Competitive Shortage Management, Global Markets & Sustainable Development Goals

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Abstract

Traditionally, competitiveness is mainly described in terms of costs. In effect, costs are a strategic issue for businesses to survive and stand out. The deployment of profit costs is becoming strategically important to be sustainable and competitive in the global markets.

In today's scenario of global 'hypercompetition', one of the most important changes in industrial organisation is the transition from multinational corporations (MNCs) to global networks. In a global market-space, the corporate responsibility is thus as a sense of the corporation's consciousness towards hypothetical consequences of its planned actions (in domestic/international markets) in view on organisation's long-term vitality.

Keywords: Sustainability; Sustainable Development Goals; Global Shortage Management; Competitive Shortage Management; Russian-Ukrainian War; Network Globalisation; Global Markets

1. Global Competition and Sustainable Development Goals

Traditionally, competitiveness is mainly described in terms of costs. In effect, companies with corporate sustainable approaches based on cost leadership are trying to reduce operational expenses, increase business efficiency, and implement comprehensive cost reductions within their organisations. Cost is a strategic issue for businesses to survive and stand out. The deployment of profit costs is becoming strategically important to be sustainable and competitive in the market (Yeh, et al., 2021).

In today's scenario of global 'hypercompetition', US corporations face to many other MNCs (more and more based in China, Japan, South Korea, Taiwan and Europe). In this new competitive landscape, capitalism breaks the static, monolithic

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rules of the company that plans, produces and sells by the rules of absolute proximity (local market) or relative proximity (international market).

The globalisation of the world economy has made traditional multinational organisations (multi-domestic businesses) obsolete. They have been replaced by global organisations (network organisations) that are transnational and therefore in a position to tackle the economic interdependence of target markets (global markets) (Brondoni, 2014). In this sense, one of the most important changes in industrial organisation is the transition from multinational corporations (MNCs) to global networks. Multinational corporations were characterized by the focus on stand-alone overseas investment plans. Global networks, on the other side, are characterized by the focus on coordinating and integrating their geographically dispersed supply, knowledge and customer bases into global network business activities (Brondoni, 2014; Canegrati 2012; Ernst & Kim 2001).

Global networks assert complex and articulated structures that disregard traditional rules of corporate responsibility (for example, in terms of quotas of national workers to hire) and 'local' conduct based on social responsibility. Instead they refer to often impalpable 'network corporate responsibility' (which envisages the fragmentation of corporate responsibility centres and various hierarchical levels of social responsibility, dispersed in space and changing in time, and often not easy to identify).

The sustainable corporate development goals (SCDs) are specifically based on the following main elements (UNEP, 2015):

1. human well-being, intrinsically linked to the health of the natural ecosystem;
2. global environmental challenges, affected to the long-term competitive landscape of development;
3. addressing inequalities in the distributive benefits of development for global sustainable development;
4. global shortage management and sustainable resource management, safeguarding fundamental aspects of profit and long-term development.

By considering the multidimensional nature of the sustainable development goals (SDGs), a wide level of coordination should also be applied across different policy areas, for example:

- innovation and technology policies, e.g. support for research and development, long-term investment and green technologies;
- industrial policies, e.g. small and medium-sized enterprise (SME) development policies, competition policies, market surveillance and socio-environmental standards;

- capacity-building, e.g. regulatory, legal and administrative capacity;
- financial policies, e.g. financial regulation and international banking;
- tax policies, e.g. tax rates and transfer pricing regimes;
- trade policies, e.g. trade facilitation measures and subsidies;

- legal policies on rights, transparency and accountability;
- macroeconomic policies and financial regulation, oriented to increase corporate stability and long-term development;
- education, health and social policies, e.g. training, migration policies, health care, social security, benefits and employment schemes;
- environmental policies, e.g. energy policies, carbon reduction strategies, pollution control, tax and subsidies (European Report on Development, 2015).

> □ *A considerable effort in education and information will be required to overcome inertia in how individuals behave. A severe increase in the awareness of the risks associated with environmental change and a rapid reaction with appropriate policies are indispensable to find a route for sustainable development (Lambin, E., 2014).*

In a global market-space, the corporate responsibility is thus as a sense of the corporation's consciousness towards hypothetical consequences of its planned actions in view on organisation's long-term vitality. For some time, large corporations have operated in network structures to achieve vital economies (procurement, manufacturing, distribution, communication, marketing), targeting the enormous economic-financial advantages achievable by growing economies (supply-driven management) on corporate policies to satisfy demand that focus as a priority on competitive confrontation (market-driven management). In fact, for over twenty years, global markets have imposed a market-driven management strategy on companies.

In recent years, the 2007-2008 world financial crisis, the Coronavirus pandemic economic effects and now the socio-economic impact of the Russian-Ukrainian war all together focused the global managerial economics on paradigms of corporate accountability that supports the 'corporate responsibility' of networks facing a shortage management.

The contemporary global capitalism is facing many challenges, particularly the need of promoting the sustainable growth, dramatically stressed by the economic and financial crisis. In the meanwhile, for the future growth of global corporations the challenge is to conciliate the profitability imperative with a business model compatible with the objective of a sustainable development (Brondoni, 2014; Lambin, 2009).

Actually, a firm is competitive to the extent that its output is able to compete successfully in the global markets. Competitiveness presents indeed many connections with the socio and environmental dimensions. At the same time, the firm's competitive policy can affect the socio-environmental structure, with impacts occurring in both the short and long term.

When analysing competitiveness, in a view of global markets, the relationships between corporations, sectors and countries must also to be taken into account. These relationships can generate trade-off and synergies and that can impact on the

competitiveness of a corporation (Esty & Charnovitz, 2013). Competitiveness is not only about costs and profitability but involves how countries, sectors and firms manage socio-economic and environmental resources to achieve greater prosperity, in both the short and long term (Esty & Sharnovitz, 2013).

Responsible business opportunities can range from local green technologies to infrastructure, innovation and social services. However, since the private sector includes a wide range of organisations with different sizes and characteristics, specific analysis is necessary to investigate how particular economic sectors and companies could be involved in the implementation of the SDGs.

2. Competitive Shortage Management and Sustainable Development

The 'sustainable competitiveness' is focused on the concept that competitiveness in actual global markets should be obtained without compromising the possibility of a tomorrow competitive landscape. It includes critical factors of high-quality growth, resource management, and social development. Within this paradigm, the concepts of social and environmental sustainability are linked to that of competitiveness.

The Russian-Ukrainian war shows an important (and a long-term, probably) factor for the world economy, that will change specifically the European and the worldwide sustainable development (Brondoni, 2022). In addition to COVID-19's and climate change's tremendous impact on global economies, the Russian-Ukrainian war is producing a new major economic shock focusing profits and costs of the biggest global corporations on shortage management policies.

Competitive shortage management policies are quite different from the 'Toyota Lean Production System' (Ohno, 1988). Toyota lean production is a management approach focused on a survival objective, specifically oriented to internal production processes and operations (Shingo & Dillon, 1989). On the contrary, competitive shortage management is market and competition driven, to take advantage of structural resource shortages (Brondoni, 2018).

Solutions for facing a long-term supply shortage include interruption, rationing, and pricing.

Unlike national and international companies, for global companies the first rule of competitive shortage management is not to abandon any market. Corporate profitability must be achieved by maintaining competitive positions in the acquired geographical areas.

Many global manufacturers focused on shortages of semiconductors. The chip shortages are expected to cause widespread shortages of everything, from electronics to medical devices to technology and networking equipment. US automakers and medical device manufacturers have asked the Administration to subsidize construction of new U.S. semiconductor manufacturing capacity. And in response to the shortages, Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest semiconductor manufacturer, has increased its investments. But funding and building a new semiconductor fab is at least a five-year process (Vakil & Linton, 2021).

The global auto industry has been suffering because of the supply chain crisis for more than a year, which emerged due to the Covid-19 pandemic. From the supply chain crisis has emerged the microchip crisis as a major disruption in the auto parts market, and the crisis has been hitting the auto manufacturers.

Several automakers were forced to temporarily pause their production of vehicles in different plants across the world due to the supply chain.

> □ *Toyota Motor Corp began to accept scratched or defective parts during the supply chain crisis. Toyota is a car company famous for its strict quality control. But now Toyota is willing to accept parts that have "minor flaws" but are still "good enough to use". Toyota engineers discussed with component suppliers the feasibility of accepting scratched or defective parts, requiring that the safety and performance of the car are not affected and that the defects are unlikely to be noticed by buyers. However, the company warned that semiconductor shortages were dampening production and increasing material costs, hurting its potential profitability.*

The competitive shortage management is a complex organizational system that requires a strategic approach to its implementation in long-term and profitable policies.

Shortage management must include interruption, rationing, cost control and pricing. In global corporations, policies to manage shortages in a competitive way have to be focused on:

- maximize the product portfolio profitability, identifying the products with a critical demand; determining the strategic value of each product in portfolio and assessing the potential competitive opportunities;
- re-evaluate the supply ordering, maximizing supply orders which contribute to higher margin sales, or which are most likely to satisfy back-orders; evaluating alternative supplies/suppliers or product substitutes; optimizing inventories to reduce cost, or maximize revenue, or improve margins, or finally re-distributing excess stock in the network to other markets;
- competitive differential costs, comparing different level of cost to the differential revenue facing competitive products, determine the most profitable level of production and the best-selling price. Moreover global companies use transfer pricing policies that enable avoiding direct price competition with rival companies, obtaining profit margins through asymmetrical buy/sell relations determined by businesses outside the network and with respect to local economies.
- competitive pricing. Proliferation of supplies which greatly exceed the market's absorption capacity tends to develop specific competitive price policies, linked to the realisation of ever more differentiated supplies (price discrimination) where time is the pre-eminent variable and it is the customer who (more or less consciously) contributes to the 'planning' of the supply.

The depth of the economic crisis, emphasised by the dynamics (both speculative and linked to development, indicates that the competitive vitality of corporations has not been subjected to a strong contingent shock, but reveals structural changes destined to modify competitive relationships in the global markets. Exactly as it did in the early 1970s, during another devastating oil 'crisis', a new competitive level of energy costs is emerging, destined on the relative position of the various countries and on the growth policies of 'big corporations'.

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