

Sustainability, Technology and Business Models Winners who will Lead the Way in this Unprecedented Era of Change

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Abstract

An unprecedented change in the earth's atmosphere is unfolding in front of our eyes and we cannot ignore the extreme events that are tipping the balance of nature. At the same time, the unpredictability of the consequences of human actions is also increasing exponentially. What seemed to be an efficient way to produce energy led to huge climate change. Moreover, a dogmatic belief in the innate efficiency of supply chains created inequality, fueled discontent, and triggered protectionist policies and populism. A new mindset is needed as we cannot solve these problems with the same attitudes that led to these. The compelling issues facing the planet need radical action. Governments, corporates and communities' collaboration is imperative to reverse the damage. Business leaders need to embrace the smart solutions as sources of competitive advantage and define new business models. Business models that are resource light and are focused more on consumer experience, and goes beyond stuff, will be successful, especially those which leverage technology, power of human creativity, diverse teams, shared economy, nearness to the customers and are guided by circularity.

Introduction

Our world is visibly changing at a very fast pace and consequences of human behavior remain hard to foresee. We can no longer ignore extreme events like heat waves, floods, and hurricanes that are tipping the balance of nature with unprecedented ferocity and have irreversible impact on our lives. Unpredictability of consequences is increasing exponentially and even when the consequences become clear, the will and path to action is critical. Other challenges like inequality, social discontent, biodiversity, geopolitics, and governance are all connected.

We need a new mindset as we cannot solve these problems with the same attitudes that led to these. This mindset has the potential to generate new

competitive advantages that can build profitability and sustainability in our business models, balance purpose and profit.

We are now in a spiral of devastation from which our lonely planet cannot recover by itself, as human consumption outstripped the Earth's biocapacity several decades ago. Humans have started facing the consequences of their actions and what seemed to be solutions have turned into today's problems. What was considered an efficient way to produce energy led to colossal climate change. Dogmatic beliefs in the innate efficiency of supply chains created inequality, fueled discontent, and triggered protectionist policies and populism. Premature celebrations of economic progress gave way to disturbing biodegradation evidence that threatened a catastrophe for a million species. Traditional economic theories of efficient markets are being

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tested as our world is consumed by our enormous capacity for production.

We have discovered that our economy is profoundly uncircular, and we are facing a backlash against the excess that few predicted as the post-second world production boom, and the Efficient Market Hypothesis became an unquestioned dogma. Consumption based on non-renewable resources is accelerating climate change, disrupting ecosystems, possibly leading to extinction and migration of species from hostile weather regions, carrying unknown viruses along that bring new diseases and impact our food chains.

Poor air and a lack of potable water are already sources of geopolitical instability. Airborne toxins are the fourth-biggest killers, as nine out of 10 people breathe air that is below WHO's safe limits. Every day, almost 700 children under the age of five die from diarrhea, and by 2050 some three billion people will live with severe water scarcity. Someone is certainly paying the price for our resource-heavy economic progress.

The compelling issues facing the planet need radical action. Governments, corporates and communities' collaboration is imperative to reverse the damage. Business leaders need to embrace the smart solutions as sources of competitive advantage and define new business models. Regulation, infrastructure, and consumer behavior are key to the circular economy. It is heartening that more people are heeding the warnings. Awareness of climate change and the need for a new approach is accelerating, but this has not yet reached the critical mass needed to make a sustained difference. The United Nations Paris COP20 and recent Glasgow COP26 climate initiatives are not seen by the climate activists as serious enough; while world leaders deliberate on commitments inside the conference, climate activists are protesting on the streets outside. There

is a need for inclusivity as the ownership at mass level will be critical to deal with these challenges. The industry and governments need to follow up commitments by actions and disclosures to convince the stakeholders.

I am not proposing to reduce consumption as this will prompt an economic crisis. During 2009 economic crisis, global output shrunk by 1.5% and the world economy shrunk by 2.6%; we lost 61 million jobs and over 150 million people were pushed below the poverty line. We must create renewable resource capacity to reverse the ecological damage. Smart solutions are evolving quickly, and carbon neutrality and biodiversity are becoming new focus areas for businesses. A concerted focus on sustainability and technology will together build a platform for success. The financial world is already supporting green technology that speeds up solutions and turns sustainability challenges into opportunities.

Business models that use fewer materials and are focused more on consumer experience will be increasingly important, especially those which leverage technology and human creativity and are guided by circularity. New revenue streams and competitive advantages will emerge as we embrace innovation to fulfil our social and environmental responsibilities.

Several countries and leading companies have committed to carbon neutrality. However, governments, society, and businesses need to collaborate globally to be GHG negative. Circularity is increasingly accepted as a solution to conserving natural resources. The balance of nature itself is the essence of circularity and we must align to its natural laws to find elegant solutions. Business models should be designed for "next life" instead of "end-of-life".

Technology is rapidly bridging the skill and wage gap but new human skills to work with machines

will be valued. Artificial intelligence and machine learning are enhancing speed and innovation. Disruption is coming from new digital pure players, forcing large companies to change the way they do business and stretch the boundaries. Customer experience is reimagined, highly customized, and at the core of new business models.

Consumers are already looking for experiences that are based on the new business model. Companies can turn this into a valuable advantage by knowing their minds and exploring where it may lead. Technology will play an important role in turning this into reality, especially for those who understand data and how to leverage it.

Our teams should be as diverse as our society, designing and creating solutions that mirror consumers across geographies, religions, races, education, gender, age, values, and preferences. Humans have an enormous cognitive surplus – a trillion hours a year of free time that can be deployed for creative ways to boost productivity. Eric Schmidt, the former executive chairman of Alphabet, said that the next 100 billion company will likely result from the wisdom of many. We have all done crossword puzzles and the like in our free time. If businesses can capture this resource by engaging people in a creative process aligned with their passions and interests, we can unlock huge value. Businesses can encourage employees to consume, share, and create and turn their cognitive surplus into a competitive advantage.

A shared economy optimizes resources and monetizes underused assets to create new revenue streams. Shared platforms increase collaboration between stakeholders and become a competitive advantage. The shared economy is forecast to reach \$1 trillion by 2030. Similarly, the Gig economy offers more flexibility, lower liability, and lower costs compared to full-time employees. This creates

more autonomy, diversity and replaces traditional full-time employment into part-time work, which helps more efficient use of resources. The Gig economy is forecast to reach \$ 1 trillion by 2028.

Globalization moved the production of labor-intensive businesses to low-cost regions, but this left behind a generation who lost opportunities and who now face rising inequality and serious disruption. The existing offshoring model is being challenged amid stretched supply chains and waste. For example, nearly one-third of clothes shipped from Asia to North America are never sold. Another business model is emerging in countries like Bulgaria, Morocco, and El Salvador, among others, in which smaller, specialized, and made-to-order products are gaining popularity. A newer business model is emerging that is near the consumer, smart, multiproduct-based, customized, and built around circularity and new materials that are nature positive. In this smart model, robots work alongside humans in more flexible workplaces that are located closer to consumers. Automation combined with artificial intelligence reduces the wage and skill gap and provides a competitive advantage besides balancing environmental and economic costs. The Covid-19 pandemic, in which supply bottlenecks squeezed the entire value chain, underscored the need for this new business model. The new economy must be able to supply “on demand”.

A widening digital gap is worsening fractures in society and undermining an inclusive recovery. Governments and social institutions must retrain the workforce and strictly regulate for green end-to-end value chains. We need a more responsible, eco-friendly, and inclusive world to stave mass discontent, populism, and protectionism.

So, who will be the winners in this unprecedented era of change? They will be the visionaries/leaders/successful managers, who will:

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- Think decades or even centuries into the future and lay foundations today for the future.
 - Compete on new business models that are nature positive, deploy smart manufacturing and are inclusive.
 - Have the capacity and will to generate new competitive advantages that will balance purpose and profit.
 - Be obsessed about the customer experience, innovative, and will stretch the boundaries of influence.
 - Use open-source business models to tap the cognitive surplus of human creativity
 - Break our attachment to the past and recognize that competition can come from outside our industry.
 - Organize diverse teams that mirror society and will harness their combined creativity to design more useful solutions
- Believe that sustainable success comes from habit forming transformation.
 - Be mindful of disruptions and sense early symptoms to turn the challenges into opportunities.
- The winning “new” business models will confront environmental degradation, inequality, and social discontent, and be inclusive of all interest groups. The leaders will do this by leveraging digital technology, embracing the diversity of minds, harnessing the cognitive surplus in our society, and by looking for circularity in every opportunity to drive new revenue and competitive advantage.
- Note: This article is an adapted version of the article 'Competing beyond goods and services' by Uday Gill published in Man-Made Fiber Yearbook 2021. Published with permission from Editor-in-Chief, Claudia van Bonn*