



The future of freight transportation :

Megatrends and Business value



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Index



INTRODUCTION

SECTION 1

Five key megatrends in Transportation and Logistics

SECTION 2

Digital vision for shaping the future: Top disruptive technologies and best implementation examples

SECTION 3

A glimpse into the future: Unlocking value in transportation and logistics

CONCLUSION



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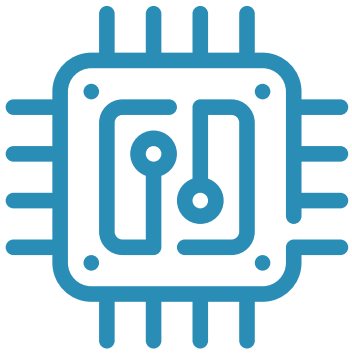
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Introduction

Today's rapidly evolving market environment, in which companies operate, survive and grow, is highly competitive. Achieving an advanced level of supply chain management is critical for a company's long-term viability, and modes of transportation for foreign movement serve as a landmark for the entire industry. There are key megatrends that influence cultural, economic, political and technological changes, adversely affecting the future freight transportation system on a global scale. The fast technological advancement, environmental sustainability, increased international trade, and high customer expectations, all require employing technology in freight transportation.

Digital technologies are disrupting a vast variety of markets. Transportation and logistics companies are implementing new technology to increase service efficiency, reduce added costs, and enhance the customer experience. They participate in digital transformation because they believe it is the best way to achieve success in today's market while gaining a competitive advantage for the future. The freight transport is becoming more data-driven, with advancements permeating all aspects of the industry.

This study explores the variety of megatrends and emerging technologies that boost the development of the freight industry in multiple ways and provides background for thinking about how digitization will impact transportation and logistics' future. While freight transportation remains a difficult challenge, it can also be a breeding ground for the kind of cutting-edge innovation that can turn complexity into opportunity. The transformative force of smart roads, delivery drones and connected and autonomous vehicles are shaping the future of freight transport with the adoption of intelligent transport systems.

Introduction

Section 1

Section 2

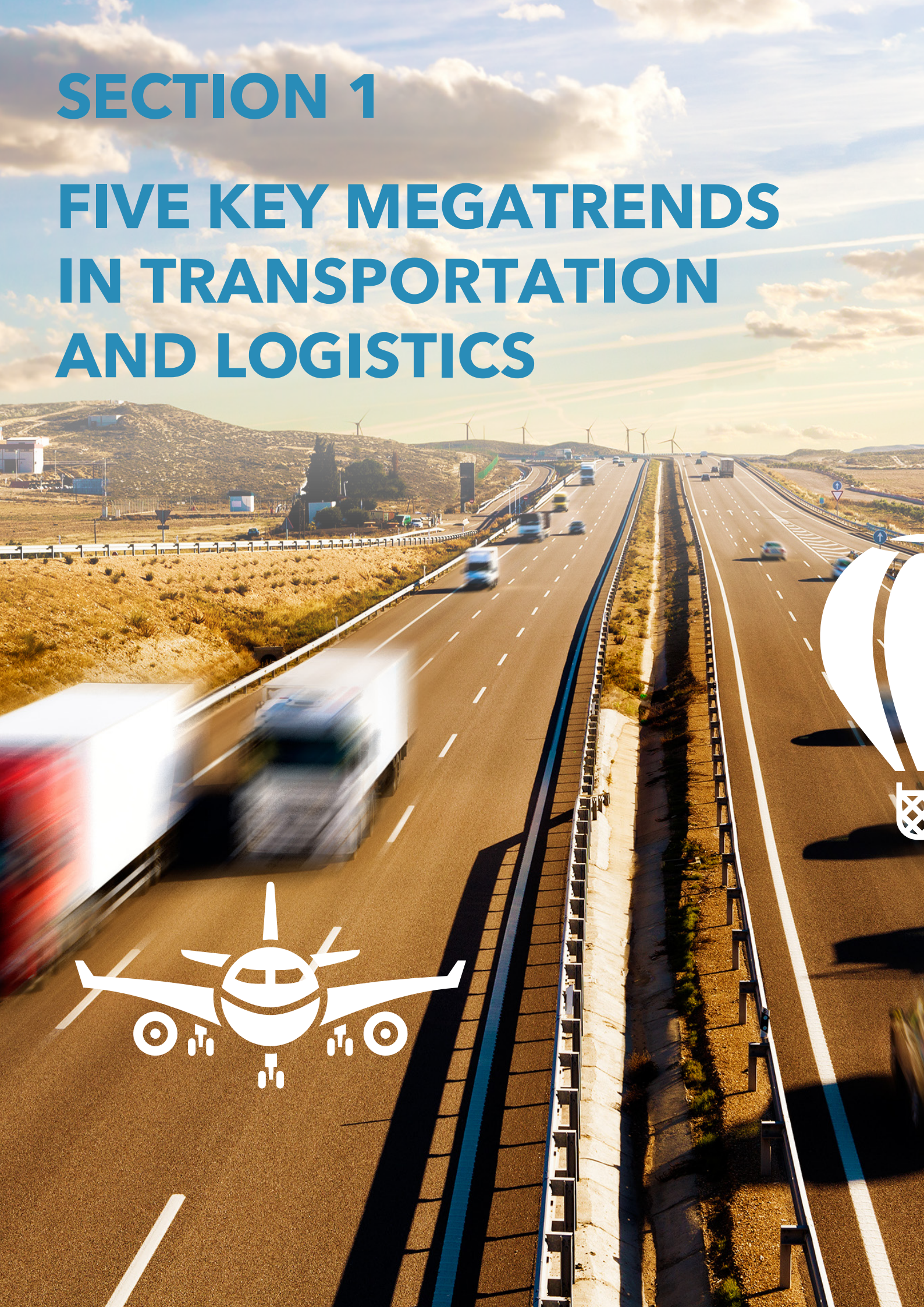
Section 3

Conclusion



SECTION 1

FIVE KEY MEGATRENDS IN TRANSPORTATION AND LOGISTICS





1.
*Digital
Transformation*



3.
*Environmental
sustainability*



2.
*Increasing customer
expectations
defining business
value*



4.
*Growing
international
trade trends*



5.
*Growing
population/
Urbanization*

Introduction

Section 1

Section 2

Section 3

Conclusion



1. Digital Transformation

The fast-paced technological growth is currently reshaping the entire transportation and logistics industry, thus a deeper understanding of industry's core of values and their impact on future targets are crucial to ensure resilience during times of uncertainty. Among many others, this sector has reaped the gains of globalization, with expanded overseas exchange providing lucrative opportunities for businesses to build on. These companies were instrumental in the growth of the global trade network and continue to play an important role in the international market. Freight transport is also a critical component of this dynamic system; without them, the whole trade world would collapse.

Adding to this and in accordance with the constant changing customer needs, the industry has substantially grown and transformed over time. Particularly, many firms in the freight sector are undergoing rapid transition, with exciting advancements providing both opportunities and challenges. It goes without saying that digitalization is transforming markets worldwide, including the logistics industry. As the freight transport industry embraces digitalization, new technologies are reforming the landscape, affecting every level of the supply chain whilst encouraging cost savings and efficiency improvements.¹ Nevertheless, the continuous effort of businesses to adapt in the new norm of ambiguity is reflected through complexity and diversity as a result of the recent exponential market growth of these service sectors, as well as the strong relationship between people and technology, stemming from the global supply chain networks and emerging innovations.²

1. Wallenborn, F. (2020, January). Accelerating change: new technology is transforming transport. European CEO.

2. Mikl, J., Herold, M, D., Ćwiklicki, M., Kummer, S. (2020, November). The impact of digital logistics start-ups on incumbent firms: a business model perspective. The International Journal of Logistics Management

Introduction

Section 1

Section 2

Section 3

Conclusion





The freight transport and logistics (FTL) industry is entering a new digital era, mainly characterized by highly technological breakthrough, with robots outstandingly performing complicated tasks and being assigned to mainstream functions, such as tracking, researching, assessing, calculating, and organizing sustainable freight logistics. These technologies have been developed to support a range of practical, sector-specific activities, for instance, in modern rail, smart highways, and smart port programs, as well as to enable smart and digitalized applications. This and similar digital applications have a lot of potential to enhance the geographical, cultural, technical, and social sustainability of transportation. ³From environmental awareness perspective, new trade routes could have only a small impact on global trade patterns and carbon dioxide pollution, but they may have a major impact on logistics chains and transportation infrastructure. The combination of new technologies and increased logistics efficiency could cut freight-related emissions by 60 percent by 2050. ⁴

3. Wang, Y. (2019, February). Understanding the impact of emerging technologies on the freight sector. Future of mobility: evidence review. Foresight, Government office for science.

4. The Maritime Executive LLC. (2019, May). Global freight demand to triple by 2050.

Introduction

Section 1

Section 2

Section 3

Conclusion



2. Increasing customer expectations defining business value

Customer satisfaction refers to how well a company meets a customer's needs for a product or service. ⁵ This is fundamental in business performance, because it provides a metric for marketers and owners to use in order to manage and optimize their operations. ⁶ Satisfaction metrics, are not merely used to evaluate the efficacy of support officers. They also have a direct correlation with customer loyalty and can assist companies in making better choices across divisions. It can also be associated with agent satisfaction (ASAT);

if one side increases, so does the other. Increased agent loyalty contributes to improved results, job engagement, and reduced company and recruiting costs. In addition, customer satisfaction is co-examined with other parameters, like consumer engagement, customer lifetime value, and word-of-mouth brand promotion. ⁷

It is evident that providing a robust transportation establishes the grounds for long-term services and further company development. Within a business enterprise, logistics operations serve customers, by addressing time and location-related competitiveness challenges, as well as the cost and quality of the service delivered, while keeping the customers' preferences and purchasing power into account. Therefore, it is no surprise that customers value fast and free delivery.

5. Grimsley, S. (2015, May). What is Customer Satisfaction? - Definition & Examples. Study.com.

6. Copley, L. (2017, May). 6 reasons why customer satisfaction is important. All About Calls Ltd.

7. Paul, A. (2020, July). Everything CX Leaders Need to Know About Customer Satisfaction Metrics. Kustomer Inc.

Introduction

Section 1

Section 2

Section 3

Conclusion



The primary aim of logistics industry is to improve the company's overall productivity and customer satisfaction by maximizing product or service delivery. There are several indicators that can be used to assess the relationship between customer satisfaction and supply chain management, and the cost of the products is among the most critical ones. Research has shown that logistics optimization can ensure significant savings from vendor-related or end user costs, while also keeping quality and time into balance, which are two of the most vital elements in customer satisfaction. During the logistics process, all customer satisfaction metrics are used, resulting in a low-cost commodity (using a cheap raw material, choose the cheapest transportation method, high production with low labor costs, low-cost storage and delivery).⁸

8. Ghoumrassi, A., Tigu, G. (2017, July). The impact of the logistics management in customer satisfaction. ResearchGate GmbH.

9. Joerss, M., Schröder, J., Neuhaus, F., Klink, C., Mann, F. (2016, September). Parcel delivery: The future of last mile. McKinsey & Company.

10. Deloitte Development LLC. (2016). 2016 Holiday Survey. Ringing in the retail.

In the 2016 McKinsey & Company survey, 4,700 respondents were polled in China, Germany, and the United States (1,500+ in each of the three countries), yielding some interesting findings. With the rise of e-commerce, consumer preferences have become increasingly relevant in the formerly business-oriented parcel delivery sector. Last-mile services have been identified as a key differentiator for both major retailers' players and various start-ups. The number of delivery options and the perceived quality of the service, in particular, are critical decision drivers for online shoppers and thus have a direct impact on the business success of a brand companies. Almost a quarter of consumers are willing to pay a significant premium for same-day or immediate delivery. The remaining 70% of consumers, on the other hand, prefer the least expensive choice of home delivery. These findings are common in all three nations. Despite consumer demand for same-day and instant delivery, more than half of customers prefer delivery options based solely on cost, with another 20% opting for the least expensive option of home delivery.⁹

A 2016 Deloitte study found that consumers' shipping expectations are rising. The survey that questioned 5,038 consumers, concluded that consumers increasing their expectations for 'fast shipping' to two days, up from three or four days just a year ago. Customers' willingness to pay for expedited delivery has decreased as their expectations have risen, with 64 percent declining to pay any extra for two-day shipping.¹⁰

Introduction

Section 1

Section 2

Section 3

Conclusion





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