



MIT SCALE RESEARCH REPORT

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This reprint is intended to communicate research results of innovative supply chain research completed by faculty, researchers, and students of the Global SCALE Network, thereby contributing to the greater public knowledge about supply chains.

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Impact of Trends on Supply Chain Strategies:

Visualizing Future Developments and their Impact on Corporate Supply

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Impact of Trends on Supply Chain Strategies

Visualizing Future Developments and their Impact on Corporate Supply

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Summary: In this project we developed a consolidated database of trends in a table format in order to build visualization modes from standard configurations, as well as help decision makers quickly screen some main parameters to be able to find the most insightful information without any previous training in trends research.

Among the many different aspects of trend analysis on supply chain, translating floods of data and emerging trends on increasingly complex supply chain systems into executable strategy decisions is one of the most difficult challenges facing practitioners today. A promising solution is creating new ways to visualize and analyze trends in the macroeconomic and industry environment as well as emerging supply chain technologies and concepts. When the analyst can produce reports that depicts accuracy and are easy to read and interpret, the company will be aided in choosing the most effective strategic decisions that will sustain the company's competitive advantages in the future.



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KEY INSIGHTS

1. Creation of a method to organize the trends in a table format, in order to help trend evaluators find more easily the trends that will impact a business.
2. We developed an IT-tool for visualization to analyze, interpret, and act on data for a broad supply chain community of the corporate.

Introduction

Chemical companies need clearly focused long-term strategies to build and sustain competitive advantage. Developments and business uncertainties make it However, divergent trends, new difficult for

management in chemical companies to plan their strategies. Paying attention to alternative trends allows chemical industry leaders to anticipate what may lie over the horizon and establish the strategic options needed to deal with developments that could require changes in course.

Digging into trend database, companies in general depend heavily on interpreting the trends that will be the most applicable to its strategy development at the foreseeable moment. Especially in chemical company, several trends in the trend database are applied to forecast a longer period of time, i.e. looking into the next 10 to 15 years, which leans greatly on the reports made by the analysts. Not only do they have to have access to all information available but have to have tools to interpret the directions of the trends.

In this research, we want to provide a guide for trend evaluators on how newly observed developments can impact the different areas in supply chain of the

chemical industry. At the same time, we will develop a IT-tool for visualization that will benefit the user on understanding the likelihood and time horizon of current trends on the upcoming production, markets, suppliers etc. This will help creating an overall view of the industry and which developments have to be integrated to maximize the value for the firm. With this wider perspective, a whole range of characteristics will be appreciated, accommodating the dynamics that surrounds and impacts supply chains of a chemical company.

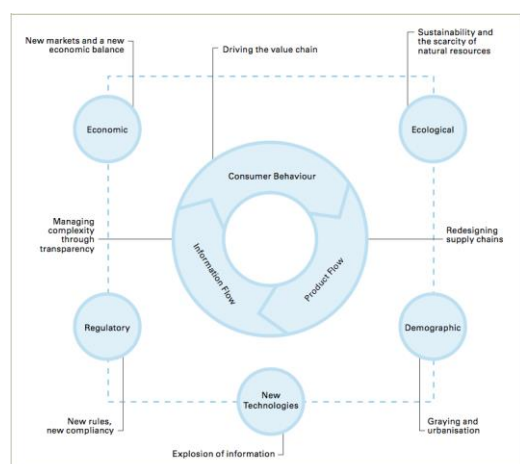
Methodology

STEEP analysis

Macro-to Micro approach

Building the Database

IT-tool Interfaces



The critical trends that will impact the future supply chain

Conclusions

Our Database file was created and an initial input of trends was added to start-up the utilization trials in the firm. The software selected was Microsoft's Excel, a spreadsheet processor that had a user friendly interface while still maintaining a powerful set of analysis capabilities. This software was also chosen for its wide application in the industry, which will be a key characteristic for the maintenance of the application, a very easy feature with this software package.

The Database consists of one main table containing all relevant trends and a set of information regarding each one of them. With this initial data, some visualization interfaces were created, and a couple of useful charts used in trend analysis could be drawn with just a few clicks. The ease of use was seen by our company advisors as a main issue to help stimulate manager's interest in the topic, while the simple chart tools could be used by managers and professionals in corporate strategy when trying to get insights from all the myriad of data a trend analysis can generate.

We can conclude from the inputs given to us by the correspondents that have supported us, that this study and the data generated has indeed been of great support not only to the departments involved in the supply chain, but also for other decision makers in the company. Without a tool to aggregate all research done about trends, the efforts in translating all reports from consulting companies and academic studies was reworked in every occasion, without any knowledge creation for the company. Now there is a consolidation tool that will be maintained by the professionals involved in the company strategy, to help managers throughout the different business units.

Primary References

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