

PESTLE TECHNIQUE – A TOOL TO IDENTIFY EXTERNAL RISKS IN CONSTRUCTION PROJECTS

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Abstract : *Effective risk management can bring greater rewards to project performance by enhancing productivity and reducing the impact of threats . Risk Identification is thus the first step in Risk Management Process . The objective of this article is to identify external risks associated with any construction project by using “ PESTLE Technique “ thus minimizing their impact on project objectives before they actually occur . PESTLE Technique is a strategic management technique which can be used effectively in external risk identification process of Risk Management Plan . It identifies risks under various subgroups under broad headings of Political , Economical , Social , Technological , Legal , Environmental . Internal Risks are easy to identify as plenty of past data for similar type of projects is available with company . It is the external risks which are the beyond the control of company and about which less data is available that makes construction projects vulnerable to failure or incurring heavy losses in monetary terms . As every stakeholder of project want high returns on the invested money it is necessary to identify the risks associated and to take the appropriate measures to mitigate them , so the project will meet all objectives and give better returns on the money invested . PESTLE Analysis works well in conjunction with SWOT Analysis as it helps in identifying internal risks associated with project . This article discusses PESTLE meaning , its historical background , its various forms , step by step method to identify the risks , its advantages and disadvantages , and finally conclusion .*

Key Words : PESTLE , Political , Economical , Social , Technological , Legal , environmental , External Risks .

1. Introduction-

Construction projects are unique in nature . Every project is different from the other. Construction projects have following characteristics : i) Long gestation period ii) Heavy investments iii) Non tradability of output , which makes them susceptible to various risks throughout its life cycle which can affect project objectives in terms of money in form of cost overruns , delays in completion , and inferior quality . Thus it is necessary to identify the risks associated with the project, prior to their occurrence so as to take proper measures to mitigate them.

Broadly Risks are of two types - i) Internal Risks ii) External Risks .

Internal Risks are company specific or project specific about which past database is available in abundance thus can be identified easily using techniques like RBS (Risk Breakdown Structure) , PERT/CPM etc .

External Risks are those risks about which little is known, less database is available , and no structured method is available to identify them . These risks are beyond the control of organization. Thus difficult to identify.

“ PESTLE TECHNIQUE “ is a strong tool borrowed from Strategic Management Techniques of Business Management to identify external risks in construction projects thus act as an aid in Risk Management Process .

2. What is PESTLE -

PESTLE is a strategic planning tool used to evaluate the impact of political, economic, social, technological, environmental and legal factors might have on a project. It involves an organization considering the external environment before starting a project. It is a good way of ensuring one has captured all potential risks and issues.

PESTLE Analysis is an analytical tool for strategic business planning. PESTLE is a strategic framework for understanding external influences on a business or on any project.

PESTLE stands for -

P= POLITICAL

E= ECONOMIC

S= SOCIAL

T=TECHNOLOGICAL

L= LEGAL

E=ENVIRONMENTAL

Political: These factors determine the extent to which a government may influence the economy or a certain industry. [For example] a government may impose a new tax or duty due to which entire revenue generating structures of organizations might change. Political factors include tax policies, Fiscal policy, trade tariffs etc. that a government may levy around the fiscal year and it may affect the business environment (economic environment) to a great extent.

Economic: These factors are determinants of an economy's performance that directly impacts a company and have resonating long term effects. [For example] a rise in the inflation rate of any economy would affect the way companies' price their products and services. Adding to that, it would affect the purchasing power of a consumer and change demand/supply models for that economy. 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're undergoing this analysis.

Social: 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 events include cultural expectations, norms, population dynamics, healthy consciousness, career altitudes, global warming, etc. 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: 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.

PESTLE Analysis is useful for four main reasons:

- It helps you to spot business or personal opportunities, and it gives advanced warning of significant threats.
- It reveals the direction of change within one's business environment. This helps shape what one is doing, so that one work with change, rather than against it.
- It helps one avoid starting projects that are likely to fail, for reasons beyond one's control.
- It can help one break free of unconscious assumptions when one enter a new country, region, or market; because it helps develop an objective view of this new environment.

3. History of PESTLE -

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 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.

4. Various Forms of PESTLE -

This is only a tool . Call it what one like - use whatever factors one feel are appropriate. Variations include:

PEST analysis (STEP analysis) - Political, Economic, Sociological, Technological .

PESTLE/ PESTEL analysis- Political, Economic, Sociological, Technological, Legal, Environmental; PESTEL analysis .

PESTEL analysis- Political, Economic, Sociological, Technological, Environmental, Labour (Labor) related; PESTEL analysis .

PESTLIED analysis- Political, Economic, Social, Technological, Legal, International, Environmental, Demographic .

STEEPLE analysis - Social/Demographic, Technological, Economic, Environmental, Political, Legal, Ethical .

SLEPT analysis - Social, Legal, Economic, Political, Technological .

STEPE analysis - Social, Technical, Economic, Political, and Ecological .

ETPS analysis - Economic, Technical, Political and Social .

Choose the acronym that most suits one's organization and objectives .

5. External Risks Identification By PESTLE -

These steps to be taken to analyze the business environment, and the threats that it presents.

1. Use PESTLE to brainstorm the changes happening around us . Decide the questions to be discussed and tailor the questions to suit the specific needs of one's business.
2. Brainstorm threats or issues that could be caused by them.

3. Take appropriate action.
4. Review the risks and suitable measures to mitigate them from time to time to take in to account changes during the whole lifecycle of project.

Step 1: Brainstorm Factors to be considered under various categories –

Political:

- Government stability.
- Freedom of speech, corruption, party in control
- Regulation trends.
- Tax policy, and trade controls.
- War
- Government policy
- Elections
- Terrorism
- Likely changes to the political environment .

Economic:

- Stage of business cycle.
- Current and projected economic growth
- International trends
- Job growth
- Inflation and interest rates.
- Unemployment and labor supply.
- Levels of disposable income across economy and income distribution.
- Globalization.
- Likely changes to the economic environment.

Social:

- Population growth and demographics.
- Health, education and social mobility of the population
- Consumer attitudes
- Advertising and media
- National and regional culture
- Lifestyle choices and attitudes to these.
- Levels of health and education
- Major events
- Socio-cultural changes.

Technological:

- Impact of new technologies.
- Inventions and innovations
- The internet and how it affects working and business
- Licensing and patents
- Research funding and Development.

Legal:

- Home legislation
- International legislation
- Employment law
- New laws
- Regulatory bodies
- Environmental regulation
- Industry-specific regulations
- Consumer protection

Environmental :

- Ecology
- International environmental issues
- National environmental issues
- Local environmental issues
- Environmental regulations
- Organizational culture
- Staff morale and attitudes

Step 2 : Brainstorm Threats

It's also important to think about how these changes could undermine one's business. If we can understand this early enough, we may be able to avoid these problems, or minimize their impact .

Step 3 : Take Action

Once we have identified significant threats , build the actions to take appropriate actions to manage or eliminate them.

Step 4 : Review and revise

It is essential to review and revise all the listed factors or external risks throughout the project life cycle so as to keep track of new risks entering and changes in the existing ones.

6. The advantages of using the PESTLE tool are:

- The tool is simple and easy to understand and use.
- The tool helps understand the business environment better.
- The tool encourages the development of strategic thinking.
- The tool helps reduce the effect of future business threats.
- Can help an organisation to anticipate future difficulties and take action to avoid or minimise their effect.
- The tool enables projects to spot new opportunities and exploit them effectively.

7. The disadvantages of using the PESTLE tool are:

- The tool allows users to over-simplify the data that is used. It is easily possible to miss important data.
- The tool needs to be updated regularly to be effective.
- The tool is most effective when users come from different perspectives and departments.
- The tool requires users to have access to data sources which could be time consuming and expensive.
- Much of the data used by the tool is on an assumption basis.
- The business environment is changing drastically. Thus, it is becoming increasingly difficult for projects to anticipate developments.
- Users must not succumb to "Paralysis by Analysis" where they gather too much information and forget the objective of this tool which is identification of potential threats so that proper action can be taken.

8. Conclusion -

To maximize the benefit of the PESTLE Analysis it should be used on a regular basis within an organization to enable the identification of any trends which may become external risks beyond our control or may go unnoticed. The impact of certain external factors may have more severe consequences for a particular division or particular department or to the project objectives as a whole thus PESTLE Technique can help clarify why and which is needed in identifying potential options to mitigate external risks. This analysis technique should be used in conjunction with other tools such as SWOT and other strategy tools. The objective of using the PESTLE Analysis is to ensure that nothing key has been overlooked.

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