

Sustainable Industrial Development

Pranav Dake,
M.Eng., Department Of Automotive Service
Technology And Processes,
Ostfalia University Of Applied Sciences,
Wolfsburg, Germany.

Akshay Ghorpade,
MBAE, Automotive Management, HTW
Berlin, Germany.

Abstract

Industrial development has always been seen as the main engine for economic growth due to its large economic multiplier and technological opportunities. However, manufacturing sectors are directly and indirectly responsible for a large share of overall environmental pressures, raising concerns for the environmental sustainability of manufacturing-based development. In this paper, we evaluate the impact of Coronavirus on world economic growth, mainly highlighting which industries are suffering the most. And then we discover the role of Business and Industry to achieve sustainable development.

Key words: Sustainable Development, Economic Growth, Industry

Introduction

The achievement of sustainable industrial development is the main objective of an integration strategy in the domain of industrial policy. It is interesting to note that, while industry has already made considerable efforts in the environmental field, achievement of sustainable industrial development will require further substantial improvements in all three pillars, including in its environmental performance. That calls for an integrated approach to sustainable development involving several other Community policies. Special attention is given to the instruments for implementing sustainable industrial development and the development of indicators to monitor progress. Cross-cutting issues, such as climate change, and the environmental dimension of enlargement and employment are also addressed.

The Impact Of Coronavirus On World Economic Growth

Around 170 countries now have confirmed cases of COVID-19. Inside China the number of new infections has rapidly slowed down, but there are major outbreaks in Italy, the United States, Spain, Germany and Iran. New infections in Europe and the United States are likely to increase exponentially over the coming weeks, while clinical trials and approval processes for the antiviral drugs and vaccinations currently in development may take several months yet.

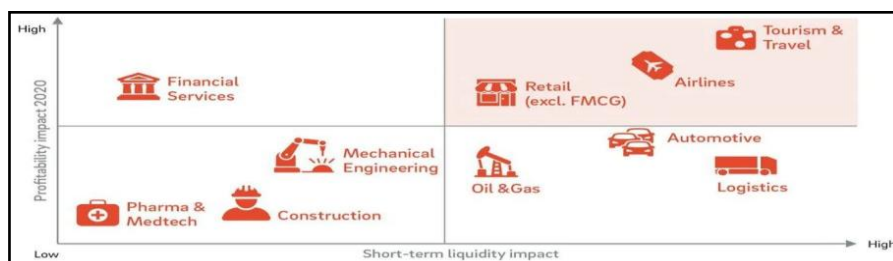


Figure 1The Coronavirus Impact Matrix

Whether the economic disruption lasts four weeks or twelve, the impact on industry will be two-fold, affecting both annual profitability and short-term liquidity. Tourism and travel, the airline industry and retail (excluding FMCG) will be hit strongly on both fronts, putting them in the upper right-hand quadrant of our coronavirus impact matrix below. Thus, tourism and travel have already experienced short-term cancellations and a sharp drop in cash inflow as new bookings for June to August evaporate. The industry has limited options for catching up after the crisis has ended, putting 2020 results under immense pressure. In the airline industry, last-minute cancellations combined with a tendency towards flexible bookings have led to a cash shortage; the long-term financing of aircraft limits the possibilities for adjusting cash outflow accordingly. Profitability will be impacted by the industry's close correlation with tourism and travel. Non-FMCG retail is seeing drastically reduced demand, leading to a shortfall in sales.

The automotive, logistics and oil and gas industries will take a similar blow to short-term liquidity but demonstrate greater ability for their earnings to catch up after the crisis ends. In the automotive industry, demand will further drop off during the crisis, which will be particularly challenging for automotive suppliers with fixed cost structures. However, recovery in China may allow firms to make up for some of the losses they suffer. The logistics industry is seeing a big drop in profitability as production stops, but the rebound effects when the situation relaxes will allow for partial catch-up. The oil and gas industry has been through crises before and enjoys some flexibility due to third-party oilfield services. However, its liquidity situation is exacerbated by the current price war between Saudi Arabia and Russia: With an oil price of 30 USD/bbl, upstream free cash flow is close to zero.

The financial services industry will be less impacted in terms of short-term liquidity, but 2020 results will come under pressure. Low interest rates and monetary policy measures will provide financial aid during the crisis, although the inevitable bankruptcies will lead to reduced cash inflows for the industry. Profitability for the year will be affected strongly by the depreciation of distressed and bankrupt corporate financing, while regulatory requirements on core capital may lead to fire sales of credit portfolios.

The Role Of Business And Industry For Achieving Sustainable Development

The role of industry and business in general in the achievement of sustainable development is beyond doubt, as demonstrated by emerging concepts such as responsible entrepreneurship and eco-efficiency and the capacity of enterprises to face new challenges such as globalisation, the information society and the change of production and consumption patterns. However, companies can play that role only if they remain competitive, in other words if they are able to make the appropriate investments and implement structural and organisational changes. Moreover, since prices play an important role in the decisions of both business and consumers, in order that they make the right choices it is necessary that the appropriate framework conditions are established by Governments, including price signals that reflect the full range of costs and environmental externalities.

3.1 The environmental challenge

One of the biggest challenges facing industry today is the need to further improve its environmental performance in order truly to become compatible with sustainable development. Although European industry has done a great deal in the past decades to improve its environmental performance, considerable challenges remain at European and global level.

As mentioned above, industry and business have an important role to play in reversing the negative environmental trends at global level, through responsible entrepreneurship and eco-efficiency outlined below. Increased environmental performance will mean reducing the negative environmental impacts that occur at each stage of the product life-cycle, from the extraction of raw materials through the production processes, transport and distribution of products to the use and disposal of products.

3.2 Responsible Entrepreneurship

The concept of responsible entrepreneurship, put forward by the United Nations as a recognition of the business role for the accomplishment of sustainable development, means that companies can manage their operations in such a way as to enhance economic growth and increase competitiveness whilst ensuring environmental protection and promoting social responsibility. In fact, major improvements in environmental performance have already been made by industrial companies and business in general. In the past, such improvements were mainly a response to Government regulatory pressure using command and control type instruments_ and to economic incentives such as the level of relative prices. But increased public and business awareness of environmental challenges has contributed to companies' starting to take their part of the responsibility solving environmental problems and to integrate environmental concerns into their management strategies.

The implementation of environmental management systems by many of these companies is a clear sign of such responsible behaviour. New approaches and strategies, such as eco-efficiency, life cycle thinking and sustainable product design, have been introduced and adopted by companies that wish to be on the leading edge of environmental and industrial innovation. Companies have developed and implemented management tools for measuring environmental impacts (such as life-cycle analysis), for assessing the costs and benefits of environmental action (such as environmental accounting) and for communicating an environmentally responsible image to their stakeholders (such as environmental reporting). They have developed environmental performance indicators and benchmarking techniques to measure and monitor progress and compare it with that of other companies. In addition, social considerations are increasingly being taken into account in the strategy of several companies, including the development of methodologies for social audit, monitoring and reporting.

3.3 The concept of eco-efficiency

The development of the eco-efficiency concept and its promotion and implementation across business, including industrial companies, services and the financial sector is another example of responsible entrepreneurship. This concept emerged as an innovative business strategy

combining both environmental and economic efficiency to create more value with less environmental impact. It has helped companies understanding the challenges of sustainable development and led them to increase efficiency in their processes and create new and better products, for example reducing material and energy intensity, decreasing the use of non-renewable resources and toxic substances, enhancing material recyclability and product durability and increasing the service intensity of their goods and services. The need to take into account a life cycle approach and to address the impacts across the entire product chain shows to these companies that they are able to influence their suppliers and customers and spread the concept across the supply chain. They are also starting a dialogue and co-operation with all their stakeholders and developing measurement and reporting mechanisms to monitor progress, such as eco-efficiency indicators and benchmarks.

Successful implementation of eco-efficiency by companies made Governments become interested in this concept and some have embraced eco-efficiency as an element of a policy strategy towards sustainable development. Governments have a role in supporting the promotion of eco-efficiency strategies in business and setting the framework conditions for encouraging companies to adopt these strategies. Ecoefficiency can provide a link between the integration of sustainable development concerns at the micro level and at macro levels and, in that context, eco-efficiency could be an important element of an integration strategy in the industrial policy domain stimulating progress towards sustainable industrial development. One of the biggest challenges facing industry today is the need to further improve its environmental performance in order truly to become compatible with sustainable development. Although European industry has done a great deal in the past decades to improve its environmental performance, considerable challenges remain at global level. As mentioned above, industry and business have an important role to play in reversing the negative environmental trends at global level, through responsible entrepreneurship and eco-efficiency outlined below. Increased environmental performance will mean reducing the negative environmental impacts that occur at each stage of the product life-cycle, from the extraction of raw materials through the production processes, transport and distribution of products to the use and disposal of products.

Conclusion

A sustainable industrial development strategy should aim to achieve the integration of environmental concerns and sustainable development in industrial policy, thereby promoting environmental protection, competitiveness, innovation and employment. In the long term, sustainable industrial development can only be achieved through the integration of all three pillars of sustainable development – economic, environmental and social.

If the economic disruption lasts four to twelve weeks, the crisis will cause much deeper, structural damage to the economy. With this in mind, we have to raise concerns and develop effective methodologies to reflect multiple insolvencies, skyrocketing unemployment and governments unable to stimulate economic growth.

References

Commission Staff Working Paper, European Commission, Brussels 25.10.1999, SEC (1999) 1729, pp. 03-17

Hillary Zodape, Prasad U Patil, Anil Ranveer, Sustainable Industrial Development, *International Journal for Research in Applied Science & Engineering Technology* (IJRASET), Dec. 2015, pp. 111-116

Sustainable Development in the European Union, *A Statistical glance from the viewpoint of the UN Sustainable Development Goals*, 2016 Edition, pp. 009-133

Roland Berger 2020, 'World economic growth plunges due to coronavirus - which industries are suffering the most', viewed 18 May 2020, <https://www.rolandberger.com/en/Point-of-View/Coronavirus-Current-status-and-economic-impact-forecast.html>