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Remodeling Economy towards Sustainable Society and Sustainable Development: The Role of Financial Literacy, Digital Literacy, and Sustainability Literacy

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Abstract

Economic growth and sustainable development are being very fundamental concepts among economies in advancing and globalising world. Since 2016, the achievements and recognitions for being progressive on global bandwagon towards Sustainable Development Goals are seems to be rewarding. Unfortunately, the recent pandemic Covid-19 has reshaped the world and has had significant social and economic repercussions for the global economy. It is deemed crucial to pertinently explore and analyse what should be done to ensure the economy is restored and start moving towards a sustainable development. The current state of pandemic and global economy shows that people are experiencing the delicacy of unsustainable development. Transformations towards a new norm should be preceded by a holistic economic, social, and environmental model that integrates the new economic interdependence segment between sustainable societies and sustainable development. Sustainable societies require the ability and capability to respond to the multifaceted difficulties confronting society today. Three key dimensions of literacy, namely, financial, digital and sustainability, would indeed play an important role in creating resilient and sustainable societies. Thus, this study proposes a framework by integrating the financial literacy, digital literacy, and sustainability literacy with Sustainable Development Goals (SDGs) transformation framework as to offer a comprehensive and systematic process of remodeling economy towards sustainable development. This study is merely based on content analysis and reflective thinking. More in-depth studies using an empirical research method on the three dimensions of literacy by correlating them with various dimensions of sustainable development, are essential. Assessing the right elements in right ways may contribute to a reliable and valid outcome for the world to bridge the practical gaps as well as knowledge gaps in the domain of sustainability.

Keywords: Sustainable Society, Sustainable Development, Financial Literacy, Digital Literacy, Sustainability Literacy

Introduction

Since 1870, the world economy has seen 14 global recessions (Kose & Sugawara, 2020) and has gone through about 15 flu pandemics in the past 500 years (Whiting, 2020). The trending economic fact is that the recession caused by Covid-19 is the worst in terms of its impact on world economy since the second World War. The impacts and challenges of this pandemic wouldn't be possible to be compiled fully yet, simply because the pandemic hitting the globe from various facets, forms and magnitudes.

Today, people worldwide battling the Covid-19 pandemic, more than a year with struggles and constrains. By capturing and flipping the incidents and catastrophes that happen in recent days into black and white, we could visualise what happened back in 1918. In 1918, the Spanish flu pandemic has reshaped the world at that point of time, killed more than 50 million people, and infected one-third of the world's population. The pandemic lasted for 15 months, affected every part of the world and major cities (Whiting, 2020). Today, the history repeats in the form of Covid-19, spreading and changing people's life throughout the world. Despite of various predictions and measures taken to overcome the pandemic, new waves and variants of the virus have distresses people globally. Developing countries like Malaysia, Thailand and Indonesia were stuck in between their efforts to curb the pandemic and various existing commitments and policies envisioned to be a high income nation. Along with these, several prominent global and national agendas and efforts such as Sustainable Development Goals, Industrial Revolution 4.0, and Digital Revolution were also disrupted.

World Health Organization (WHO) recommended each country to gauge its threat and promptly execute the appropriate actions and measures which include their National Deployment and Vaccination Plans in order to curb both Covid-19 spread and the socio-economic impacts (World Health Organization, 2021). WHO continuously playing a vital role in outlining and updating critical preparedness, readiness and response actions for Covid-19 as an interim guidance for nations worldwide.

Problem Statement and Research Objective

In accordance to the concern to save the people and earth, resilient and sustainable societies are being extremely crucial in order to reform the nation and the world by tackling the correct key drivers and instigating proper measures. This is why the survival of people in current scenarios of Covid-19 pandemic is often being related to the level of awareness, attitudes, behaviors with their prompt and prudent response towards uncertainties. Despite of having ample studies on the impact of Covid-19 on various aspects and contexts, this article concerns more about nations and societies globally for being unsustainable during this pandemic. Thus, it's timely for a global paradigm shift towards a holistic and intergrated model, assessing and safeguarding societies worldwide to have a substantial level of literacy in relevant domains for survival during crisis or pandemic. The main objective of this article is to propose a framework by intergrating the financial literacy, digital literacy, and sustainability literacy with Sustainable Development Goals (SDGs) transformation framework as to offer a comprehensive and systematic proress of remodeling economy towards sustainable development.

Review Method and Strategy

This study is done based on content analysis through a systemic analysis of scientific literature, perceptions, and interactions at formal platforms such as seminars, workshops and short courses related to sustainability. The main goal of this analysis study is to observe the attributes and potentials of three key dimensions of literacy, namely, financial literacy, digital literacy, and sustainability literacy in driving towards sustainable society and sustainable development. The related articles were found in Google scholars database, with the keywords used; 'sustainable', 'sustainable development', 'sustainable society', 'financial literacy', 'digital literacy', and 'sustainability literacy'. Relevant websites are used to extract global reports and surveys published by international organisations such as The World Bank, International Monetary Fund, and World Health Organisation.

This study consists of two major parts. In the first part, the scope of systematic review covers information ranging from the impact of Covid-19 to the extent on how it impacts the Sustainable Development Goals. Second part involves the composition of three domains of literacy (financial, digital and sustainability) followed by the construction of an integrated framework by highlighting the role of three domains of literacy in remodeling economy towards sustainable society and sustainable development.

Review on Impact of Covid-19

Coronavirus or Covid-19 spread from Wuhan, China into other part of the world since early year 2020. Since trade, tourism, travel, and internationalisation have been connecting nations and peoples all over the world, the spread of Coronavirus (Covid-19) as an infectious disease has accelerated. WHO declares a public health emergency of international concern on 30 January 2020. Subsequently, based on the increase number of cases of Covid-19, WHO characterized this as a pandemic on 11 March 2020. The number of cases started increasing rapidly on a global scale, followed by a radical contraction of economic activities by mid year 2020. Most of the affected countries enforced stern lockdown measures in the first half of 2020 in order to contain the virus and protect vulnerable community and economic sectors. In the context of the immediate mitigating measures by affected countries, there were differences in lockdown strategies and financial stimulus packages attempted by the respective government due to several reasons such as the consideration between essential and non-essential sectors to be functioned, national budget, and the trend of Covid-19 cases.

Lockdown aimed to control the movement of people in order to break the chain of Covid-19 transmission, however it has caused the economy to slowdown. Basic macroeconomic indicators such as Gross Domestic Product (GDP), unemployment and productivity has indicated the slow-down trend on global scale. It's actually not a strange occurrence to have a downward trend indicators during the crisis, but the Covid-19 pandemic has pushed economies into a Great Lockdown, which helped contain the virus and save lives, but on the other hand has triggered the worst recession since the Great Depression in 1920 (International Monetary Fund, 2020).

According to the World Economic Outlook forecast, the global economy growth which was projected to decline by 4.9 percent in 2020 and to grow by 5.4 percent in 2021 (International Monetary Fund, 2020), has its latest projection of growth at about 5.5 percent to 6 percent in 2021 and 4.4 percent in 2022 (World Bank, 2020; International Monetary Fund, 2021). However, the strength of the recovery is highly uncertain across nations globally and it's strongly influence

by the pandemic waves, healthcare system and vaccination policies as well as the financial credibility of the respective countries. This has been triggering much concern among people about the future challenges from various perspectives.

It is essential to understand two most fundamental trends in the global economy, which can be illustrated by a simple sketch of the economic or business cycle (Figure 1). The turning points in the global or national business cycle are often identified and analysed using a statistical and a judgement approach (Kose, Sugawara & Terrones, 2020).

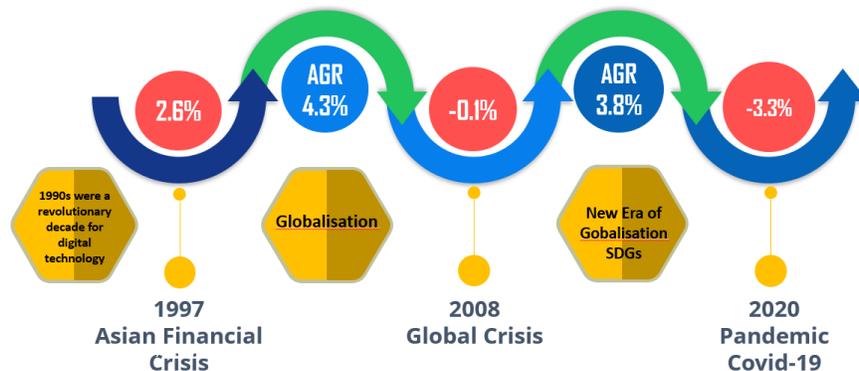


Figure 1: Global Business Cycle, 1990 - 2020

Based on the global business cycle shown above, the first fundamental trend is that, every ten to eleven years, there have been crises occur for some reason and then drive the economy into recession. Based on Figure 1, the Asian financial crisis in 1997 which caused by currency depreciation in Thailand, Malaysia and other Asian countries, has contracted global real GDP growth rate to as low as 2.6 percent. Similarly, in 2008, global financial crisis which emerged in Western countries, eventually affected other parts of the world, because there were large scale trading between emerging countries and developed countries such as US and Japan, and it brought the global real GDP growth fall by -0.1 percent. In 2020, the Covid-19 pandemic slowed down the economic growth, remarking the growth rate at -2.2 percent by emerging market and developing economies, -4.7 percent by advanced economies and overall the world real GDP growth rate at -3.3 percent (International Monetary Fund, 2020).

The second fundamental trend in business cycle is that, every recession has been followed by recovery and this recovery has accompanied by a new era, economic transformation or new economic model. As shown in Figure 1, the 1990s were a revolutionary decade for digital technology, was an ultimate era or phase of tremendous global economic development. However, it then travels along with the Globalization era, driving the world towards borderless avenue, and eventually the New Era of Globalization and the Sustainable Development Goals (SDGs) emerged after the 2008 global crisis.

A brief analysis of these trends shows that every downturn or challenges eventually being turned upward and into various opportunities. Referring to the current Covid-19 pandemic, would it be possible to gain similar opportunities in near future? This seems to be a common question that bothering millions of people globally. However, to acquire the answer for this

question, there are two scenarios to be observed. Based on the first scenario, there are groups of community feeling uncertain while answering question on possibilities of future opportunities simply because they have no idea, literally due to the fear or anxiety caused by the pandemic. Many previous crises have witnessed people losing their confidence, job, income and even resources, which overtime they fixed it. Adversely, the current pandemic became life-threatening, the lockdown and movement control orders seems to influence their perspectives towards pessimistic. As for the second scenario, people and businesses are moving on an extreme speed hunting for opportunities, it's happening full-fledged at digital platform. This act is phenomenal and people are being optimistic. Being optimistic is absolutely fine, but the awareness on safety and preventive attitude in the midst of the current Covid-19 outbreak are expected to be penetrated well among people globally right now. In order to survive through the second and third wave of Covid-19 pandemic, understanding the need for a change towards sustainable way of doing things, individually and collectively has become a mandatory for a new norm. In line with this, SDGs are continuously being focused, through a more scrutinized and simplified set of transformation strategies as a guidance throughout this pandemic phase.

Vast studies on impact and current measures for Covid-19 and related issues have been conducted and published on various platforms. The rapidly accumulating scientific and public health knowledge are contributing to an extensive study relating to various economic and development issues among researchers, academicians, NGO, international organisations and most importantly policy makers while formulating various relevant strategies and policies. However, WHO (2021) highlighted the fact that knowledge gaps still exist in terms of understanding the nature and impacts of Covid-19 in various different contexts. Since studies on impact and challenges of Covid-19, which to certain extent uniformly seen in most parts of the world, it is deemed crucial to pertinently explore and analyse what should be done to ensure the economy is restored and start moving towards a sustainable development.

Sustainable Development and Sustainable Development Goals (SDGs)

Sustainability, sustainable development and Sustainable Development Goals are three concepts widely used in recent studies, research and policy agendas. The Report of the World Commission on Environment and Development entitled *Our Common Future*, popularly known as Brundtland Report has adopted and inspired the concepts of sustainability and sustainable development while discovering the trade-offs between socio-economic and environmental wellbeing in the long run (Kuhlman & John, 2010). The Brundtland Report defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Imperatives, 1987). Based on the concern relating to trade-offs and scarcity of resources, Kuhlman & John regarded sustainability as a natural topic of study for economists.

These concepts have become the buzzwords in development discourse (Justice Mensah, 2019) and eventually being recognised broadly at various level and fields as a holistic approach that integrated social, economic, and environmental dimensions to achieve perpetual prosperity. Sustainability and sustainable development are interchangeable terms, commonly used to address the above three important pillars of sustainability, namely, social sustainability, economic sustainability and environmental sustainability (Murray & Cotgrave, 2007; Sartori et al., 2014).

In 2015, the similar concern and ideas to promote prosperity while protecting the planet emerged. This was a call for action by all countries, initiated by leaders from 193 countries of the world by setting a universal set of goals to achieve a better and more sustainable future for the world by 2030. The United Nation General Assembly adopted 17 Sustainable Development Goals (SDGs) with 169 targets. Although studies on this global agenda have shown several limitations in terms of measurement, assessment, generalisability, and applicability (Morton et al., 2017; Guan et al., 2019; Justice Mensah, 2019) but in large it has grabbed attention among nations worldwide to move collectively towards solidarity for global sustainability. Sachs et al. (2020) highlighted the concern that despite of SDGs being known as universal framework for sustainable development, more clarity on how to operationalize and track progress towards the 17 goals is required by each country in the world, to acquire better outcomes. As a result, six SDG transformations were introduced in the form of an integrated and holistic framework, with the recognition that these six key social transformations can be used to achieve all 17 SDGs. The Six SDGs Transformation framework includes (1) education and skills, (2) health and wellbeing, (3) clean energy and industry, (4) sustainable land use, (5) sustainable cities, and (6) digital technologies. All these transformation agendas are guided by the twin principles of “leave no one behind” and “ensure circularity and decoupling”.

The SDGs framework has brought the sentiments that every community and individual has a responsibility to work toward eradicating poverty, protecting the environment, and ensuring that everyone has better life in order to realize sustainable development goals (Çimşir & Uzunboyly, 2019). Many emerging and developing countries have continuously embraced sustainable development in their national agenda. Malaysia has been mapping and aligning the SDGs with the five years Malaysian Plans (Department of Statistics, 2018) and with various national agendas and policies, such as the Industrial Revolution 4.0 framework (Ministry of International Trade and Industry, 2018) and Malaysia Digital Economy Blueprint (Economic Planning Unit, 2021). Thailand adopted Sufficiency Economy Philosophy (SEP) which promotes sustainability mind-set and sustainable development. Thailand’s National Economic and Social Development Plan and the 20–Year National Strategy Framework are made aligned with both SEP and SDGs. The country has committed to apply SEP for SDGs in all areas and at all levels (United Nation, 2017). The significant contributions by China towards realising the Millennium Development Goals has created huge potential for the country to move progressively in achieving SDGs. China’s shift from economic development to sustainable development reflects a structural trend that aligns with the SDGs (Guan et al., 2019). According to the Sustainable Development Report 2021 (Sachs et al., 2021), a global assessment of countries’ progress towards achieving the SDGs, Malaysia, Thailand and China attained 70.88 percent, 74.19 percent and 72.06 percent respectively. In terms of ranking, Malaysia ranked 65, Thailand at 43 and China stands at 57 out of 193 countries. The top five leading countries are those from OECD members, namely, Finland, Sweden, Denmark, Germany, and Belgium.

Despite of a wide range of continues efforts and initiatives since 2016, the achievements and recognitions for being progressive on global bandwagon towards SDGs are seems to be rewarding. However, the Covid-19 pandemic has had significant social and economic repercussions for the global economy. The pandemic has challenged and tested various aspect of the credibility and growth of the countries all over the world regardless of their accomplishments of SDGs. It also in a way revealed the strengths and weaknesses of the countries

on their principles and practices of sustainable development. Balanced and sustainable development are essential for an economy to be resilient in a globalised and borderless environment where fragility and volatility may bring economic uncertainty.

Impact of Covid-19 on Sustainable Development Goals

Covid-19 pandemic has had created multidimensional effects on the global economy. The socio-economic, politics, environment, the digital sector, the healthcare sector, and global economic conditions have all been impacted by this health crisis (Pan & Yue, 2021). More than half of the world’s population underestimated the risks and dangers of rapid Covid-19 spread, and the government’s response to the outbreak was primarily reactive (Pak et al., 2020). As the pandemic continues to spread along with uncertain and diverse economic effects on the global economy, the world lags far behind schedule in attaining the 2030 Sustainable Development Goals (United Nations, 2021).

According to the Sustainable Development Report 2020 (Sachs et al., 2020; United Nation, 2021), Covid-19 has had substantial impact on most of the SDGs, as depicted in Table 1.

Table 1: Impact of Covid-19 on Sustainable Development Goals

SDGs		Degree of Impacts	Impacts	Facts & Figures
1	No Poverty	Highly negative	<ul style="list-style-type: none"> Increased poverty due to job losses and economic lockdown Disproportionate impact on vulnerable groups 	An additional 119–124 million people were pushed back into extreme poverty
2	Zero Hunger	Highly negative	<ul style="list-style-type: none"> Food insecurity due to reduction in global food supplies and trade Hunger due to fall in incomes and reduced food availability during lockdown Higher food loss and waste due to transportation challenges and reduced labor availability Poorer nutrition due to interruption of school meals 	An additional 83–132 million people are likely to have experienced hunger as a result of the pandemic in 2020; Almost one third of women of reproductive age globally suffer from anaemia
3	Good Health & Wellbeing	Highly negative	<ul style="list-style-type: none"> Higher disease incidence and mortality Higher mortality from other causes because of overburdening of health systems 	Shortened life expectancy; A lack of data hinders understanding of the true impact of Covid-19; Burden of non-communicable diseases;

			<ul style="list-style-type: none"> • Slight decline in mortality due to reduced economic and social activities • Potential short-term health gains due to lower environmental pollution • Negative impact of confinement and lockdown on mental health 	Health inequalities; Health workers, in short supply in many regions
4	Quality Education	Mixed or moderately negative	<ul style="list-style-type: none"> • School and day-care closures • Loss in the development of human capital 	Slow progress in school completion is likely to get worse.
5	Gender Equality	Mixed or moderately negative	<ul style="list-style-type: none"> • Possible disproportionate economic impacts on women • Other social impacts on women from the lockdown • Higher mortality rates from the virus among men (because they suffer from more chronic respiratory diseases due to higher smoking rate) 	Gender parity remains far off; Violence against women persists; Adding to the burden of unpaid domestic and care work; Squeezing women out of the labour force.
6	Clean Water & Sanitation	Mixed or moderately negative	<ul style="list-style-type: none"> • Limited access to clean water among disadvantaged groups limits possibility of adhering to strict hygiene guidelines 	Billions of people still lack access to safe drinking water, sanitation and hygiene; 129 countries are not on track to have sustainably managed water resources by 2030.
7	Affordable & Clean Energy	Mixed or moderately negative	<ul style="list-style-type: none"> • Slowdown in economic growth contributing to a reduction in energy prices which might increase access to energy but reduce incentives for renewables 	759 million people lack access to electricity

8	Decent Work & Economic Growth	Highly negative	<ul style="list-style-type: none"> • Economic crisis in virtually all parts of the world • Trade disruption • Mass unemployment • Business closures / bankruptcies • Sharp decline in tourism activities • Massive public deficits 	Loss of 255 million full-time jobs; 1.6 billion informal economy workers affected due to lack a social safety net; Economic growth is expected to return to pre-pandemic levels only in 2022 or 2023; International tourism is expected take up to 4 years to recover; An increase in youth unemployment
9	Industry, Innovation & Infrastructure	Mixed or moderately negative	<ul style="list-style-type: none"> • Decline in industrial outputs • Possible nationalization of some industries, and bankruptcies and closures of others • Scientific collaboration to find treatments and vaccine • Accelerated uptake of digital technologies, for e-health, e-education, e-governance, and e-payments 	Global manufacturing production plunged
10	Reduced Inequalities	Highly negative	<ul style="list-style-type: none"> • Disproportionate negative health and economic impacts on vulnerable groups (including refugees and migrants), especially in countries with low safety nets • Loss of jobs of lower-skilled, lower-wage labor 	The average Gini is estimated to increase for emerging market and developing countries by 6%.
11	Sustainable Cities & Communities	Mixed or moderately negative	<ul style="list-style-type: none"> • Rise in urban poverty and vulnerability • Shut down of public transports • Lower access to public / green spaces • Movements of population that vary across countries 	Worsened the plight of slum dwellers.

			<ul style="list-style-type: none"> • Sharp short-term reduction in pollution levels 	
12	Responsible Consumption & Production	Still unclear	<ul style="list-style-type: none"> • Short-term reduction in natural resource use due to reduced economic activity and consumption • Pressure to loosen up regulations on circular economy and postpone the adoption of new measures • Increased plastic pollution 	Developing countries still have vast untapped potential for renewable energy.
13	Climate Action	Still unclear	<ul style="list-style-type: none"> • Short-term reduction in global GHG emissions • Pressure to reduce environmental safeguards • Lack of clarity on environmental investments • Slowdown in economic growth contributing to reduction in energy prices (e.g., oil), which might increase access to energy but reduce incentives for renewables 	125 of 154 developing countries are formulating and implementing national climate adaptation plans
14	Life Below Water	Still unclear	<ul style="list-style-type: none"> • Short-term reduction in threats to marine biodiversity due to reduced global economic activity and consumption • Pressure to reduce marine biodiversity and ecosystem safeguards 	Over 3 billion people rely on oceans for their livelihoods; Over half of marine key biodiversity areas are not protected.
15	Life and Land	Still unclear	<ul style="list-style-type: none"> • Short-term reduction in threats to terrestrial and freshwater biodiversity due to reduced global economic activity and consumption • Pressure to reduce terrestrial and freshwater biodiversity and 	More than a quarter of species assessed by the IUCN Red list are threatened with extinction; The world has lost 100 million hectares of forest in two decades (2000-2020).

			ecosystem safeguards, including biodiversity and ecosystem regulations conventions	
16	Peace, Justice & Strong Institutions	Mixed or moderately negative	<ul style="list-style-type: none"> • Increased pressure on governments to mitigate the health and economic consequences of the pandemic • Pressure to increase accessible health care in countries that have not yet achieved universal health coverage • Increased public deficits and debt • Disruption of legislative processes and public debates • Suspension of freedom-of-information laws and transparency policies 	Growing children's risk of exploitation including trafficking and child labour.
17	Partnerships for the Goals	Mixed or moderately negative	<ul style="list-style-type: none"> • Possible reduced responsiveness of international aid community to needs of the poorest countries • Possible reduction in international remittances and cross-border financing • Closing of borders • Slowdown in international trade • Debt crisis 	Foreign direct investment dropped by up to 40%; Approximately half of the global population, 3.7 billion people, are still not online; 63% of lower-income and lower-middle-income countries are in need of additional financing for data and statistics to face the challenges posed by the pandemic.

Source: Adopted from Sachs et al., 2020; The Sustainable Development Goals Report 2021, United Nations

Intergrated Framework: Remodeling the Economy towards Sustainable Development

Bali Swain & Yang-Wallentin (2020) studied the interconnection between sustainable development and the three underlying pillars of SDGs, namely, economic, social, and environmental. The results suggest that while all three factors are critical to sustainable development, the developing countries should focus on socio-economic development in the short-run to create a greater impact on their sustainable development, given their scarce

resources and structural constraints. Based on the economic condition since early 2020, World Bank in its Global Economic Prospects has highlighted the need for Emerging market and developing economies (EMDE) to pursue substantial structural reforms while safeguarding vulnerable people in order to achieve long-term inclusive growth (World Bank, 2020). These statements should be taken into serious consideration by EMDE to restore the economy based on the lessons learned from Covid-19 pandemic.

In the context of socio-economic issues, the financial turbulences and the digital divide are among the factors that have made people and economic sectors to suffer during the pandemic. Communities from low to middle income group seems to be overly depending on moratorium from the government and utilising their saving cum retirement funds for daily survival are among the incidents that may associate with the lack of financial stability and financial literacy. Financial literacy is broad concept which includes various skills, knowledge, attitude and behaviour involving financial decisions made wisely to ensure sustainable development (Kumari & Harikrishnan, 2021). On the other hand, Kidd et al. (2020) highlighted the social protection systems in Asia as have large gaps in coverage that need addressing urgently.

The conception of digital divide emerged during mid-1990s, signifying gap that separates those who have access to new forms of information technology from those who do not, due to many dimensions of determinant factors (Srinuan & Bohlin, 2011). During the current pandemic, micro, small, and medium-sized enterprises have struggled to execute their businesses remotely on digital platforms due to the lockdown. Despite the critical need for connectivity during the pandemic, nearly half of the world's population, 3.7 billion individuals, are still inaccessible (United Nation, 2021). The reasons for these incidents are being linked with lack of access to digital infrastructure, lack of digital literacy and therefore led to digital divide. The usage of terms "digital literacy" and "computer literacy" was a central of discussion and arguments during 1980s. However, in current context, digital literacy appears to be a set of skills that enables a user to efficiently use software tools or conduct basic information retrieval activities (Buckingham, 2015). In short, it simply refers to the ability to comprehend and use technology. It is critical for businesses and individuals to become digitally literate in order to assist themselves survive in challenging times.

In the course of survival through this pandemic, countries should respond to all transmission scenarios while including communities in decision making processes to enhance adherence to public health and social measures (WHO, 2021). Thus, besides financial and digital literacy, people need another dimension of literacy which is sustainability literacy. Sustainability literacy is an emerging term describing the combination of knowledge, skill and value sets an individual requires to live and work sustainably (Murray & Cotgrave, 2007). Sustainability literacy will be desirable in society of twenty-first century because the skills required for survival goes beyond sustainability education (Ansari & Stibbe, 2009). According to *The Handbook of Sustainability Literacy: Skills for a Changing World* (Stibbe, 2009), the term sustainability literacy specifies the skills, attitudes, competencies, dispositions and values that are required to survive and thrive amid the world's deteriorating conditions. The book has identified various strategies for how societies can support the type of learning environment that promotes sustainability which includes the educational transformation for sustainable literacy. These strategies certainly complement the initiatives and targets outlined under SDGs and may expose people to the significance of sustainability. One of the key factors in fostering public support for the SDGs is the

level of SDG-relevant knowledge (Guan et al., 2019). However, according to the recent Global Survey on awareness of sustainability and the SDGs (Schlange & Todd Cort, 2020), many people remain unfamiliar with the concept of the Sustainable Development Goals. This state of outcome indeed relevant to the current state of pandemic and global economy, where people are experiencing the delicacy of unsustainable development.

In the new era of post-pandemic, transformations to a new norm and a new world should be preceded by a holistic economic, social, and environmental model that integrates the new economic interdependence segment between sustainable societies and sustainable development. The ability and capability to respond to the multifaceted difficulties confronting society today, which is the extended scope of the concept of literacy, is required for sustainable societies. Literacy as a concept and its application have evolved significantly from its origins in the ability to read and write to encompass a far broader range of activities (McBride et al., 2013). In the context of literacy, three key dimensions of literacy, namely, financial, digital and sustainability, would indeed play an important role in creating sustainable and resilient societies.

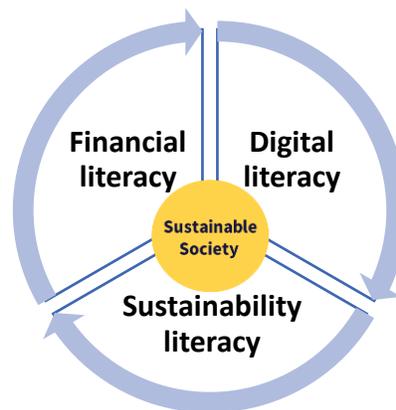


Figure 2: Key Dimensions of Literacy for Sustainable Societies

Since the consequences of the Covid-19 pandemic remain highly uncertain at this point, realizing the role of these three key dimensions of literacy in the development model of respective countries, particularly those vulnerable societies and nations, should be the ultimate priority at national and global agenda. Thus, by intergrating the financial, digital and sustainability literacy with SDGs Transformation framework, it may lead to comprehensive and systematic proress of remodeling economy towards sustainable development .



Figure 3: Intergrated Framework of Remodeling Economy towards Sustainable Development

Conclusion

Compared to the impact of health crisis back in 1918, Covid-19 pandemic in 2020 has so much to relate to human characters and their responses towards the outbreak. As demonstrates by the theory of business cycle on the patterns of the economic fluctuations, it is obvious that crises are common to happen, only the depth of the crisis may differ depending on the context and various factors. The depth of the current economic crisis caused by Covid-19 seems to be shocking and unpredictable among economies. The logic behind this phenomenon is that the world has far advanced compare to how it was during the Spanish flu in 1918. The world population of 1.8 billion in early 20th century were less globalised and interconnected compared to 7.8 billion today. The countries worldwide are fast moving towards industrial revolution, knowledged-based and digital-based economy. In short, the world has had grown more rapidly and advancing further towards Artificial Intelligence, Robotics and various Science and Technology inventions which are believed to develop, advance and modernise the world. This transformation has prompted a wide range of efforts and goal settings as well as competition among nations worldwide to lead the creation and innovation expedition. Sustainable Development Goals are one of the global initiative and framework on sustainability that gain an extensive attention worldwide, being mapped with national level agendas and policies by all nations respectively. The 17 SDGs have brought the concerns of all 193 countries on a common ground of sustainability using the theory of triple bottom line, protecting the people, economy and planet.

At this juncture, certain crucial issues pertaining to the world's advancement and development thus far can be posed. First and foremost, has the world attained a sustainable level of development? Second, are global societies resilient and sustainable? Today, the impacts of the Covid-19 pandemic on people and economy are devastating and the recovery is peculiar. In terms of sustainability, the current pandemic has exposed certain inconsistencies and gaps in the accomplishment of the sustainability goals by countries all over the world. When the economy is disrupted, the economy appears to be unsustainable. When individuals suffer, societies are deemed unsustainable. Thus, it's timely for the entire world, especially those vulnerable economies, to seriously contemplate restructuring their economies and society in order to

achieve long-term sustainability. In this context, societies that move in a more sustainable direction may have greater capability and capacity to remodel the economy toward sustainable development. This could be addressed by intergarting various dimensions of literacy along with the implementation of sustainability goals. Financial literacy, digital literacy, and sustainability literacy are fundamentals of sustainable societies, they will be crucial in resolving the current dual global problem, protecting people from pandemic, and rebuilding the economy.

Financial Literacy

Financially literate societies are highly required to overcome the current socio-economic issues such as poverty, unemployment, income distribution and wealth inequality. The absence of various financial skills such as personal financial management, smart spending and saving as well as wise investment are being neglected at various level for various reasons. The past experiences from past financial crises have shown the financial credibility of particular country, yet the lessons learned appear to be insufficient as guidance. The stress of financial insecurity among businesses, entrepreneurs and families during crisis, particularly during the recent pandemic has had led to suicide, domestic violence, burglary, corruption and other crimes as a way of escapism. Who is to blame for these ramifications: the government, financial institutions, or ordinary people?

Policy makers should make financial literacy as top priority in their respective society by making the practices of financial life skills as a new norm, especially among graduates who have stepped into career at the age of 20s. Although the financial education has been groomed at school level by intergrating into subjects and syllabus, there is still absence of financially literate mindset among youth. One of the ideal way to instill finanacial literacy is by building a strong system by Central bank in profiling businesses and working people according to their financial capacity and capability. This profiling system should be used wisely to identify people who lack of financial literacy or those seeking for financial literacy and engaged them with a holistic set of financial skills program. This program should include skills and exposure towards personal budgeting, saving and investment decision, wealth management and social protection system. This systematic and synchronised system may help in tackling the bankruptcy issues among youth particularly, at very early stage.

Besides, financial institutions and financial professionals should work reasonably on handling the customers need rather than too focus on committing customers with their services and products in order to increase the institutions' sales and reputation. Sales without an attentive assessment on the customers' capacity and capability in responding to the commitments made in the case of any crisis or financial difficulties, is deemed as highly insecure financial activity for a sustainable growth. A standardised system, methods or initiatives to assess financial literacy among their customers should be made rigid and consistent when it comes to loan applications, pledging to investment opportunities, application and usage of credit cards and many others. This approach would ensure that societies exercise financial management in accordance with their financial capacity and capabilities, and that they consciously plan for emergency savings, debt minimisation and asset accumulation.

Digital Literacy

Digitally literate societies are highly essential to enhance the productivity and employment in the current globalised and digitalised economy. The Covid-19 pandemic and the recent economic crisis have revealed the actual state of digital literacy, particularly in developing countries, concerning the inability of societies in rural areas to engage with online teaching and learning, and the incompetence of small businesses to operate productively during lockdown. Since every setback will eventually lead to a new opportunity, there are several potentials for digital literacy to improve productivity and employment, ensuring a sustainable economic growth.

People would seek education indefinitely as a result of the potential for more job seekers and more jobs to be created. During the post-pandemic period, there will be a massive demand for reskilling and upskilling graduates and SMEs to meet the changing nature of jobs and the new norm. In response, higher education sector will most likely need realignment in order to reform and restructure more diversified and digitalised programmes and courses. Higher education, in its drive to embrace digital or massive open online courses (MOOC), will also need to focus on assessment and quality control to assure the quality of graduates and talent on the job market. At this point, digitization is expected to accelerate this trend at the most cost-effective and convenient level. Digital literacy, on the other hand, will be an important tool in making online education and training as an effective and efficient platform. Besides, having a greater level of digital literacy in an economy will support policymakers and industry players in leveraging the emerging Fintech platform. This includes enhancing societies' and SMEs' digital capabilities, whether to venture into Fintech businesses or to engage in and use Fintech services more prudently. Beside education and financial sector, improving the digital literacy will certainly play a vital supporting role towards e-commerce and e-healthcare in ensuring a sustainable social and economic growth.

There are indeed some challenges that need to be addressed while ensuring the societies' state of digital literacy during any potential crisis or disaster. The factors of strengthening the digital infrastructure, connectivity, the data safety and protection issues are also equally important to support and enhance the digital literacy.

Sustainability Literacy

Concern about economy, people and environmental wellbeing was the underlying factor that has brought to the introduction of global goals of sustainable development. Unfortunately, societies globally are still unaware about various feasible approaches that may help them to tackle the life challenges, including the current pandemic and economic turbulences. Lack of sustainability literacy happen to be one of the growth hindering factor because it has made people to be reluctant to change and unwilling to embrace the changes that being a part of the long term solution and growth.

In an economy with a greater degree of sustainability literacy, understanding of socio-economic or environmental uncertainties and the strive for long term solution will be at a greater degree as well. This includes the awareness, knowledge, value and competencies to react towards several emerging issues of global economy as follows. Firstly, about the need to transform the business model from linear to circular economy. Secondly, encouraging continues reuse and minimise waste through supply chain that based on green growth and sustainability.

The third issue is more relevant to the developing economies, rethinking about being self-reliant, to focus on local supply chain as a way to tackle the existing issues on national food safety and security. Fourth, business approaches involving public sector and SMEs to be always linked to grassroots. Next is about focusing and improving the weaknesses in an economy which should be in accordance with global trends or expectation, as to acquire sustainable competitive advantage. Lastly, about the need for reliable and sustainable regulatory framework to strengthen Green technology. On top of all these, sustainability literacy would be able to position the society at a safer zone and move collectively on common ground towards sustainable development.

As a conclusion, the framework that integrates key dimensions of literacy into sustainable development goals would certainly contribute towards the theoretical aspect of studies in this area. Based on the review done by Shi et al (2019), the rising trend of research on Sustainable Development from 2000 to 2019 shows that the studies on the theoretical element are less than those on the practical, thus, it highlights the need to strengthen the study of Sustainable Development theory. The idea of integrating the financial, digital and sustainability literacy as part of the sustainable development goals may contribute towards a paradigm shift of theories of sustainability. This paradigm shift may help in developing viable policies to ensure the people, economy and planet are being protected as well as to be restored for a better prosperity.

In terms of contextual perspective, at this point of time, change is required for the world, systems and people if they have been discovered as going through unsustainable state of growth. The present situation exposes society's vulnerability in the face of uncertainty, as well as the necessity for stronger national and international policy frameworks. This study has a potential in drawing greater attention of policymakers to rethink on exploring, assessing and prioritising the financial, digital and sustainability literacy among societies in order to remodel the economy towards sustainable society and sustainable development.

This study is merely based on content analysis and reflective thinking and with that it proposes an integrated framework of sustainability which may help the economies to make the world a better place to live for a long term. More in depth studies using an empirical research methods on three dimensions of literacy by correlating them with various dimensions of sustainable development, as integrated in a single framework, are essential. Future research may engage with further economic analysis to quantify and characterise the relationship between the domains of literacy and sustainability goals or outcomes. Assessing the right elements in a right way may contribute to a reliable and valid outcomes for the world to bridge the practical gaps as well as knowledge gaps in the domain of sustainability.

Reference

- Ansari, W. E., & Stibbe, A. (2009). Public health and the environment: what skills for sustainability literacy—and why?. *Sustainability*, 1(3), 425-440.
- Swain, R., & Yang-Wallentin, F. (2020). Achieving sustainable development goals: predicaments and strategies. *International Journal of Sustainable Development & World Ecology*, 27(2), 96-106.
- Buckingham, D. (2015). Defining digital literacy: What do young people need to know about digital media?. *Medienbildung in Neuen Kulturräumen Die Deutschsprachige Und Britische Diskussion*. 2015. 21-34. 10.18261/ISSN1891-943X-2006-04-03.

- Çimşir, B. T., & Uzunboylu, H. (2019). Awareness training for sustainable development: Development, implementation and evaluation of a mobile application. *Sustainability*, 11(3), 611.
- Department of Statistics Malaysia. (2018). *Sustainable Development Goals (SDGs) Indicators Malaysia*. Department of Statistics Malaysia.
- Economic Planning Unit. (2021). *Malaysia Digital Economy Blueprint*. Prime Minister's Department Malaysia.
- Guan, T., Meng, K., Liu, W., & Xue, L. (2019). Public attitudes toward sustainable development goals: Evidence from five Chinese cities. *Sustainability*, 11(20), 5793.
- International Monetary Fund. (2020). *World Economic Outlook: A Long and Difficult Ascent*. Washington, DC, October. Retrieved from <https://www.imf.org/en/Publications/WEO/Issues/2020/09/30/world-economic-outlook-october-2020>
- International Monetary Fund. (2021). *World Economic Outlook: Policy Support and Vaccines Expected to Lift Activity*. Washington, DC, January. Retrieved from <https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update>
- International Monetary Fund. (2021). *World Economic Outlook: Managing Divergent Recoveries*. Washington, DC, April. Retrieved from <https://www.imf.org/en/Publications/WEO/Issues/2021/03/23/world-economic-outlook-april-2021>
- International Monetary Fund. (2020). *IMF DataMapper*. Washington, DC. Retrieved from https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOW_ORLD?year=2020
- Justice Mensah. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences*, 5:1, 1653531. Retrieved from <https://doi.org/10.1080/23311886.2019.1653531>
- Kidd, S., Athias, D., and Tran, A. (2020). *Addressing the COVID-19 economic crisis in Asia through social protection*. United Nations Development Programme. Retrieved from <https://www.undp.org/publications/addressing-covid-19-economic-crisis-asia-through-social-protection>
- Kose, M. A., Sugawara, N. (2020). *Understanding the depth of the 2020 global recession in 5 charts, June 2020*. Washington, DC: World Bank. Retrieved from <https://blogs.worldbank.org/opendata/understanding-depth-2020-global-recession-5-charts>
- Kose, M. A., Sugawara, N., and Terrones, M. E. (2020). *"Global Recessions" Policy Research Working Paper 9172*. Washington, DC: World Bank.
- McBride, B. B., C. A. Brewer, A. R. Berkowitz, and W. T. Borrie. (2013). Environmental literacy, ecological literacy, Ecoliteracy: What do we mean and how did we get here? *Ecosphere*, 4(5):67. <http://dx.doi.org/10.1890/ES13-00075.1>
- Ministry of International Trade and Industry. (2018). *Industry 4WRD: National Policy on Industry 4.0*. Malaysia: Kuala Lumpur.

- Murray, P. E., & Cotgrave, A. J. (2007). Sustainability literacy: The future paradigm for construction education? *Structural Survey*, 25(1), 7–23. <https://doi.org/10.1108/02630800710740949>.
- Pan, K., & Yue, X. G. (2021). Multidimensional effect of covid-19 on the economy: evidence from survey data. *Economic Research-Ekonomska Istraživanja*, 1-28.
- Schlange & Cort, T. (2020). *Report of Results Global Survey on Sustainability and the SDGs: Awareness, Priorities, Need for Action*. Hamburg: Schlange & Co.
- Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., Woelm, F. (2021). *The Decade of Action for the Sustainable Development Goals. Sustainable Development Report 2021*. Cambridge: Cambridge University Press.
- Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G., Woelm, F. (2020). *The Sustainable Development Goals and COVID-19. Sustainable Development Report 2020*. Cambridge: Cambridge University Press.
- Sartori, S., Latrônico, F., & Campos, L. (2014). Sustainability and sustainable development: a taxonomy in the field of literature. *Ambiente & Sociedade*, 17, 01-22.
- Shi, L., Han, L., Yang, F., & Gao, L. (2019). The evolution of sustainable development theory: Types, goals, and research prospects. *Sustainability*, 11(24), 7158.
- Srinuan, C., & Bohlin, E. (2011): Understanding the digital divide: A literature survey and ways forward, 22nd European Regional Conference of the International Telecommunications Society (ITS): "Innovative ICT Applications - Emerging Regulatory, Economic and Policy Issues", Budapest, Hungary, 18th-21st September, 2011, International Telecommunications Society (ITS), Calgary
- Stibbe, A. E. (2009). *The handbook of sustainability literacy: Skills for a changing world*. Green Books.
- United Nation. (2017). *Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/16147Thailand.pdf>
- United Nations. (2021). *The Sustainable Development Goals Report 2021*. United States of America: United Nations Publication.
- Whiting, K. (2020). A science journalist explains how the Spanish flu changed the world. World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2020/04/covid-19-how-spanish-flu-changed-world/>
- World Bank. (2020). *Global Economic Prospects, January 2020: Slow Growth, Policy Challenges*. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1468-6. License: Creative Commons Attribution CC BY 3.0 IGO.
- Imperatives, S. (1987). Report of the World Commission on Environment and Development: Our common future. Accessed Feb, 10, 1-300.
- World Health Organization. (2021). *Critical preparedness, readiness and response actions for COVID-19. Interim guidance*. Geneva: World Health Organization. Retrieved from <https://www.who.int/publications/i/item/critical-preparedness-readiness-and-response-actions-for-covid-19>