



A world of difference.

How exploring the external environment helps terminal operators develop their growth strategies.

Terminal operators live in a complex and dynamic world. A world that is forever transforming. A world of difference.

For those with an ambition to grow, focusing solely on their own business performance isn't enough. More so in the logistics sector than many others, examining your external environment is critical to growing successfully.

So how is a port business best placed to combat change in their external environment? By predicting it. Although the future can never be predicted perfectly, by examining their environments carefully a business can anticipate and, potentially, influence environmental change.

This white paper focuses on the logistics industry and looks at examples of macro-environmental factors that terminal operators could consider when determining their strategic direction.

Terminal operators that put a microscope on their macro environment can cope with change and gain a competitive advantage.

Situational analysis

Analysis is the foundation of any strategic management plan. Data must be collected and analyzed to identify issues and key trends. A situational analysis involves a thorough examination of internal and external factors affecting a business.

By performing a situational analysis, a terminal operator can determine the factors that influence the terminal operator's ability to deliver value to stakeholders, and drive the development of their competitive advantages and strategic direction.

The macro environment (external environment)

The macro environment consists of external elements that exist outside of a business's control that can significantly impact its performance and its ability to compete in the marketplace. For businesses in the logistics industry, their exposure to macro-environmental elements is often magnified due to their global footprint.

A commonly used framework to determine how a business might be affected by future issues is the PESTEL analysis. This involves examining the political, economic, social, technological, environmental (green), and legal environments.

PESTEL analysis

By categorizing environmental (in the broadest sense of the word) influences into six main factors, PESTEL provides a comprehensive list of influences on the possible success or failure of particular strategies

The PESTEL factors exert considerable direct and indirect pressures on both domestic and international business activities. Most macro-environmental issues can be divided into separate categories; however, some external issues fall into multiple categories, for example the 9/11 terrorist attacks and the recent British exit from the European Union, which will be felt for decades to come. Issues that arise in one aspect of the environment are usually reflected in other areas as well.



The list below illustrates just a few of the potential aspects to consider for each of the PESTEL factors. Terminal operators will be familiar with the factors most relevant in the context of their terminal.

Political factors

Political factors reflect the stability of the political environment and the attitudes of political parties. Issues that must be considered include trade regulations, tax guidelines, employment laws, resource management and planning, and land use zoning.

Examples:

- **New governments:** Newly elected officials can have a dramatic effect on the political landscape. This in turn could have a significant impact on the logistics industry.
- **Trade agreements:** New agreements like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), a free trade agreement which looks to liberalize trade and investment between 11 Pacific-rim countries, will influence where the countries involved will import from, and export to.
- **Terrorism and war:** These typically result in priorities changing throughout the maritime industry with security taking precedence. Security requirements and wartime priorities compel the world's governments to more closely monitor and inspect all vessels and cargo entering their nation's ports. The resulting delays and consequential financial impacts are felt all along the supply chain.

Economic factors

Economic factors reflect the role the wider economy can play in a business's success. Issues to consider include economic growth rates, the cost of raw materials, exchange rates, inflation and interest rates, economic stability, and levels of employment and unemployment.

Examples:

- **Mega-ships:** Continually searching for economies of scale, the world's largest container carriers are increasingly introducing mega-ships capable of carrying over 19,000 TEUs. Shipping lines are forming alliances to ensure full vessels. Mega-ships are causing cargo peaks in terminals and putting a strain on hinterland transport.
- **The strength of local currency:** For exporters, when the local currency is strong, demand weakens but importers find themselves in an upswing. Conversely, when the local currency is weak, importers suffer and exporters flourish. A nation's currency is often directly related to the amount of trade a terminal in the country handles.



Social factors

Social, or socio-cultural, factors reflect the culture of the society that a business operates within. They may include demographics, age distribution, population growth rates, level of education, distribution of wealth and social classes, living conditions and lifestyle.

Examples:

- **Loss of jobs due to automated machinery:** The introduction of automated machinery such as container-stacking robotic straddles means that job losses are likely to occur. More efficient and technically advanced than current processes, automated features including the use of lasers for guidance will reduce the need for straddle drivers.
- **Growth rate:** As the economies of the BRIC countries (Brazil, Russia, India and China) advance, so to do opportunities for businesses to export to these markets. With fast-growing middle-class sectors keen to spend on overseas branded products, many exporters are turning their attention to these burgeoning nations.

Technological factors

Technological factors reflect how technology can impact the introduction of a product or service into a marketplace. Factors include technological advancements, lifecycle of technologies, the role of the Internet, and research funding and development by governments and businesses.

Examples:

- **Software:** Many terminals worldwide are still using antiquated systems to track cargo and handle terminal operations manually or with basic tools like spreadsheets. A terminal operating system (TOS) is a software solution that allows a terminal operator to track cargo in real time, and ensures costs are captured, minimizing revenue leakage.

- **Automated machinery:** As the size of container ships and throughput increases, terminal operators are beginning to introduce robotic cargo-handling capabilities. Unloading and loading thousands of containers requires coordination that many deem best left to machines.
- **Integration across supply chains:** The integration of data and processes across organizations in the logistics supply chain is increasing. Terminal operators need to consider what implications this will have on processes and technology.

Environmental factors

Environmental factors reflect the laws and attitudes towards the surroundings in which a business operates. Factors include attitudes towards “green” solutions, management of waste, renewable energy utilization, climate change, and recycling.

Examples:

- **Pollution:** Pressure may be exerted by governments, states or environmentalists to ensure terminal operators address factors such as water pollution, air pollution, aesthetics, noise, and transfer of foreign marine species.
- **Expansion:** Terminals are often seen as eyesores, so terminal operators must ensure that any future terminal expansion plans fit in with their environmental settings and their potential impact on aesthetics/visual resources is approved by local councils and the public.
- **Availability of natural resources:** A country’s access to natural resources, and the abundance of such resources plays a major role in global trade.



Legal factors

Legal factors reflect the laws and regulations that must be abided by and any impending legislation that may affect the industry.

Examples:

- **Anti-competitive practices:** Shipping mergers are resulting in dwindling supplier numbers, which many argue are eroding once competitive markets. Organizations such as the U.N. trade and economic think-tank UNCTAD believe the behavior is anti-competitive. Individual governments may look to introduce anti-competitive laws to combat this.
- **Workplace safety:** Safety and security concerns are forcing terminals to impose regulations and provide facilities that may have no commercial return on investment.
- **Industry regulations:** Industry-wide laws such as the container weight verification rule introduced by the International Convention for Safety of Life at Sea (SOLAS) present both hurdles and opportunities to terminal operators.

Applying your analysis

For terminal operators it is important to examine how these factors are changing and the implications that they will have. Many of these factors are linked. For example, a technological factor (a new software system) might have an effect on an environmental factor (reducing pollution). Analyzing these factors and their interrelationships has the potential to create lengthy and complicated lists.

It is therefore essential to narrow down the possibilities in order to identify the key drivers for change.

Key drivers for change

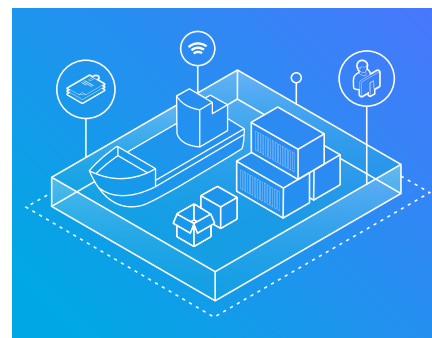
The data gathered by conducting a PESTEL analysis allows a terminal operator to identify the key drivers for change. From the list created, the key drivers for change are the factors that are most likely to have a high impact on the success or failure of the terminal's strategy. Key drivers will differ depending on the industry. For instance, key drivers for a retailer may include social factors such as an aging population, and economic factors such as employment levels. Whereas shipping companies, however, may be more concerned with legislative changes such as the SOLAS Verified Gross Mass (VGM) rule, and political factors such as new governments who may introduce funding and policy changes.

Building scenarios

By creating a selection of scenarios, a terminal operator can predict plausible future macro-environmental conditions that they may face. Scenarios are best developed by taking two of the key drivers for change that have a high potential impact, and a high degree of uncertainty, and plotting them against each other. The factors should be sufficiently different so as to allow for significantly divergent outcomes.

As an example, a terminal operator may see the following two macro-environmental factors as their key drivers of change:

- **Availability of dockside land**—How readily available is dockside land for purchase and terminal expansion?
- **Political stability**—How stable is the political environment in which a terminal operates?



Possible scenarios

- **Expansion:** A stable political landscape and the ability to increase the size of operations lends itself to an expansion strategy.
- **Technology focus:** With a stable political environment and a lack of available land for expansion, a potential strategy for terminal operators is to make current operations more efficient and effective with an investment in technology like a terminal operating system (TOS) or automated machinery.
- **International selective:** With potential land for growth but political instability, one option is to employ a cautious expansion strategy that factors in what affect an international trade embargo with selected countries would have.
- **National/inland focus:** With a lack of available land for terminal expansion and an unstable political environment, a potential strategy for a terminal operator might be to focus on regional or domestic trade by strengthening inland operations with intermodal hubs.

The scenarios developed should not be given probabilities, but should be used by management to be aware of the future conditions they may face and the potential impacts that these conditions could have. Contingency plans should be developed for each of the scenarios.

Empowering management

Examining the macro environment can provide crucial insights for terminal operators with growth ambitions. By doing so, a terminal operator can more effectively develop strategies that pay attention to opportunities and threats that may arise in the future.

A comprehensive situational analysis including determining PESTEL factors, selecting the key drivers of change, and building scenarios can lead to better planning and decision making. Combined with intuition and judgement, management will be empowered to make more effective decisions.

By predicting change and having contingencies in place, a terminal operator improves their chance of long term survival. In the end it could make a world of difference.

About Master Terminal from Jade Logistics Group

Designed to handle all cargo types in one integrated system, Master Terminal is the world's leading terminal operating system (TOS) for mixed cargo ports.

Master Terminal is licensed at over 120 terminals worldwide, from vehicle terminals in Italy to steel terminals in North America.

Implementation is the key to success, and our implementation record is second to none in the industry. Our proven and robust methodology, partnership approach, thorough training and unrivaled implementation timeframes deliver tangible results fast.

Jade Logistics has been designing, building, and supporting innovative logistics software since 1993. Our experienced people understand the global logistics industry and are the foundation on which we build long-term relationships with our customers.

We have offices in New Zealand, Australia, USA, the Netherlands, the United Arab Emirates, and Indonesia.

*For more information, visit us at **jadelogistics.com***

References and recommended reading

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2. Ferrell, O., & Hartline, M. (2011). Marketing Strategy: Text & Cases, 6th Edition. Mason, USA: South-Western Engage Learning.