

Towards a national strategy for the pharmaceutical sector in Gaza Strip

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Abstract

Unstable situation in Gaza Strip made many crises in many sectors especially pharmacy. So this study aimed to propose a national strategy for the pharmaceutical sector in Gaza Strip. The researchers used analytical descriptive approach during analysis of the internal environment based on (7 'S McKinsey) model & PESTEL analysis for external environment. The study had many results such as: weakness of strategic projects as laboratory drug test and analysis. The result also showed weak planning method for integrated management process of pharmaceutical sector. The researchers recommended designing an independent strategy for pharmaceutical sector including parties of productions, and providing an integrated system to ensure the pharmacology of the Palestinian society.

Keywords: (7 'S McKinsey) model – PESTEL analysis–Gaza pharmaceutical sector –Media factors.

INTRODUCTION

The national strategic planning is one of the most important determinants of national policies implementation which aimed to improve the quality of services provided by government institutions to society. It considers one of the foundations of life management in light of various rapid changes and technological cultural development [1, 2]. And It is an analytical process that determines the future status of an organization depending on variables of the external environment, starting with the organization's mission and ending with setting and evaluating goals [3]. Strategic planning has contributed to adding strategy by designing a medium-term or long-term framework for the organization to achieve aims and the best results with the highest quality and lowest costs [4]. It is also the culmination of the higher authorities' vision of what they want in the future, such as overcoming competitors, developing community satisfaction, and excellence in service delivery through a combination of integrated procedures and practices [5]. There are many parties involved in the manufacture of strategies that regulate pharmacological work in the Palestinian territories. These include governmental entities that assist in the supervision,

organization of work, licenses, and trade union which are involved with formulation management of medicines, organization of profession and the private sector which represented by companies and owners in pharmaceutical institutions, pharmacies, warehouses, and factories. Also, people who work in this sector and involved in management stages in the medicines sector [6].

It should be noted that the preparation of a strategy requires a set of tools that are based on the analysis of the administrative system for the environment in the pharmaceutical sector independently from the strategy of the Ministry of Health. In a previous study, the researchers analysed the internal environment of the General Administration of Pharmacy which have been carried out by using SWOT analysis that included (strength, weakness, opportunities & threats) that affected directly or indirectly on the pharmaceutical sector [7]. In this study, the seven-component McKinsey model and PESTEL external environment analysis model (Appendix I) were conducted [4].

As a result of changes in the pharmaceutical sector in Gaza, there is a list of essential drugs in circulation in the Ministry of Health. The management of the pharmaceutical sector provides medicines

despite of many obstacles that include about 516 medicinal products. The annual budget of medicines in the Ministry of Health is estimated at approximately 33.6 million dollars. The estimated value of medicines during the year 2017, estimated at about 17,685,989 \$ as shown in Table (1). This requires the development of a national strategic plan for the management of the pharmaceutical sector and ensures the availability of medicines in territories of Palestinian Authority in general and Gaza Strip in particular.

Table (1) The financial value of imports of medicines during the year 2017 divided by parties. Source: [7]

Inbound	Medicines (\$)
Purchases Ministry of Health	88718218
Ramallah Warehouses	5444421
Donations	3369747
Total	17,685,989

Problem of the study and the research questions

The problem of the study appeared through direct observation of the researchers. They found a strategy for the health sector in the ministry of health generally, and the activities of the General Administration of Pharmacy fall under it. Hence, the study problem can be summarized as follows:

The existence of an independent national strategy for the pharmaceutical sector in the Gaza Strip, and the extent of the participation of the three parties of production in the formulation of the national strategy for the pharmaceutical sector.

Therefore, the research problem can be expressed by the following main question: "What mechanisms that should be followed to prepare a national strategy for the pharmaceutical sector in Gaza Strip with participation for three production parties?".

The following questions arose from the main question:

- What is the mechanism that used to analyse the internal environment?
- What are the most appropriate models for the external environment analysis?

- What are the best proposals for formulating a national strategy in the pharmaceutical sector?

Objectives of the study

The research study aims at:

- Analysis of the internal environment for the pharmaceutical sector in Gaza Strip.
- Analysis of the external environment in the pharmaceutical sector.
- Propose a national strategy for the pharmaceutical sector.

Importance of the study

Providing specialized studies in national and public strategic management in the field of pharmaceutical industry emanating from the national policy agenda. This can help researchers for understanding the analysis of the internal and external environment in public sectors, especially in the pharmaceutical sector. Also seeking to provide a national vision, message and institutional values for the pharmaceutical sector and to identify strategic objectives that can be linked to national policy agenda and strategy for Palestinian Ministry of Health [8].

Literatures review

In a recent study of the researchers [6] which aimed to analyse the management process by using SWOT analysis for the internal and external environment of the General Administration of Pharmacy in Gaza Strip, the authors used the descriptive analysis by interviews with stakeholders related to the General Administration of Pharmacy (Appendix II). The most important results were that General Administration of Pharmacy had weakness in the preparation process of field inspectors on pharmaceutical companies [8]. Also, it is difficult to export pharmaceuticals to the West Bank because of the occupation. The researchers recommended the presence of clear definition of responsibilities of the three parties of production which are (Governments - Workers in General Administration of Pharmacy - Owners of companies and institutions of private pharmaceutical organizations), developing a computerized

administrative system that connects all parties of production, institutions, companies and pharmaceutical warehouses. Another study conducted by Lubad aimed to know the reality of strategic planning in the Palestinian Ministry of Health in Gaza Strip and its role in determining the level of developing human resources [9]. This was done by using the descriptive and analytical methodology and a questionnaire as a data collection tool. The most important results were emphasized on the Ministry of Health's interest in a high degree of planning, but they had an intermediate ability to translate this interest into the development of human resources in the organization. It recommended studying and promotion of the culture of planning, development and benefiting from feedback for planning the Ministry of Health staff.

The current study is complementary to the study of [6]. Herein the internal and external environment we reanalysed using the McKinsey and PESTEL models for building the strategy. The present study agrees on the necessity of preparing a national strategy in the pharmaceutical sector, in view of the need to address some changes in the internal and external environments [9]. It can contribute to how to build the system for the development of human resources in the pharmaceutical sector, especially with regard to clarifying the pattern of strategic planning in the Palestinian Ministry of Health and which is considered the supreme administrative authority for the pharmaceutical sector.

Gaza pharmaceutical Sector

The balance of the Gaza Strip's pharmaceutical sector has varied since the time of coming of Palestinian Authority until the present time, due to successive political changes. The Israeli occupation has contributed greatly to the deterioration of its condition, resulting in a sharp shortage in medicines due to the permanent siege, which was followed by a shortage in the stock because the existing quantity almost fills the patients' daily needs [7]. The purchases Ministry of Health and Ramallah listed in Table (1) quantities limited on-going needs are not sufficient as a result of on-going developments on the political situation in the

Gaza Strip and the increasing number of injured, sick and disabled.

The (7 'S McKinsey) model

It is a tool for analysis and measurement of all variables in the internal environment of the organization & it appeared firstly in 1980 through a study by Tom Petes and Robert Waterman in analysing the secrets of the best organizations through McKinsey consulting [10]. They obtained the comprehensive elements for the analysis of the Internal Environment of the Organization [11].

McKinsey Elements

The elements are divided into two parts: strong elements (solid) and soft elements. Where, softness is divided into three elements (strategy, structure and systems), a set of elements that determine the route of any organization in terms of future data, structural plans, job descriptions, types of regulations and systems that contribute by completion of the work, management style, staff, common values, skills are difficult to define and describe [11]. The seven elements are interrelated with each other. Values are the elements of connection between soft and solid elements. The change of any element requires a change in the strategic plan of the organization during the next operational plan period [12].

PESTEL Model

It is a complimentary analysis tool for the (SWOT) analysis system. It expands the analysis of the external context by considering details of the issues affecting the implementation of all work of the institution. The term (PESTEL) refers to the political, economic, social, technological, environmental, and legal fields related to the institution. In turn, it identifies future trends and contributes to proactive thinking and positive change to the development of the organization [5]. PESTEL model was used as a complement to SWOT model through relevant factors in areas, economic trends, social attitudes and technological developments that are considered to be an important part of current and future changes to the organization as opportunities or threats and the ability to improve the decision-making [13, 14].

METHODS

The researchers used the analytical descriptive approach that describes the internal and external environment for the pharmaceutical sector in order to analyse the problem and reach a specific strategy. Researchers used multiple tools for the analyses of the internal environment using the McKinsey model (Table 2) and the external environment model using the PESTEL model (Table 3). For the application of analytical models, the researchers used the interviews with the Special Committee in Strategy Industry who contributed to the preparation of the health strategy and the diversity of specialists in the formulation of the sectorial strategy for health.

The researchers visited the General Administration of Pharmacy in order to obtain a direct observation of the types and methods of management used in the General Administration of Pharmacy, the Middle East factory, and some pharmacies in the Gaza Strip. The researchers analysed the internal and external environment in the pharmaceutical sector, analysed the national strategy for the Palestinian health sector, and also analysed the national policy agenda.

RESULTS AND DISCUSSION

Researchers analysed the internal environment for Administration of Pharmacy by using McKinsey model, which classified it for two elements then evaluated them and applied on pharmaceutical sector. The results are given in Table 2.

Table (2): The internal environment analysis using McKinsey model.

No.	Classification of elements action	Evaluation elements	Applied Pharmaceutical sector
1	Strong elements	Strategic	<ul style="list-style-type: none"> – There is no strategy for the medical sector, but there are some strategic goals that followed to the health sector in general. – The weakness of strategic projects such as laboratories for drug testing. – The Government contributes to the strategic support of national products and the improvement of their quality on average. – Regulatory standards vary in the resources of the pharmaceutical sector, either in the private or in the public sector. – Weak planning methodologies for the integrated management processes. – Flexibility of the strategic plans and their adaptability to field changes in light of the scarcity of resources. – The geographical distribution meets all the requirements of the community pharmacies. – Lack of strategic development projects in the field of electronic infrastructure, computerization of systems, and interconnection between all parties of production. – There is a strategic relationship between the relevant local institutions in the field of pharmaceutical manufacturing and distribution. – The General Administration of Pharmacy seeks to achieve paramount strategic objectives related to the medical security of society. – The drug resources cover the strategic objectives of the Ministry of Health in varying degrees according to international support

No.	Classification of elements action	Evaluation elements	Applied Pharmaceutical sector
2		structure	<ul style="list-style-type: none"> – The organizational structure is consistent with the General Administration of Pharmacy in line with international standards. – Contributes to the delegation of powers and clearly defines the responsibilities of three parties of production (government, pharmaceutical workers, owners of pharmaceutical companies, institutions, and pharmaceutical organizations). – Contained in the General Administration of Pharmacy or the private sector.
3		Systems	<ul style="list-style-type: none"> – There are many systems and manuals for management in the pharmaceutical sector. However, the weakness in trade union systems to motivate workers and graduates has been noted. – Control systems of the quality of products and the management of drugs are general in warehouses and pharmacies. – The General Administration of Pharmacy needs to modernize mechanisms and methods for developing systems according to the labour market.
4	Soft elements	Shared Values	<ul style="list-style-type: none"> – The General Administration of Pharmacy has a set of values that have led to overall performance development, such as cooperation, mutual respect, entrepreneurship, loyalty, and belonging.
5		Skills	<ul style="list-style-type: none"> – The directorate General Administration of Pharmacy has a range of creative skills, but the siege reluctant to develop and highlight these creations.
6		Management style	<ul style="list-style-type: none"> – The wage structure and incentives affect the management style. – The department contributes to the promotion of innovation and creativity within the limited potential. – The department is working on adopting the necessary proposals for the development of tools and methods. – Management follows special patterns to increase the motivation of employees to work.
7		Workers	<ul style="list-style-type: none"> – The number of workers is commensurate with the needs of the General Administration of Pharmacy. – Employees receive special training programs adapted to modern scientific and technological development. – Workers need training, upgrading, and participation in external conferences.

The researchers analysed the external environment by using PESTEL model which

studied six factors and then applied them on the General administration of pharmacy as see in Table (3).

Table (3): The external environment analysis using PESTEL model

NO.	The factors	Application to the public administration
1	The policy	There are clear national policies that encourage pharmaceutical manufacturing and the quality of pharmaceutical outputs. The medical institution suffers from administrative division and different policies regarding the distribution of resources between the two parts of the country due to the political division and the weakness of the Ministry of Health's approach to change and development of the quality of administrative patterns growing demand on medicines.
2	Economic	The general administration of pharmacy is investigating many financial departments. There is unemployment in the pharmacy graduates in the Gaza Strip because of the economic problems. There is a weakness of the pharmaceutical industry due to the restrictions imposed on the Gaza Strip by the Paris Economic Agreement, the lack of budgets, and the operational expenses determined by the Palestinian government to implement plans for the General Administration of Pharmacy.
3	Social and cultural	The public sympathy of the friendly countries of the Palestinian people contributes to their needs in the pharmaceutical sector. Increasing the awareness of the specialized classes in understanding the nature work of the General Administration and the societies are committed to obtaining the medication according to the need in a limited manner. There is a lack of reciprocal visits and the exchange and transfer of experience among the workers in the pharmaceutical sector in Gaza Strip and the West Bank or participating in the external conferences.
4	Technology	The weak linkage between the national system of management of the pharmaceutical sector in an integrated manner with all parties of production.
5	Environmental	The General administration contributes to the disposal of expired medicines by dumping them in the public waste. The General Administration of Pharmacy has contributed to prolonging the shelf life of the expired medicine as necessary.
6	Legal	Difficulties in the amendment of legislation and laws because of political division. The need to provide many new drug regulations and legislation that comply with international standards and recent indicators of the World Health Organization, and the multiplicity of legal systems for the mechanisms of management of the pharmaceutical sector.

Due to the unstable situation in the Gaza Strip, it requires the addition of risk analysis and management of internal environment directly, such as medical crises experienced by government hospitals from time to time. In addition, the risks related to the continuous demand for medicines as a result of security and military events in Gaza Strip. Also, the risks to which workers are exposed during the manufacturing stage of drugs, the disposal of pharmaceutical waste and expired medicines, and the risks related to the working environment.

According to the researchers, many other factors must be added due to unstable & fragile conditions in the Gaza Strip. The

media should have an integrated study of the problems faced by the medical sector, especially with regard to the need for donations. The media has influenced the channelling of medical aid convoys during the military attacks on Gaza Strip. Also, International institutions are important for helping to meet the growing demand for medicines due to rapid field events and changes in Gaza Strip, but there is no clear methodology for managing the expenditures, grants and donations offered by international public organizations and charities.

Proposed Strategy

Vision: Control and administration services for the pharmaceutical sector in

Gaza Strip to meet the requirements of stakeholders.

Mission: Sustaining the response to the increasing demand for medicines for the health and safe health of citizens in unstable conditions.

To reflect the vision, the following must be taken into account:

- To have sovereignty over all the Palestinian territories following international and local agreements related to health protection.
- Linking the sectorial strategy with the national policy agenda and the strategy of the Ministry of Health.
- Developing the management in partnership with the three production partners and society.
- Forming a management institution capable of short, medium and long-term planning and implementation of plans to provide the requirements of hospitals and government medical centres.
- Crises Management in the health sector.

Values: Belonging - honesty - credibility - efficiency - excellence - responsibility - loyalty - professional - effectiveness - partnership - cooperation - teamwork.

Strategic goals:

- Providing all administrative and control services according to the quality standards issued by the World Health Organization.
- Modernizing the legal and integrated system in accordance with national policies of improving the response to crises in the pharmaceutical sector.
- Raising knowledge and awareness of human behaviour through the safe handling of medicines and pharmaceuticals.

Efficiency

- Improving the quality of services provided to pharmaceutical institutions.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that pharmaceutical sector suffers from lack of hormones drugs laboratory testing, absence of a comprehensive informational computerized system that interconnection between all parties of production, no independent national strategic planning for this sector and lack of budgets and operational expenses determined by the Palestinian government to implement plans for the General Administration of Pharmacy. So the researchers recommend a presence of independent strategy in the pharmaceutical sector that could be made by focus groups of all parties of production. Also, providing laboratories to examine all medicines which entering in the sector and that manufactured locally in order to approve their quality and validity. In addition, facilitating the participation of workers for external conferences, designing electronic infrastructure systems of pharmaceutical informational for all drugs inside the Gaza strip, and upgrading trade union regulations to motivate employees and graduates and developing their expertise.

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Competing Interests

The authors declare that they have no competing interests

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Appendix I

Interview Questions

First: McKinsey model

The strategy

- Is there a national strategy for the pharmaceutical sector?
- If yes, what are its tools?
- If not, who do you follow in the strategic plan and what are the most important projects, standards and partners in preparing it?

The structure:

- Is there a clear organizational structure?
- How the structure is formed to determine the authorities of each category dealing with the General Administration of Pharmacy?

Systems:

- Do you have drug management systems and guidelines?
- Are there control systems, and up to what extent it contributes in controlling the quality of outputs?
- Do you have trade union and government systems to motivate workers?

Common values:

- What are the most common values you have in managing the pharmaceutical sector?

Skills:

- What are the most important skills that distinguish workers in the pharmaceutical sector?
- Is there an exchange of experiences with employees in the General Administration of Pharmacy throughout the country?

Management style

- Do management methods vary? And how it encourages innovation and creativity, adopt ideas and enhance motivation?

Staff

- Do graduates meet the demands of the local market?
- What is the level of adequacy of staff for the job tasks assigned to them?
- What is level of internal and external training and qualification?

Second, the PESTEL model:

Political:

- The level of availability of national policies that contribute to self-reliance on pharmaceutical manufacturing?
- What is the contribution of military attacks on medicines?

Economic:

- What are the most important economic factors affecting the pharmaceutical sector?

Social and cultural

- What are the most important social and cultural factors affecting the pharmaceutical sector?

Technological

- What is the level of technological linkage between production parties?

Legal

- What are the most important legal and legislative factors affecting the pharmaceutical sector?

Environmental

- What are the most important mechanisms for the safe disposal of pharmaceutical waste?

Appendix II

Interview list

1. Al-Borsh, Mounir: Director General of the General Directorate of Pharmacy, 23 May 2018. (Interview)
2. Al Dawaheidi, Amjad: Director of the Middle East Pharmaceutical Factory: May 24, 2018. (Interview).
3. Ayoub, Sherine: Director of Planning, General Directorate of Pharmacy, May 27, 2018. (Interview).
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