrastructure, they also provide the emerging economies in which they operate with value – creating more employment opportunities than the suppliers could hope for on their own domestic markets. The United Nations Conference on Trade and Development (UNCTAD) even goes so far as to promote global supply chains as a kingpin factor in reducing poverty and boosting growth in developing countries.

CHAIN REACTION

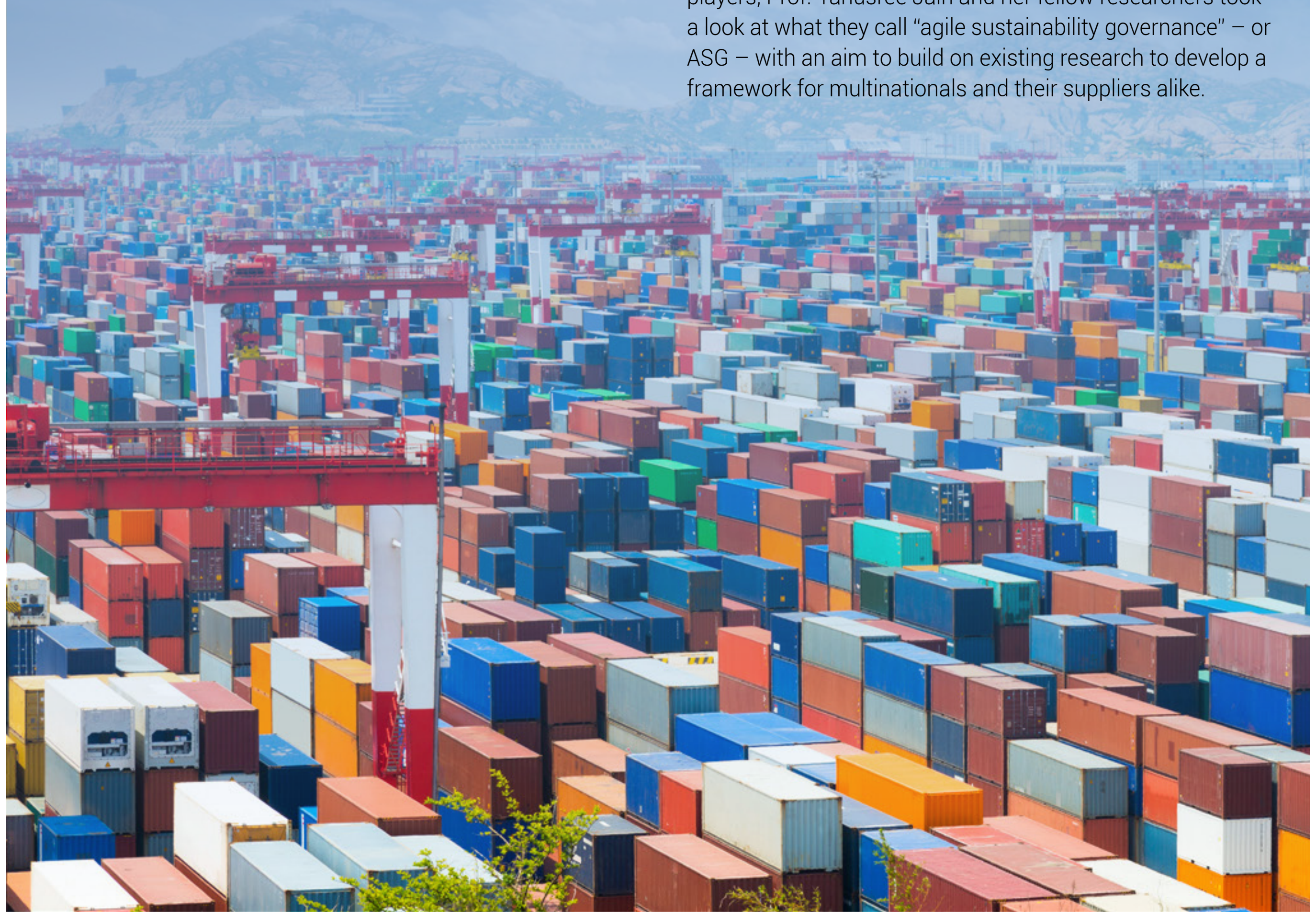
Managing a supply chain across continents and from afar can be a huge challenge. Differing local laws, large distances, skills gaps and shaky quality standards can even threaten a multinational's competitiveness in the market. Added to that, the ever-increasing pressure applied to multinationals' sustainability record and ethical footprint – if askew and plagued by inconsistency through the factors mentioned above – can potentially ruin a multinational's reputation and cause irreversible damage to its financial performance.

Typically, multinationals attempt to reduce the risk of such things by implementing codes of ethics and conduct for its operational teams and suppliers. The contract is another way of ensuring that a legal framework covers the various dimensions of contractor-supplier partnerships – price, delivery time, quality, standards – as are social audits, often carried out by third-parties – auditing firms or even NGOs. But these are top-down ways of sustainability governance. And top-down carries with it a number of issues.

HEAVY METTLE AND AGILE SUSTAINABILITY GOVERNANCE

One of these is how developed-country multinationals and NGOs dominate the process and mechanisms in a supply chain – something that handicaps both an emerging market supplier's way of dealing with local-specific problems and their expertise. Rigid sustainability benchmarks, although suited to developed markets, can also clash with the complex, unpredictable specificities of a local market, not to mention lack of resources available to a local supplier, local culture and socio-economic conditions. All in all, research on top-down governance means and methods shows that they have little legitimacy for local markets and little ability to bring about positive change in global chains. It may even drive local suppliers to act opportunistically. Take the garment supply chain, where some Indian suppliers have been known to bribe government bodies for documents, operate unregistered factories, prep workers for audits and even terminate troublesome workers before inspections. Such actions are very likely to cause supply chain sustainability risks for multinationals.

So how to involve local mettle and give greater flexibility in how suppliers implement and adjust within a wider, multinational framework? And at the same time satisfy a multinational's need for quality, good conduct and sustainability? Building on studies that suggest the shortcomings of top-down can be improved through evolving and adaptive alternatives in collaboration with local players, Prof. Tanusree Jain and her fellow researchers took a look at what they call "agile sustainability governance" – or ASG – with an aim to build on existing research to develop a framework for multinationals and their suppliers alike.



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TIME TO MOVE ALONG

Against the backdrop of the COVID-19 pandemic, decreasing international cooperation and unprecedented pressure to clean up business on an ethical and environmental dimension, the need for agile sustainability governance has never been more striking. In order to be effective, ASG has to satisfy a certain number of characteristics: it must have endorsement from the top, be adaptive to tackle the complexities and changeability of emerging markets, bring together and balance the interests of both the multinational and its diverse suppliers, and possess the capacity to develop open dialogue and facilitate sustainable solutions that are innovative and mutually beneficial.

How can this happen? Jain and her fellow researchers propose a 4-stage, virtuous process that comprises the following:

- The definition of broad benchmarks between stakeholders – the multinational's reps, auditing bodies and local suppliers
- Application of the benchmarks that gives suppliers autonomy in how they comply to them
- Assessment, evaluation and learning
- Re-adjustment or redefinition of the benchmarks to begin the cycle once again.

Let's dig further.

1. SETTING DOWN THE RULES OF THE GAME: COLLECTIVE DEFINITION

At the current period in time, suppliers in emerging markets are often excluded in talks defining sustainability benchmarks. Rather than keeping them away from the table with the risk of provoking the kind of misconduct mentioned above, agile sustainable governance calls for a collective approach.

Reaching benchmarks together calls for authentic dialogue to be used grounded on five conditions – sincerity, accuracy, comprehensibility, legitimacy and listening. Moreover, authentic-type dialogue has the effect of strengthening the idea that every stakeholder – whether multinational, NGO or local supplier – has the right to participate and have an equal say. The process effectively eliminates the issue of the multinational or NGO imposing rules and guidelines and paves the way for greater supplier relationship building, trust, and supplier commitment to fully abide by them.

2. PUTTING THE RULES INTO ACTION: AUTONOMOUS EXECUTION

Prof. Jain and her colleagues note that during the collective benchmarking stage, only the development of broad sustainability benchmarks should be carried out, giving suppliers the leeway to implement them in their own way. This leads us to the second stage in the ASG process: autonomous execution of the benchmarks. Why autonomous? Remember the major issue of contractors

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dominating the rules in the supply chain? Typically, a supplier receives a "one-size-fits-all" set of sustainability benchmarks, irrespective of the supplier's size, skills and capacities.

Such a universal fit obviously overlooks the uniqueness and differentiating features of a supplier – perhaps its entrepreneurial ability, its motivation to take risks and develop innovative solutions, or even its soft power within the local community to get things moving. In an ASG approach, suppliers become empowered, perceiving the onus of control to be in their hands over how to best fulfill the benchmarks. To an extent, a degree of experimentation is allowed, where local suppliers naturally try to find ways and processes that suit their interests, resources, contexts and skills.

An example can be found in the Chiquita brand, an American producer and distributor of bananas and other produce. In order to meet a set benchmark of ensuring a safe and non-discriminatory working environment, its small-scale producers worked with unions and the World Banana Forum to create local-specific women's committees and training modules.

In an ASG approach, the set benchmarks may not necessarily be completely reached. But from being penalised as in a top-down governance approach, local suppliers are encouraged to assess performance and learn in order to improve and maintain incentive.

3. NOT A TICK-BOX, BUT A VIRTUOUS LOOP: EVALUATION AND COLLECTIVE LEARNING

Current top-down sustainability governance tends to restrict supplier freedom of action and even imposes sanctions or at least warnings if benchmarks aren't ticked off 'achieved' in a box. Prof. Jain and her colleagues, on the other hand, recommend an evaluation system that promotes corrective measures based on authentic dialogue and peer-to-peer learning, while at the same time keeping to the notion of freedom to experiment (the whole process ensuring that supplier efforts remain in line with the set benchmark). Here again, Chiquita can be cited. It assesses its producers' performance against the benchmark for women's safety with the help of local unions and the workers themselves, encouraging peer-to-peer learning between producers via local forums and international forums.

4. CHECK, TALK, REDEFINE: COLLECTIVE REDEFINITION

Once evaluated, the emphasis is again put on a collective approach, this time in terms of redefining benchmarks. As such, and in a way mirroring a continuous improvement approach, ASG ensures that both actors and benchmarks evolve to meet environmental changes. The researchers stress the importance of the word "applicability" that carries with it the underlying notion of multi-stakeholder interaction – reps from the multinational, suppliers and others – in redefining benchmarks. And this interaction itself encourages the development of self-organised and spontaneous communities which contribute to the agility of the entire governance system. The periodic redefinition of sustainability benchmarks also helps to ramp up their legitimacy within the people working on them and as a positive by-product strengthening trust, bonds and relationships.

FROM LEAN AND MEAN TO AGILE AND GREEN

All in all, agile sustainability governance lies somewhere in-between top-down and bottom-up governance approaches. In an era of declining multilateralism and supply chain disruption through the likes of natural disasters or pandemics, the ability to act with agility to face these challenges will own much of its impact to focusing on the relational factors in governing supply chains. Giving local suppliers and actors a say in how benchmarks are defined, implemented and redefined, and empowering them with opportunities to use their local expertise, influence and knowledge can actually save time, lead to fast troubleshooting and lead to more effective sustainability solutions.

This is not to say that ASG is without its challenges – costs, risk of corruption, patch up solutions, skills and resources and potential conflict of interest among them. But fostering authentic dialogue and encouraging supplier inclusivity and co-construction of sustainability benchmarks within existing frameworks of codes of conduct, binding contracts and audits, spells good news for multinationals, suppliers and stakeholder communities alike – not to mention the planet. ///

KEYS TAKEAWAYS

- Global supply chains offer multinationals in advanced economies low-cost products and services without the need to invest heavily in overseas jobs and infrastructure.
- They provide the emerging economies in which they operate with value – creating more employment opportunities than the suppliers could hope for on their own domestic markets.
- UNCTAD promotes global supply chains as a key factor in reducing poverty and boosting growth in developing countries.
- Managing a supply chain across continents is a challenge: Differing local laws, large distances, skills gaps and shaky quality standards can threaten a multinational's competitiveness in the market.
- There is also pressure applied to multinationals' sustainability record and ethical footprint. Multinationals tackle this with codes of ethics and conduct for its operational teams and suppliers.
- Rigid sustainability benchmarks, although suited to developed markets, can also clash with the complex, unpredictable specificities of a local market.
- With the COVID-19 pandemic, decreasing international cooperation and pressure to clean up business on an ethical and environmental dimension, there is a need for agile sustainability governance to develop.
- ASG has to satisfy certain characteristics: it must have endorsement from the top, be adaptive to tackle the complexities and changeability of emerging markets, bring together and balance the interests of both the multinational and its diverse suppliers, and possess the capacity to develop open dialogue and facilitate sustainable solutions that are innovative and mutually beneficial.
- A 4-stage, virtuous process is required to implement it: i) The definition of broad benchmarks between stakeholders – the multinational's reps, auditing bodies and local suppliers ii) Application of the benchmarks that gives suppliers autonomy in how they comply to them iii) Assessment, evaluation and learning iv) Re-adjustment or redefinition of the benchmarks to begin the cycle once again.




& SUSTAINABILITY

CONTROVERSIAL INDUSTRIES, CONSUMERS AND SUSTAINABILITY

> I am what the planet has.

ESSEC GMBA Alumna **Megha Sureshkar,** Sustainability Market Researcher at **Living Labs Federation,** contends that extractive companies may be far from perfect, but nothing is impossible if the industry lets go of its conventional way of thinking and sets the pace for change with consumers leading the way.

The extractive industry – oil, gas and mining – has left its mark on almost every part of the world by providing materials that can be found in nearly every product we use in our daily lives. Despite its claims of being sustainability-focused, the industry is strongly driven by economic rather than environmental or social concerns. To make matters worse, extractive companies operate on a 'take, make and waste' model, built on the assumption that resources are infinite. These businesses may be far from perfect, but is there hope for them to take a big leap towards sustainability? Megha Sureshkar of ESSEC Business School Asia-Pacific explores.

PLEASURE AT THE EXPENSE OF OTHERS

Development has been synonymous with the notion of 'having more'. Consumers want faster, newer and better products, and extractive companies work to keep supplying them with what they want, creating devastating effects – air and water pollution, habitat disruption, for instance – in the process. But wait, there is more to the tale. Equally affected are the indigenous communities whose land and human


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rights are completely dismissed by the companies who work to get luxury for the rest of the world – the part of the story that often lies hidden or is ignored. Unless the demand that drives this exploitation diminishes, the extractive industry would keep treading along its ruthless unsustainable path. Again, on the consumer side, people downplay seemingly distant problems such as climate change or those that haven't affected their immediate circle. Many consumers, especially Millennials, say that they want products that are sustainable. Despite growing awareness, ethical consumerism is still a niche market and a frustrating paradox remains. Consumers who advocate the use of eco-friendly products do not follow through with their wallets or more modest demands. As such, narrowing the intention-action gap is crucial to decelerate demand for extractive product categories.

I AM WHAT THE PLANET HAS

For almost all extractive companies, their only effort at sustainability is the occasional philanthropy, which plays a marginal role in the strategy of the companies. Consumers should see right through this facade. But catching the attention is not enough – consumers should act. There should be a global abandonment of consumer selfishness – the feeling of "I am what I have". By initiating change, developing compassion and shifting their thinking to "I am what the planet has", consumers can fulfil their own share of responsibilities of shaping a sustainable demand.
Regulations can also make a difference in the industry. Governments, by donning the role of change agents, can enforce the circular economy concept to companies, as well as offer grants and governmental aid according to the degree and pace of implementation of circularity. Additionally, extractive companies, especially those in the mining sector, can play a critical role in circular efforts by influencing downstream production processes to ensure that products are designed and produced in such a way that makes it easy to separate the minerals upon disposal, thus making their recycling and reuse a simple process.
Sustainability will never come naturally to extraction. Getting from today's grim reality to tomorrow's sustainable industry is a mammoth task, but with time, effort and heart, what may seem unachievable can become possible. But, given the long lead time for projects in the industry, consumers need to drive the change TODAY. As such, through their demand, companies would get started to set a vision and actively follow the path to sustainability. Nothing is impossible if the industry lets go of its conventional way of thinking and sets the pace for change with consumers leading the way. ///

KEYS TAKEAWAYS

- The extractive industry is strongly driven by economic rather than environmental or social concerns.
- Extractive companies operate on a 'take, make and waste' model, built on the assumption that resources are infinite.
- Development has been synonymous with the notion of 'having more'. Consumers want faster, newer and better products, and extractive companies work to keep supplying them with what they want.
- Despite growing awareness, ethical consumerism is still a niche market. Consumers who advocate the use of eco-friendly products do not follow through with their wallets or more modest demands.
- Narrowing the intention-action gap is crucial to decelerate demand for extractive product categories.
- By shifting their thinking to "I am what the planet has", consumers can fulfil their own share of responsibilities of shaping a sustainable demand.
- Governments, can enforce the circular economy concept to companies, as well as offer grants and governmental aid according to the degree and pace of implementation of circularity.
- Extractive companies, especially those in the mining sector, can play a critical role in circular efforts by influencing downstream production processes to ensure that products are designed and produced to make it easy to separate the minerals upon disposal.
- Nothing is impossible if the industry lets go of its conventional way of thinking and sets the pace for change with consumers leading the way.

WILL THE POST-PANDEMIC WORLD TACKLE CLIMATE CHANGE?

Michael Bradshaw, Professor of Global Energy at **Warwick Business School,** and **Caroline Kuzemko,** Prof. of International Political Economy at **Warwick University,** explore the four scenarios on which positive post-COVID climate action hinges.

With kind acknowledgements to Warwick Business School and COREinsights

What happens next is not a matter of technology – we have the technologies to meet net zero today.

In the film The Age of Stupid, an archivist in 2055, played by the late Pete Postlethwaite, asks: «Why didn't we stop climate change when we had the chance?»
We believe the COVID-19 pandemic offers a significant 'counterfactual opportunity' for us to reflect back, at the end of this decade, on an opportunity missed or an opportunity taken to put the energy system on the path required to mitigate climate change.

Energy system transformation is made up of two interrelated processes, two sides of the same coin. On the one side, there is the 'low-carbon energy transition' that aims to decarbonise energy production and consumption. On the other, there is the 'high-carbon energy transition' associated with the decline of the incumbent fossil-fuel energy system. According to BP, in 2019 fossil fuels still accounted for 84.3 per cent of global primary energy consumption and renewables only five per cent.

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COVID-19: A MATTER OF TIME

In a 'Perspectives' piece published in Energy Research and Social Science, we distinguish between three time frames when considering the implications of COVID-19 for energy transitions. The short-term refers to the immediate impact of what the International Monetary Fund (IMF) called the 'great lockdown'. The medium-term refers to the period between now and the end of 2021, when the focus is on a post-pandemic economic recovery. And the long-term refers to the period from 2022 to 2030 when the consequences of the decisions made now become apparent through the rate of global carbon emissions.

Even before the pandemic, a new energy age was emerging as rapidly falling costs of low-carbon technologies, together with policy support, were destabilising the incumbent fossil fuel industries. Ironically, technological change – the shale revolution – had heralded an age of fossil fuel abundance just as demand was being constrained by climate policy.

A 'WORLD BEYOND OIL'

Consequently, oil and gas markets were struggling with over-supply and low prices. On the eve of the lockdown, the 'OPEC+' coalition fractured, resulting in an oil price crash, then exacerbated by the dramatic fall in economic activity that resulted in a new agreement to constrain production. After a record fall, oil prices rebounded; but oil and gas companies have slashed their dividends, reduced investment, cut their workforces and are reassessing the value of their assets.

Equally, oil exporting states have faced a sharp reduction in income just as the social costs of the pandemic escalated. Much of this is not new as the oil and gas industry is both highly volatile and cyclical, but there is a growing sense that this time is different. Investment cuts now may result in tighter markets and higher prices in the second half of the 2020s as the global economy recovers. However, that may simply serve to accelerate decarbonisation in the 80 per cent of states that are not net fossil fuel exporters.

For some, peak global oil demand has already passed. This suggests that for oil and gas companies, and for the states that depend on their revenues, the time to prepare for a 'world beyond oil' is now. Failure to do so could result in social unrest and conflict in parts of the world that are already unstable.

BUILDING BACK BETTER

What happens next is not a matter of technology – we have the technologies to meet net zero today. It is instead a matter of economics, (geo)politics, behaviour and societal expectations. The pandemic has prompted a scale of state intervention across the 37 countries that make up the Organisation for Economic Co-operation and Development (OECD) that is unprecedented in peaceful times.

Widespread calls persist to 'build back better' via a 'green recovery' to accelerate the pace of decarbonisation – and in the UK the Government is being challenged to re-think its stimulus packages to date. However, as one influential group of

academics put it: «There are reasons to fear that we will leap from the COVID frying pan into the climate fire.» Unfortunately, the experience of the 2008 financial crisis suggests that it will be all too easy to return to old habits, with a resumption in demand for fossil fuels and growing carbon emissions.

But there are reasons to be optimistic. The United Nation's Paris Agreement and Sustainable Development Goals, both agreed in 2015, provide a ready-made blueprint for action. Equally, there is growing societal pressure to address climate change, added to which lockdown resulted in a period of cleaner air, making clear the causes of pollution.

There is ample evidence to suggest that investing in green growth results in better outcomes than supporting fossil fuel incumbents. Politicians tend, however, to focus on protecting the status quo. The Energy Policy Tracker is monitoring recovery packages across the G20 member states, and concludes that of the public money committed to the energy sector, $151 billion or 51 per cent is related to fossil fuels, though efforts in the US weigh heavily on these numbers.

WHAT'S THE SCENARIO?

In earlier research we developed four energy scenarios to 2030. Two illuminate the stark choices we face: one called the 'Big Green Deal', where policies, funding and co-operation drive rapid decarbonisation (akin to a Green Recovery); and a second called 'Dirty Nationalism, which seems just as likely, where fossil fuel industries are protected and energy markets fragment.

Of course, such global scenarios are the outcome of a mosaic of different regional, national and local policies and outcomes. Consequently, the net impact of the current situation may look more like our third scenario: 'Muddling on', where fossil fuels dominate, and renewables fail to mitigate climate change. For the sake of completeness, our fourth scenario was called 'Tech Breakthrough,' where renewables surge and then slow as competition limits their spread.

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It is too early to know what the long-term consequences of the pandemic will be. Much depends on the need to maintain social distancing and quarantine measures that will determine the pace of economic recovery, though few now expect a rapid 'bounce back'.

Equally, the extent to which the behavioural changes imposed by the lockdown will result in lasting differences – in work patterns, attitudes to travel and personal consumption, all of which impact on energy demand – is also uncertain. One of us is a student of Russia's transition during the 1990s and notes the words of the eminent Russian industrialist and politician Viktor Chernomyrdin who famously said: "We wanted the best, but it turned out like always."

We must all do whatever we can to ensure that when we reflect back in 2030 on climate-related policies adopted now, things have turned out for the best. ///

This article was originally posted on Campaign forSocial Science.

KEYS TAKEAWAYS

- Before the pandemic, a new energy age was emerging as rapidly falling costs of low-carbon technologies, together with policy support, were destabilising fossil fuel industries.
- Following the pandemic, oil and gas companies have slashed their dividends, reduced investment, cut their workforces and are reassessing the value of their assets.
- Oil exporting states have faced a sharp reduction in income just as the social costs of the pandemic escalated.
- For some, peak global oil demand has already passed. This suggests that for oil and gas companies, and for the states that depend on their revenues, the time to prepare for a 'world beyond oil' is now.
- Failure to do so could result in social unrest and conflict in parts of the world that are already unstable.
- What happens next is not a matter of technology – we have the technologies to meet net zero today. It is instead a matter of economics, (geo) politics, behaviour and societal expectations.
- The UN's Paris Agreement and Sustainable Development Goals, both agreed in 2015, provide a ready-made blueprint for action. There is also growing societal pressure to address climate change.
- There is evidence to suggest that investing in green growth results in better outcomes than supporting fossil fuel incumbents. Politicians tend, however, to focus on protecting the status quo.

BUILDING A GREEN ECONOMIC RECOVERY PLAN THROUGH DIGITAL TECHNOLOGY

Amid the severe and ongoing effects of the COVID-19 pandemic, how can the world return to the trajectory of sustainability? **Brian Kaitano,** BSc IT student at **Maseno University,** Kenya, explores the key role that digital technology can play.

> **The beautiful thing about technology is that once it is invented somewhere it can help everywhere.**

THE CHANGING WORLD

The world is changing at an unprecedented speed and the Fourth Industrial Revolution (4IR) is no longer the future, it is the reality now. This industrial revolution seems set to run much broader and deeper affecting more people than those of the last. As such, the 4IR presents shared challenges and opportunities now and in future, hence global response is needed to overcome the challenges so as to bring beneficial outcomes globally. If the situation regarding internet connectivity is not resolved soon, the benefits of the 4IR will not be felt, living more people even further behind.

The COVID-19 pandemic has focused the world`s attention on the need to take action to deal with threats to our way of life, our health and our future. Global attention will drive government policies and behavioral changes with diseases, climate change, future jobs, conflict and socioeconomic inequality becoming major subjects of worldwide scrutiny. In this light, we must continue to bring visibility to these threats while recognizing and supporting the opportunities for digital technologies and innovations that can best and rapidly address them. The beautiful thing about technology is that once it is invented somewhere it can help everywhere.

THE POWER OF DIGITAL TECHNOLOGY IN ECONOMIES AND SOCIETIES

The Third Industrial Revolution (3IR) opened many doors of opportunities which are good for socioeconomic outcomes globally. Digital infrastructures and services have fundamentally reshaped our daily lives and yet many people are still unconnected globally. Digital technology offers a path to economic leapfrogging but only in combination with institutions, skills and infrastructure.

To understand the power of digital technology in economies and societies, it is essential to tackle several key issues including how digital technology influences the growth of the global economy, the major factors affecting the digital world today, major global pressing issues that can be solved through digital technology, the urgent need to revamp the global education system and how countries such as France and Singapore, perhaps working in collaboration, can build a green, equitable and sustainable global economic recovery plan through digital technology.

These issues can be approached by analyzing the top ten across a number of dimensions*. largest economies. The existing data points towards the assumption that the most digitally advanced nations tend to dominate the top spots while less digitally advanced nations score poorly in all the categories listed below.

As such, the digital divide is holding back the economic growth of poorer countries as they are unable to take full advantage of the opportunities found in global digital ecosystem. Bridging the global digital divide will improve social and economic equality and boost innovation and economic growth globally. It will therefore ensure achievement of all 17 of the United Nations Sustainable Development Goals (SDGs) sooner within the scheduled period, i.e. by 2030. We must shape technology before it shapes us.

I would assert that the factors that are essential for a successful global economy recovery include: the pathway of COVID-19 pandemic, global consumer demand and financial sentiment and capital flows. We must embrace digital technology as it plays a crucial role in achieving positive outcomes for all these factors.

BRIDGING THE GLOBAL DIGITAL DIVIDE AND FOSTERING INCLUSIVITY

The major factors leading to global digital divide include a lack of digital infrastructures and services, lack of affordable digital infrastructures and services, lack of digital skills to create/add value and lack of coordinated efforts. We can overcome these challenges by: connecting the unconnected, industry innovations, revamping global education system to make it dynamic and future-oriented and coordinating efforts both at national and global level to develop policies, standards and regulations so as to ensure high degree of competition and tackling issues such as cyber security, censorships and internet governance. The internet has become one of the most fundamental and vital infrastructures around the world – according to the World Economic Forum, each additional 10% of internet penetration can lead to a 1.2% increase in per capita GDP growth in emerging economies.

MITIGATING CLIMATE CHANGE

The objective of limiting temperature increases to 1.5°C-2°C by 2100 was endorsed worldwide by policymakers in the 2015 Paris Agreement. This means that emissions must be eliminated/removed from the atmosphere. I believe that the time has come to use digital technologies much more effectively to manage the consequences of socioeconomic change and its impacts on the environment.

The COVID-19 pandemic has caused the largest emissions drop since World War II, though this decline will be only temporary. Under unchanged policies, emissions will continue to rise rapidly and global temperatures could increase by an additional 2 C-5 C by the end of the century reaching levels not seen in millions of years, hence imposing growing physical and economic damage across the planet.

The ICTs sector also contributes to this crisis as CO_2 emissions currently stand at 4-6% and are projected to double by 2030 under business-as-usual scenarios. At the same time, ICTs also play a key role in supporting the development of the green economy in two principle ways: By increasing the use of renewable energy sources, reducing use of toxic materials, improving recycling and end-of life disposal of ICTs. And by increasing the enabling effects of ICTs on the development of the green economy through improvements in the efficiency of production, distribution and consumption of goods and services throughout the economy and society.

In sum, digital technology significantly influences the growth of the global economy. The basic drivers of the global economic growth are capital, labor and technology – all of which are affected by education. Seen as one of the major factors causing slow global economic growth today, there is an urgent need to revamp the global education system. ///

* Global Green Economy Index (GGEI), imports and exports, Economic Complexity Index (ECI), ease of doing business, largest companies, wealthy individuals, FDI inflows and outflows, digital trust and Global Competitiveness Index (GCI), i.e. Human Capital Index (HCI), Worldwide Educating for the Future Index (WEFFI), Global Innovation Index (GII) and Global Talent Competitiveness Index (GTCI).

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KEYS TAKEAWAYS

- The 4th Industrial Revolution seems set to run much broader and deeper affecting more people than those of the last. The COVID-19 pandemic has focused the world`s attention on the need to take action to deal with threats to our way of life, our health and our future.
- Digital technology offers a path to economic leapfrogging but only in combination with institutions, skills and infrastructure.
- The digital divide is holding back the economic growth of poorer countries as they are unable to take full advantage of the opportunities found in global digital ecosystem.
- According to the World Economic Forum, each additional 10% of internet penetration can lead to a 1.2% increase in per capita GDP growth in emerging economies.
- The ICT sector also contributes to the climate crisis as CO_2 emissions currently stand at 4-6% and are projected to double by 2030 under business-as-usual scenarios.
- At the same time, ICTs also play a key role in supporting the development of the green economy: By increasing the use of renewable energy sources, reducing use of toxic materials, improving recycling and end-of life disposal of ICTs. And by increasing the enabling effects of ICTs on the development of the green economy through improvements in the efficiency of production, distribution and consumption of goods and services throughout the economy and society.
- The basic drivers of the global economic growth are capital, labor and technology – all of which are affected by education.

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FOUR SCENARIOS FOR THE FUTURE OF GLOBAL ENERGY

Michael Bradshaw, Professor of Global Energy at **Warwick Business School** and Fellow of the **Royal Geographical Society,** looks at the four scenarios ahead and their impact on whether energy transition is reached – or not.

> The road to net-zero is fraught with geopolitical dangers.

With kind acknowledgments to COREinsights, Warwick Business School. Related research: Bazilian, M., Bradshaw, M. J., Goldthau, A. and Westphal, K. (2020) "Model and manage the changing geopolitics of energy", *Nature.*
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Even before the full scale of the global pandemic was becoming apparent, disagreement between Russia and Saudi Arabia caused an oil price crash.
Then the pandemic saw oil demand fall by 30 per cent in April and prices in the US collapsed to below zero for the first time on record. By the end of August, they had recovered to around $45 a barrel, but concerns about a 'second wave' are dampening down market optimism along with hopes of a 'V-shaped' rapid economic recovery. Oil giants such as BP and Shell have slashed thousands of jobs, cut dividends, and downgraded the value of some of their reserves, while reaffirming their commitment to a low carbon economy. And some oil producing nations are now accelerating plans to reduce their dependence on oil rents.

The shift to a 'new energy order' was already underway, but the pandemic has quickened the pace, with new global alliances being formed as China and the US compete to take advantage of the move to renewable technologies that challenge the influence of OPEC (Organization of Petroleum Exporting Countries) and Russia.
Fossil fuel importers may finally gain the upper hand over their suppliers, which will have huge implications for geopolitics, but just how is difficult to predict. Here, I revisit four scenarios first published in Nature to consider how the pandemic might shape the energy transition over the next decade as campaigners and the United Nations (UN) try to compel the world to take urgent action against climate change.

1. THE BIG GREEN DEAL

This is an energy transition driven by a global consensus on the urgent need for action that is set in motion by a co-operative dynamic. It also implies a rapid and deep decarbonisation with a steady 'ratcheting up' of ambition within the UN 2016 Paris Agreement, starting with the delayed COP26 Conference in Glasgow in 2021.
Thanks to clear, determined and concerted policy signals, in large part driven by a determination to 'build back better' through a 'green recovery', financial markets heed the call and divestment from fossil assets quickly gains momentum. As a corollary, companies specialising in low-carbon technologies are strongly capitalised, and within a relatively short period green technology corporations supplant big oil on stockmarkets, though some international oil companies succeed in reinventing themselves.
A comprehensive global green finance package gives petro-states in the Middle East a soft landing, enabling them to manage the loss of fossil-fuel rents and leave the carbon-intensive economic model of old.
This 'big green deal' scenario represents the ideal case, with progress accelerated by the actions taken to recover from the pandemic putting the world economy on the path from a high to a low carbon paradigm. It also brings about significant growth and welfare effects in line with the UN's Sustainable Development Goals (SDGs), the importance of which was highlighted by the stark inequalities exposed by the pandemic, both within and between countries.
This is the only scenario that achieves the SDGs. While it is underpinned by a multi-lateral approach, the potential for conflict remains, but in the aftermath of the pandemic and renewed global commitment to address climate change, energy security concerns are no longer paramount, reducing the potential for international and regional conflict.

2. DIRTY NATIONALISM

The opposite dynamic emerges in this case, where the primary driver is nationalism that is reinforced by the failure to adopt a multi-lateral approach to deal with COVID-19. Inward-looking policies favour self-interest and states prioritising self-sufficiency over interdependence and co-operation.
As was demonstrated in the early months of the pandemic, this in part helps the development of renewables as they are seen as domestic energy sources replacing imported ones, thus reducing vulnerability (defined as import dependence). But it primarily helps fossil fuels, notably coal, as well as unconventional fossil fuels such as tight oil and gas.
Indeed, evidence from the Energy Policy Tracker in September 2020 revealed that 53 per cent of G20 public money for energy has been going to the fossil fuel sector - so much for a green recovery.
Importantly, as national governments seek their own solutions to the pandemic and climate change, global markets fragment, thus prohibiting the economies of scale needed to drive down costs and help deploy novel healthcare solutions and low-carbon technologies at scale.

The fossil fuel divestment campaign loses momentum in the face of renewed state subsidy of domestic fossil fuels, which also undermines the prospect for investments in green technologies. National energy security trumps concerns about climate change.
Moreover, as states favour conflict over co-operation, multi-lateral institutions such as the World Trade Organization, the World Health Organization and the United Nations Framework Convention on Climate Change become sidelined or abandoned. This results in a failure of the Paris Agreement and the Nationally Determined Contributions mechanism which committed countries to reduce CO^2 emissions. It also undermines support for the SDGs.
In this scenario change is slow, if not stalling; a focus on national self-interest is the dominant model, with an emphasis on power politics centred on the nation state, making the political architecture fragmented, while climate change remains unabated and an increasing 'threat escalator' that brings about climate-induced conflict. Fossil fuel producers, albeit under pressure, continue with their existing business model.

3. TECHNOLOGY BREAKTHROUGH

Let us assume, by way of contrast, a technological breakthrough in, say, electricity storage, plus continued cost reductions for solar and wind generation technologies.
Their sizeable markets, coupled with a technology-friendly regulatory environment puts China and the US in the lead in scaling up the production, deployment and trade of critical technologies. The resulting competition is not only about technology leadership, with tech giants such as State Grid of

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China and Google vying for market share - much like certain states supported their pharmaceutical industries in the race to find a vaccine for Covid-19 - it also extends to geopolitical rivalry. This is reinforced and cements regional blocs (now defined in large part by their respective integrated energy systems - ie transnational electricity grids). These blocs end up in conflict over critical materials and the associated processing and fabricating industries needed for low-carbon tech.

While such a scenario helps to mitigate climate change, some regions lose out. As market scale and might matter most in technology leadership, the EU, as a result of a failure to agree a co-ordinated approach, ends up being marginalised.

Russia, having failed on repeated occasions to diversify its economy, faces falling Government revenues from oil and gas, the decline of its national champions Gazprom and Rosneft, and growing social unrest in the second half of the decade as the economy never really recovers from earlier oil price crashes and the impact of the pandemic.

There is, of course, a potential alternative path where technological advances in Carbon Capture and Storage (CCS) and negative emissions enable a significant amount of fossil fuel production to remain in the mix.

However, the falling cost of low carbon technologies and their relative abundance and absence of other environmental externalities, means that fossil fuels still lose out. Equally, biomass energy and CCS are preferred to using that technology to retain fossil fuels, though the scale of deployment is limited by concerns over biodiversity and food security.

In this scenario, change is fast (though not as fast the big green deal) but uneven, with the political architecture dominated by one or two national powers.

This scenario demonstrates a pathway that is politically and socially problematic, but one that does resolve the climate change challenge. However, the SDGs do not progress as competing blocs favour regional solutions to development assistance, focused on preferential trade agreements over a global approach.

4. MUDDLING ON

This reflects a 'business as usual' scenario, where prolonged cost reduction for renewables is the major driver of climate change mitigation, but the absence of strong policy support for decarbonisation keeps fossil fuels in the mix for longer.

Also there is a much stronger determination to address climate change in the EU than elsewhere in the world.

Consequently, although renewables claim an increasing share of the energy mix, the speed of the energy transition is too slow to mitigate global climate change. However, thanks to a boost in some parts of the world as a commitment to a green recovery, it is still too fast for most of the incumbent fossil fuel industry to adapt successfully, resulting in the 'worst of both worlds.'

This results not only in a series of bankruptcies of national oil companies, but also in many of their private international counterparts facing significant financial stress. In addition, fossil-fuel exports to the EU soon become a risky business model, putting severe financial pressure on oil-producer economies in the Middle East, Russia and Africa, some of which may experience domestic political turmoil as a result.

In this world, following the blow dealt by the COVID-19 pandemic, the 'energy dominance' of the US proves short-lived and while it remains self-sufficient, exports of oil and gas fail to live up to earlier expectations as the shale boom falters.

China's motivation for transforming its energy system lies in improving air and water quality and in building sizeable state champions fit for the global market. Europe, by contrast, is more concerned with climate change, pushing bilateral low-carbon energy partnerships. The US remains on standby, focused on domestic matters.

This implies diverse growth models for energy technologies, an increasingly heterogeneous world of 'clubs' led by the EU and China and limited global co-operation. As some regions remain characterised by inadequate regulation or fail to benefit from select partnerships, this scenario also reinforces existing economic and geopolitical imbalances, and increasing energy inequality. The inequalities exposed by the pandemic are never reversed and this serves to undermine progress on the SDGs, resulting in a 'lost decade'.

In this scenario, change is slow, the political architecture is clubs and climate mitigation is too slow to meet climate targets. This highlights that even muddling on is not really business as usual as the growing environmental consequences of a warming planet – as evidenced by increased episodes of extreme and melting ice caps – physically challenge the status quo.

THE CHALLENGING ROAD TO A JUST TRANSITION

Even before the COVID-19 pandemic, the gap between policy ambition for emissions reduction and the pathway needed to be on to achieve this ambition was widening. It is a relatively easy task to model a world in which the global energy system is transformed and the worst impacts of climate change are avoided. The real challenge lies in the process of the transition. In short, geopolitics matter.

These scenarios highlight that the road to net-zero is fraught with geopolitical dangers that threaten to de-rail progress and create new sources of conflict and inequity.

Despite the best intentions of many, there is a very real chance that the cumulative economic, social and political impact of COVID-19 will be to retard our already inadequate efforts to address the much greater threat of climate change.

However, important lessons can be learnt in the current crisis and, in such a context, it is only by identifying the threats to a successful energy transition and presenting a set of possible solutions that we can put the world on the road to a just transition.

A failure to consider and prepare for the geopolitical challenges and tensions that arise from the process of energy system transformation may make it more difficult to maintain a path towards deep decarbonisation. ///

KEYS TAKEAWAYS

- The pandemic has quickened the pace of a 'new energy order', with new global alliances being formed as China and the US compete to take advantage of the move to renewable technologies that challenge the influence of OPEC and Russia. There are 4 scenarios.
- **The Big Green Deal** is an energy transition driven by a global consensus on the urgent need for action that is set in motion by a co-operative dynamic.
- Here, financial markets divest from fossil assets and companies specialising in low-carbon technologies are strongly capitalised. Green technology corporations supplant big oil on stockmarkets. This is the only scenario that achieves the SDGs.
- **Dirty nationalism** means failure to adopt a multi-lateral approach to deal with COVID-19. Inward-looking policies favour self-interest and states prioritising self-sufficiency over interdependence and co-operation.
- Nationalism primarily helps fossil fuels, notably coal, as well as unconventional fossil fuels such as tight oil and gas, undermines the prospect for investments in green technologies, and prohibits the economies of scale needed to drive down costs and help deploy novel healthcare solutions and low-carbon technologies at scale.
- Fossil fuel producers, albeit under pressure, continue with their existing business model.
- **Technology breakthrough:** their sizeable markets, coupled with a technology-friendly regulatory environment puts China and the US in the lead in scaling up the production, deployment and trade of critical technologies.
- In this scenario, change is fast (though not as fast the big green deal) but uneven, with the political architecture dominated by one or two national powers.
- SDGs do not progress as competing blocs favour regional solutions to development assistance, focused on preferential trade agreements over a global approach.
- **Muddling on:** a 'business as usual' scenario, where prolonged cost reduction for renewables is the major driver of climate change mitigation, but the absence of strong policy support for decarbonisation keeps fossil fuels in the mix for longer.
- Thus the speed of the energy transition is too slow to mitigate global climate change. It results in the 'worst of both worlds.'

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READER'S NOTES

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COBS READER COMMENTS

This is one of the best sites [for articles] I have ever visited. We all need to support women entrepreneurs in every aspect. The content is very informative. Thank you for sharing it.
Ashwin

These articles or blog posts are genuinely wonderful and I routinely move them on to my college students who're facing/struggling with exams and research competencies – they listen to you in a very way they really don't to me!
Moinc

Thanks for sharing this stuff, teaching innovation is one of the best points I found here, keep up the good work. Best Regards.
Fek

This is inspiring and thought-provoking. As businessmen, we indeed need to learn to live with sustainability and mind and we should also learn how to respond to environmental emergencies.
Chelsea L

Hi, I like your articles everyweek. Your writing style is witty, keep up the good work!
Anon

It's a pity you don't have a donate button! I'd most certainly donate to this fantastic blog! I suppose for now I'll settle for bookmarking and adding your RSS feed to my Google account. I look forward to new updates and will talk about this blog with my Facebook group. Chat soon!
Alena Vayon

Thanks for a marvelous posting! I really enjoyed reading it, you happen to be a great author. I will remember to bookmark your blog and definitely will come back later on. I want to encourage you to continue your great work, have a nice morning!
Lanny Battaglino

I blog often and I genuinely thank you for your information. This article has really peaked my interest. I'm going to take a note of your website and keep checking for new information about once per week. I opted in for your Feed as well.
Baten

I absolutely love your blog and find a lot of your posts to be what precisely I'm looking for. I wouldn't mind publishing a post or elaborating on a lot of the subjects you write regarding here. Again, awesome blog!
Rudolphe H.

I love the advice for students about fostering intellectual curiosity. It seems like this can lead to a love and passion for almost anything, especially the energy sector. My brother in law is very interested in futures trading. He's looking into energy market reports.
Jake G

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