



How to conduct a PESTEL Analysis in Polypharmacy

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How to conduct a PESTEL analysis for polypharmacy	
Lead Beneficiary	University of Peloponnese
Author(s)	Anastasia Balasou, Alpana Mair, Derek McKenzie
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1 Introduction

This document provides a step-by-step guide to the development and implementation of a PESTEL Analysis to support a process of change to manage appropriate polypharmacy. The guide is based on extensive experience of change management and supporting tools as well as the specific experience of the SIMPATHY project's efforts to stimulate innovation in the management of polypharmacy in Europe.

2 What is PESTEL?

PESTEL is a widely applicable framework used to analyse and monitor external factors that impact upon a plan or an organisation. The framework defines the high-level factors that should be included in the analysis process.

- POLITICAL, ECONOMIC, SOCIAL, TECHNICAL, ENVIRONMENTAL & LEGAL

The framework encourages the adoption of a holistic approach to help ensure that a full 360-degree appraisal of the factors impinging upon a plan or organisation is undertaken. When implementing a PESTEL analysis, appropriate questions are devised under each of the main headings. These questions should be tailored to the specific circumstances of the organisational or project change programme that is being embarked upon. A generic template is shown in the table below.

POLITICAL	ECONOMIC	SOCIAL	TECHNICAL	ENVIRONMENTAL	LEGAL
What is the political situation of the country and how can it affect the plan?	What are the prevalent economic factors?	How much importance does culture have and what are its determinants?	What technological innovations are likely to emerge, gain acceptance and change working practices and systems?	What are the environmental concerns?	Are there any current pieces of legislation that regulate the activity or can there be any change in legislation?

What is the purpose of a PESTEL?

The purpose of PESTEL is to produce knowledge and insight to guide strategic decision-making. We live in a world of high-velocity change; although it is not possible to make any plan or organisational endeavour so robust as to make it immune from the external change that impacts upon it, there is much we can do to create a high degree of preparedness for foreseeable change and a resilience to contend with uncertainty. PESTEL supports preparedness and helps to build resilience. The act of undertaking a PESTEL is intended to lead to the generation of knowledge that can be used to formulate decisions which reflect known future impacts and to build flexibility to contend with uncertainty.

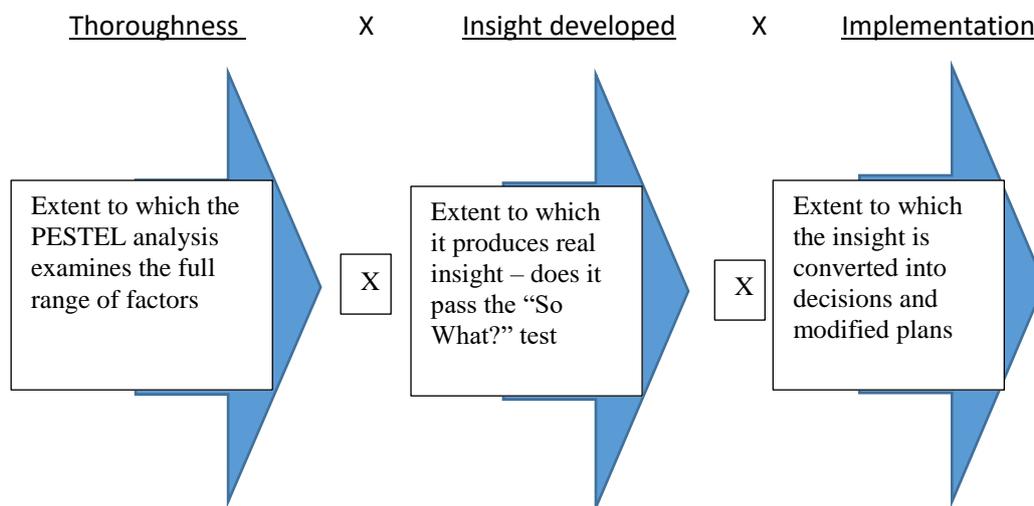
What does the PESTEL process comprise?

Typically a PESTEL process comprises the following steps:

- The setting of the strategic agenda by the leadership group defining the context for the PESTEL
- The preparation of the PESTEL questions
- The PESTEL Workshop
- The follow-up and preparation of a report detailing the findings of the workshop and their implementation.

What makes a successful PESTEL?

For a PESTEL analysis exercise to be judged a success, it requires thoroughness, creation of insight, and the conversion into decisions for implementation. These are combinatorial – if any one of these is not carried out to a high standard, the overall quality will be affected.



Thoroughness – the extent to which a PESTEL exercise is able to conduct a thorough analysis of the full range of factors is a function of a number of elements:

- The resources available to prepare for a PESTEL workshop; a team of one charged with the preparation work or a team of hand-picked professionals? Naturally this scales with the size of the organisation or plan to be tackled. Best practice indicates that a small team of 2-3 personnel are able to carry this out successfully.
- The preparation of a customised question-based framework (a set of questions under each of the PESTEL factors) which will be answered in the course of the workshop. The developed framework should adequately cover the range of issues that need to be considered, if not the workshop will potentially miss the opportunity to debate some important points.
- The quality of the team charged with interpreting the strategic agenda of the leadership group and its translation into the construction of a tailored PESTEL framework.

Insight developed – the extent to which the PESTEL is able to generate real insight is a function of the approach that is adopted to the question design and workshop delivery.

- The selection of questions that focus upon uncertainty rather than that which is certain. If change is certain (e.g. current demographic change leading to a larger number of older people to be cared for within European healthcare systems) then it is incumbent upon any competent management team to understand the extent of and timescale of such change and factor it into plans. Whilst it is obviously important to capture the predictable change, it is highly desirable if a PESTEL exercise can go beyond the predictable to explore that which is uncertain (e.g. how will the UK’s relationship with the EU change following BREXIT?) and to invest the available intellectual capital in discussing the potential range of impacts that could arise from different scenarios for change.

- The style of the workshop which encourages debate around “open” questions rather than “closed” questions. An “open” question is neutral and not laden with assumptions. A “closed” question contains a pre-judgement of an issue, either explicitly or implicitly
 - To what extent will the increasing centralisation of healthcare systems impact upon the management of polypharmacy in the future? – CLOSED Question
 - To what extent will changes in the structural organisation of healthcare delivery impact upon the management of polypharmacy in the future? – OPEN Question
- The skill of the workshop facilitator. They should keep the debate moving along at a reasonable pace, judging when to encourage further debate because something of genuine insight is emerging or to urge the group to move onto the next question in the framework. They should also embed the “open” nature of the debate by prompting attendees with encouragement such as “can you tell me more about the issue you raised in your last comments? Or can you expand upon that for me?”. And they should have the assistance of a “scribe” who as well as recording the debate, makes notes that can form the basis of a summary at the end of the workshop.

Implementation – the extent to which findings of the PESTEL workshop are converted into decisions that change plans for the future. If the preparation and workshop have been well executed, the results of the PESTEL should yield valuable insights.

- The PESTEL Report should be a stand-alone document which records the workshop discussion in terms of common ground, contentious issues, and most crucially identifies areas of uncertainty.
- And finally, the Leadership group should prepare a summary of the steps to be taken in future plans that reflect the important findings of the PESTEL process, particularly where plans have been made more flexible to contend with future un-certainty.

3 Conducting a PESTEL Analysis in Polypharmacy – the SIMPATHY Experience

How does the context of polypharmacy affect the conduct of a PESTEL Analysis?

In order to conduct a PESTEL Analysis, the simplest case involves only a single organisational entity. Contrast this with the management of polypharmacy - a multi-disciplinary, multi-organisation and multi stakeholder challenge – then it is clear that the conduct of a PESTEL in polypharmacy requires a well-coordinated approach. This note aims to provide guidance on how to conduct a PESTEL based on how this was tackled in the SIMPATHY project which comprises 10 beneficiaries and 8 countries.

The setting of the strategic agenda by the leadership group defining the context for the PESTEL

In the SIMPATHY project, the PESTEL Analysis task was contained in the Change Management Work Package. The PESTEL Analysis was designed to support efforts to prepare a credible and robust strategic plan to stimulate innovation in the management of polypharmacy across Europe. The PESTEL work was developed in the context of a classical three-step model for change management, namely:

- Where are we now?
- Where are we going?
- How do we get there?

The consortium participated in a series of workshop sessions to develop a strategic plan designed to drive change from a baseline in 2015 to the realisation of widespread change encapsulated in a Vision for the management of polypharmacy in Europe in 2025 (see D5.1 Model change management process for managing appropriate Controlling Polypharmacy).

The PESTEL Analysis questionnaire was required in order to subject the plan for change to a stress test of its assumptions and ability to contend with known future impacts and key areas of uncertainty.

Conducting a PESTEL workshop

Each country should conduct a PESTEL workshop using the centrally developed PESTEL questionnaire for appropriate polypharmacy. The development of the questionnaire was undertaken by a team whose members brought practical experience of change management.

The PESTEL framework features:

1. A wide column under the title “Estimated Impact” (for each factor) that is split in three sub-columns aiming to capture respectively:
 - (a) The severity of the impact in a five level scale (e.g. very high-5 to very low-1),
 - (b) The choice of NONE
 - (c) The nature of impact (Positive or Negative)
2. A column under the title “Not Relevant /not Applicable factor” in order to give the opportunity to the responders to declare that a specific factor is not applied or met in their health system or it is considered as irrelevant to the issue,
3. A column under the title “Estimated Degree of Certainty” in which the responders are asked to express their estimation of the degree of certainty/uncertainty they attach to the likelihood of the stated impact materialising; the scale of 1-5 is used (very high-5 to very low-1).
4. A final Column under the title “Comments Box” in which the responders have the opportunity to express anything they believe is relevant and important to a shared understanding (e.g. an elaboration of the answer, a comment on the question, an example, a short explanation of the situation in their country, etc.)

The first section refers to Political factors that (could potentially) impact polypharmacy. These factors are grouped into four subcategories, all relating to the regulatory/ political framework within which the health care system operates:

- P1. Health services delivery lines
- P2. Chronic diseases
- P3. Government decision-making
- P4. Corruption

The second section includes the Economic factors that influence polypharmacy, and are grouped as follows:

- E1. Overall economic success
- E2. Health system structure and financing,

The third section, the Social factors section, includes all the factors that are related to:

- S1. Access to health care
- S2. Attitudes, beliefs, and cross-cultural diversities
- S3. Education

The fourth section, the Technological factors, includes factors as:

- T1. Existence of ICT integrated systems
- T2. Innovative drug policies

The fifth section, about the Legal factors, includes the following groups:

- L1. Legal authorities and regulatory bodies, roles and responsibilities
- L2. Patients' rights empowerment
- L3. Medical code of ethics
- L4. EU guidelines

There are no Environmental questions were because during the development of the PESTEL framework, this was felt not to be of relevance in the context of management of appropriate polypharmacy.

The PESTEL Workshop

The PESTEL Framework is intended to be completed by a group of healthcare researchers and professionals working together to agree consensus around their responses to each question. It is not intended to be completed by researchers /partners or by individuals working alone but by a team representative of a cross-section of policy and practice in the field.

The rationale behind this Team approach is the need to balance personal views and opinions (not just by focusing on the own experience from a specific hospital or health center) that are reflecting usually personal certainties; the idea is to capture the real thinking of what is broadly happening in the country by completing the PESTEL questions with experts who are sharing opinions.

Each organization or country should have a group to perform a PESTEL workshop in order to complete the framework questions. The composition of these teams could include:

- I. High level experts experienced in Polypharmacy field as well as in Adherence of Elderly.
- II. Scientists of different disciplines or specialties (physicians, pharmacists, specialists)
- III. Stakeholders who are either involved in decision-making or represent bodies who -by definition- will experience the impact of the decision or of current practice (e.g. payers)
- IV. Representatives of Patients
- V. Representatives of Professional bodies
- VI. And of course the SIMPATHY partners in the country.

The Role of the Facilitators

Each PESTEL workshop should be facilitated by two Facilitators to support the discussion, with one fulfilling the Key Facilitator role and the other providing support as co-facilitator.

The role of the facilitator should be to explain the aim of the workshop and the use of the tool as a prompt for discussion. It is expected that he/she should be knowledgeable about the questions without being over-bearing or steering the group towards a preferred answer. Facilitators are expected to stimulate the dialogue among the participants of the workshop whilst keeping the process open and helping the participants to focus on the subject, at the same time.

The second facilitator should support the key facilitator, but is mainly there to capture the essence of the expressed opinions. This is very important in order to record them precisely and supplementary or clarification questions may be asked by him/her to ensure the accuracy of the final, recorded opinion in each topic. Following the workshop, it is expected that he/she will contribute to the final writing.

Close collaboration between the two facilitators (when preparing and conducting the workshop) and a clear and common understanding on the aim of the workshop and the analysis is essential, as well as a deep knowledge of both the field and the tool. It is important to give the impression of team facilitators who know the tool very well and believe in the process of the workshop and the potential for change.

A good description of the workshop should be provided to all participants in advance but not the PESTEL questions themselves. The PESTEL questions are not recommended to be shared with participants before the workshop, because some participants will read it and some will not, with the result that the workshop becomes biased towards those that have read it.

During the workshop

During the PESTEL workshop, time should be carefully managed to keep a good pace to the discussions. Members of the workshop could include advocates for the case of Appropriate Polypharmacy, generally well informed on the subject and able to sustain high quality discussion.

The Facilitator's tasks are to;

- Introduce the Aim and Vision of the polypharmacy programme that the group wants to implement and the purpose of the PESTEL Analysis.
- Provide a brief description of the methodology (general approach as well the PESTEL questions/structure) and
- Facilitate a step-by-step and focused discussion on the assessment of the degree of the impact of the various factors upon the Vision with a focus stressed the need to put the identification of uncertainty at the forefront of the discussion since the primary purpose of a PESTEL Analysis is to help make the plan for change more robust by embracing different scenarios for the future.

The need for “creative” agreement should feature throughout the whole presentation and discussion.

At the end of the workshop, it is important that the participants depart from the workshop with a good impression for the project and a willingness to retain clear ongoing links with it, as stakeholders.

4 The PESTEL Results and Report

The purpose of the final report should provide a summary of the issues that need to be addressed to help future proof your plan over the time period of implementation. A detailed summary of the PESTEL workshop can be found in the SIMPATHY deliverable D5.1, but a brief summary is provided below for illustration purposes.

SIMPATHY experience

The results of each country's PESTEL analysis was integrated and the distillation of the results worked into conclusions which help serve the purpose, namely to stress test the plans for change and future-proof them to withstand the twists and turns of political, economic, social, technical and legal change that transpire over the period of implementation.

- We found that differences between countries in the results of the PESTEL analysis will help tailor the implementation of plans for change to fit the particular circumstances of polypharmacy in each country. For example, political factors and their influence upon policies and impacts in the management of polypharmacy ranged from very strong in for example, Northern Ireland and Poland to much lower in other countries, e.g. Germany and Italy. But the causal explanations for the drivers of strong political influence upon polypharmacy in Northern Ireland and Poland differ between the two countries as well as the causal explanations differing between Germany and Italy for what is regarded as the lower influence of political factors in these two countries. Overall this conclusion is consistent with an approach to change which enshrines the principles of change at the top, but delegates the detail of securing practical improvement to country and even regional teams that are close enough to tailor the approach for success – Think Global Act Local.

When looked at in totality, we found that agreement on the likelihood of a particular trend materialising did not necessarily equate with agreement on whether it would be a positive or negative impact upon the management of polypharmacy. Across a large number of external factors, opinion was split as to whether the particular trend in question would be positive or negative (uncertainty). In some cases, the decision to declare it to be one or the other was determined by whether or not the change could be seized upon as an opportunity to promote the arguments for better management of polypharmacy given the potential reduction in healthcare costs that can be delivered in an otherwise challenging set of circumstances for healthcare budgets as a whole. We have concluded that this is a strength of the proposed SIMPATHY plans for better management of polypharmacy.