

A Systematic Review of the Consequences of Covid-19 Pandemic and Expansion of Pestle Framework: Time to Perceive Health Environment as a Separate Dimension

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ABSTRACT. Strategic alignment refers to the thoughtful positioning of an organisation's various internal and external components, from its business strategy to its organisational structure, to support the accomplishment of its long-term objectives and purpose. It necessitates that all parties involved – internal and external – agree with and are committed to achieving the organisation's vision. It highly says how an organisation adopting macro changes determines the success of the organisation. According to Environment scanning in strategic management, new strategies support taking advantage of future opportunities, and each planning process should account for how external changes cause differences in their expectations. The article explores the impact of the COVID-19 pandemic on the global economy, utilising macroeconomic concepts. Further, how organisations worldwide can use the strategic management technique of drawing up a PESTLE analysis to provide focused attention to each factor and macroeconomic party, which ultimately comprises the entire economy, with particular attention being focused on the expansion of the Health environmental aspect. The study sought to determine whether healthcare should be considered as a separate dimension under the health category in a PESTLE analysis as seen by the effects of the current pandemic and, if so, what the arguments in favour and against were.

Desk research or secondary research is an essential process from a business's point of view; the researcher locates, gathers, and evaluates publicly accessible data on the research topic in this type of study. In this methodology, the researcher collected data from online journals relating to the relevant healthcare ministries, and a comprehensive review was conducted based on existing sources. This research article concludes with the results of the COVID-19 pandemic; healthcare can be considered a different dimension of the environmental factor in PESTLE analysis, which directly influences macroeconomics. Comparatively concerning, health factors are not considered in their strategic planning process. Due to the Covid 19 pandemic's vast impact, the strategic planning process should consider the Health environment as a separate dimension to achieve desired goals and objectives. As a different dimension to achieving desired goals and objectives.

KEY WORDS. Macro economy, Covid-19, PESTLE, strategic planning, health dimension

Introduction

Today's organisations confront difficult economic conditions, exacerbated by the recent global financial crisis and mounting evidence of catastrophic climate change occurring at an unprecedented and fast rate. International

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and domestic companies are being forced to rethink their strategy. They must evaluate their organisation's expenditures and realign their objectives to strategically choose the cost-effective cost reduction method². However, individuals have broadened their framework throughout time to include demographic, intercultural, ethical, and ecological considerations, resulting in variations such as STEEPLED, DESTEP, and SLEPIT³.

PESTLE analysis is a term that is often used and is sometimes abbreviated as PEST analysis. It is a notion found in marketing concepts. Organisations utilise this idea to keep track of the external variables affecting them. This study is then contrasted with the company's internal strengths and weaknesses using a SWOT analysis, which assists in defining the future scope of action and creating strategic management strategies⁴. A PESTLE analysis is often used as an exhaustive, comprehensive fact-finding exercise that assists an organisation in determining the external variables that may affect internal choices⁵. By recognising the external variables' effect on an organisation, businesses can align their goals with their resources, all while allowing sufficient planning time to account for possible roadblocks to such strategies. They may devise ways to mitigate risks and enhance their chances⁶. Similarly to what was stated before, this idea may also be used in a macroeconomic context.

Macroeconomics is the field of economics that examines an economy's behaviour and performance. Macroeconomists are interested in aggregate economic developments such as unemployment, growth rate, Gross Domestic Product (GDP), and inflation. Macroeconomics examines the economy's aggregate indicators and the microeconomic variables that affect it. Governments and businesses rely on macroeconomic models to assist them in developing economic policies and strategies⁷.

A PESTLE analysis report is a valuable tool to have on hand before beginning the company planning process. This document offers the senior management team a wealth of contextual information about the firm, such as the business's strategy, brand positioning, growth goals, and areas of concern that may decrease growth and productivity⁸. A PESTLE study

² Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. GSTF INTERNATIONAL JOURNAL ON COMPUTING, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

³ Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from Business to you.com: <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>

⁴ Chutipongdech, T. (2022) *Using Thailand Public Airports as a Case Study for Industry Analysis by PESTEL-AHP*. Available at SSRN 4084702.

⁵ Martinez-Contreras, R. M. et al. (2022) "Pestel Analysis and the Porter's Five Forces: An Integrated Model of Strategic Sectors," in *Handbook of Research on Organizational Sustainability in Turbulent Economies*. IGI Global, pp. 292–314.

⁶ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

⁷ The Economic Times. (2021, September). Definition of 'Macroeconomics'. Retrieved from <https://economictimes.indiatimes.com/definition/macroeconomics>

⁸ Madsen, D. Ø. and Grønseth, B. O. (2022) "PESTEL Analysis," in *Encyclopedia of Tourism Management and Marketing*. Edward Elgar Publishing.

enables companies to detect potentially disruptive changes to their business models that may significantly affect the future employment environment. Organisations are undergoing significant personnel transformations. Increased skill gaps, the development of employment positions that did not exist a decade ago, such as the IT department, and job cutbacks or displacements are just a few of the most noticeable changes in sectors over the last few years. PESTLE research elicits a wealth of data about external variables and critical market insights. Spending time developing a PESTEL study may assist in prioritising company efforts to achieve marketing goals within a specified period.

Additionally, PESTLE research provides critical market insights into how consumers react to a product or service. This enables companies to make informed decisions about whether to join or exit a market, how to alter an existing product, and when and what to launch as a new product. A PESTLE analysis is an effective technique for determining the context for change and concentrating efforts on the areas critical to the success of that change. PESTLE analysis works well in conjunction with a SWOT analysis in this instance. This enables a company to assess possibilities and risks associated with labour developments, such as talent shortages and workforce skills⁹.

The epidemic poses grave risks to physical security, economic security, and institutional confidence. These risks may affect cognitive, emotional, and behavioural consequences associated with financial decision-making, political conduct, and how others are treated. Perceived threats to health/safety, economic well-being/status, and social group memberships such as identity, race/ethnic groups, and so forth can result in either a narrowing of concern for others (increased egocentric, self-protective thoughts and behaviours) or an expansion of concern for others (increased other-focus, altruistic and pro-social thoughts, and behaviours). Additionally, these threats may foster hostility against people seen to be beyond one's circle of care¹⁰.

This study aims to identify whether the pandemic included health as a new dimension in environmental factors along with the PESTLE framework.

The study adopted the systematic review that uses specific techniques to locate, select, and critically appraise relevant primary research on an established topic and then uses those findings to extract and analyses data from the included studies¹¹. The systematic review presents previous work describing and evaluating the research examined but does not provide a process for discovering, choosing, and evaluating the studies. Instead, an

⁹ Pathak, M. (2020). Social, Political and Economic Impact of COVID-19 Pandemic on Assam: A Study. *Journal of Critical Reviews*, 7(16).

¹⁰ RSF. (2020). Social, Political, Economic, and Psychological Consequences of the COVID-19 Pandemic. Retrieved from Russel Sage Foundation: <https://www.russellsage.org/research/funding/covid-19-pandemic>

¹¹ Aromataris, E., & Pearson, A. (2014). The systematic review: an overview. *AJN The American Journal of Nursing*, 114(3), 53-58.

overview, a discussion of previous studies, and a critique of the gaps in existing knowledge that researchers often use to explain new findings and focus on various interventions¹².

The researcher used the qualitative method to explore the PESTEL framework. Qualitative research is usually used to understand human lives & social world by addressing questions concerning experience and dimensions. Subjective meanings, actions & social contexts are the main ideas in qualitative research¹³. To study the impacts of environmental factors on the PESTEL framework, the researcher selected existing literature on PESTEL framework studies before and after the global pandemic. For a systematic review, many studies must be retrieved. Even the articles which do not have abstracts cannot be neglected in such a scene. Taking the quantitative studies into a systematic review is time-consuming. However, conducting a systematic review & meta-synthesis of qualitative research studies is a rewarding but demanding activity & adequate time & resources must be made available. Some recommendations may facilitate such processes¹⁴. Business, news websites & global business, project reports & databases & journal articles published in English on Google Scholar, Research Gate & SAGE publications were reviewed for the qualitative studies. Keywords such as PESTEL, Environmental factors, Business impact, COVID-19 & business, and pandemic & health selection criteria to choose the data source analyses with the keywords. Then researcher significantly analysed only the environmental factor in the PESTEL framework to fulfill the study's objective.

Literature Review

Components of PESTLE

The PESTEL framework is a "mnemonic used in strategic management to aggregate macro-environmental variables to assist strategists in identifying broad opportunities and dangers." The PESTEL framework examines the external business environment to understand better the 'big picture in which the organisation works, allowing it to capitalise on opportunities and mitigate risks associated with the company's business operations¹⁵. PESTLE is a mnemonic for Political, Economic, Social, Technological, Legal, and Environmental. This may be limited to PEST, or other categories might be

¹² Denyer, D. and Tranfield, D., 2009. Producing a systematic review

¹³ Fossey, E., Harvey, C., Mcdermott, F., & Davidson, L. (2002, December 01). Understanding and Evaluating Qualitative Research. *Australian & New Zealand Journal of Psychiatry*, 36(6), 717-732. DOI: <https://doi.org/10.1046/j.1440-1614.2002.01100.x>

¹⁴ Jones, M. L. (2004, 07th October). Application of systematic review methods to qualitative research: practical issues. *Leading Global Nursing Research*, 48(3), 271-278. DOI: <https://doi.org/10.1111/j.1365-2648.2004.03196.x>

¹⁵ Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

included, depending on the company (such as Ethical). The PESTLE analysis is a considerably more in-depth variant of the SWOT analysis¹⁶.

Reviewing each component of the PESTLE factors

P – Political factors include government rules and legal requirements that organisations must follow. Companies must regard their home country's laws and regulations from a political standpoint¹⁷. Tax policy, environmental laws, trade limitations and reform, tariffs, and political stability are all considered political issues. These variables affect the degree to which a government may influence an industry or a business. For instance, the government may enact new tax changes that alter a business's whole revenue-generating structure. Customs policy and export subsidies are two examples of tariff trade barriers that may burden a company's operations. Meanwhile, non-tariff trade obstacles include establishing minimum import prices and export prohibitions and limitations¹⁸.

This includes government policy, political stability or insecurity, corruption, foreign trade policies, tax policies, labour laws, environmental laws, and trade restrictions. Additionally, the government may significantly influence a country's education system, infrastructure, and health laws. All these variables must be considered when determining the market attractiveness of a prospective market¹⁹.

E – The economic element is linked with the organisation's cost concerns²⁰. Economic variables include economic growth/decline, interest rates, currency exchange rates, inflation and wage rates, minimum wage, working hours, local and national unemployment, credit availability, and cost of living. These variables are essential drivers of an economy's success since they directly influence a business and have long-term repercussions. For instance, an increase in any economy's inflation rate would affect how businesses price their products and services. Such hypothetical conduct would likewise impact consumer buying power and may shift the economy's demand/supply dynamics²¹. Economic variables influence the performance of an economy.

¹⁶ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

¹⁷ Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

¹⁸ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

¹⁹ Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from Business to you.com: <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>

²⁰ Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

²¹ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

S – The social element affects how businesses evolve²². Cultural standards and expectations, health awareness, population growth rates, age distribution, career aspirations, and health and safety are all examples of social variables. This component of the general environment reflects the demographic, normative, customs, and values characteristics of the population in which the organisation works. This covers demographic factors such as population growth rate, age distribution, wealth distribution, career attitudes, and a focus on safety, health awareness, lifestyle attitudes, and cultural obstacles. These characteristics are particularly critical for marketers when they are targeting specific consumers. Additionally, the social component paints a picture of the indigenous labour and their willingness to work under adverse circumstances²³.

These variables enable businesses to design their marketing analytics and strategy more effectively. For instance, the Indian market often experiences a spike in car demand towards the end of the year owing to the holiday season. These characteristics are especially relevant for marketers attempting to target specific consumers. Additionally, they emphasise indigenous labour and their willingness to operate under specific conditions²⁴.

T – This technology achieves exceptional performance at the lowest possible cost, and a firm may always transfer its business to a competitor providing superior service or cheaper costs²⁵. Technological aspects are advancements and breakthroughs in technology. These variables influence an organisation's operations.

Numerous new advancements in the technological sector, such as Artificial Intelligence (AI), Internet of Things (IoT), Machine Learning, and Deep Learning, are being created. If businesses do not keep up with the trend, they risk losing market share. The PESTLE study considers a variety of technical variables, including the pace of technological development, the evolution of infrastructure, and any government or institutional research²⁶.

Additionally, the 'technology' component encompasses technical incentives, the level of innovation, automation, research, and development (R&D) activities, technological change, and the degree to which a market has technological awareness. These variables may affect choices to join or exit certain sectors, launch or discontinue specific goods, and outsource

²² Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

²³ Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from Business to you.com: <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>

²⁴ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

²⁵ Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

²⁶ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

manufacturing operations to other countries. By staying current on technological developments, your business may be able to avoid spending a significant part of its budget creating a technology that will become outdated very quickly due to disruptive technical advancements elsewhere²⁷.

L – Changes in law affecting employment, access to materials, quotas, resources, imports/exports, and taxes are all considered legal considerations. These variables have both external and internal components. Specific laws influence a country's business climate. Apart from these laws/rules, businesses have internal rules and regulations that employees must follow. Thus, the legal analysis considers both perspectives and formulates solutions accordingly²⁸. While some of these variables overlap with political considerations, they include more particular legislation, such as anti-discrimination laws, employment regulations, consumer protection laws, copyright and patent laws, and occupational health and safety laws. It is self-evident that businesses must understand what is and is not lawful to do business effectively and ethically²⁹. When a business operates worldwide, this gets much more complicated since each nation has its laws and regulations. Additionally, the firm should be informed of any changes in law and their effect on future operations. Nowadays, most companies maintain strong ties with their legal departments.

E – With increased awareness of environmental problems aggravated by the escalating pressure of climate change campaigners, businesses are increasingly expected to play a more active role in achieving sustainable development. However, defining this new position is a significant problem for businesses, as they must balance economic, environmental, and social performance. Managers must quantify the relationship between environmental activities and financial performance to incorporate sustainability concepts into their company plans and to assist in resource allocation choices³⁰. These elements primarily address the surrounding environmental effect and ecological factors. These include regulations governing trash disposal, environmental preservation, and energy usage, to mention a few.

This component of the PESTLE is critical for specific sectors, most notably tourism, agriculture, and farming. Global warming and the increased need for sustainable resources; ethical sourcing (locally and nationally, including supply chain intelligence) have forced every business to address

²⁷ Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from Business to you.com:

²⁸ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

²⁹ Wafula, W. N. (2022) *Strategic Management Practices and Organizational Culture Among Microfinance Institutions in Kenya* (Doctoral dissertation, university of Nairobi).

³⁰ Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. GSTF INTERNATIONAL JOURNAL ON COMPUTING, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13

environmental issues. Corporate Social Responsibility (CSR) has been mandated for businesses³¹.

Environmental issues have just lately gained prominence. They have become necessary because of the growing scarcity of raw resources, government-set pollution goals, and carbon footprint objectives. These variables include ecological and environmental issues such as weather, climate, environmental offsets, and climate change, which may disproportionately impact tourism, agriculture, and insurance sectors. Additionally, increasing knowledge of the possible consequences of climate change affects how businesses function and the goods they provide. This has resulted in an increasing number of businesses being engaged in CSR and environmental initiatives³².

The impact of COVID-19 on Environmental factors Political

Alcohol, marijuana, and other controlled substances are a handful of the heavily regulated markets in the United States. Changes in market circumstances result in more creative, entrepreneurial solutions in less regulated marketplaces. In these highly regulated markets, the rapid changes brought about by the pandemic, and associated actions offer a window into the intertwined political interventions that occurred when governments altered several regulations influencing ease of entry. We demonstrate how a similar crisis, a pandemic, may result in the growth or reduction of highly regulated sectors' regulatory regimes depending on political concerns³³. A crisis may catalyse the abolition or reduction of current policies, which can later cause significant bottlenecks in the recovery process (so long as a powerful opposition interest group is not in the way).

The epidemic brought to light flaws in the regulatory framework governing prescription and illegal medications. By increasing access to drug use disorder treatment, deregulation efforts mitigated the harmful consequences of increased substance use during the epidemic. However, as drug usage grows, more negative consequences emerge. Domestic violence, child abuse, and assault all decrease in response to an increase in the price of alcohol³⁴. The meta-analysis quantifies the statistically significant and

³¹ Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>

³² Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from Business to you.com:

³³ Lauren Villa, M. P. H. (2016) Marijuana vs alcohol, Drugabuse.com. Available at: <https://drugabuse.com/blog/marijuana-vs-alcohol/> (Accessed: October 15, 2022).

³⁴ Preuss, C. V., Kalava, A. and King, K. C. (2022) "Prescription of controlled substances: Benefits and risks," in StatPearls [Internet]. StatPearls Publishing.

economically significant impacts of alcohol pricing on injury outcomes, violence, traffic accidents, STDs, criminality, and other drug usages. Although violence-related injuries and damage increase when alcohol and other drug use increases, policymakers struggle to manage a complicated regulatory system beset by special interests and information gaps enmeshed in politics. Simplifying consumer access to high-quality goods by enabling entrepreneurs to supply customers with the items they want and simplifying access to treatment for individuals struggling with drug use disorders will certainly enhance several public health outcomes³⁵.

Although clerics in Iran have cooperated in advising communities to remain at home and adhere to the government's lockdown policies, as well as to perform religious obligations such as Friday prayers at home, most people have heeded their advice, despite their vocal discontent with such a request. The Irani administration's contradictory stance was that the public did not engage in a suppression campaign, and the government did not prohibit visits to pilgrimage sites. This resulted in the fast spread of COVID-19 across Iran's regions due to the government's ineffective measures to prevent disease transmission.

The most notable feature is that this problem was first contained, then handled and controlled only after the bulk of the harm had been done. The second difficulty was diagnosing individuals with the illness; those with positive Polymerase Chain Reaction (PCR) tests were deemed halo, but those with symptoms were not reported on Computed Tomography (CT) scans for them, resulting in a disparity between official and actual data³⁶.

COVID-19 has had a significant impact on national and international politics. Due to the emergence of the COVID-19 virus, certain governments/ruling parties seemed very concerned, while others exploited the epidemic as an opportunity for political advantage. Numerous industrialised and developing nations swiftly proclaimed national health crises in response to the recommendation of competent medical experts. According to the United Nations Centre for Civil and Political Rights report, 84 nations have declared a state of emergency in response to the epidemic. Additionally, the study notes that certain nations' governing parties abuse government machinery for political advantage by severely prohibiting large protest movements. Certain nations' democratically elected leaders become authoritarian by using their powers. Reporters Without Borders notes that 38 nations worldwide have limited press freedom, that reporters face verbal assaults in the United States and Brazil, and that some journalists have been

³⁵ Redford, A., & Dills, A. K. (2021, January). The Political Economy of Drug and Alcohol Regulation During the COVID-19 Pandemic. *Forthcoming Southern Economics Journal*. DOI: <http://dx.doi.org/10.2139/ssrn.3728996>

³⁶ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

imprisoned in countries such as Algeria, Jordan, and Zimbabwe. COVID-19 also affected the elections in several nations across the globe. According to the International Foundation for Electoral Systems (IFES), 61 nations and eight territories have postponed their elections, totalling 106 elections postponed due to COVID-19. The eruption of Covid-19 also generated significant tensions in international politics. Numerous impediments have arisen in some nations' foreign ties because of the virus's propagation.

Tensions between the world's two largest economies, the United States and China, are at an all-time high following the American government's criticism of the Chinese government's disaster management procedures in the aftermath of the disease outbreak, which the Americans claimed originated in a laboratory in Wuhan, China. Additionally, Donald Trump, then-President of the United States of America, notoriously called the COVID-19 virus the 'Chinese Virus,' disregarding objections from social activists who felt the conduct was pitiful and discriminatory.

Donald Trump has vowed to sue the Chinese government for damages caused by the epidemic. The Chinese authorities vehemently denied ex-President Donald Trump's claim and blamed America for this epidemic's emergence. China's Ministry of Foreign Affairs has said unequivocally that the American military is to blame for the COVID-19 outbreak. China has received criticism from several nations other than America due to the viral epidemic, including Brazil, Australia, and France. According to Brazilian politician Eduardo Bolsonaro, the Chinese Communist Party is responsible for the worldwide COVID-19 epidemic³⁷.

The revelation of the first case of COVID-19 in Sri Lanka in March 2020 prompted the government of Sri Lanka to immediately implement a cautious policy reaction and lockdown the whole nation, with the primary goal of limiting people's mobility to safeguard lives from the virus's potential effect on individuals with comorbidities. The strategy effectively contained the epidemic since the number of reported cases and fatalities was minimal. However, the programme had a detrimental effect on the economy. By examining monthly data in a univariate modelling framework, this research determined that the pandemic impacted the country's export and import commerce in March, April, and May 2020. Extending the research to a second wave that may conclude in December 2020, the study predicts that the country's total exports and imports will decline by 67% and 45%, respectively, as the pandemic disrupts the behavioural patterns of the country's various export and import components. The government's passive reaction to the second wave of COVID-19 was aimed at sustaining economic activity during the epidemic. If, on the other hand, the strategy results in a

³⁷ Pathak, M. (2020). Social, Political and Economic Impact of COVID-19 Pandemic on Assam: A Study. *Journal of Critical Reviews*, 7(16).

pandemic spread at the community level, a massive and prolonged negative impact on international commerce and the economy will be generated as the virus's life span becomes infinite, having a more lasting influence on the economy³⁸.

Economical

The Iranian's financial incapacity to safeguard the country financially during quarantine was insufficient, resulting in the loss of livelihood for many individuals who usually earn their living and stay active in numerous busy areas and commercial hubs. Given Iran's present economic slump, spending a part of the budget to address the current COVID-19-induced problem risks luring the nation into another future crisis in the supply chain for essential commodities. Further depletion of foreign currency reserves, more unemployment, and ultimately greater inflation³⁹.

Among the other important factors covered in this category is the health sector's credit limit for the delivery of medical equipment⁴⁰. Job losses accelerated to levels not seen since the Great Depression, with economic production expected to decline more than during the Great Recession of 2008/2009 in the first two quarters of 2020. Congress enacted substantial stimulus legislation, but it was inadequate considering the fraying social safety net, which left millions of families struggling to make ends meet without paid sick/family leave or health insurance.

Additionally, government-sponsored research assessing the economic effect of COVID-19 projected that this pandemic would have a negative impact on the lives and livelihoods of the Assamese people. Around half of the state's population will fall below the poverty level due to this worldwide catastrophe. According to this study on Assam's economy, about 67,000,000 people would have difficulties earning a living. Additionally, this study said that Assam's unemployment rate would quickly rise due to the virus. Additionally, the economy's unemployment rate will rise to 27% from its current level of 8%⁴¹.

In terms of the economy and community well-being, the Sri Lankan government announced a stimulus package for SMEs, for which the government set aside a budget of LKR50 billion (approximately USD 270

³⁸ Bandaranayake, S. (2021). The Impact of COVID-19 on Sri Lanka's economy. DOI: <http://dx.doi.org/10.2139/ssrn.3911792>

³⁹ Amiri, H. (2020) Iran: 2021-22 budget bill and economic crisis, Iran Focus. Available at: <https://iranfocus.com/economy/45615-iran-2021-22-budget-bill-and-economic-crisis/> (Accessed: October 15, 2022).

⁴⁰ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

⁴¹ Pathak, M. (2020). Social, Political and Economic Impact of COVID-19 Pandemic on Assam: A Study. *Journal of Critical Reviews*, 7(16).

million). The stimulus package included a working capital loan of up to LKR 25 million (about USD 135,000), aimed at businesses with less than LKR 1 billion (approximately USD 5.4 million) yearly revenue. When nearly 45,000 private sector companies applied for the loan, the government recognised that the LKR 50 billion allotments were insufficient to satisfy demand. Consequently, the government increased the budget allocation to LKR 150 billion (approximately USD 810 million).

However, a study of stimulus packages given in 18 other countries reveals that the GoSL's stimulus programme was insufficient compared to an average of 3.5 per cent of GDP allotted for stimulus packages in other nations⁴².

Apart from that, SMEs' income tax arrears have been partly forgiven, payment conditions have been eased, and legal proceedings against non-payers have been halted. Similarly, the government enacted a loan repayment moratorium, which included a six-month moratorium on debt repayment for impacted industries such as tourism, textile, plantation, and information technology, as well as small and medium-sized enterprises. As stated before, the Government of Sri Lanka also offered a LKR5000 stipend to low-income families and economically vulnerable populations such as daily wage workers. Additionally, the government set a maximum retail price for some essential goods and a fund to stabilise gasoline prices⁴³.

The pandemic has significantly disrupted the usual temporal pattern of export value, with shipments falling 34% in March 2020 compared to the previous month and 57% in April. March and April's export values decreased by about 71% compared to February 2020. The export volume index, which measures the country's overall exports, showed a significant drop in March and April before gradually recovering⁴⁴.

Adopting a strong strategy to safeguard economic activity may be too risky since it would amplify the pandemic's spreading impact. The second pandemic wave shows that the epidemic has spread across the population, resulting in daily reports of more cases and fatalities. Community spread will, of course, lengthen the virus's lifetime and the duration of the shock, resulting in a lasting negative effect on the economy⁴⁵.

⁴² Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020, December 8). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks, and science-policy interaction processes. *Progress in Disaster Science*. DOI: DOI: 10.1016/j.pdisas.2020.100133

⁴³ Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020, December 8). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks, and science-policy interaction processes. *Progress in Disaster Science*. DOI: DOI: 10.1016/j.pdisas.2020.100133

⁴⁴ Ugarte, R. (2021) "When a pandemic disrupts the export of people," *Items*, 5 August. Available at: <https://items.ssrc.org/covid-19->

⁴⁵ Bandaranayake, S. (2021). The Impact of COVID-19 on Sri Lanka's economy. DOI: <http://dx.doi.org/10.2139/ssrn.3911792>

Social

Although most individuals followed self-quarantine measures at home, empathy and closeness evolved on a greater scale among family members. However, these social variables undermined family ties, resulting in increased psychiatric disorders and violence by fostering interpersonal, verbal, and physical conflict.

Additionally, prolonged confinement to one's house may result in melancholy, lethargy, and aggravation of pre-existing diseases such as hypertension, stress, and anxiety. The second social issue is an insufficient intake of antiseptics at home, which results in additional complications, such as respiratory system impairment. People have responded to this epidemic and developed an increased sensitivity to their interactions with other individuals⁴⁶.

To demonstrate the systemic nature of risk, the COVID-19 pandemic quickly evolved from a health catastrophe to a social and economic disaster, resulting in a slew of negative economic and social consequences across the nation. For example, Sri Lanka's GDP, which was anticipated to grow at a pace of 4.5–5% after the Easter Sunday assault in 2019, was forecast to grow at a rate of just 2.2 per cent when the epidemic struck the nation. Additionally, the lockdown had a negative effect on the country's critical economic sectors, notably manufacturing and services. To elaborate, the tourism industry, a critical service sector in the nation, accounts for about 5% of the GDP. However, because of the global travel restrictions implemented during the pandemic, tourist arrivals in the nation dropped by 71% in March 2020 and were non-existent in the following months April, May, and June. Similarly, the manufacturing sector's Purchasing Manager's Index (PMI), which was at 54 in January 2020, fell to 24.2 in April 2020 due to a decrease in new orders, output, and employment. Additionally, industrial exports decreased by 74% yearly, while agricultural exports decreased by 32%, damaging the country's export profits⁴⁷.

Additionally, private remittances sent to Sri Lanka by migrant workers contribute substantially to the country's foreign currency profits. For example, private remittances provided by migrant workers accounted for 63% of the country's overall export profits. However, remittances from employees dropped by 32% in April 2020, putting a damper on the country's foreign currency revenues⁴⁸.

⁴⁶ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

⁴⁷ Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020, December 8). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks, and science-policy interaction processes. *Progress in Disaster Science*. DOI: DOI: 10.1016/j.pdisas.2020.100133

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Similarly, a recent labour market study of 2764 private sector businesses showed that throughout the pandemic period, 1465 establishments were completely closed, 1025 companies operated at or near-maximum capacity, and just 94 establishments operated at total capacity. Of the businesses surveyed, 1084 could not pay their employees' wages throughout the country's epidemic. Increased unemployment, job insecurity, and wage cutbacks all contributed to worry and economic stress among the working people in the economy⁴⁹.

The pandemic had a devastating effect on SMEs and the informal sector, especially daily wage workers. To illustrate this argument, most SMEs in Sri Lanka have faced problems due to a lack of supplies required to continue manufacturing or service supply, a decrease in domestic and worldwide demand for their goods, and difficulty repaying loans⁵⁰.

One of the most urgent concerns about the pandemic's social consequences is the interruption of educational activities. Lockdown limitations imposed in response to social distancing demands led to the closure of elementary, secondary, and tertiary educational institutions such as schools, universities, and support courses. The GoSL responded by promoting the continuation of online educational offerings. While online education would have been the simplest solution, the pandemic exposed an issue: it widened inequalities in access to education. It fuelled social unrest because certain population groups, particularly those living in rural areas, lacked access to the facilities and infrastructure required for online learning⁵¹.

Another significant social consequence is the stigmatisation of demographic groups exposed to the public. Certain population groups, namely health sector workers and those who worked at supermarket counters, were stigmatised in their communities since they provided essential services despite the country's pandemic and were therefore seen as potential disease carriers⁵².

Legal

The absence of private sector involvement in providing semi-clinical services (laboratory and radiography) in outpatient units and inpatient wards for patients with COVID-19 in hospitals shows a lack of clear and defined

⁴⁹ Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020, December 8). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks, and science-policy interaction processes. *Progress in Disaster Science*. DOI: DOI: 10.1016/j.pdisas.2020.100133

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regulations in this area. Additionally, the public's inappropriate and imprudent use of disinfectants in the city, along with the absence of adequate monitoring by authorised people, harms the environment and destroys public property, such as machines and ATM cards⁵³.

Results and Discussion

PESTLE Framework – External Environment Scanning & Impact of COVID-19 on the environment

Social isolation, remote work, and the difference between "essential" and "non-essential" employees have had varying impacts on workers based on their gender, race/ethnic origin, education level, and profession. The most vulnerable have faced greater dangers, including low-wage employees, the elderly, those with chronic health problems, and those living in close quarters, such as jails/prisons or immigration detention centres. Many low-wage service employees are more likely to lose their employment permanently or be called back to work more slowly than higher-wage workers in other sectors. The epidemic abruptly halted the standard patterns of social contact that drove economic and social activity. Most of the population has suffered interruptions in their daily rhythms because of enforced social distance, with the possibility of more disruptions in the job, school, social, and family connections. As a result, the infrastructures of education, health, social services, faith-based organisations, government, criminal justice, and the law, were obliged to change their operations quickly, bringing some online, delaying or postponing others, and closing others entirely. Although the effects of these choices are unknown at the moment, they are likely to be long-lasting, partly due to disparate access to digital technologies⁵⁴.

COVID-19 factors connect directly with the mental health of ordinary people on one end of the illness, but there is a grave concern that thousands of fatalities occur on the other. The COVID-19 epidemic has had a detrimental effect on the economy, with many people losing employment and being unable to earn a living wage. Fear of economic loss has heightened stress levels and contributed to mental health issues among individuals globally⁵⁵. Iran's government, for example, has implemented preventive measures and regulations to reduce public concern about addressing mental

⁵³ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

⁵⁴ RSF. (2020). Social, Political, Economic, and Psychological Consequences of the COVID-19 Pandemic. Retrieved from Russel Sage Foundation: <https://www.russellsage.org/research/funding/covid-19-pandemic>

⁵⁵ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

health issues. Iran's government created dedicated health facilities to treat individuals infected with COVID-19 after they were discharged from major hospitals. This motivation aided in separating COVID-19 patients from their families until they recovered completely, thus preventing the fatal illness from spreading further.

The government promised to postpone utility payments for three months and paying in installments aided in providing comfort to patients' families, thus alleviating mental stress⁵⁶.

The authorities concerted efforts to alleviate worry, tension, and mental health problems by implementing essential measures. The government has established programmes to reward contributors who provide financial assistance to disadvantaged and low-income people. Through this government-sponsored programme, online and telephone psychological therapy services for patients infected with COVID-19 and other healthy individuals are beneficial. This has aided in the alleviation of the community's emotional tension. The government has begun offering low-interest loans to low-income individuals and has taken control of social media sites to detect and restrict the dissemination of sensational and misleading material regarding COVID-19 illness. This aided the community's management of the fear generated by false information regarding COVID-19⁵⁷.

Through mental health surveys, the government initiated social support programmes and psychological protocol services for survivors of COVID-19. To combat dread and terror in society, plans were started to disperse public gathering places and educate the people via the media. The government established specific post-moratorium services for those who died as a direct consequence of the illness, recognising that funerals are an important cultural component in every community. The government-initiated initiatives to educate the public about the disease's progress and to alleviate communal mental stress. The protective measures aided in confidence in individuals, enabling them to overcome fear, anxiety, stress, and mental health issues⁵⁸.

The health experts recommended solutions to slow, sustain, and overcome COVID-19 transmission problems, including prioritising investment in the health sector over other sectors, such as military spending, allocating subsidies to all citizens with private businesses, and providing low-interest

⁵⁶ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

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loans to relatively larger SMEs. They also recommended paying special attention to the virus⁵⁹.

The COVID-19 pandemic is a public health emergency that triggered an economic catastrophe, with employment losses exceeding job increases over the preceding decade within a few months and severe impacts on many aspects of American society. The disparate responses of institutions such as government, education, and industry aided in the virus's unequal transmission and impacts by location, race, ethnic origin, gender, and social status⁶⁰.

The pandemic had a significant effect on people's mental health. As with the rest of the globe, the people of Assam experienced sadness, frustration, anxiety, and lack of appetite during the national lockdown, which contributed to the state's fast rise in mental health-related cases. Dr. Sangeeta Datta, a psychiatrist based in Guwahati, said that the economic crisis is the primary reason for the rapid increase in mental health-related cases in Assam⁶¹.

Healthcare & Macroeconomics

The rise in healthcare costs is a sobering problem for developing economies. This is because an unchecked rise in healthcare costs can potentially drive developing/underdeveloped countries into severe poverty. Increases in public healthcare costs could be attributed to deaths from diabetes, cardiovascular disease, and cancer, which could result in a crisis in emerging economies because of the growing demand for specialised equipment and training of experts to detect and treat illnesses⁶². Additionally, the research indicates that labour force participation influences public health expenditures.

A possible reason is that when a country's labour population is fully employed, some occupations, such as mining and other sectors, expose their employees and nearby communities to health risks that may result in illness and frequent trips to the health facility. When this occurs, it puts pressure on the government and relevant stakeholders to expand hospitals, which results in increased healthcare spending and vice versa, with the premise that all other variables remain constant (*ceteris paribus*).

⁵⁹ Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

⁶⁰ RSF. (2020). Social, Political, Economic, and Psychological Consequences of the COVID-19 Pandemic. Retrieved from Russel Sage Foundation: <https://www.russellsage.org/research/funding/covid-19-pandemic>

⁶¹ Pathak, M. (2020). Social, Political and Economic Impact of COVID-19 Pandemic on Assam: A Study. *Journal of Critical Reviews*, 7(16).

⁶² Zhou, L., Ampon-Wireko, S., Brobbey, E., Dauda, L., Owusu-Marfo, J., & Tetgoum, A. (2020). The Role of Macroeconomic Indicators on Healthcare Cost. *Healthcare*, 8(123). DOI: [doi:10.3390/healthcare8020123](https://doi.org/10.3390/healthcare8020123)

The findings of this research match those of a study conducted in the United States of America, which found that changes in the labour market and health workforce result in an increase in government healthcare expenditure⁶³.

On the one hand, the findings suggest that inflation has a negative effect on healthcare expenses in developing economies. This implies that, although negative inflation is not a good thing for the economy in general, the impacts on healthcare may not result in a rise in healthcare expenses since the prices of health-related products and services are not rising. The negative connection between healthcare costs and inflation implies that the monetary value of healthcare expenses is constant or falling since inflation does not increase prices but decreases them. On the other hand, the likelihood of inflation negatively influencing overall economic development is apparent, which may constrain revenue sources for the health system, eventually resulting in higher health expenses⁶⁴.

This research indicates that macroeconomic variables directly affect healthcare costs since a country's income level rise enables governments to raise revenue via taxes. Inflation affects public healthcare expenses because it influences the pricing of products and services, particularly the costs of health-related materials. While labour force participation may enhance the government's revenue base, some occupations expose employees and the broader population to health risks, resulting in higher healthcare costs. This implies that the cost of public healthcare in developing countries is directly or indirectly related to macroeconomic variables⁶⁵. COVID-19 had a detrimental effect on the macroeconomy because of the rise in healthcare costs, which directly influenced the rise in healthcare costs and the country's GDP.

How COVID-19 is driving up healthcare costs

According to a recent Kaiser Family Foundation research, many insurers anticipate a rise in health expenditures this year because of pent-up demand after delayed care, direct costs associated with COVID-19 diagnosis and treatment, and vaccine costs.

According to a second study from McKinsey & Company, although the direct impact of COVID-19 has already been significant, further layers of delayed or indirect impacts have the potential to dwarf the immediate effects,

⁶³ Zhou, L., Ampon-Wireko, S., Brobbey, E., Dauda, L., Owusu-Marfo, J., & Tetgoum, A. (2020). The Role of Macroeconomic Indicators on Healthcare Cost. *Healthcare*, 8(123). DOI: doi:10.3390/healthcare8020123

⁶⁴ Zhou, L., Ampon-Wireko, S., Brobbey, E., Dauda, L., Owusu-Marfo, J., & Tetgoum, A. (2020). The Role of Macroeconomic Indicators on Healthcare Cost. *Healthcare*, 8(123). DOI: doi:10.3390/healthcare8020123

⁶⁵ Zhou, L., Ampon-Wireko, S., Brobbey, E., Dauda, L., Owusu-Marfo, J., & Tetgoum, A. (2020). The Role of Macroeconomic Indicators on Healthcare Cost. *Healthcare*, 8(123). DOI: doi:10.3390/healthcare8020123

culminating in an extra yearly cost to the American healthcare system of \$125-\$200 billion. For example, the study estimates that the average cost of treating a chronic obstructive pulmonary disease patient may rise between 7% and 11%, from about \$38,000 to nearly \$41,000 per patient per year. This cost rise is mainly due to an anticipated increase in the intensity of a patient's symptoms due to delayed treatment⁶⁶.

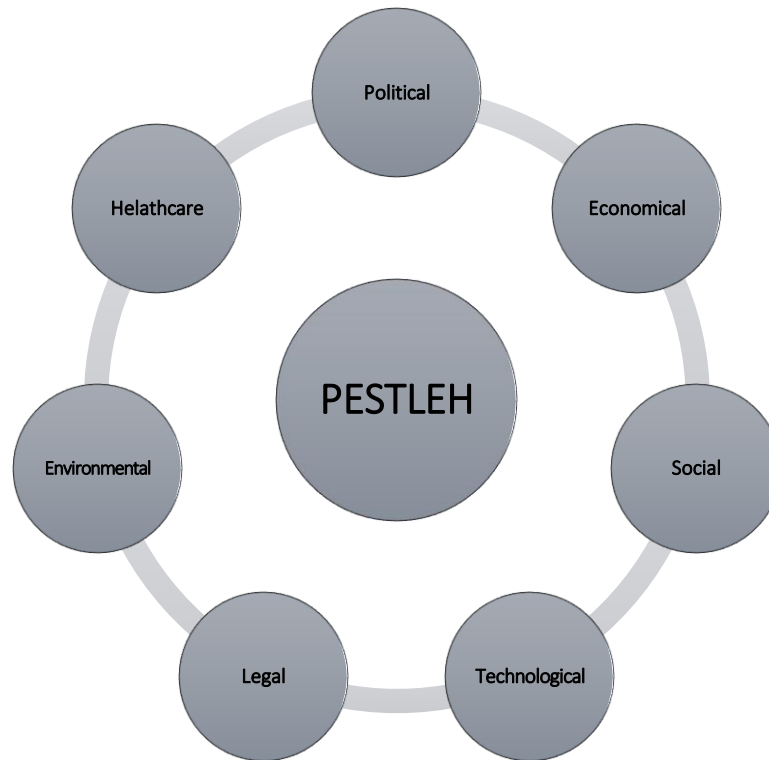


Figure 1. New model of PESTLEH

The devastating effects of the COVID-19 epidemic and subsequent economic crises on healthcare use, expenditure, and employment have been extensively studied by health sector specialists in the United States. A historic drop in healthcare expenditure and substantial job losses occurred mainly during the first two months of the pandemic, partly due to preventative measures taken by governments and health systems to halt in-person discretionary and elective treatment. As the USA remained

⁶⁶ Carson, R. (2021, February 23). Why COVID-19 Is Driving Up the Cost of healthcare in Retirement and What You Can Do Now to Prepare. Retrieved September 2021, from Forbes:

quarantined to prevent the spread of COVID-19 and free up healthcare resources to treat new COVID-19 patients, health expenditure and employment fell by 24% and 10%, respectively, in April 2020, compared to only two months before. "Since that time, our team has been carefully monitoring the recovery of health care expenditure and employment, and we have seen that health employment has virtually returned in many settings/categories of care, and health spending growth rates seem to be returning to pre-pandemic levels."

Conclusion

The only aim of this study paper was to evaluate if the PESTLE analysis can be reformed to include healthcare as a new component. As per the thorough analysis of the data presented above, we can conclusively provide an ultimatum on the statement that the healthcare entity can be classified as a separate dimension under a PESTLE analysis ("see figure 1") since it has had and continues to have such a significant impact on the macroeconomy.

Hypothetically speaking, even if we ignore the pandemic's contribution to the healthcare industry, healthcare is one of the most vital industries in any given economy. One could even go as far as to make a statement that in the absence of a smoothly functioning healthcare system, the full functionality of an economy would come to a grinding halt as bottlenecks would be formed where consumer goods/services would be stagnant in the flow of production due to the absence of human labour, which is an essential part of the production process. If we were to consider an act of God, such as a pandemic, the economy would plunge into chaos in a couple of days if not for a smoothly functioning healthcare system.

Although healthcare would be introduced as a sub-part of the existing environmental factor, the PESTLE analysis would undergo a complete restructure as a new factor impacting the macro economy is introduced and can be named PESTLEH. The inclusion of this new dimension would have a direct impact on other existing factors such as the political factor, social factor, technological factor, economic factor & most importantly, the legal factor, as the impact this new introduction has on the macroeconomy should be accounted for to provide a more realistic & practical view of how entities such as corporations & even global governments tackle external shocks which affect the macroeconomy.

In conclusion, as per the findings of this research article, the researcher most definitely for the idea of including all healthcare-associated costs in a PESTLE analysis under the environmental factor in the future. Economies tend to perform better when functioning healthcare systems exist, so introducing this new dimension will only project the already underlying

quantifiable impact the healthcare system has on the overall functionality of the macroeconomy. Even in the strategic planning process, the health environment may be considered a separate dimension to make operation sound in the future.

References

1. Administrator. (2016, September 18). Scanning the Environment: PESTEL Analysis. Retrieved September 2021, from business to you.com: <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>
2. Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020, December 8). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks, and science-policy interaction processes. *Progress in Disaster Science*. DOI: DOI: 10.1016/j.pdisas.2020.100133
3. Amiri, H. (2020) Iran: 2021-22 budget bill and economic crisis, Iran Focus. Available at: <https://iranfocus.com/economy/45615-iran-2021-22-budget-bill-and-economic-crisis/> (Accessed: October 15, 2022).
4. Aromataris, E., & Pearson, A. (2014). The systematic review: an overview. *AJN The American Journal of Nursing*, 114(3), 53-58.
5. Bandaranayake, S. (2021). The Impact of COVID-19 on Sri Lanka's economy. DOI: <http://dx.doi.org/10.2139/ssrn.3911792>
6. Carson, R. (2021, February 23). Why COVID-19 Is Driving Up the Cost of healthcare in Retirement and What You Can Do Now to Prepare. Retrieved September 2021, from Forbes:
7. Chutipongdech, T. (2022) *Using Thailand Public Airports as a Case Study for Industry Analysis by PESTEL-AHP*. Available at SSRN 4084702.
8. Denyer, D. and Tranfield, D., 2009. Producing a systematic review
9. Fossey, E., Harvey, C., Mcdermott, F., & Davidson, L. (2002, December 01). Understanding and Evaluating Qualitative Research. *Australian & New Zealand Journal of Psychiatry*, 36(6), 717-732. DOI: <https://doi.org/10.1046/j.1440-1614.2002.01100.x>
10. Issa, T., Chang, V., & Issa, T. (2010, August). Sustainable Business Strategies and PESTEL Framework. *GSTF INTERNATIONAL JOURNAL ON COMPUTING*, 1(1), 73-80. DOI: 10.5176_2010-2283_1.1.13
11. Jones, M. L. (2004, 07th October). Application of systematic review methods to qualitative research: practical issues. *Leading Global Nursing Research*, 48(3), 271-278. DOI: <https://doi.org/10.1111/j.1365-2648.2004.03196.x>
12. Lauren Villa, M. P. H. (2016) Marijuana vs alcohol, Drugabuse.com. Available at: <https://drugabuse.com/blog/marijuana-vs-alcohol/> (Accessed: October 15, 2022).
13. Lebni, J. Y., Abbas, J., Moradi, F., Salahshoor, M. R., Chaboksavar, F., Irandoost, S. F., Ziapour, A. (2020, July). How the COVID-19 pandemic affected economic, social, political, and cultural factors: A lesson from Iran. *International Journal of Social Psychiatry*, 67(3), 298-300. DOI: <https://doi.org/10.1177/0020764020939984>

14. Madsen, D. III. and Grønseth, B. O. (2022) "PESTEL Analysis," in Encyclopedia of Tourism Management and Marketing. Edward Elgar Publishing.
15. Martinez-Contreras, R. M. et al. (2022) "Pestel Analysis and the Porter's Five Forces: An Integrated Model of Strategic Sectors," in Handbook of Research on Organizational Sustainability in Turbulent Economies. IGI Global, pp. 292–314.
16. Pathak, M. (2020). Social, Political and Economic Impact of COVID-19 Pandemic on Assam: A Study. Journal of Critical Reviews, 7(16).
17. Pathak, R. (2021, 15th February). What is PESTLE Analysis? Everything you need to know about it. Retrieved September 2021, from Business Analytics: <https://www.analyticssteps.com/blogs/what-pestle-analysis>
18. Preuss, C. V., Kalava, A. and King, K. C. (2022) "Prescription of controlled substances: Benefits and risks," in StatPearls [Internet]. StatPearls Publishing.
19. Redford, A., & Dills, A. K. (2021, January). The Political Economy of Drug and Alcohol Regulation During the COVID-19 Pandemic. Forthcoming Southern Economics Journal. DOI: <http://dx.doi.org/10.2139/ssrn.3728996>
20. Rhyan, C. (2021, April 16). Perspective: Are Rising Health Care Prices Another COVID-19 Side Effect? Retrieved September 2021, from Newsroom: <https://altarum.org/news/are-rising-health-care-prices-another-covid-19-side-effect>
21. RSF. (2020). Social, Political, Economic, and Psychological Consequences of the COVID-19 Pandemic. Retrieved from Russel Sage Foundation: <https://www.russellsage.org/research/funding/covid-19-pandemic>
22. The Economic Times. (2021, September). Definition of 'Macroeconomics'. Retrieved from <https://economictimes.indiatimes.com/definition/macroeconomics>
23. Ugarte, R. (2021) "When a pandemic disrupts the export of people," Items, 5 August. Available at: <https://items.ssrc.org/covid-19-and-the-social-sciences/covid-19-fieldnotes/when-a-pandemic-disrupts-the-export-of-people/> (Accessed: October 15, 2022).
24. Wafula, W. N. (2022) *Strategic Management Practices and Organizational Culture Among Microfinance Institutions in Kenya (Doctoral dissertation, university of Nairobi)*.
25. Zhou, L., Ampon-Wireko, S., Brobbey, E., Dauda, L., Owusu-Marfo, J., & Tetgoum, A. (2020). The Role of Macroeconomic Indicators on Healthcare Cost. Healthcare, 8(123). DOI: [doi:10.3390/healthcare8020123](https://doi.org/10.3390/healthcare8020123)

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