

On Health Care Sectore, What External Environment that Important? : A Review Literature

Noor SyamSidiq Himawan¹, Nur Wening²

¹Doctoral Student, ²Associate Professor, Post Graduate Program of Management, University of Technology Yogyakarta

Abstract

This Paper is a literature review related to various studies that discuss macro environmental analysis (political, economic, socio-cultural and technological) in the field of health care. The purpose of this study is to explore and connect theories from various studies related to macro business environment factors that are important in the field of health care, how much research is related and what are the opportunities for future research. This paper identifies 21 articles that discuss the analysis of the business environment in the health care sector. In this study, the criteria for selecting literature were applied, namely the selected literature must be in the form of articles not handbooks, in English, discussing business environmental analysis, especially in the field of health services and published for a maximum of the last 10 years. The research related to political factors was 31.25%, economic factors 18.75%, socio-cultural factors 18.75% and technological factors 31.25%. Research related to environmental analysis (political, economic, socio-cultural and technological factors) in the health sector is still very minimal, especially in the economic and socio-cultural sectors so that this can actually become an opportunity in developing research on the business environment in the health sector.

Keywords: *PEST analysis, health sector, political factors, economic factors, socio-cultural factors, technological factors, external environment, strategic management.*

Introduction

Analysis of external environmental factors is an important thing in the formulation of strategies for improving the performance of health organizations ^{1,2}. Based on research, business environment analysis can have a significant impact on a company *p value* 0.025 ³. Macro environmental conditions are conditions outside a company and cannot be controlled by a company but must be analyzed to adjust the company's strategy to changes in the business environment. The main strengths of the macro environment are political, economic, social,

technological, legal, ecological, demographic, ethical and regulatory aspects. The macro environment can be analyzed by various methods such as PEST, PESTEL, PESTLE, STEEPLE, STEEPLED ⁴. The challenge faced by health services today is how to be able to control patient care costs efficiently and adapt to policy changes that occur quickly ⁵. Economic and political instability are also factors that affect the health service system ⁶. In addition, the socio-cultural condition of the organization also plays an important role in health services ⁷. The term PESTLE has been used regularly in the last 10+ years and its true history is difficult to establish. The earliest know reference to tools and techniques for 'Scanning the Business Environment' appears to be by Francis J. Aguilar (1967) who discusses 'ETPS' – a mnemonic for the four sectors of his taxonomy of the environment: Economic, Technical, Political, and Social. Shortly after its publication, Arnold Brown for the Institute of Life

Corresponding author:

Noor SyamSidiq Himawan.

Post Graduate Program of Management, University of Technology Yogyakarta,

Email: noorsyamsh@gmail.com+623815249295

Insurance (in the US) reorganized it as 'STEP' (Strategic Trend Evaluation Process) as a way to organise the results of his environmental scanning. Thereafter, this 'macro external environment analysis', or 'environmental scanning for change', was modified yet again to become a so-called STEPE analysis (the Social, Technical, Economic, Political, and Ecological taxonomies). In the 1980s, several other authors including Fahey, Narayanan, Morrison, Renfro, Boucher, Mecca and Porter included variations of the taxonomy classifications in a variety of orders: PEST, PESTLE, STEEPLE etc. Why the slightly negative connotations of PEST have proven to be more popular than STEP is not known. There is no implied order or priority in any of the formats. Quite who and when added what elements to the mnemonic is a mystery, but what is known is that the actual order and words contained are common to certain parts of the world and streams of academic study

Literature Review

Macro environmental conditions are conditions outside a company and cannot be controlled by a company but must be analyzed to adjust the company's strategy to changes in the business environment. The main strengths of the macro environment are political, economic, social, technological, legal, ecological, demographic, ethical and regulatory aspects. The macro environment can be analyzed using various methods such as PEST, PESTEL, STEEPLE, STEEPLED⁴. The explanation of these methods is as follows:

· PEST

PEST is an external environmental analysis using approaches *political, economic, social, and technological*

· PESTEL

PESTEL is an external environmental analysis using approaches *political, economic, social, technological, environmental and legal*

· STEEPLE

STEEPLE is an external environmental

analysis using *social, technological, economic, environmental, political, legal and ethical*

· STEEPLED

STEEPLED is an external environmental analysis using the *social, technological, economic, environmental, political, legal, ethical, and demographics dimension*⁸.

The explanation of the above components is as follows:

Political

This factor looks at the extent to which the government can influence a particular economy or industry. Political factors are generally in the form of various national policies taken by the government that affect an industry. Such as: various policies (tax, fiscal, trade, etc. that support certain industries), licensing, processes and services, laws and regulations, government regulations. These factors determine the extent to which a government may influence the economy or a certain industry.

Economic

Factors are factors of economic performance that directly impact the company and have a long term impact. Such as: local economy, international economy, economic trends, inflation, corporate taxes, market and trade cycles, GDP, consumer purchasing power, interest and exchange rates. Economic factors include inflation rate, interest rates, foreign exchange rates, economic growth patterns etc. It also accounts for the FDI (foreign direct investment) depending on certain specific industries who reundergoing this analysis.

Social Factor

Are conditions that affect market and consumers. These factors include: Demographics, lifestyle psychology, consumer perceptions of brands, consumer purchasing behavior, influence of advertising and public relations, influencers /role models, influence (race, ethnicity and religion). The sociological factor

takes into consideration all events that affect the market and community socially. Thus, the advantages and disadvantages to the people of the area in which the project is taking place also need to be considered. These factors scrutinize the social environment of the market, and gauge determinants like cultural trends, demographics, population analytics etc. An example for this can be buying trends for Western countries like the US where there is high demand during the Holiday season.

Technological Factors

This is a technological innovation that can affect industry and the market. Such as: technology in product design, production, distribution, price and consumption, machines or software that support business processes. These factors pertain to innovations in technology that may affect the operations of the industry and the market favorably or unfavorably. This refers to automation, research and development and the amount of technological awareness that a market possesses. This factor takes into consideration all events that affect technology. Since technology often becomes outdated within a few months after it is launched, it is important to consider this. This factor could also take into consideration all barriers to entry in certain markets

and changes to financial decisions.

Legal

This factor takes into consideration all legal aspects like employment, quotas, taxation, resources, imports and exports, etc. These factors have both external and internal sides. There are certain laws that affect the business environment in a certain country while there are certain policies that companies maintain for themselves. Legal analysis takes into account both of these angles and then charts out the strategies in light of these legislations. For example, consumer laws, safety standards, labor laws etc.

Environmental

These factors include all those that influence or are determined by the surrounding environment. Factors of a business environmental analysis include but are not limited to climate, weather, geographical location, global changes in climate, environmental offsets, ground conditions, ground contamination, nearby water sources, etc.^{8,9}

Based on previous research conducted on health facilitation research in the Lubin area, the environmental analysis obtained is as follows:

Table 1. Average assessment of factors that influence strategies in health facilities.

Specifications	Assessment	Sub Specifications	Assessment
Political and legal factors	2.0	Health service reform	2.7
		Changes in health care policies	2.6
		Volatility of regulations and legal norms	2.3
Economic factors	1.7	Economic situation	2.3
		Inflation	1.9
		Population income equity	1.8
		Availability of loans	1.8
Socio-cultural factors	0.6	-	-
Technological factors	2.0	Procedures techniques and diagnostics	2.1
		Changes in health regulations	2.0
Demographic factors	1.2	-	-
Epidemiological factors	1.6	-	-

Source¹⁰

economic, social and technological factors in the health sector are as follows:

Other research related to PEST analysis in the health service sector suggests that important political,

Table 2. Overview of PEST analysis in the health service sector

Specifications	Sub-specification
Political factors The	Role of the government in relation to the promotion of the quality of health services
	Government initiatives in the health sector that can change
	Government strategies in the health sector
Economic factors	Investment targets i government in the health sector
	Priority setting
Social factors	Age population
	Changes in lifestyle
	Community expectations regarding health care
	Changes in work practices
Technological factors	Latest health intervention technologies
	Telemedicine
	Scientific evidence in the health sector

Source^{10,11}

Method

This research is a review of literature related to various studies that discuss the analysis of the business environment, especially the macro environment (political, economic, cultural-cultural and technological) in the field of health services. The collection of articles is done using search engines such as mendeley, google and google scholar. In this study, there were 21 articles discussing the analysis of the business environment in the field of health services. In this study, criteria were applied in the selection of literature. These criteria are that the selected literature must be in the form of

articles not handbooks, in English, discussing business environmental analysis, especially in the field of health services and published for a maximum of the last 10 years. Furthermore, the literature obtained was analyzed related to components in important political, economic, socio-cultural and technological factors in the health sector, research that had been carried out for each of these factors, conclusions and future research opportunities.

Results and Discussion

Based on important factors in the above PEST analysis. Several studies have been conducted to

examine each factor in the analysis of the business environment as follows:

Table 3. Research related to political, economic, social, and technological factors in the field of health care

Specifications	Percentage	Research topics
Political factors	31.25%	Budget allocation
		Policies Care cost policies
		Health service reform, policy changes, volatility of regulations
		Political and policies in health facilities
		Politics and public health Political
		Structure and its influence on health
Economic factors	18.75%	Situation, inflation, population equity and availability of loans
		Macroeconomics in the health sector
		Impact of economic factors on the quality of health services
Socio-cultural factors	18.75%	Health organizational culture
		Factor context social in influencing the health sector
Technological factors	31.25%	Information on health services
		Digital technology in health services
		High technology in health care
		Technology and the future of health services
		Technological factors in health information systems

Sources^{2,5,18-21,7,10,12-17}

Research related to environmental analysis (political, economic, socio-cultural and technological factors) in the health sector is still very minimal, especially in socio-culture, demography, epidemiology so that this can actually be an opportunity development of research on the business environment in the health sector, even though careful analysis of environmental

factors important for improving the performance^{2,10}

Conclusion

Analysis of external environmental factors is an important thing in the formulation of strategies for improving performance health organization. The main strengths of the macro environment are political,

economic, social, technological aspects. Political factors that are important to note in the health sector include (the role of the government in terms of promoting the quality of health services, government initiatives in the health sector that can change, government strategies in the health sector, health care reform, changes in health care policies, volatility in regulations and legal norms). Economic factors include (government investment targets in the health sector, priority setting, economic situation, inflation, equality of population income, availability of loans). Socio-cultural factors include (age of the population, changes in lifestyle, community expectations regarding health services, changes in work practices). Technological factors (latest health intervention technology, telemedicine, scientific evidence in health, changing health regulations). For each of these facilitators, very little research has been carried out so that it can become an opportunity for future research, especially related to the economic and socio-cultural sectors.

Ethical Clearance: No Need Ethical Clearance on this Research

Source of Funding: This research was funded privately and did not receive funding from any party.

Conflict of Interest: The author confirm that there are no conflicts of interest to disclose.

References

1. Commander S, Svejnar J. Business environment, exports, ownership, and firm performance. 2011;93(February):309–37.
2. Martinez DA, Feijoo F, Zayas-Castro JL, Levin S, Das TK. A strategic gaming model for health information exchange markets. *Health Care Manag Sci* [Internet]. 2018;21(1):119–30. Available from: <http://dx.doi.org/10.1007/s10729-016-9382-2>
3. Hidayat R, Hudha K, Akhmad S. Effects of Supplier-Manufacturer Relationships on Supply-Chain Performance of Manufacturing Industries in Indonesia. *Makara J Technol*. 2015;19(2):51.
4. Sammut-bonnici T. cognitive map ; marketing environment ; micro environment ; SWOT analysis. 2014;(2004):2014.
5. Javanparast S, Maddern J, Baum F, Freeman T, Lawless A, Labonté R, et al. Change management in an environment of ongoing primary health care system reform: A case study of Australian primary health care services. *Int J Health Plann Manage*. 2018;33(1):e76–88.
6. Ebrahim EMA, Ghebrehiwot L, Abdalgfar T, Juni MH. Health Care System in Sudan: Review and Analysis of Strength, Weakness, Opportunity, and Threats (SWOT Analysis). *Sudan J Med Sci*. 2017;12(3):133.
7. Mitchell PF, Pattison PE. Organizational culture, intersectoral collaboration and mental health care. *J Heal Organ Manag*. 2012;26(1):32–59.
8. Sammut-Bonnici T, Galea D. PEST analysis. *Wiley Encycl Manag*. 2015;(January 2015):1–1.
9. Rastogi N. PESTLE TECHNIQUE – A TOOL TO IDENTIFY EXTERNAL RISKS IN CONSTRUCTION PROJECTS. 2016;384–8.
10. Jaworzynska M. Using tools of strategic management in medical facilities of Lublin region. *Eng Manag Prod Serv*. 2017;9(2):82–9.
11. KARA E. A Contemporary Approach For Strategic Management in Tourism Sector: PESTEL Analysis on The City Muğla, Turkey. *J Bus Res - Turk*. 2018;10(2):598–608.
12. Schwartz B. Technology and the future of ophthalmology. *Surv Ophthalmol*. 1981;25(6):402–3.
13. Blank JLT, Valdmanis VG. Environmental factors and productivity on Dutch hospitals: A semi-parametric approach. *Health Care Manag Sci*. 2010;13(1):27–34.
14. Almasabi M. Factors influence and impact of the implementation of quality of care in Saudi Arabia. *J Med Med Sci* [Internet]. 2013;4(3):92–5. Available from: https://www.researchgate.net/profile/Mohammed_Almasabi2/publication/301545953_Factors_influence_and_impact_of_the_implementation_of_quality_of_care_in_Saudi_Arabia/links/571866e908ae986b8b79ee75/Factors-influence-and-impact-of-the-implementation-of-qualit
15. Xue D, Zhou P, Bundorf MK, Huang JX, Chang J Le. The association of strategic group and organizational culture with hospital performance in China. *Health Care Manage Rev*. 2013;38(3):258–70.

16. Tunlind A, Granström J, Engström Å. Nursing care in a high-technological environment: Experiences of critical care nurses. *Intensive Crit Care Nurs* [Internet]. 2015;31(2):116–23. Available from: <http://dx.doi.org/10.1016/j.iccn.2014.07.005>
17. Hunter EL. Politics and public health - Engaging the third rail. *J Public Heal Manag Pract*. 2016;22(5):436–41.
18. Naik Y, Baker P, Walker I, Tillmann T, Bash K, Quantz D, et al. The macro-economic determinants of health and health inequalities-umbrella review protocol. *Syst Rev*. 2017;6(1):1–8.
19. Greer SL, Bekker M, De Leeuw E, Wismar M, Helderma JK, Ribeiro S, et al. Policy, politics and public health. *Eur J Public Health*. 2017;27(ii):40–3.
20. Meskó B, Drobni Z, Bényei É, Gergely B, Györffy Z. Digital health is a cultural transformation of traditional healthcare. *mHealth*. 2017;3:38–38.
21. Mohamadali NA, Aziz NFA. The Technology Factors as Barriers for Sustainable Health Information Systems (HIS)-A Review. *Procedia Comput Sci* [Internet]. 2017;124:370–8. Available from: <https://doi.org/10.1016/j.procs.2017.12.167>.