# **International Quality Award Models: Innovation Enablers or Inhibitors?**

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**Abstract:** Historical development of models and criteria supporting major international quality awards is driven more by continuous or incremental improvement than by breakthrough improvement. This has been the case in particular relative the most enduring such awards - the European Foundation for Quality Management (EFQM) Business Excellence Award, America's Baldrige National Quality Award for Performance Excellence (MBNQA), and the Shingo Prize for Operational Excellence. In possible contrast are initiatives such as the United Nations Sustainable Development Goals (UN SDGs) and the imputed urgency for improvement, innovation and change associated with these, due in large to the sheer scope and magnitude of change needed – especially with respect to societal or environmental challenges.

While sufficiently rapid iteration across a large enough number of cycles has the potential of rivaling the magnitude of innovation attained through a focus on breakthrough improvement, such an approach is unlikely to precisely match the destination of innovation attained through breakthrough improvement approaches. One significant reason is that incremental improvements often target minor course corrections with well-defined trajectories, whereas breakthrough efforts target larger strides with more mystery between the point of origination and the targeted destination.

Differences in these approaches impact products and services reaching the market in many ways, hence impacting their marketplace performance. Among differences of note are ones in the natures of the product or service brought to market, the timing of their market arrival, the levels of creativity and innovation required, design innovations introduced, consumer receptivity and perception of iteration vs. innovation, perceived impact, consumer perception of the company, and – not to be ignored – risk and reward elements.

Questions explored herein are whether the models and criteria used by international quality award frameworks enable innovation and entre-intrapreneurship, inhibit these, or are innovation and entre-intrapreneurial neutral. Similarly, the impact of the UN SDGs in relation to innovation are discussed.

Keywords: Breakthrough Improvement, Excellence Models, Incremental Improvement, Sustainable Development Goals.

**Advantage:** Significant organizational and global challenges demand innovation. Concurrently, if organizations do not prosper, they are unable to contribute to solutions to such challenges, whether those challenges are economic, environmental, or social in nature. Specific modes of innovation and improvement are discussed, as are potential enablers or inhibitors thereof.

## 1. Excellence Models and Sustainability

In the modern sense, excellence models — also referred to as enterprise excellence, business excellence, or operational excellence, organizational excellence, or performance excellence models were birthed in the late 1980s with the development of America's Malcom Baldrige National Quality Award, the EFQM Excellence Award, the Shingo Operational Excellence Model and other organizational performance-based models such as the balanced scorecard (Kaplan and Norton 1992). Increasingly, these have acknowledged and elevated the role of innovation in driving enterprise performance, so that innovation has become a standard element in organizational strategy, as a key driver of enterprise performance and prosperity (Hertz, Barker and Edgeman 2018; Edgeman 2019). It is worth noting that, relative to the Hertz, Barker and Edgeman (2018) reference that Dr. Harry Hertz is Director Emeritus of the Malcolm Baldrige National Quality Award program for the US National Institute of Standards and Technology, US Department of Commerce and Shaun Barker is a long-time architect of the Shingo Operational Excellence Model, while Rick Edgeman served as the first research director at the Shingo Institute — home of the Shingo Prize for Operational Excellence.

The possible exception in the prior list is the Shingo Operational Excellence Model emphasizing lean enterprise methods and drivers. Lean enterprise approaches tend to favor incremental improvement, and hence generally smaller but more numerous steps forward, wherein the likelihood of radical course corrections are small and larger, (radical) innovation driven changes are rarer (Edgeman 2020a).

The modern sustainability movement arose at about the same time as the enterprise excellence movement, with a key early development being the sustainable development definition established by the Brundtland Commission:

Development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs. (Brundtland 1987).

Subsequent seminal sustainability works include the tome *Cannibals with Forks* by Sir John Elkington (1997) that popularized the concept of triple bottom line performance (economic profitability, environmental quality, and social justice), along with works introducing natural capitalism (Lovins et. al. 1999), and the idea of the base of the pyramid (Prahalad and Hart 2002). These cemented the applicability of sustainability to comprehensive business performance, with the criticality of innovation to both sustainability and business performance – especially strategic innovation at the base of the pyramid – further established in works by Anderson and Markides (2007) and Hart and Christensen (2002).

Increasingly, sustainability models and measures have come to resemble enterprise excellence models and their integration yielded sustainable enterprise excellence models (Edgeman 2013; Edgeman and Eskildsen 2014). Early arguments for integration were offered by Edgeman (2000, 2001) and Edgeman and Hensler (2001), with significant progress toward rigorous quantitative modeling and analysis developed by Hensler and Edgeman (2002) and Edgeman and Hensler (2005).

## 2. United Nations Sustainable Development Goals

The 2030 Agenda for Sustainable Development, adopted by <u>all</u> United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are 17 Sustainable Development Goals (UN SDGs). These are an urgent call for action by all countries - developed and developing - in a global partnership. The UN SDGs fundamentally recognize that ending poverty and other human deprivations must be compatible and aligned with strategies that improve health and education, reduce inequality, and spur economic growth. Conjunctively and concurrently with these, climate change and preservation of earth's biosphere – its oceans, forests and air – must be vigorously addressed (Plummer et. al. 2020).

The UN SDGs can be seen graphically in Figure 1. Each of the 17 goals has a number of associated targets – 169 in total – so that there is far more to each goal than meets the eye. Additionally, each goal has an intended interpretation so that the nations, organizations, and individuals interesting in advancing progress toward one or more of the goals should direct close attention to resources provided by the United Nations. See: <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a> It is important to note that the goals are integrated, meaning that actions with impacts relative to one goal are likely to impact other of the goals.

The UN SDGs are briefly summarized in Table 1. While many logical groupings of the UNSDGs can be identified,

Table 1 indicates one such set of groupings that aims to multiply the impacts of the goals (Abundant Earth Foundation 2023) by noting selected embedded themes or synergies.

These groupings – each of which requires varied forms or combinations of social, environmental, and technological innovation can be explained as follows (Abundant Earth Foundation 2023):

Reducing overall inequality (group 1) within and among nations is reliant on reducing poverty and dependence on external food sources, and on ensuring that no one is left hungry. Poverty elimination requires elimination of hunger and, therefore, inequalities. Globally, approximately 700 million people are under-or-malnourished, and this population is expected to increase this. To combat this, focusing on tackling poverty is the most critical step towards achieving SDG 2 and 3.

Good health and wellbeing depend in large on pollution reduction or elimination. Globally, approximately 22 million people die each year from soil, water, or air contamination and pollution (Edgeman, 2015; Edgeman and Wu 2015). Clean water, sanitation, and affordable clean energy are crucial to reducing premature death. Air pollution from fossil fuel combustion killed over 8 million in 2018, causing increased disease rates, and decreased quality of life. Water pollution caused 1.8 million deaths in 2015. To promote good health and well-being, we must reduce death and contamination of the air, soil and water by shifting away from use of chemicals, plastic, and pollutants toward implementing affordable infrastructure that promotes clean water and energy. Reducing reliance on and use of fossil fuel in turn reduces petrochemical use, oil spills, and contaminated wastewater.

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Strong institutions promote sustainable development and protect human rights. Attainment of justice requires emphasis on sustainable growth and the right of people to work for industries that provide safe and secure environments and employ sound safe practices. Economic growth must not come at the expense of peace and social justice. Access to reliable and accessible infrastructure is key to resilient, inclusive, and sustainable societies.

Gender equality cannot be achieved without ensuring quality education for all women and girls around the world. Equal access to education is central to fostering women's rights. Enrollment numbers can give the illusion of gender equality when in fact the quality of education provided is also critical, so that disparity of quality and access across genders must be addressed. Women and girls must be safe from gender-based violence and must have access to education tailored to ensure their safety and prosperity.

Cities and communities must collaborate, protect each other, and partner to ensure sustainable development and ethical consumption/production across borders. Collective natural resources can be used sustainably and to streamline supply chains through networks of resilient and safe cities and communities. This collaboration can work to promote fair trade, partnerships, strengthen voluntary commitments, and enhance capacity development.

Climate action encompasses protecting all life, both on land and below water. Effective mitigation of the effects of climate change requires understanding that all human, ecological, and planetary systems are interconnected and therefore cannot be separated from each other. By working to take urgent action on climate change, we must use our water sources respectfully to ensure not only human survival but the survival of all marine ecosystems and resources. Further, climate action is dependent on using our common land resources sustainably, while working to restore and protect land, water, and other resources and environments that have already been degraded.



Figure 1: United Nations Sustainable Development Goals (UN SDGs) (https://sdgs.un.org/goals)

**Table 1. United Nations Sustainable Development Goals Organized into Impact Groups** 

GROUP 1: REDUCING OVERALL INEQUALITY		<b>GROUP 4: EQUALITY THROUGH EDUCATION</b>	
GOAL 1	No Poverty	GOAL 4	Quality Education
GOAL 2	Zero Hunger	GOAL 5	Gender Equality
GOAL 10	Reduced Inequalities		
GROUP 2: ACCESS TO SAFE CONDITIONS		GROUP 5: SUSTAINABLE PARTNERSHIPS	
GOAL 3	Good Health & Well-Being	GOAL 11	Sustainable Cities & Communities
GOAL 6	Clean Water & Sanitation	GOAL 12	Responsible Consumption & Production
GOAL 7	Affordable & Clean Energy	GOAL 17	Partnerships for the Goals
	GROUP 3: SUSTAINABLE GROWTH	G	ROUP 6: HOLISTIC CLIMATE ACTION
GOAL 8	Decent Work & Economic Growth	GOAL 13	Climate Action
GOAL 9	Industry, Innovation & Infrastructure	GOAL 14	Life Below Water
GOAL 16	Peace, Justice & Strong Institutions	GOAL 15	Life on Land
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It is now well-established that innovation is a key driver of progress toward meeting UN SDGs (Cordova and Celone 2019; Walsh et. al. 2020; Zhou and Etzkowitz 2021).

Given that the UN SDGs or their close relatives are embedded in essentially all modern sustainability models, the interconnectedness of sustainability and innovation are evident. Further, the magnitude of challenges that humanity faces mandate rapid and significant change, with such change almost inevitably requiring innovation.

## 3. Integration

When one visits a physician, often they want to know what their current state is, and how to improve that current state so that it eventually becomes a better future state. The same is often true of nations, communities, networks, or organizations.

This is typically driven by core values or conditions that inform strategy. Strategy must then be transformed via policies, practices, processes and the like to produce results and their impacts.

This implies that "results" are "end of the pipe" or that "what goes in governs or influences what goes out". In other words, strategy influences results (performance), though of course strategy must be deployed. If specific performance is desired, then corresponding strategy should be developed and deployed.

The preceding description is analogous to that of an excellence model, wherein one such model that represents a high-level sustainable enterprise excellence model is provided in Figure 2, below. What is desired is "triple bottom line performance", implying that corresponding "triple top line strategy" must be formulated and subsequently deployed (Edgeman, Eskildsen and Neely 2015).

What is seen, then, is that innovation must play a prominent role in triple top line strategy – at least if the sort of performance desired includes progress toward UN SDGs. The innovation desired should include innovation for sustainable results and, in addition, innovation efforts themselves should be sustainable. Innovation for sustainable results implies that at least some innovation targets include social and / or environmental ones, whereas sustainable innovation is concerned more with the process and continuity of innovation efforts (Edgeman, Neely and Eskildsen 2015).

#### 4. Innovation in Excellence Models

The most common use of models such as the one in Figure 2 is organizational self-assessment, where self-assessment can be thought of as regular and routine evaluation of all relevant strategies, means of deployment, performance and impact. In many organizations self-assessment is ongoing, but with special emphasis on annual cycles. Such evaluation is generally performed with respect to specified criteria and goals, with key objective of deriving insight into the organization's recent and current performance, and foresight as formulation and deployment of new or revised strategies.

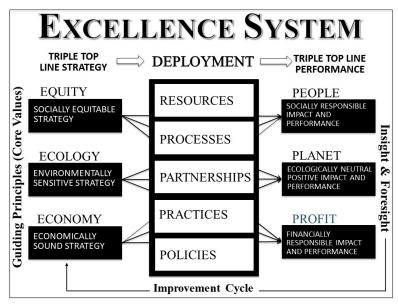


Figure 2: Excellence Model Translating Triple Top Line Strategy into Triple Bottom Line Performance.

In general, this approach can be thought of as an ongoing search for best and next best practices and sources of competitive advantage (Edgeman 2017, 2018) and routinizing these practices to create virtuous behavioral and performance cycles. Though rarely described in such a way, self-assessment is also about identifying and correcting or eliminating behaviors and practices that have created or have the potential to create vicious performance cycles, and transformation thereof into virtuous cycles. (Edgeman et. al. 2020).

## 5. Summary

Sustainability / sustainable development and enterprise excellence have long been on near parallel paths, yet paths steadily in the process of merging – or at least – have been forging significant intersections.

Driving this has been increasing pressure on organizations exerted by governments, consumers, and investors to be more socially and environmentally responsible, along with competitive pressures to be more efficient and better stewards of the resources necessary to make an organization form profitably.

There is a "new" or clearer understanding of "profit" that is emerging – a 4,000 years old one from ancient Judaism that regards profit as that which remains after all obligations are met. Obligations is, of course, the operative word and it is connected to increasing emphasis on social and environmental obligations.

Organizations must – however – be economically sustainable as well, so that the notion of triple bottom line performance is becoming increasingly front-and-center. Innovation is thus seen as a key enabler of triple bottom line performance, that results from development and deployment of associated triple top line strategy, with innovation a critical element in that strategy.

Influential business excellence models such as America's Baldrige National Quality Award, the European Foundation for Quality Management Excellence Model, and the Shingo Operational Excellence Model explicitly integrate innovation (Din, Asif, Awan and Thomas, 2020) innovation. That said, the Shingo Model favors innovation through traditional lean methodologies wherein innovation comes through a series of smaller incremental improvements, whereas the Baldrige and EFQM models favor more aggressive innovation methods that deliver larger results faster (Hertz, Barker and Edgeman 2018). Neither these models nor their principles or criteria explicitly address social or environmental sustainability, though all address economic performance. Relative to social or environmental sustainability, these models tend to take a "do not harm" approach, leaving their explicit consideration to firms making use of these models. In other words, in and of themselves, these models neither help nor hinder progress toward sustainability objectives – instead, they aid organizations in their quests to become better, and hence to pursue sustainability goals more efficiently and effectively, should they choose to do so. Such choices are, heretofore, optional.

Importantly then, is incorporation of "virtuous targets" into organizational innovation objectives. Exemplary virtuous targets are suggested by the UNGC 10 Principles or the 17 UN Sustainable Development Goals. Advancement of progress toward such targets can be made by intentionally embedding such targets in innovation objectives, and purposefully and routinely assessing whether progress toward these targets is sufficient in both speed and magnitude, and making course corrections as necessary (Coulson-Thomas, 2022; Politis and Grigoroudis, 2022). Doing this via use of an excellence model that fits organizational culture is one means of accomplishing these things.

Innovation is not, however, a key element only. It is essential if humanity is going to effectively address wicked Anthropocene age environmental and social challenges (Edgeman 2020b).

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