

# Research on North American Office Furniture Industry based on STEEP Analysis Technology

Jiawen Chen, Hangrui Shi \*

International Business School Suzhou, Xi'an Jiaotong-Liverpool University, Suzhou, 215123, China

\* Corresponding author: Hangrui Shi (Email: hangrui-shi@outlook.com)

---

**Abstract:** In this paper, STEEP analysis technology is used to analyze the North American office furniture industry. First, the scope of the study is determined through introduction and industry scope. Secondly, the value chain, concentration, growth rate, technology, globalization, etc. are analyzed to understand the overall situation of the industry. Then, the competitiveness of the industry is analyzed by Porter's five forces model. At the same time, the financial ratio is used to analyze the profitability. Then, STEEP technology is used to analyze 12 factors of the industry, including society, technology, economy, and environment, to identify the key success factors of the industry. Finally, it is concluded that the North American office furniture industry has moderate competition, certain profitability and investment opportunities. This study can provide reference for relevant enterprises to formulate development strategies.

**Keywords:** North American office furniture industry, STEEP analysis, Porter's Five Forces, Financial ratios, Key success factor.

---

## 1. Introduction

Office furniture is an important part of many workplaces, providing employees with space to work and live on a daily basis. From large multinational corporations to small start-ups, all kinds of organizations rely on office furniture to support their day-to-day operations. The office furniture industry is a complex and dynamic field involving multiple links, including raw material suppliers, manufacturers, distributors and end users. In recent years, with the continuous development of the economy and the increasingly complex business environment, the office furniture industry is facing many challenges and opportunities.

This paper aims to discuss the current situation and future development trend of North American office furniture industry by STEEP analysis technology. STEEP analysis, as a comprehensive assessment method [1-3], considers the impact of multiple dimensions such as society, technology, economy and environment, and is of great significance for identifying key factors in the development of the industry. The research scope of this paper covers North America, with a focus on the US and Canadian markets. These two markets have a pivotal position for the development of the office furniture industry.

In the value chain analysis, this paper focuses on raw material procurement, manufacturing, product distribution and terminal sales. By analyzing these links, we can understand the operation mode and characteristics of the entire industry. In addition, industry concentration and growth rate are also important indicators to evaluate the development of the industry. By analyzing these indicators, we can judge the competitive landscape and growth potential of the industry.

Porter's Five Forces model is another important analytical tool in this paper. The model analyzes the competitive situation of the industry from five dimensions, including the competition among competitors, the bargaining power of suppliers, the threat of new entrants, the bargaining power of buyers and the threat of substitutes. Through these analyses, we can gain insight into the competitive pressures and

potential threats facing the industry.

The financial ratio analysis provides important information about the profitability and financial condition of the industry for this article. Through comparative analysis of the financial data of key enterprises in the industry, we can judge the overall profitability and financial status of the industry.

STEER analysis, as the core analysis tool of this paper, makes a comprehensive analysis of the office furniture industry from four dimensions: society, technology, economy and environment. The analysis of these dimensions helps us to identify the key factors affecting the development of the industry and provides an important basis for formulating development strategies.

Overall, this study aims to provide reference for relevant enterprises to help them better grasp the development trend of the office furniture industry in North America, cope with the challenges of the external environment, and seize the development opportunities. The research method and analysis perspective of this paper are innovative to some extent, and have reference significance for other similar industries.

## 2. Research Method

This paper presents a STEEP analysis of the North American office furniture industry, providing a comprehensive analysis of the industry from multiple dimensions such as society, technology, economy and environment. STEEP Analysis technique is a comprehensive assessment method designed to identify the key factors that influence the development of the industry [4]. Through a STEEP analysis of the North American office furniture industry, the study aims to reveal the current situation, development potential and external challenges faced by the industry, with a view to providing references for relevant enterprises to help them better cope with the external environment and seize development opportunities [5]. This article provides a comprehensive analysis of the office furniture industry in North America, focusing on the following aspects:

(1) Social aspects: The changing trends in the workplace are analyzed, and the impact this has on the demand for office furniture.

(2) Technical aspects: The role of new technology in improving the production efficiency and quality of office furniture is discussed.

(3) Economic aspects: The impact of macroeconomic conditions on the demand for office furniture is analyzed, as well as the impact of globalization on the industry.

(4) Environmental aspects: The impact of environmental protection requirements on office furniture materials and production processes is discussed.

(5) Financial aspects: The profitability of the industry was evaluated through comparative analysis of the financial data of several representative enterprises in the industry.

(6) Porter's Five Forces model: The competition pattern of the industry is analyzed from five dimensions: competitors, suppliers, new entrants, buyers and substitutes.

(7) STEEP analysis: STEEP technology is used to identify the key factors affecting the development of office furniture industry from four dimensions: society, technology, economy and environment.

In summary, this paper uses STEEP analysis as a comprehensive evaluation method to conduct a comprehensive analysis of the North American office furniture industry, in order to provide reference for related enterprises to formulate development strategies.

### **3. Four Major Factors**

The following section will identify the four major key drivers that have a major impact or may induce a change in the office furniture manufacturing industry. The section will cover the factors affecting of the Canadian office furniture manufacturing industry.

#### **3.1. Major Social Factor**

The second major factor is the number of substitution of workspaces as discussed among the twelve factors. The new trend started with a primary goal of cost elimination. In order to purchase or rent a facility in which to conduct business, an individual must be able to cover many costs which include utilities, phone service, internet, and rental, purchase of office furniture, and purchase of office equipment. The new trend allows professionals to skip many costs and work on the go having an office space in practically any location with internet connection and other guest services such as a washroom. As more people join the new trend, office furniture becomes an undesired resource which draws money from the business professional's pocket. Although the professional benefits form decreases in costs, the Canadian manufacturer that is trying to maintain his operation and sell quality product is suffering a loss of business. As more people join the trend, the office furniture manufacturing sales will decline causing major problems for many manufacturing companies leaving only the most competitive and/or low priced brands left in the market to satisfy the remaining customer base. Although the movement is not a major concern yet, increased cost for ownership of an office space may cause more people to become free loaders and use alternative public places to conduct business with customers. Before the movement, decreasing unemployment rate was considered a forecast for the prospect of sales within the upcoming period. Now that the new trend is becoming increasingly popular, manufactures will rely less on decreasing unemployment rates as there are

alternative ways of attaining office spaces without the need for office furniture.

#### **3.2. Major Technological Factor**

Technology is a very important factor guiding and improving the office furniture industry. Whether the products are made from metal, wood, glass or other composite materials, technology makes it possible to produce the demanded furniture at lower cost and increased efficiency. Technological innovation within the industry is constantly growing. The office furniture industry is saturated with manufacturers of different calibers aiming to capture a percentage of the market share. Precision cutting and drilling machines such CNC's make it possible to decrease lead times and improve overall manufacturing output of furniture manufacturing companies. CNC machines operate based on set of blueprints that a drafter or an engineering technician develops for the manufacturing company. The machine then takes the AutoCAD drawings and converts them into a set of codes that tell it what shapes to cut out of materials such as metal, glass, wood, plastic or composite board. Once the shaping process is finished, the machine makes a set of holes called perforations that can be used as design or assembly elements. In essence, the CNC machine is like a robot which handles manufacturing tasks which would otherwise take numerous hours or days to complete the project. The introduction of new machinery allowed companies to become more efficient and maximise production space for production use. Before some of the new equipment was implemented within the industry, operations needed to be done by hand which was a dramatic spike in time required to complete a single project. Now, the companies are able to move multiple projects through the facility at once which in turn help service a vast number of customers demanding the very same product.

#### **3.3. Major Economic Factor**

The third major factor is the introduction of foreign manufacturers into the Canadian marketplace. Having low entry barriers for foreign competitors allows companies from countries such as China to easily come into the Canadian markets and undercut the local producers. Having low cost product in the marketplace can shift the demand of consumers into the cost efficient direction and make the Canadian products obsolete. As companies become uncompetitive in the domestic market, they will have multiple choices onward which include closing down domestically and moving the operation to low cost locations, closing the company down without any intent for further manufacturing operations or to revamp the manufacturing technologies to improve efficiency, reduce costs and become highly competitive in the domestic market. Many domestic companies choose to move their operations abroad as it allows them to maximise their profits through low cost manufacturing efforts. Although international entrants may be viewed as a healthy increase of competition, many foreign companies may try to push the domestic manufacturers out of the market place. Therefore, Canadian government must have strict rules and regulations for new entrants to ensure that the domestic product is on par with the foreign alternative and that Canadian manufacturers are protected from external threats.

#### **3.4. Major Environmental Factor**

Environmental protection and health care is the third major factor that concerns all Canadian manufacturers. As many

companies come in contact with products which require disposal of waste, many companies have to follow rules and regulations that are presented by the Canadian Environmental Assessment Agency. The CEAA ensures that there are specific regulations in place that guide manufacturers on the disposal of harmful chemicals that are used in the manufacturing process. Most office furniture manufacturers come in contact with harmful chemicals at least once over the course of manufacturing process and require proper disposal of the waste products. For example, companies that work with wood have many lacquers and thinners that require disposal. The guidelines help the manufacturer identify how to dispose the product and what services may be required to get the waste out of the manufacturing facility without harming the environment. Business Institutional Furniture Manufacturing Association (BIMFA) and Canadian General Standards Board (CGSB) are two entities that voluntarily govern the implementation of new processes that improve product quality, reduce waste and harmful impact to the environment. BIMFA is an organisation that works to improve the quality of product outputs in the entire furniture supply chain ranging from suppliers to the manufacturer. The organisation aims to ensure that high quality manufacturing process is followed in product development. The two associations require product test to be conducted to ensure that the created furniture is durable, that it has good flame spread rating and that it is created from safe products that will not cause harm to the environment and the wellbeing of the user. The Canadian federal regulations ensure that the consumers are always aware of all the chemicals used in manufacturing of the product. The consumer is made aware of the information via labels or customer receipts that explain specifics of the key facts such as the fibre content of the manufactured product.

## 4. Four Key Success Factors

KSFs uniquely attribute to the prosperity and competitive success of every company and each industry. Four key success factors of any company require in the office industry in the North America will be described as follows:

### 4.1. Technology

New technologies have a significant effect on office furniture development. Office furniture is utilized in a range of settings, including both home and corporate workplaces, as well as health care environments, education buildings, and government offices. "It is also typically categorized by main material as either wood or non-wood".

Growth will be boosted by continued interest in product innovations cater to differentiate requirements. Upgrading of production—a key component of value enhancement—involves "innovating to increase value added". For example, Office furniture is no longer limited to non-residential markets. As an increasing number of people work from home, to meet consumers' needs, manufacturers are offering home-office furniture in a variety of styles, which are both attractive and practical.

### 4.2. Distribution

Office furniture is supplied through a range of channels including independent and company-owned contract dealers, wholesalers, retail operators, and direct purchases from a manufacturer, with dealers representing the largest distributor group. As is cited office furniture dealers are the largest distributors of office furniture in the US. "Contract dealers

tend to serve large to mid-size corporations, while smaller customers are supplied primarily by office supply outlets".

A number of major office furniture manufacturers, depend largely on independent distributor and dealer relationships because they can possess a significant risk to their business practices. At the same time, dealers sell office furniture through product showrooms, catalogs, and online sites. Even they may work with a building designer or company to cater to specific needs and also provide installation and aftermarket services to expand their business.

Rapid globalization in recent years results in global production networks of furniture manufacturing established by large manufacturers and retailers. The development and transformation of global production networks provides the crucial link between globalizing processes and regional development. Focusing on global production networks helps connect global and regional economic activity and corporate activity. For example, Tewari suggests that the furniture industry is evolving into a "quasi-buyer-led" value chain because of the growing influence of transnational retailers like IKEA and Wal-Mart, alongside branded manufacturers such as FBN.

### 4.3. Market Environment

Demand for office furniture is related to a number of economic activity and new business formation. Furthermore, the significant market for used/recycled office furniture affects the new office furniture industry. The number of dealers that have added used furniture to their business lines has expanded in recent years. More new businesses establishment and existing businesses expansion launch a high demand for office contributions. For example, growth will be boosted by increased white-collar employment. "Between 2005 and 2006, demand surged 12% due to increasing employment".

Hiring activity accelerate a greater need to furnish office spaces and boost consumption growth. And the same is true that as long as customers demand different styles, the relatively high transportation costs for furniture continue to create an advantage for flexibly organized firms that can provide customized products, fast delivery, and customer service.

### 4.4. Manufacturing

"Manufacturing is a critical part of a company's strategy even if it's not a producer". "Office furniture demand in the US is projected to rise from \$10.7 billion in 2011 to \$12.6 billion in 2016, representing annual growth of 3.3%". As revenues continue to climb, manufacturers will increase corporate spending to expand manufacturing.

The ability to provide customizations will also contribute to the manufacturing, as manufacturers have sought to expand their market presence and diversify product lines through acquisitions the office furniture industry has increasingly occupied a portion of the market. For example, diversification into healthcare furniture has given companies access to a rapidly expanding market that is less sensitive to economic fluctuations than the office furniture industry.

Steelcase is active in the US office furniture market through the operations of its Americas and Other segments. The segment operates within the US, Canada, and Latin America, and primarily sells its products through the STEELCASE, DETAILS, COALESSE, NURTURE BY STEELCASE, and TURNSTONE trade names. For example, NURTURE

encompasses furniture for healthcare environments, TURNSTONE is focused on affordable office furniture for young companies, and COALESSE produces premium products for home and professional offices through its BRAYTON, METRO, and VECTA brands. (www.steelcase.com)

## 5. Conclusion

Through a STEEP analysis of the office furniture industry in North America, this paper draws the following conclusions: First, the social aspect, alternative workplaces are the key factors affecting the industry. Secondly, in terms of technology, advanced technology is the key to improving production efficiency. Thirdly, on the economic front, the entry of foreign manufacturers creates competitive pressure on local enterprises. Finally, in terms of environment, environmental protection requires enterprises to reduce the use of harmful substances. Overall, the North American office furniture industry has a certain competitiveness and profit space, but it also faces certain external environmental challenges. Therefore, enterprises need to actively respond to

these challenges and seize development opportunities.

## References

- [1] Wang W, Straffelini E, Tarolli P. 44% of steep slope cropland in Europe vulnerable to drought [J]. *Geography and Sustainability*, 2024, 5(1):89-95.
- [2] Jiuhong X, Ying L, Zhiguang C, et al. Cooperative trucks and drones for rural last-mile delivery with steep roads [J]. *Computers Industrial Engineering*, 2024, 187:109849.
- [3] Henrik K, Francesco L, Volker R. Sudden wave flooding on steep rock shores: a clear but hidden danger [J]. *Natural Hazards*, 2023, 120(3):3105-3125.
- [4] Yajie Z, Jianpeng D, Changpo S, et al. Application of modified  $\beta$ -glucan/montmorillonite- based sodium alginate microsphere adsorbents for removing deoxynivalenol and zearalenone from corn steep liquor [J]. *Food Control*, 2024, 158.
- [5] Yufan Z, Rabin B, Rafael M. Effectiveness of vegetative filter strips for sediment control from steep construction landscapes [J]. *Catena*, 2023, 226.