Foreword

The Institute of Supply Chain Management (ISCM-HSG) at the University of St.Gallen aims to facilitate dialogue between academic research and practical application in the areas of supply chain management, purchasing, and transportation. With a focus on being "science-based, practice-driven", the institute links cutting-edge research to practical solutions for real-world problems.

The ISCM-HSG conducts research on the complex challenges facing global value creation networks, developing concepts, methods, and instruments to improve supply chain management in various sectors, including industry, trade, service, and the public sector.

In addition, the ISCM-HSG also promotes knowledge transfer from science to practice and the development within an international network of renowned universities and institutes.

One specific area of interest for the ISCM-HSG is the use of artificial intelligence in supply chain management. The implementation of the technology has the potential to provide transparency of the flow of goods, information, and finances, automate processes, and even create new opportunities for operations.

However, expectations of artificial intelligence in supply chain management are increasing rapidly, and it is uncertain whether the technology will meet these expectations. Therefore, the objective of this study is to investigate the disparity between expectations and reality regarding the use of artificial intelligence and provide actionable recommendations for supply chain executives.

To achieve this objective, the ISCM-HSG collaborates with a consortium of renowned logistics service providers, shippers, and technology experts in the field of supply chain management.

Authors

Calvin Klein
Universität St.Gallen

Falk Vinzenz Sandfort
Universität St.Gallen

Management Summary

As Artificial Intelligence (AI) continues to revolutionize industries worldwide, its omnipresence becomes increasingly evident in Supply Chain Management (SCM).

This Consortium Study, conducted by the Institute of Supply Chain Management (ISCM-HSG) at the University of St.Gallen and its promotional association, examines the integration of AI in SCM and aims to address the gap between expectations and reality. The study provides a knowledge foundation to assist supply chain managers in developing realistic expectations of this technology.

Considering the rapid advancement of AI technologies and their potential impact on SCM, this study explores the current state of AI in SCM and analyzes the disparity between expectations and reality. Through a comprehensive market analysis of AI solutions offered in SCM, opportunities for improvement are identified. The study focuses on aligning expectations and reality by fostering a better understanding of the capabilities of AI in SCM.

The evaluation reveals that AI applications currently predominantly focus on specific SCM processes, with comprehensive AI suites being less common. However, such AI suites hold significant potential for addressing interorganizational applications in SCM. The practical value of this Consortium Study lies in proactively addressing the challenges related to aligning expectations and reality in AI integration.

Additionally, the study investigates obstacles to successful AI integration, including data quality, integration challenges, and unrealistic expectations of potential benefits. By providing actionable insights and practical tools, this research empowers SCM practitioners to make informed decisions and navigate the complexities of AI adoption effectively.

Through the collaborative efforts of the participating organizations, this Consortium Study offers a collective understanding of the current state of AI in SCM. It serves as a valuable resource for industry professionals, and academia facilitating the successful integration of AI and driving operational excellence in SCM.

From insight
to impact.

Preface AEB SE

AEB

About us

AEB supports industrial, service, and trading companies in optimizing their logistics and foreign trade processes through their comprehensive software solutions. With a global reach, AEB's software is trusted by more than 7,000 customers in over 80 countries. Their versatile solutions cover a wide range of areas, including shipping, transportation and warehouse management, customs clearance, import/export processes, sanctions list screening, and export control. AEB offers a diverse portfolio, ranging from user-friendly cloud-based software products to highly adaptable logistics platforms, tailored to meet the specific needs of each customer. With a team of over 600 dedicated professionals, AEB is headquartered in Stuttgart, Germany, and has additional offices across Germany as well as international locations in the United Kingdom, Singapore, Switzerland, Sweden, the Netherlands, Czech Republic, and the United States.

Research interest

AI serves as a pivotal technology for AEB, playing a significant role in enhancing their software solutions for logistics and foreign trade. By leveraging AI, AEB assists customers in streamlining their supply chain management processes and achieving greater operational efficiency. AEB's research interest lies in exploring the vast potential of AI within the realm of supply chain management, examining its applications, and identifying opportunities for innovation. By participating in this study, AEB aims to gain deeper insights into AI's practical applications, contribute valuable knowledge from their experience as a software provider, and further advance the integration of AI in supply chain management.

Further Information

www.aeb.com

Preface BTK

About us

BTK Befrachtungs- und Transportkontor GmbH, a family-owned logistics enterprise nestled in Raubling in the Bavarian Alpine foothills, has a long-standing legacy of providing outstanding logistics solutions. With a rich history spanning over 80 years, BTK is more than just a company; it's a testament to adaptability, resilience, and forward-thinking in the ever-evolving logistics sector. Home to 350 dedicated employees, we boast a remarkable presence in the European transport logistics arena, with multiple logistics centers strategically positioned across Southern Germany.

Our sprawling logistics infrastructure includes a formidable fleet of 159 trucks coupled with 200 trailers, and a self-owned logistics center with an impressive 11,000 sqm expanse in Raubling. This is complemented by an additional 19,000 sqm of rented logistics space across the Rosenheim and Munich areas. BTK is a proud member of the European Load Association of International Forwarders (ELVIS AG) and the Europe-wide general cargo network, SimCargo.

Research interest

As an industry veteran, we recognize the monumental shift the logistics sector is currently experiencing, with digitization and emerging technologies at its core. Our commitment to innovation and our progressive outlook, fuel our research interests. We believe in harnessing the potential of AI in optimizing operations and bringing about a new era of efficiency and transparency in logistics.

Our participation in this study is a testament to our desire to stay at the forefront of this digital revolution. By immersing ourselves in the pursuit of knowledge, we aim to gain insights into practical applications of AI in supply chain management, identify challenges and opportunities, and contribute to the global discourse on the integration of AI in the logistics sector.

Further Information

www.btk.de

Preface DB Schenker

About us

DB Schenker, with a global footprint and local expertise, stands as a leading provider of holistic logistics solutions. Operating in over 2,100 locations worldwide with more than 74,200 employees, our Swiss branch, Schenker Schweiz AG, is a key player in Switzerland's logistics sector. We offer comprehensive support to industry and trade, encompassing land transport, air and sea freight, contract logistics, and supply chain management.

Our value-added services ensure smooth goods flows and optimized supply chains, contributing to the success of our clients. We hold leading positions in sectors like automotive, technology, consumer goods, trade fair forwarding, and special transports. Our employees, our greatest assets, not only demonstrate expertise in their fields but also embody passion for logistics. Customer satisfaction remains our prime metric of success.

Research interest

DB Schenker is eager to explore the potential of AI in optimizing supply chain processes. We believe AI can enhance operational efficiency and provide strategic insights to drive growth. Our goal in participating in this study is to understand the applications of AI in logistics and share our experiences and insights to further innovation in this field. As we stand for performance, service, and security, we are always prepared to navigate future challenges and complexities with our robust business model.

Further Information

www.dbschenker.com

Preface DPD (Schweiz)

About us

DPD Switzerland stands as one of the leading private express and parcel service providers in the country. With a committed team of 1,200 employees and drivers, we process over 24 million packages annually, serving businesses and individuals alike. Our headquarters, located in Buchs ZH, is complemented by our presence at eleven additional locations throughout Switzerland and nearby international regions. We are a proud member of Geopost, enhancing our reach and capabilities.

Research interest

In a world increasingly defined by digitization, DPD Switzerland is interested in how AI can be harnessed to optimize the logistics and supply chain management processes. Participating in this study allows us to explore the potentials of AI in our operations and to contribute our industry knowledge and experiences. We aim to understand the challenges and opportunities of AI implementation in the context of express and parcel services, hoping to develop smarter, faster, and more efficient solutions for our valued customers.

Further Information

www.dpd.com

Preface GvW Graf von Westphalen

About us

Graf von Westphalen Rechtsanwälte und Steuerberater is one of the large German law firms with over 200 lawyers at 6 locations in Germany.

It is a so-called full-service law firm, which means that it covers all areas of commercial law, but there are individual special areas of expertise that are not generally represented, one of which is the area of logistics. We represent industrial companies in particular in the context of their worldwide logistics projects and thus also across all modes of transport in the most diverse industrial sectors.

In the course of these advisory activities, questions of the application of software tools are increasingly coming into play, many of which now also involve AI.

Research interest

Since we work a lot at the interface between logistics and IT in particular, these issues have become increasingly important for us in order to be able to advise clients comprehensively in this area.

We also participated in the study in order to learn about the latest status from the scientific side on the one hand, but at the same time to seek an exchange with other industrial customers or service providers in order to be able to advance to the practical application questions. Conversely, we have endeavored to contribute our experience from different sectors and also different target directions.

Further Information

www.gvw.com

Preface Migros

MIGROS

About us

Migros is Switzerland's largest retail company, its largest supermarket chain and largest employer. With sales of CHF 30.1 billion (2022), the Migros Group employs more than 97,700 people, making it the largest private employer in Switzerland.

Migros owns numerous industrial enterprises, a wide range of retail, travel, and logistics companies, as well as Migros Bank.

Migros is owned by more than 2.3 million cooperative members who are organized into ten regional cooperatives. These cooperatives run the core business of the Migros Group – the retail business – with 630 branch stores.

Research interest

The supply chain is a strategic differentiator and AI has the potential to fully transform it. Thus, we need to understand how we can leverage AI to optimize our supply chain and are already working on first use cases. Participating in the study "Artificial Intelligence in Supply Chain Management" helped us to gain insights in the challenges other companies face in this transformation, to get a systematic overview of concrete AI use cases and to have a good market transparency on vendors offering AI solutions in SCM.

Further Information

www.migros.ch

Preface Militzer & Münch Group

About us

The Militzer & Münch Group is a global logistics firm with a substantial presence in about 30 countries. We employ approximately 2,300 individuals at 100 locations, maintaining a strong commitment to serving our clients' logistical needs. Our comprehensive network is further strengthened by strategic partnerships in several other countries, ensuring a broad reach in delivering our services.

Our core services include worldwide air and sea freight services, road and rail transport, and project logistics, especially along the East-West axis in Eurasia and North Africa. We boast a robust network of branch offices in Eastern Europe, the CIS, the Middle East, the Far East, and the Maghreb countries, reflecting our commitment to be where our clients need us the most.

Research interest

For a medium-sized logistics company like Militzer & Münch Group, AI offers fascinating opportunities in the field of logistics. AI has the potential to optimize processes, enable efficiency improvements and strengthen competitiveness.

That is why we are participating in this study, aiming to identify the chances and risks associated with AI and gain a comprehensive overview of its impact on our industry. Through our participation, we aim not only to deepen our own understanding but also to contribute to a broader dialogue on the role of AI in logistics.

Further Information

www.mumnet.com

Preface Post CH

About us

Die Schweizerische Post (Swiss Post) is the leading postal and parcel service provider in Switzerland. With a remarkable track record of delivering millions of packages and letters annually, the Post showcases its commitment to efficient logistics operations. In 2022, the Post delivered 194 million packages and 1,745 million letters.

In addition to its core business, Swiss Post offers a wide range of logistics services, including parcel delivery, warehousing and fulfillment, e-commerce solutions, supply chain management, direct mail, marketing services, and returns management.

With its extensive network and expertise, the Swiss Post provides comprehensive solutions to meet the diverse logistics needs of businesses in Switzerland and beyond. With a revenue of CHF 6.5 billion in 2022, the Post employs approximately 46,000 people worldwide.

Research interest

AI is a cutting-edge topic, yet specific use cases are often lacking. Closing this gap through a systematic analysis was the motivation for our participation in this study. The developed checklists are valuable for practical assessments, as well as the conducted screening of existing solutions.

As an organization committed to innovation, we aim to contribute to the understanding and practical application of AI in supply chain management. By participating in this study, we seek to explore the potential of AI, identify relevant use cases, and contribute to the development of effective AI-driven solutions within the logistics sector.

Further Information

www.post.ch