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How to Create the Best PESTEL Analysis

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ABSTRACT

This article offers a comprehensive and practical framework for creating an effective PESTEL analysis – one of the most widely used tools for macro-environmental scanning in strategic planning. The study begins by examining the theoretical foundations and academic evolution of the PESTEL framework across multiple domains, including management, marketing, innovation, and public policy. A detailed four-step guide is then proposed to support practitioners and researchers in conducting insightful and action-oriented analyses, enriched by examples, figures, and best practices. Emphasis is placed on common errors, contextual adaptation, and the value of scenario thinking in applying the tool to real-world decisions. A key contribution of this paper is the introduction of a Quantified PESTEL approach, which moves beyond qualitative judgment by incorporating structured, multi-criteria decision-making techniques such as AHP (Analytic Hierarchy Process), DEMATEL (Decision-Making Trial and Evaluation Laboratory), and ANP (Analytic Network Process). This methodology enables the assignment of measurable weights to each environmental factor and reveals interdependencies between them, ultimately producing a more data-driven and rigorous assessment of external conditions. A visualized model and summary table are provided to demonstrate how these tools can enhance the depth and reliability of PESTEL outcomes. The article concludes with practical insights and a call for future research exploring dynamic, sector-specific, or AI-supported applications of the PESTEL methodology.

Keywords: *PESTEL Analysis, Strategic Planning, Quantified PESTEL, Multi-Criteria Decision-Making, AHP, DEMATEL, ANP, Environmental Scanning, Management Tools, Scenario Analysis*

INTRODUCTION

In an era defined by rapid technological change, shifting geopolitical landscapes, environmental uncertainty, and evolving social dynamics, researchers require tools that can systematically assess the macro-environmental factors influencing their fields of study. The PESTEL analysis examines Political, Economic, Social, Technological, Environmental, and Legal dimensions. It has emerged as a versatile and widely recognized framework for such strategic environmental scanning.

While PESTEL is frequently cited and applied in business planning, public policy, and academic research, there remains a noticeable lack of a unified, academic-standard guide that clearly defines how

this tool should be applied within scholarly work. As a result, its use often varies in structure, depth, and quality, potentially limiting its analytical value and comparability across studies.

This review article addresses this gap by offering a comprehensive guide to PESTEL analysis, specifically designed for researchers. The aim is:

- To provide a standardized and practical framework for conducting PESTEL analyses in academic research;
- To emphasize the relevance and convenience of PESTEL as a tool for researchers across disciplines;
- To establish best practices and methodological standards that enhance the precision, credibility, and usefulness of the analysis.

By setting higher expectations for the use of PESTEL in research, this article seeks to empower scholars, doctoral students, and practitioners with a structured, adaptable, and academically sound approach to environmental analysis. Through examples, methodological insights, and interdisciplinary applications, it aspires to become a reference point for future studies employing PESTEL in strategic and analytical contexts. In doing so, it promotes greater consistency in the framework's application across disciplines, while encouraging critical thinking about the dynamic nature of macro-environmental influences. This guidance aims to support both novice and experienced researchers in achieving higher analytical depth and methodological transparency in their work.

LITERATURE REVIEW

Understanding the theoretical foundation and practical evolution of PESTEL analysis is essential for applying the framework effectively in academic research. As a tool for macro-environmental scanning, PESTEL has undergone significant development since its inception, adapting to the complexities of modern strategic planning.

The PESTEL technique is also widely used in project risk analysis to identify macro-level threats and opportunities (Rastogi & Trivedi, 2016). Yüksel (2012) argues that integrating PESTEL with other strategic tools such as SWOT enhances multi-dimensional insight and aligns macro factors with internal capabilities. According to Sammut-Bonnici and Galea (2015), PESTEL serves as a scanning tool that allows organizations to map external changes systematically and anticipate strategic threats.

This section provides a critical overview of the scholarly literature on the origins, adaptations, and core purposes of PESTEL analysis. By tracing its transformation from a basic strategic model to a comprehensive analytical instrument, the review highlights its relevance across disciplines and its value as a methodological asset in evidence-based research.

Evolution of PESTEL Analysis

The PESTEL analysis has evolved over decades as a fundamental tool for strategic environmental scanning. Its conceptual origin can be traced to Francis J. Aguilar, who introduced the "ETPS" framework – Economic, Technical, Political, and Social factors – in his 1967 book "Scanning the Business Environment" (Aguilar, 1967). This early model emphasized the importance of monitoring external influences for informed business decision-making.

During the 1980s, the framework expanded into PEST, incorporating Political, Economic, Social, and Technological dimensions. As awareness of legal and ecological factors grew, additional components were added: Legal and Environmental, forming the current PESTEL model (Sammut-Bonnici & Galea, 2015). The expanded version offers a more holistic view of external macro-environmental variables affecting organizational and societal development.

Recent literature highlights that PESTEL analysis is not static – it continues to evolve to meet the changing nature of global challenges. For instance, Bou Hatoum et al. (2023) illustrate how capital project organizations increasingly rely on PESTEL to adapt to geopolitical and environmental

uncertainties. In a similar vein, Belsare (2025) emphasizes that the model's adaptability makes it relevant for emerging economies, digital transformation research, and public policy planning.

Purpose and Application of PESTEL Analysis

PESTEL analysis is primarily designed to identify and evaluate external factors that shape the environment in which an organization or policy operates. It enables a structured assessment of risks, opportunities, and trends by systematically analysing six critical dimensions: Political, Economic, Social, Technological, Environmental, and Legal (Corporate Finance Institute, n.d.). Its strength lies in the capacity to break down complex environments into manageable, researchable components.

Academic applications of PESTEL are widespread. Sridhar, Perera, and Bangera (2016), for example, applied the model to coastal zone management, revealing how political and environmental factors influence sustainability outcomes. Meanwhile, in business contexts, the tool is frequently employed to support long-term strategic planning, especially in volatile or transitional environments (Bou Hatoum et al., 2023).

As a result, PESTEL is not only useful for market evaluation or corporate planning, but also for conducting sectoral assessments, formulating public policies, and guiding academic inquiry. However, despite its broad usage, there is still a lack of standardized methodological guidance on how to effectively conduct a PESTEL analysis in academic settings – a gap this article seeks to address.

Methodological Innovations and Emerging Trends in PESTEL

Recent academic contributions critically examine and refine the traditional use of PESTEL analysis, advocating for dynamic, adaptive, and technology-enhanced frameworks. Andersen (2025), for instance, systematically reviews over 20 variants of the PESTEL model (including STEEPLE and DESTEP), emphasizing that scholars should not treat the framework as a rigid checklist, but rather adapt it to the contextual dynamics of the research problem.

In applied research, particularly in engineering and construction studies, the PESTEL model has been used to categorize and compare external barriers to innovation. Olayiwola et al. (2025) conducted a systematic review of 56 studies on off-site construction and identified the PESTEL categories as crucial in evaluating institutional, economic, and social readiness.

Similarly, Kansongue et al. (2023) integrated PESTEL and SWOT in a study on renewable energy deployment in West Africa, demonstrating the importance of overlapping methodological tools to capture both environmental factors and internal capacities.

Andersen (2025) also warns that traditional PESTEL applications risk oversimplifying macro-environmental complexity by treating external factors as isolated categories. He critiques the lack of feedback mechanisms and interdependencies between dimensions such as Political and Legal or Technological and Environmental, advocating instead for adaptive and iterative models that reflect real-world interactions and uncertainty.

In the context of digital transformation and sustainability assessments, scholars have also begun exploring AI-supported decision models that align well with PESTEL dimensions. Farahdel et al. (2024) present a review of multi-criteria decision-making tools and propose integrating environmental scanning frameworks like PESTEL into digital sustainability evaluation.

These innovations signal a shift from static external scans toward a more dynamic, predictive, and interdisciplinary use of PESTEL, particularly in areas such as environmental governance, technology foresight, and risk management.

MATERIALS & METHODS

This article is based on a narrative literature review combined with a methodological synthesis designed to identify, analyze, and consolidate best practices related to the application of the PESTEL analysis in academic and applied research settings. The approach aims to bridge the gap between

theoretical knowledge and practical implementation by offering researchers a structured guide for conducting high-quality environmental scanning using the PESTEL framework.

Literature Selection Criteria

The literature review focused on peer-reviewed journal articles, academic monographs, and reputable institutional sources published between 2000 and 2025. Searches were conducted across major academic databases including Scopus, Web of Science, Science Direct, and Google Scholar. The primary search terms included: *PEST analysis*, *PESTEL analysis*, *macro-environmental scanning*, *strategic analysis tools*, and *environmental frameworks*. Preference was given to sources with active DOI registration to ensure academic reliability, traceability, and replicability.

Data Extraction and Thematic Synthesis

Following initial screening and relevance assessment, the most pertinent sources were coded and thematically organized according to their focus on:

(1) historical and theoretical development,

(2) cross-disciplinary academic usage,

(3) applied and comparative case studies,

(4) methodological guidance, and

(5) critiques and innovations in PESTEL implementation.

The synthesis process used comparative content analysis to identify recurring themes, theoretical gaps, and emerging trends in the use of PESTEL analysis across academic fields. From this, a conceptual framework and set of best practices were derived, serving as the foundation for the guidance presented in the Results and Discussion section..

COMPONENTS OF PESTEL

The PESTEL framework consists of six key macro-environmental dimensions: Political, Economic, Social, Technological, Environmental, and Legal. Each component captures a specific external domain that can influence organizational strategy, policymaking, or research findings (Fig. 1). For researchers, clearly defining and contextualizing each dimension is essential for methodological rigor and analytical depth. Below is an overview of each component, including its scope and typical areas of application.

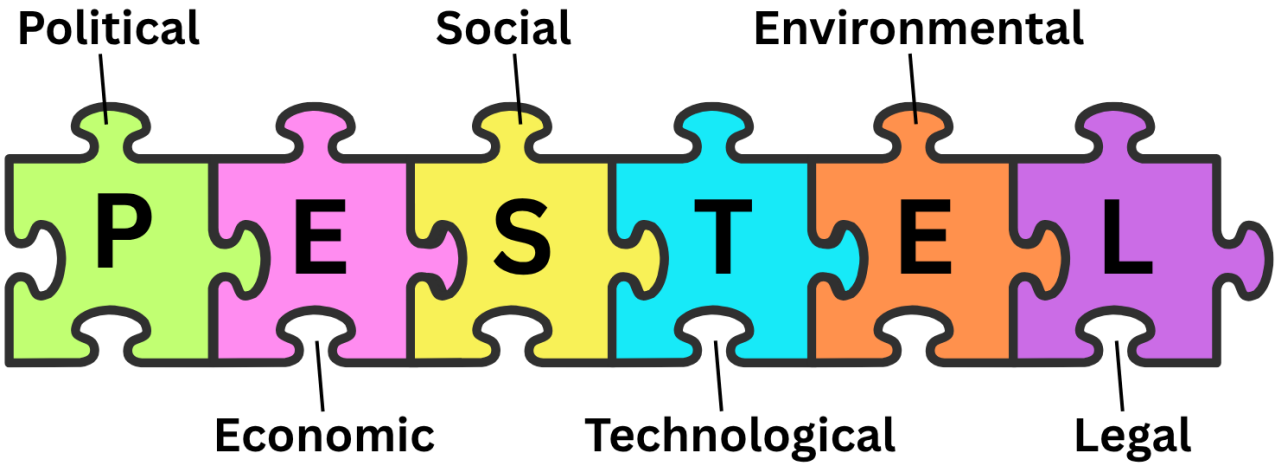

Figure 1. PESTEL Analysis Framework. *Source: The Authors*

Political Factors (P)

Political factors refer to how government actions, political stability, and public policies affect a given environment. These include government regulations, tax policies, trade restrictions, political ideologies, and international relations. For researchers, political analysis may involve studying the influence of government interventions on markets, regulatory risk, or policy changes impacting a specific sector. In countries with unstable political systems, for instance, investment risks may be higher, shaping research in economics, tourism, or development studies.

Example: The introduction of protectionist trade policies in the United States under the Trump administration significantly influenced global supply chains and foreign investment flows, prompting studies in international business and economics.

Economic Factors (E)

Economic factors assess the macroeconomic conditions that shape the economic landscape, such as GDP growth rates, inflation, interest rates, exchange rates, and employment trends. These variables are critical in determining market viability, investment decisions, and financial sustainability. Economic analysis in PESTEL often uses data from national statistics offices, the IMF, or the World Bank to identify trends and challenges.

A foundational understanding of the business environment can be developed using PESTEL analysis, which Gupta (2013) describes as a tool for decoding the external landscape in strategy formulation. Kew and Stredwick (2017) emphasize that understanding external forces via frameworks like PESTEL is a critical component of managing the modern business environment.

Example: Researchers studying consumer behavior may correlate inflationary pressure with changes in spending patterns, particularly in sectors like retail or hospitality.

Social Factors (S)

Social or sociocultural factors encompass demographic trends, cultural values, education levels, social mobility, lifestyle preferences, and health indicators. These variables help explain how societal changes affect consumer needs, labor markets, or public services. For research purposes, understanding social context is crucial when analyzing human behavior, public health systems, or educational outcomes.

Example: Aging populations in countries like Japan and Germany have driven demand for healthcare innovation and automation, influencing both social policy and market research.

Technological Factors (T)

Technological factors include innovation trends, R&D activity, technology adoption rates, digital infrastructure, and emerging technologies such as AI, IoT, or blockchain. This domain is particularly relevant in fast-evolving sectors like information technology, fintech, or education. Technological foresight and diffusion studies are often integrated within PESTEL to explore the transformative potential of innovation.

In the context of digital entrepreneurship, Fernandez-Portillo, Almodóvar-González, and Díaz-Casero (2022) applied the PESTEL model to examine technological and policy-related disruptions.

Example: The rapid adoption of digital platforms during the COVID-19 pandemic accelerated the growth of remote work and e-learning, prompting studies on productivity, digital literacy, and access equity.

Environmental Factors (E)

Environmental factors refer to ecological and sustainability-related issues, including climate change, resource scarcity, environmental regulations, carbon emissions, and corporate environmental responsibility. These considerations are increasingly central to research in fields such as environmental science, sustainable development, and corporate social responsibility.

To enhance the rigor of environmental scanning, scholars have proposed incorporating multi-criteria decision-making (MCDM) techniques into frameworks like PESTEL, especially when prioritizing external factors (Ho, Xu, & Dey, 2010). Case studies such as Kajanus et al. (2012) demonstrate how PESTEL can be applied in environmental and natural resource planning through decision-support models. Environmental scanning techniques such as PESTEL can also act as drivers of innovation, especially when aligned with sustainability goals (Valls & Bagur-Femenías, 2017).

Example: The European Union's Green Deal policy has spurred research on decarbonization strategies and environmental impact assessments within heavy industries and transportation.

Legal Factors (L)

Legal factors address the formal regulatory frameworks and legal obligations that organizations and individuals must comply with. These include labor laws, consumer protection regulations, intellectual property rights, antitrust laws, and health and safety standards. Legal analysis helps researchers evaluate institutional constraints, compliance burdens, and the legal environment's role in shaping business or policy outcomes.

Example: Studies on the gig economy often explore how changing labor laws impact platforms like Uber or Deliveroo, especially in relation to worker classification and rights.

RESULTS AND DISCUSSION – PESTEL BEST PRACTICES

This section presents a synthesis of best practices for applying PESTEL analysis in academic research, derived from the literature review and methodological synthesis. The recommendations aim to enhance analytical rigor, comparability across studies, and interdisciplinary relevance. Figure 2 illustrates a simplified four-step model for conducting a PESTEL analysis, which serves as a foundation for the deeper practices discussed below.

1. Define the Objective and Scope of the Analysis

The starting point for any PESTEL analysis should be a clearly defined research objective and scope. Researchers must specify whether the analysis serves an exploratory, explanatory, or policy-supporting function. Narrowing the geographical, sectoral, or temporal scope avoids vague generalizations and improves the precision of environmental scanning.

Best Practice: Link the PESTEL framework directly to the central research question or hypothesis.

Example: A study examining the impact of technological disruption on public education systems should clearly focus the analysis on the education sector, over a defined policy period (e.g., 2020–2030), and within a specific national context.

2. Use Reliable and Interdisciplinary Data Sources

Each dimension of PESTEL requires data from distinct and often disciplinary-specific sources. Political and legal factors may be derived from government reports or international treaties, while social or technological factors require indicators from statistical agencies, academic publications, or industry-specific databases. Best Practice: Combine quantitative indicators with qualitative insights for a balanced and multi-dimensional evaluation. Example: When analyzing environmental factors in the energy sector, include both emissions data (quantitative) and policy trends from EU Green Deal legislation (qualitative).

3. Contextualize Factors with Critical Commentary

Rather than listing factors mechanically, researchers should interpret them in light of existing theories, trends, and contextual dynamics. This helps avoid superficial or checklist-style reporting and promotes analytical depth.

Best Practice: Integrate scholarly literature to support factor interpretation and link them to broader systemic or sectoral trends.

Example: Instead of stating "rising inflation is an economic risk," connect it to consumer behavior shifts and investment volatility, citing relevant studies on macroeconomic impacts.

4. Highlight Interdependencies Between Dimensions

One major limitation of traditional PESTEL applications is the artificial separation of factors. However, legal and political issues often overlap, and social values influence environmental regulation. Acknowledging these interdependencies leads to a more realistic understanding of the external environment.

Best Practice: Identify and briefly explain at least two cross-dimensional interactions within the analysis.

Example: Political decisions on renewable energy subsidies directly affect technological investment and social acceptance, creating a feedback loop between the P, T, and S dimensions.

5. Adapt the Framework to Fit the Research Context

While PESTEL provides a standard structure, researchers should remain flexible and adapt it where appropriate. In some cases, additional categories (e.g., Ethical or Demographic) may be justified. Alternatively, hybrid models such as PESTEL-SWOT can enhance strategic insights.

Best Practice: Justify any modifications or extensions to the standard PESTEL model, citing relevant methodological literature.

Example: In sustainability research, integrating a "Sustainability" (SUS) dimension into PESTEL may be useful, as proposed by Farahdel et al. (2024), allowing a deeper focus on ESG-linked criteria.

6. Synthesize Findings for Strategic or Policy Implications

The ultimate goal of PESTEL in research is to inform decision-making, theory-building, or scenario planning. Summarizing the main risks, opportunities, and trends helps translate analytical findings into actionable knowledge.

Table 1. Summary of the best PESTEL practices. *Source: The Authors*

	Best Practice Step	Key Recommendation	Example
1	Define Objective and Scope	Link PESTEL directly to research question or hypothesis	Education sector, 2020–2030, national policy focus
2	Use Reliable and Interdisciplinary Data Sources	Use a mix of qualitative and quantitative data from multiple disciplines	Combine EU legislation with emissions data
3	Contextualize Factors with Critical Commentary	Interpret findings using literature and contextual analysis	Connect inflation to consumer behavior using studies
4	Highlight Interdependencies Between Dimensions	Explain at least two cross-dimensional interactions	Show how political decisions impact tech and society
5	Adapt Framework to Research Context	Modify framework only with justification and references	Add "Sustainability" dimension for ESG research
6	Synthesize Findings for Strategic Implications	Use tables/matrices to summarize risks, trends, and opportunities	Rank factors by urgency or change likelihood

Best Practice: Use tables or matrices to visually communicate key insights and emphasize relevance to stakeholders or future studies.

For example, a final table could rank the most impactful macro-environmental factors by urgency or likelihood of change over the study horizon.

In alignment with established practice-oriented guidance, the PESTEL analysis process can be distilled into four essential steps: understanding the external environment, identifying key influencing factors, evaluating their potential impact, and acting upon the insights (Fig. 2). This structured flow, as summarized by Jalan (2024), provides a clear roadmap that enhances methodological consistency while retaining flexibility across different academic disciplines.

When visualized, as in Figure 2, the model serves as both a checklist and a cognitive map that guides researchers through the complexity of environmental scanning in a logical and accessible manner.

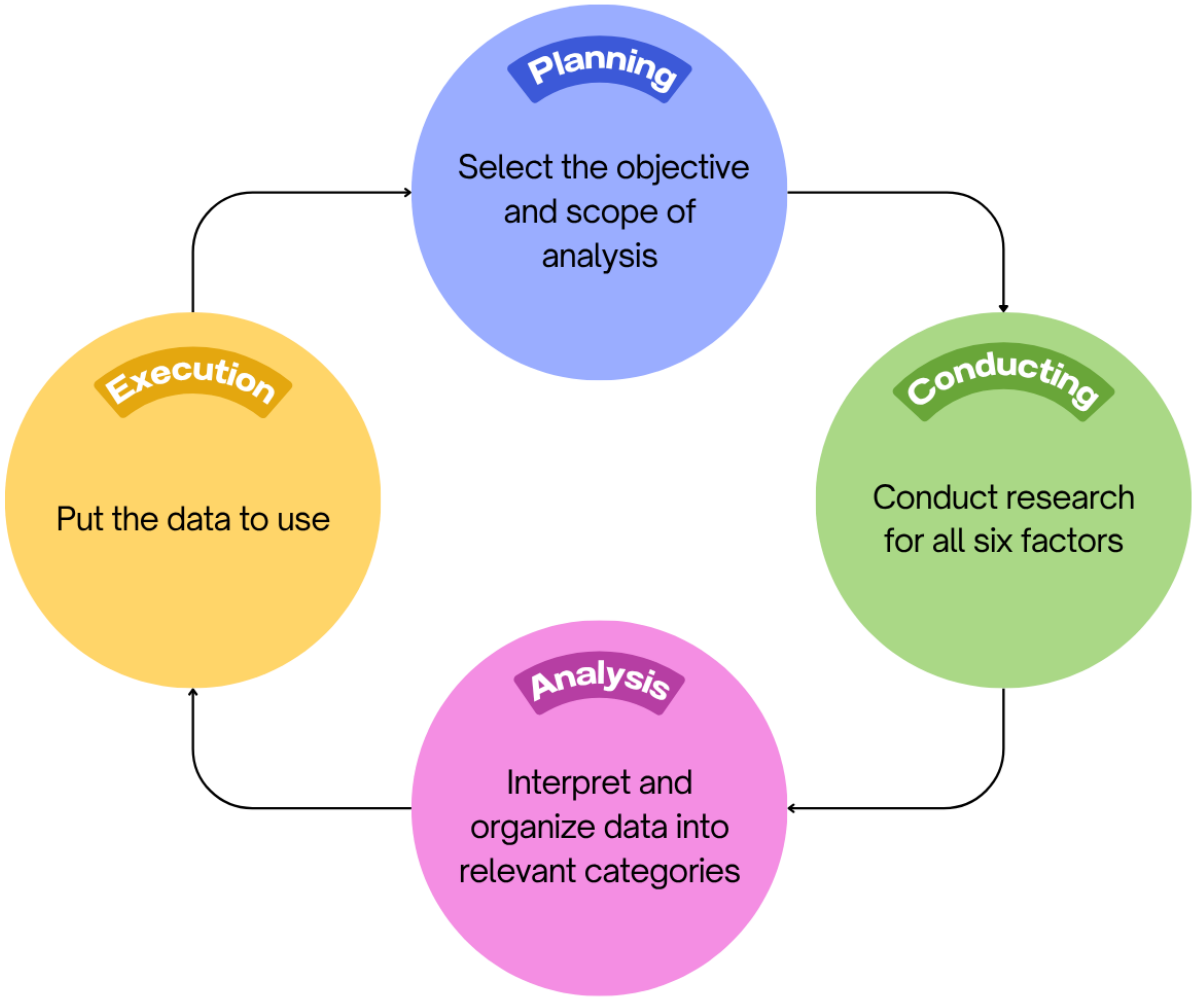

Figure 2. How to Conduct a PESTEL Analysis - Four Basic Steps.
Source: The Authors, based on Jalan, A. (2024).

While this four-step model is widely adopted in business and management contexts, its academic application requires greater depth and critical reflection. Researchers are encouraged to go beyond surface-level identification and interpretation, incorporating interdisciplinary literature, quantifiable indicators, and context-specific commentary into each stage.

Thus, while the figure provides a simplified conceptual entry point, the academic utility of PESTEL lies in how rigorously and reflexively each step is operationalized within the broader research design (Jalan, 2024).

QUANTIFIED PESTEL APPROACHES

As the PESTEL framework gains traction across academic and applied fields, scholars have increasingly emphasized the need to transition from purely qualitative assessments toward more structured, quantitative interpretations. This emerging shift – often referred to as "quantified PESTEL" – allows for the objective weighting and prioritization of macro-environmental factors, making the model more actionable for strategic decision-making. Rather than treating each category equally, researchers use decision-support tools to analyze relationships between factors, rank their importance, and calculate overall environmental favorability.

One of the most influential contributions in this regard is the study by Yüksel (2012), who developed a multi-criteria decision-making model that integrates DEMATEL (Decision-Making Trial and Evaluation Laboratory), AHP (Analytic Hierarchy Process), and ANP (Analytic Network Process) into a unified PESTEL structure. In this model, researchers begin by identifying specific sub-factors for each of the six PESTEL dimensions. DEMATEL is then applied to analyze the causal relationships and interdependencies between these dimensions, highlighting which factors exert the most influence. AHP is used to calculate local weights for each sub-factor based on expert evaluation, while ANP aggregates these scores into global weights that reflect both importance and influence. The resulting model transforms the conventional PESTEL into a dynamic, weighted diagnostic tool that can classify external environments as supportive, neutral, or unsupportive for specific decisions or organizations.

Table 2. Quantified PESTEL Weights Using AHP, DEMATEL, and ANP (Based on Chutiphongdech, 2022; Yüksel, 2012)

PESTEL Dimension	Local Weight (AHP)	Interdependency Influence (DEMATEL)	Global Weight (ANP)
Political	0.15	Moderate	0.14
Economic	0.18	High	0.20
Social	0.12	Low	0.10
Technological	0.22	High	0.21
Environmental	0.05	Low	0.06
Legal	0.28	Very High	0.29

Table 2 illustrates the output of a quantified PESTEL analysis using a hybrid decision-making methodology that combines AHP, DEMATEL, and ANP. The Legal dimension emerges as the most influential factor, receiving the highest global weight (0.29), closely followed by Technological (0.21) and Economic (0.20) aspects. This suggests that regulatory frameworks and digital innovation are perceived as critical drivers in the external macro-environment. Meanwhile, Environmental and Social dimensions exhibit comparatively lower global weights, reflecting their lesser strategic impact in the analyzed context. The integration of interdependency analysis (via DEMATEL) highlights how certain dimensions – particularly Legal and Technological – exert cascading influence over others, thereby justifying their weighted prioritization in the final model. These findings reinforce the utility of

quantitative PESTEL in enhancing decision-making by transforming subjective assessments into structured, evidence-based insights.

Additional case studies reinforce the utility of this approach. For instance, Chutiphongdech (2022) applied a PESTEL-AHP framework to evaluate strategic challenges in Thailand's public airport sector. Based on expert input, the most critical macro-environmental factors were found to be legal and technological, which received weighted scores of 28% and 22%, respectively – highlighting how quantification can expose sector-specific risks. Similarly, Vardopoulos et al. (2021) introduced an integrated SWOT-PESTEL-AHP model for use in adaptive reuse planning for historic buildings. Their findings confirmed that quantitative environmental scanning can enrich sustainability-oriented planning and enable more transparent prioritization of external pressures. Together, these models underscore a growing academic consensus: that the PESTEL framework, when empowered by multi-criteria analysis, can evolve into a more predictive and evidence-based tool for strategic evaluation.

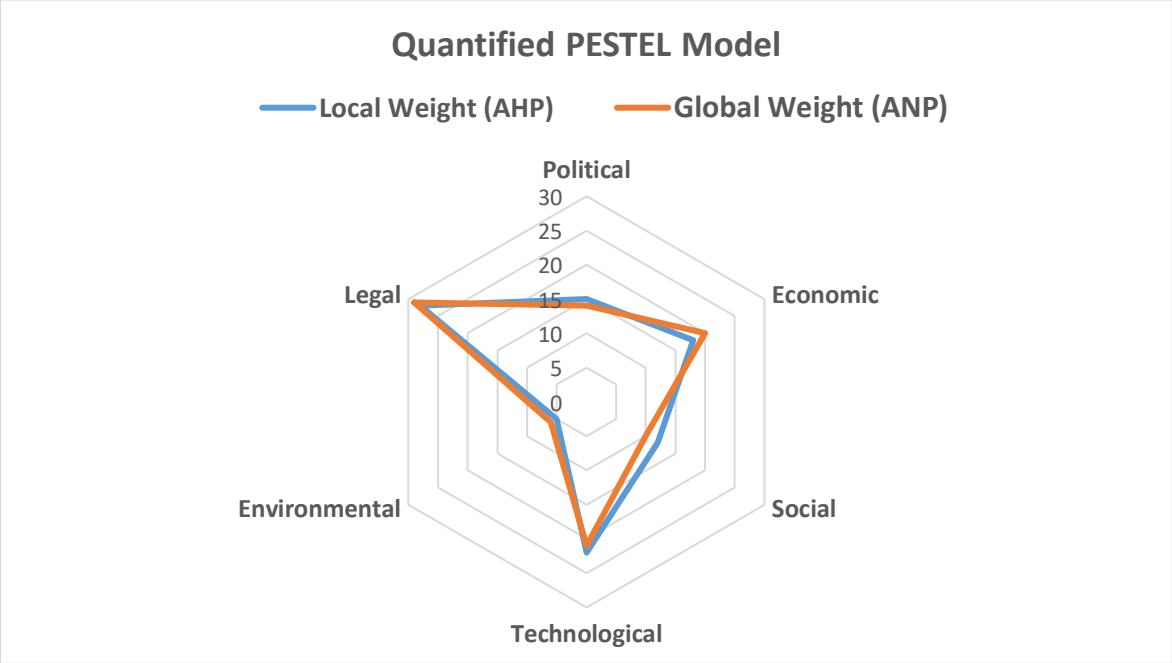

Figure 3. Quantified PESTEL Model: Weighted Influence of Each Dimension Using AHP, DEMATEL, and ANP. *Source: The Authors (Based on Chutiphongdech, 2022; Yüksel, 2012)*

Figure 3 presents the quantified impact of each PESTEL category based on a multi-criteria model incorporating AHP, DEMATEL, and ANP. The size and color of each segment reflect its global weight, while directional arrows may be used to illustrate interdependencies (inspired by DEMATEL results). Legal and Technological dimensions dominate the strategic landscape, underscoring their outsized influence in shaping external conditions for planning and evaluation.

Figure 4 visualizes the global weights of PESTEL categories as calculated via a hybrid model combining AHP, DEMATEL, and ANP. Legal (29%) and Technological (21%) dimensions hold the greatest strategic influence, while Social (10%) and Environmental (6%) factors rank lower in the analyzed context. Interdependencies (arrows) indicate cross-influences between categories, derived from expert-based causal mapping.

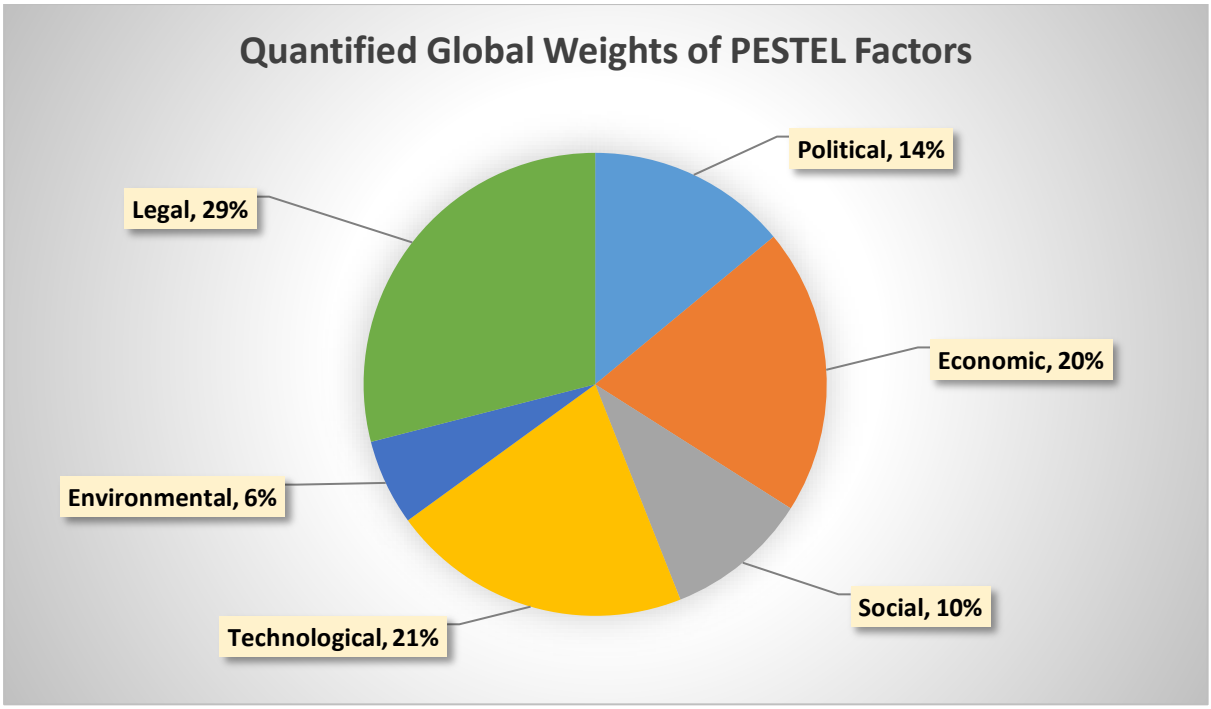

Figure 4. Quantified PESTEL Model: Relative Importance of External Factors.
Source: The Authors (Based on Chutiphongdech, 2022; Yüksel, 2012)

The integration of quantitative methodologies into the PESTEL framework represents a meaningful evolution in strategic analysis, bridging the gap between qualitative insight and data-driven decision-making. By applying tools such as AHP, DEMATEL, and ANP, organizations and researchers gain the ability not only to identify external pressures but also to measure and prioritize them with empirical precision. As such models become more accessible and adaptable across sectors, Quantified PESTEL is poised to become an essential extension of traditional environmental scanning. This shift paves the way for more informed strategic planning – one that is grounded in both expert judgment and measurable influence. The following conclusion summarizes the key contributions of this paper and outlines best practices for the future use of the PESTEL methodology.

CONCLUSION

This article has provided a comprehensive and practice-oriented guide to creating a robust PESTEL analysis. From foundational concepts and literature trends to practical implementation steps and visual models, the paper serves as both an academic overview and a practical handbook. By outlining a four-step method and highlighting common challenges, the article helps both researchers and professionals enhance the strategic value of their macro-environmental analyses.

A significant contribution is the integration of Quantified PESTEL, offering a hybrid model that uses AHP, DEMATEL, and ANP to assign weights and reveal causal relationships among PESTEL dimensions. This advancement adds analytical depth and objectivity to an otherwise qualitative framework, making it more adaptable to data-driven and complex environments.

The findings suggest that PESTEL analysis, when designed carefully and supported by methodological rigor, remains a vital tool for strategic planning, especially in contexts shaped by uncertainty, regulation, and technological change. The article encourages future research to explore

dynamic applications of PESTEL – such as real-time analysis, AI-enhanced forecasting, or sector-specific adaptations – as well as its integration into more comprehensive decision-making ecosystems like TOWS, SWOT, or scenario modelling.

By bridging conceptual clarity with applied insights, the article aims to support both academic understanding and practical application of PESTEL as a decision-support tool for navigating today's volatile external environment.

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