

A model for sustainable post-pandemic economic recovery strategy

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Abstract

Study rationale and coverage: The paper explores the essential elements of policy reforms geared towards a sustainable post-pandemic economic recovery, with emphasis on the emerging market economy of the Sultanate of Oman. Despite increasing research on the dramatic effects of Coronavirus disease (COVID-19) pandemic, few studies have focused on strategies to prepare and withstand the next global socio-economic crisis. Covid-19 is a deadly infectious disease caused by the SARS-CoV-2 virus. Since its discovery in 2019, more than 250 million covid-19 cases have been recorded globally, while the disease has killed about 5,145,032 people as of 19 November 2021. **Objectives:** Given the recent uptick in vaccination rates and the anticipated gradual return to normal life, this study aims to leverage emerging knowledge, ideas, and insights to develop a strategic management model towards ensuring a sustainable post-covid-19 economy. **Methodology:** The exploratory research design has been adopted. This includes

a survey of the concerning literature and analysis of insight-stimulating examples of socio-economic policy reforms that hold high prospects for a better future. The analysis is based on published records and statistics gathered from national and international sources, as well as reports from leading research scholars, universities, and economists. **Results:** The paper provides new evidence of the evolving opportunities and risks associated with a post-pandemic green economy anchored on priority sectors, notably, smart manufacturing, tourism, agriculture/fisheries, logistics, health, education, mining, and renewable energy. Continuous innovation, digital transformation policy, investor-friendly environment, strong local supply chain, coupled with strong, agile, and resilient inclusive economic diversification development plan, are observable emerging key essentials for a sustainable post-pandemic future. **Significance:** The dramatic impact and unforeseen ramifications and disruptions of Covid-19 on global economies are arguably worse than what the world experienced during the last 2007/2008 global financial crisis. The implications for crisis management policy and practices are documented and deserving of further scientific investigation.

Key words: *COVID-19-crisis management, digital technologies, dynamic business environment, strategic management, Oman's Job Security Fund (JSF)*

JEL Classification: *L6, L52, L71, L78*

I. Introduction

The COVID-19 pandemic has forced many countries across the world to embrace a wide range of socio-economic interventions to protect citizens from the disease and its negative effects on their wellbeing. Among the measures taken include lockdowns, health care experts, various apps, and digital services for surveillance, contact tracing, testing and vaccination. Despite the growing body of studies, the (COVID-19) pandemic, very few studies have focused on strategies to prepare and withstand the next global socio-economic crisis (Meijer and Webster, 2020; Calton *et al*, 2020; James *et al*, 2020; Shu Wei Ting *et al*, 2020; Whitelaw *et al*, 2020). As countries continue to deal with this deadly disease, further research needs to critically examine the essential elements of policy reforms geared towards a sustainable post-pandemic economic recovery, especially in the emerging market economies like Sultanate of Oman pursuing a long-term, sustainable, diversification strategy.

Crises are commonplace, and perhaps seen as predictable surprises (Watkins and Bazerman, 2003). Crises produce unintended impacts; they often from management decisions/indecisions, human errors, oil spills, global financial and sovereign debt crises, climate change storms, earthquakes, and flu, Ebola, and other pandemics seen in global history. While some countries including Oman have begun to lift some of the restrictions, allowing more services to be available to the public in-person, the latest news of further outbreak/wave of the disease in parts of Europe underscore the importance of continuous scientific research into this deadly phenomenon. The concerning question would be: not only how countries manage these crisis moments, but what happens post-COVID? What special management skills to leverage towards ensuring the sustainable physical and socio-economic wellbeing of the citizens, their families, schools, and businesses, now and into the future? What could be the proper role of emerging technologies such as IoT, AI, ML, and robots in management of national cum global crises such as the COVID-19 pandemic? Informed answers to such questions require a robust, collaborative-longitudinal research into systematic measurement and understanding of global pandemic crisis management and strategy effectiveness.

Study Objectives

This paper was designed to provide the essential elements of policy reforms geared towards a sustainable post-pandemic economic recovery, with emphasis on the Sultanate of Oman. The following are the specific study objectives: (1) to find out the strategic approaches towards a sustainable post COVID-19 pandemic future. and (2) to identify the essential elements of a post pandemic economy.

Significance of the Study

Researchers have noted the lack of systematic review of how countries across the globe manage through the COVID-19 crisis (Meijer and Webster, 2020). The dramatic impact and unforeseen ramifications and disruptions of Covid-19 on global economies are arguably worse than what the world experienced during the last 2007/2008 global financial crisis. The implications for crisis management science, policy, practices, and education would be valuable for policy makers, leaders, managers, researchers, and advanced level business students across disciplines in economics, international business and strategic management.

The paper is divided into five sections, starting with this introduction. Section II highlights the methodological aspects, while Section III presents a global literature review of related conceptual aspects

of crisis management in the context of an ongoing pandemic, while Section IV focuses on the essential elements of the Omani model for a sustainable post-pandemic economic recovery strategy. In section V, the paper ends with some concluding remarks and suggestions for future scope of studies.

II. Methodology

The study was designed to evaluate the critical elements of policy reforms directed at ensuring a sustainable post-pandemic economic recovery, leveraging the strategic options that have emerged in the Omani context. Thus, the exploratory research design has been adopted for this present study. The formative study design is justified by the fact that the COVID-19 pandemic is still ongoing, rather complex global phenomenon, hence the need for open-ended observations, considering different aspects, ideas, and insights of such an evolving socio-economic phenomenon (Kothari& Garg, 2014; Creswell, 2003). One major benefit of this methodological approach is the prospects of generating relevant hypotheses from it. To this end, the study has adopted the research protocol included a survey of the concerning literature and analysis of insight-stimulating examples of socio-economic policy reforms that hold high prospects for a better future.

The purpose of the study revolves around an ongoing pandemic, thus justifying the convenient choice of the study area, the Sultanate Oman, where all the researchers involved in the present study have been resident for more than two years. Additionally, Oman is strategically located in the southeastern quarter of the Arabian Peninsula and covers a total land area of 309,500 square kilometers. The country enjoys 3,165 kilometers long stretch of coastline, which, for many years, provide strategic international trade access to many regions around the world.

The data were gathered from relevant published records and statistics gathered from regional and global digital sources, as well as reports from leading research scholars, universities, and economists. While a flexible design might have underpinned this formulative study, deliberate efforts were made to guide against bias and maximise reliability by ensuring diversity of authorship and a good mix of multiple local and independent global data sources.

III. Towards a sustainable post-pandemic economic recovery strategy – A literature review

3.1 Dimensions of crisis management.

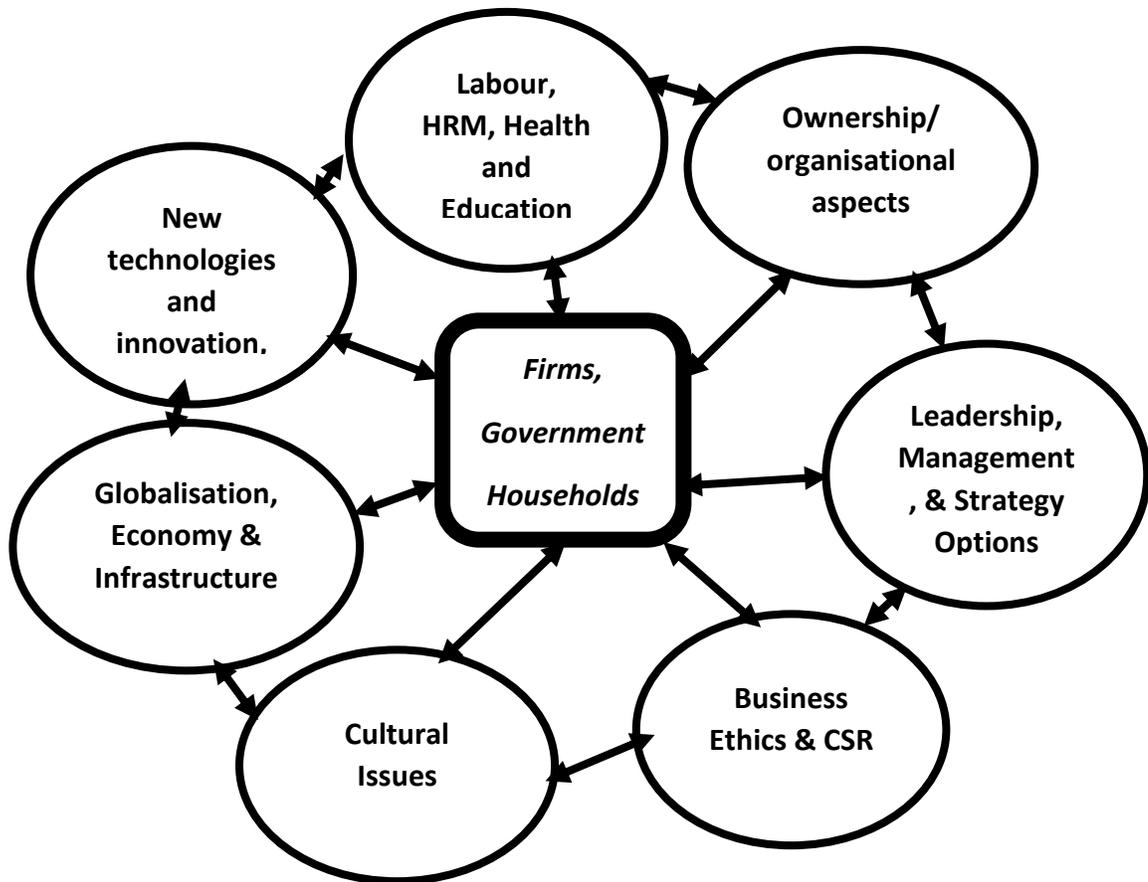
Crises such as the 2007/2008 global financial crisis or the latest COVID-19 global pandemic, are typically overwhelming and destabilising periods of anxiety and stress for the impacted nations, individuals, communities, and organisations (Ajayi, 2009; Hindle, 2008). In the words associated with “The Crisis”, the darkest years of the American Revolutionary cause (December 1776-April 1783), “these are the times that try men’s souls”. (The New Encyclopedia Britannica, 1974, p. 244) From a review of the economics and general management literature (Kharbanda and Stallworthy, 1985; Drucker, 2004), we have the following reflections, among others:

- *Corrective crisis* - Crises can in fact be good for us, in that they keep us keener on searching for solutions, achieve better priorities and live more focused/disciplined lives.

- *Innovative crisis* - Crises often lead to new discoveries and knowledge of how to do things better
- *Recurring/repeated crisis* – If care is not taken, efforts to resolve one crisis often generate further crisis.
- *Man-made crisis* — mismanagement of the economy, the Great Depression of the 1930s, market failure, unfavourable weather conditions, wars, etc.
- *Natural disasters/societal crises* – incidents of drought or pests’ invasion, earthquakes, volcanic eruptions, hurricane, floods, rainstorm, landslides, climate change, youth restiveness, unemployment issues, etc.
- *Organisational/political crises* – bankruptcy, regulatory sanctions/fines, weak corporate governance, reckless spending, inappropriate leadership style, power struggles, poor record-keeping, emergence of disruptive technologies, competition, collapse of buildings, etc.
- *Individual crises* – family/matrimonial disputes, job losses/business failure, self-mismanagement, conflict management issues, failure to observe official rules and regulations, etc.

As shown in Fig. 1, economic agents, firms, households, and governments operate in a continuously changing, complex environment where a variety of forces, factors, conditions, or events (such as COVID-19 pandemic) could cause them to change their behaviours/characters policies, shapes, products, and services. Among the core sources of potential ‘crises’ are health, leadership and management changes, and emergence of new technologies, among others. Any of these forces or events would be a potential source of ‘crisis”, an intense difficulty or challenge that may stretch or exceed your current coping resources or mechanism.

Fig. 1: The context of pandemic crisis management: A model of dynamic business environment



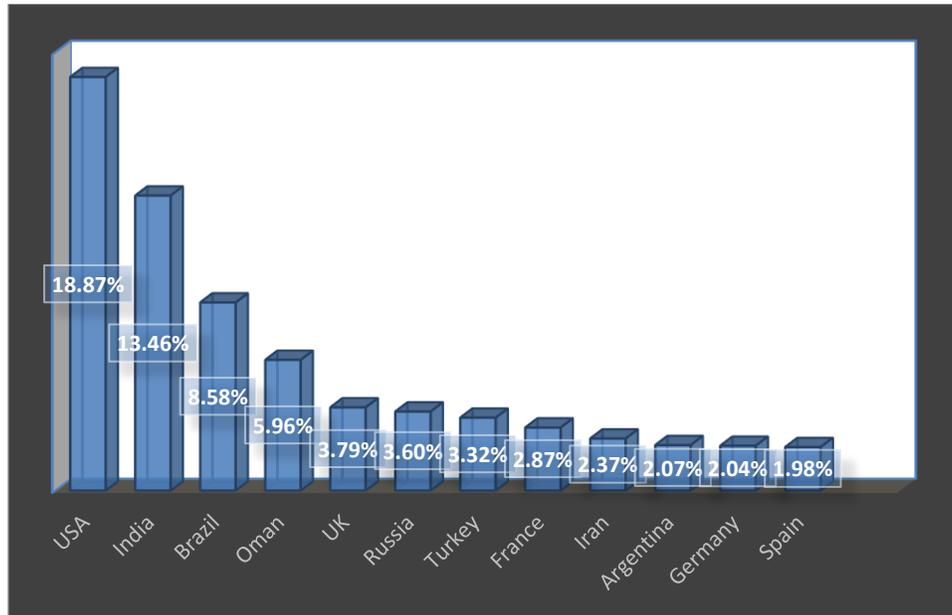
Source: Adapted from Needle (2004)

3.2 Pandemic crisis and leadership effectiveness

Responsible leaders plan, but it is often difficult to be concerned about the next crisis while you are still dealing with the current ones (Rose, 2020). As a former US Federal Reserve chair and professor of economics remarks in the author’s note of his memoir recounting the arguably the worst financial crisis and economic slump in America since the Great depression, “in all crises, there are those who act and those who fear to act” (Bernanke, 2015). An emerging array of research points to the “areas for action,” as in evolving opportunities and challenges associated with a post-pandemic greener economy anchored on priority sectors, notably, smart manufacturing, tourism, agriculture/fisheries, logistics, health, education, mining, and renewable energy. Continuous innovation, digital transformation policy, technology-oriented human resource development (THRD), investor-friendly environment, strong local supply chain, coupled with strong, agile, and resilient inclusive economic diversification development plan are some of the key essentials for a sustainable post-pandemic future.

Through planning, creativity and decisiveness, an economic collapse of unimaginable scale is not only preventable, but a carefully crafted policy response can also yield creative series of programmes that would help to revive an economy and become the model for other countries (Bernanke, 2015).

Fig.2: Coronavirus: Countries Case Distribution – Oman in global context



Source: <https://www.worldometers.info/coronavirus/worldwide-graphs/#case-distribution> 19
November 2021.

Fig. 2 above shows the distribution of COVID-19 cases in selected countries across the globe including the Sultanate of Oman. It is shown that the USA has the highest number of cases at 18.87% of its population. Oman, with a population of 5,106, 626 has recorded 304, 466 corona cases as of 19 November 2021, with 5.96% case distribution, and 4,113 deaths. This raises the question about what might Oman be doing better in the management of the crisis than the more populous countries of USA, India, and Brazil? Still, notwithstanding the relatively low rates reflected for other countries, it is noteworthy of the dynamism of the novel pandemic that, as this article was being completed on 19 November 2021, there are news of a fourth wave of COVID-19 hitting parts of Europe including Russia, Bulgaria, and Romania, and Germany with as high as 65,371 daily cases recorded. [<https://www.bbc.com/news/live/world-59329996>]

In sum, leaders in moments of crisis management need to understand that public opinion is pliable; initially unpopular changes genuinely directed at the social good can gain support over time Such moments need evidence-based, analytic, science-guided leadership. There are emerging psychological tools that effective leaders can deploy to nudge people toward good choices and away from bad choices, while acknowledging public fears (Weber, 2020).

3.3 Are the future “crises” already here?

Scoblic and Tetlock (2020) suggests that every policy is a prediction. They argue that to be helpful, any vision of the future must be connected to the present through imaginative scenario planning and

probabilistic, calculative forecasting. A clear forecast of the future in the long-term can be distilled into actionable short-term steps which are in turn linked to the long-term goals of any nation or organisation. There are emerging operations research (OR) decision-making tools with capacities to reduce “uncertainty” to “certainty”.

In the same vein, Webber (2020) asserts that we are living in a time of crisis, as such, why do we fail to foresee and contain such crises as COVID-19, cyberattacks, terrorist attacks, existential threat of climate change, inequality, systemic racism, and obesity. He argues that in any given crisis the right response is often clear, e.g., wear a mask, burn less fossil fuel, do regular exercise, redistribute income, etc. It is easier to retreat to the familiar comfort of the status quo than to create solutions (perhaps temporarily uncomfortable changes) that make everyone better off.

According to Watson (2012), the future is shaped by our present choices and actions. In this regard, foreign affairs research and other literature (Schaake, 2020; Smith and Browne, 2019; Watson, 2012; Oppenheimer, 2020; Layne, 2020; Scharre, 2019) extensively documents a broad range of ‘future’ global crises, notably: the lawless realm of cyberattacks and drone warfare, climate change, the return of (US-China) great power war, rapid automation intensifying economic turmoil, “killer apps”, smart cities, IoT, AI, remote monitoring, medical data mining, mobile radiation, brain-machine interfaces, space tourism, nuclear terrorism, among others.

3.4 Strengths and opportunities of COVID-19 pandemic management strategies

- i. Strengthening of eGovernment systems across the globe. Barring data privacy concerns, there are prospects for emerging smart cities/urban governance with investments in long-term, real-time machine learning-based data capturing systems and infrastructure.
- ii. Opportunities for continuous innovation, improvements, upgrades to close the gaps between what digital technological solutions promise to deliver and what it often actually delivers. Relatedly, the financial ecosystem needs to shift speedily from “the rot in the system” (Mazzucato, 2020, p. 51) towards value-creating, “non-financial” production, infrastructure and innovation or risk lost opportunities to disruptive, smarter *real* service providers.
- iii. For several years pre-COVID-19 pandemic, citizens had to visit government offices to access public services. The pandemic has pushed many governments to improve existing or create new online services/portals for their citizens not only for medical assistance but for a host of other socio-economic assistance and support services.
- iv. Accelerated development and delivery of online telemedicine solutions as evidenced in Ireland and Singapore (Meijer and Webster, 2020; Calton and Fratkin, 2020).
- v. The increasing reliance of governments on the technological expertise of commercial suppliers of ICT-based solutions. There are reports of firms and civil society organisations working together to provide free digital services such as e-learning/reading and smart working, remote verification of notaries, automated sick-leave letters, etc. (Meijer and Webster, 2020).

In the emerging post-COVID environment, it is imperative to leverage a network of distributed computers in different locations with appropriate algorithms that can guarantee secured and traceable data. In this regard, Shu Wei Ting et al (2020) highlight how emerging digital technologies including the blockchain technology, internet of things (IoT) coupled with the 5G telecommunication networks, big-data analytics, artificial intelligence (AI), and blockchain technology have been deployed in hospitals and clinics to remediate COVID-19 effects. These highly interconnected digital ecosystem facilitates real-time data collection at massive scale, which, when integrated with AI and deep learning systems could help us to better understand healthcare trends, model risk associations and predict critical outcomes.

Whitelaw et al (2020) postulate six domains where digital technologies can be used to ensure pandemic preparedness and response; these are: (i) contact tracing, (ii) Quarantine and self-isolation, (iii) Screening for infection, (iv) Clinical management, (v) Planning and tracking, and (vi) Medical supplies. The researchers also observe that the countries that have maintained relatively low COVID-19 per-capita mortality rates appear to have two broad strategies, notably:

- i. early surveillance, testing, contact tracing, and strict quarantine, and healthcare, and
- ii. the scale of coordination and data management required for effective implementation of these strategies relied on adopting digital technology and integrating it into policy and health care.

However, it may not be enough to have health digital health technology (DHT), such digitization technology needs to be integrated into government-coordinated containment and mitigation processes. The omission of national government-integration/coordination strategy was reported to have made the difference between South Korea that incurred only 0.5 COVID-19 deaths per 100 000 people, and the USA, with three times as many intensive care unit beds per 100 000 people and ranked number one in pandemic preparedness pre-COVID-19 pandemic, has sustained ten times as many deaths per capita (Whitelaw et al (2020)

3.5 Risks, threats and weakness of new digital technologies and the pandemic crisis management

While many governments have developed various apps in collaboration with private developers, (whether centralized database as in China, Australia, Singapore, Turkey, decentralized approach as in Canada, Japan, Brazil, South Korea, UK and US or commercial type as in Kenya) some recent studies (Meijer and Webster,2020; Whitelaw et al, 2020) have noted the following areas of concerns:

- i. The COVID-19 pandemic exposed the weaknesses of many countries' information infrastructure evidenced by lack of high-quality, trusted, and real-time monitoring system to track and predict the spread of the disease, non-interoperability issues, e.g., police-health databases. Often, self-centred political, institutional, and inter-agency rivalry issues hamper the existence of strong nationally oriented MIS (management information system) needed for a robust crisis management.
- ii. AI (artificial intelligence) and digital solutions generally have their positives – increase economic growth, help diagnose and cure diseases, reduce automobile accidents, etc., but facing up to their risks are also imperative (Scharre, 2019). Examples of documented digital

solutions include smart phones apps, dashboards, speaking drones, e-government platforms, among others. The emerging concerns about these digital solutions during the COVID-19 pandemic crisis include ethical/data privacy, data accuracy (e.g., false coronavirus positives), digital divides, among others.

- iii. Amplification of socio-economic and healthcare inequality e.g., Europe has 82% internet usage vs. 28% in Africa, Brazil had 50 million people that had no access to the Internet yet were eligible for certain grants and benefits.
- iv. Government-implemented surveillance and control raising fears about privacy and civil liberties, distrust of the accuracy of the data presented, data sharing and data protection concerns, unclear data responsibilities; for example, in some countries like the US, there is no single trusted source of information (Meijer & Webster, 2020). And some still embrace a theory that the coronavirus was the intentional product of a Chinese lab rather than the scientific consensus that the virus emerged from bats (Weber, 2020).
- v. Limited knowledge of English in which guidelines and information are communicated on many portals would not help citizens living far away in the remote parts of Asia, Africa, and Latin America.

IV. Managing the socio-economic aftermath of COVID-19 pandemic– The Omani context

4.1 Smart industrialization and Sustainable Development Goal (SDG) number 9

Manufacturing has become a key driver of the Omani economy, an oil-based Gulf Cooperation Council (GCC) emerging market. In the context of the present paper, Oman has considerable potentialities to develop the sector around pharmaceuticals, medical instruments, and fragrances for the global markets. Oman is the legendary home of the frankincense trees. Informed by the anticipated shifts in population and geography of markets, and recognition of the critical roles of people and new technologies, the Sultanate has crafted a manufacturing strategy 2040 in collaboration with UNIDO (United Nations Industrial Development Organisation) (Ministry of Commerce, Industry, and Investment Promotion (MoCIIP), 2019). The strategy aims to ensure the achievement of a modern and technologically advanced manufacturing base. The specific objectives include:

- i. Diversification – to diversify the country’s manufacturing into technology and technology-driven activities.
- ii. *People* – to develop unique products focused on improving the health and welfare of people. Oman ranked No 1 in Asia and Middle East on the Numbeo’s 2021 Quality of Life index and No. 10 worldwide for safety and security.
- iii. *Market development* – to expand Omani industry into regional and new markets.

- iv. *New technologies* – to upgrade the country’s manufacturing to ‘state of the art’ technologies, and constantly adapting to the changing needs of the global market
- v. *Integrated Innovation culture (IIC)* – to create an industrial innovation culture, building resilient digital capabilities as they were operationalized at the height of the COVID-19 pandemic crisis– embracing agile strategies with continuous search for the latest digital technologies or finding new ways to reach out and service customers better; integrated innovation conceived in terms of product innovation, institutional innovation, and process innovation.

It is noteworthy that the country’s manufacturing sector’s strategy converges with SDG number 9 (“industry, innovation and infrastructure”) of the global SDGs, as well as the 2040 education strategy and 2050 health strategy, while also building on Oman’s logistics strategy 2040 and tourism strategy for citizens’ wellbeing. Evidently, the country realizes that extensive measures in technology, research, and skills along with clear-headed strategy are crucial elements to achieving sustainable industrialization (MoCIIP, 2019, p. 11). A notable example of this is the Sohar port and economic free zone strategically positioned as a fast-growing industrial logistics and manufacturing hub, providing deep-sea port, airport, and planned railway network. The country is ranked the 6th most efficient port out of 351 other ports in the world handling container vessels (Al Yousef, 2021).

4.2. People-centred national strategic management – The Omani context

The management of the economic aftermath of COVID-19 is not just focused on protecting people’s health but seizing on the opportunity to develop new policies and initiatives that safeguard livelihoods and help businesses pull through the pandemic sustainably (Al Yousef, 2021). Some of best-known measures in the Omani context include:

- i. *Change management* - Embracing change and rising to the challenges of a rapidly changing global business environment by developing measures to support post-COVID-19 recovery and boosting Oman’s competitors. This includes the development of pro-enterprise economy, productive, hi-tech, prosperous, globally competitive, and sustainable.
- ii. *Strategic development* The Oman’s Vision 2040, the Sultanate’s long-term, knowledge-based economic and geographical diversification strategy., including a resolute commitment to improving the country’s business appeal, competitiveness, and ease of doing business initiatives.
- iii. *ICV supply chain* - Oman’s Economic Stimulus Plan (ESP), MTFP (medium term fiscal plan) 2020-24, and 10th Five-Year Development Plan 2021-25, including a commitment to dealing with unfair business practices, ensuring safety, efficiency, green awareness and sustaining ICV (in-country value) through strong local supply chain embedded in Oman’s logistics strategy 2040. This is especially crucial for the retail, hospitality, and leisure sectors whose supply chain fragility was exposed worldwide during the Coronavirus pandemic.

- iv. *Socially relevant innovation (SRI)* - Policy reforms, fiscal changes geared towards socially relevant innovation and sustainability such as Omanisation, skills training and development, and digitization of human resources management (HRM) exemplified by Job Security Fund (JSF).

4.3. Strategic application of the Public-Private Partnership (PPP) initiatives – Omani examples

The COVID-19 pandemic has made governments across the globe to realise how important it is to collaborate with the private sector in several critical dimensions of crisis management, notably, management of information, publishing guidance to the citizens, closely monitoring citizens in the public space to avoid worsening the crisis, and crafting further innovative responses as in Coronavirus dashboards, apps, etc. (Meijer and Webster, 2020). Oman maintains strong Public-Private Partnership (PPP) system that embraces forward-looking collaborative, inclusive problem-solvers. Appendix 1 included at the end of this paper displays evidence of selected PPP initiatives and measures taken to aid post COVID-19 economic recovery. Some of the notable public sector strategy implementation stakeholders include Oman Vision 2040, Ministry of Commerce, Industry, and Investment Promotion (MoCIIP), Oman Investment Authority (OIA), OMRAN, Oman Ministry of Tourism, Oman Convention and Exhibition Centre, SME Development Authority, and Oman Chamber of Commerce, among others.

It can be deduced from all the preceding review in this paper, that strong, decisive forward-thinking, people-centred leadership coupled with clear-headed approach to ensuring sustainable economic efficiency (e.g., putting public finance/expenditure on sustainable path), reducing bureaucracy supported by digital technologies and increasing non-oil exports and creating attractive business environment attractive to foreign investments, all form the essential pillars for Omani post-COVID-19 economic recovery strategy.

V. Conclusion and Implications

This paper attempted to provide the essential elements of strategies for ensuring a sustainable post-COVID-19 pandemic economic recovery, drawing from an overview of the emerging market economy of the Sultanate of Oman. The study was motivated by the sparse academic research on focused on national/regional strategies to prepare and withstand the next global socio-economic crisis. In general, this paper has gone some way to validating the extant research on the emerging socioeconomics of COVID-19 pandemic crisis (Meijer and Webster, 2020; Calton *et al*, 2020; James *et al*, 2020; Shu Wei Ting *et al*, 2020; Whitelaw *et al*, 2020), by providing further evidence of the evolving opportunities and risks associated with a post-pandemic future of which new communication and information technologies would likely continue to be a major driver.

One conclusion is that governments must look to the long-term – governments and leadership at every level need to ensure the creation of investor-friendly environment including strong local supply chain, coupled with strong, agile, and resilient inclusive economic diversification development plan, as key essentials for a sustainable post-pandemic future.

The second conclusion is the need to be well prepared in advance. In this regard, successful economies of the future will be those that prepare adequately for a greener economy anchored on smart manufacturing, tourism, agriculture/fisheries, logistics, health, education, mining, and renewable energy

to ensure sustainability. Management scholars and professionals familiar with the principles of crisis management will understand the overarching value of developing effective communication strategies for good crisis management (Register and Larkin, 2002; Watkins and Bazerman, 2003). Thus, the corollary implication from this study, underscored by several emerging studies (Calton *et al*, 2020; James *et al*, 2020; Shu Wei Ting *et al*, 2020; Whitelaw *et al*, 2020) is the imperative for developing forward-looking policies that emphasises continuous innovation, embracing change and new technologies while keeping close eyes on the associated risks and privacy concerns, as identified in this paper and previous studies, notably Meijer and Webster (2020). Following the recent Conference of Parties (COP) 26 global agreement in Glasgow, crisis management strategies that prioritise the protection of people, infrastructure ecosystems and society become even more imperative than ever before.

In sum, crises are commonplace and predictable surprises (Watkins and Bazerman, 2003). Times of crisis are moments that require special management skills to leverage existing national and international resources, competencies, strengths and opportunities, as demonstrated in the Omani context. But such moments as many countries still find themselves in the COVID-19 conundrum today, also require continuous research, review, and development of robust, trusted, evidence-based approaches to confronting potential and real weaknesses and threats to the sustainable physical and socio-economic wellbeing of the citizens, their families, schools, and businesses.

Scope for further study

The nature of the COVID-19 pandemic makes the urgency of knowledge dissemination an imperative academic engagement. This is important to produce evidence-based policies and strategies for dealing with similar future crises. Yet, the present contribution is an explorative review that requires further studies to validate and extend its findings. Three research areas are apposite:

- (i) In the light of the emerging Post-COVID-19 pandemic realities, future studies may include rethinking the scope of crisis management practice, education, training, and curriculum development.
- (ii) More robust, longitudinal research may be considered to enhance knowledge of the relationship between global pandemic crisis management and national economic management strategy effectiveness.
- (iii) Further empirical investigations, expert reports, causality studies and evidence-based commentaries are needed on how to close the societal inequalities gaps opened by the emerging technologies such as IoT, AI, ML, and robots.

Endnotes

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Appendix 1: Selected measures taken to aid post-COVID-19 economic recovery in the Sultanate of Oman

S/N	Initiative	Impact
1	<p>“Visit Oman” – Oman’s digital travel booking gateway aimed at communicating with global tourism supply globally and to increase post-COVID-19 inbound tourism</p>	<p>With the skies beginning to open, there are huge prospects for enhancing revenue generation and sustainable economic and social development.</p>
2	<p>“Invest Easy” Investment Promotion initiative – Investors can obtain approval for more than 1,500 different economic activities issued in one single document that includes all licenses and approvals from ten leading Omani authorities.</p> <p>“Invest in Oman” portal – listing of potential investment opportunities (e.g., Oman is home to food, metal, fragrance, cable, battery and marble brands) for international investors from public and private sectors.</p> <p>-Development of world-class industrial estates, free zones, ports</p>	<p>The number of industrial licenses approved by MoCIIP has increased from 9,161 in 2019 (pre-COVID-19) to 12,176 in 2020, that is a 33% increase.</p>
3	<p>Various sectorial strategy blueprints - examples: Oman’s Logistics Strategy 2040, Oman’s Education Strategy 2040, Oman’s Manufacturing Strategy 2040</p>	<p>Prospects for enhancing the economic diversification and strengthening of the priority sectors, logistics, manufacturing, education, etc.</p>
4	<p>Economic Stimulus Plan (ESP) and Job Security Fund (JSP)</p>	<p>Offering interest-free emergency loans, tax and fee reductions, and waivers, flexibility to pay taxes in instalments</p>
5	<p>Central Bank of Oman’s initiative</p>	<p>Providing lower interest rates and liquidity injections, deferred loan payments, and relaxed requirements on capital buffers and liquidity ratios, thereby stabilizing the critical sector that is the banking and financial system</p>

6	Medium term fiscal plan (MTFP) 2020-2024	MTFP 2020-2024 refined to control the budget deficit and achieve fiscal balance
7	<i>“Think, Buy, and Eat Local”</i> launched in December 2020	Changes in consumer behaviour towards localism, supporting each other and creating a sense of self-reliance among the citizens.

Source: Authors’ synthesis from diverse published sources (November 2021)