The Digital Transformation of Logistics and Supply Chain Management

A report from the Meet & Greet event at CBS

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November 21st, the annual Meet & Greet was held at Kilen, Copenhagen Business School in collaboration with TINV, Transportens Innovationsnetværk. An event where students from the Global Supply Chain & Logistics Management program at CBS got the opportunity to meet and discuss the future of supply chain and logistics together with members of the Danish transport and logistics industry as well as invited guest speakers. This year’s Meet & Greet focused on transformation in the supply chain and logistics and the effects of increasing digitalization.

The first guest speaker, Nicolai Remin Fisker, Supply Chain Specialist at Maersk Drilling and former master student at the Supply Chain Management program at CBS, started off the event by discussing Artificial Intelligence and its implications for organizations and the supply chain processes.

The evolution of the digital era that we are currently experiencing, both as consumers and parts of supply chain and logistical processes, has increased the potential and possibilities of Artificial Intelligence. The dynamic environment with ever changing customer needs requires organizations to adapt swiftly, and AI possesses the potential to support in both standardized tasks and complex processes.

Due to the great potential of AI for many industrial processes, including supply chain management and logistics, companies want to jump on the AI train as fast as possible. Fisker, however, emphasizes the importance of having the appropriate foundation in place from the start to ensure a successful AI implementation. Fisker and his SCM thesis partner, Frederik Bøving Skøtt, have therefore developed an AI implementation model in order to guide companies in their implementation processes.

Since AI performs tasks based on the data provided, data management is a key point in the foundation required for implementation. The data quality, availability, and usage are all critical for a successful implementation. If this is not in place, the robot will make decisions based on wrong or insufficient information, which in turn will lead to incorrect decisions.

In addition to proper data management, a thorough understanding of the processes is required. If an organization does not fully understand their processes, the teaching to a robot will simply be impossible.

When the setup of a robot or an algorithm is completed, maintaining in-house knowledge is of great importance. Companies evolve from day to day and so does the environment outside the company. Thus, the algorithm needs constant revision. However, as AI is a fairly new concept, and the available know-how is a scarce resource, it is a challenge for every company that wishes to maintain the know-how within the company.

Another issue that Fisker brought up in his presentation was about people in the organization. There is usually some reluctance from employees regarding technology with the potential to replace the work of an employee. When the introduction of new technology is opposed by the workforce, the success of the technology is likely to diminish. Therefore, one of the biggest challenges of organizations considering implementing automation or AI is to create a culture, where the employees are ready to change and adapt to new circumstances.

Another example of how digitalization has transformed the supply chain and logistics is the growth of e-commerce. As more consumers go online to purchase goods, pressure is put on the logistics sector to handle the increasing number of deliveries, and also to satisfy the customers’ expectations on the service offering in terms of lead times and available delivery methods. These two trends require companies to be innovative in responding to these changes.

John Fernie, Professor in Retail Marketing at Heriot-Watt University in Edinburgh, was invited as a guest speaker to talk about the current trends and changes in consumer patterns, and the logistical challenges it creates.

Fernie explained the evolution of online retailing and the trends leading us to where we are today. The growth of online retailing was in the beginning rather slow, as the consumers lacked trust in the service provided and the new technology. The technology was available to facilitate online retailing, but the consumers were hesitant. In order to create trust, companies had to build a trustworthy brand. When this challenge was overcome, and consumers started accepting the online methods of purchasing, the online retailing experienced a rapid growth. This gave rise to pure online retailers like Zalando, who has experienced success in many markets, including Denmark.

As technology has improved over the last decade, consumers have now several ways to shop and interact with retailers. From being connected merely through a computer, the introduction of smartphones and
Tablets has led to consumers interacting with retailers through various channels. The technological advancements have shifted the focus from a multichannel business model to an omnichannel business model where all the retailers’ channels, including physical stores, are working in a synchronized and cooperative manner.

This initially created a logistics problem. When the systems initially were set up to offer online sales, the online- and store channels were treated as two separate businesses. In the current era of the multi-channel business model of retailing, the business is viewed as one. This means that the different channels can be used interchangeably. A customer can for example purchase a product online and return it in a store, and that complicates the traceability, stock keeping and product availability.

Another logistics issue with retailing is the amount of returns generated. Fernie states that 43% of all clothing and footwear are returned, creating a big problem for retailers. The problem is especially big for online retailing, since the parcel has to be returned, checked and repacked. Returns are not only a costly activity for retailers, but it also introduces uncertainty, since the process is initiated by the consumer, and forecasting returns is a much more difficult process than forecasting demand.

The main reason for returns of products purchased online is the problem with buying the right size. That is not a big problem when shopping in a store. Therefore, Fernie believes that solving the fit-problem could save online retailers a lot of costs.

Home deliveries are also costly compared to delivering to stores, as end users are more widely spread out across a geographic area. It also requires that the recipient is at home at the time for delivery, if unattended delivery is not possible. Due to these complications, companies have begun experimenting with alternatives as “click-and-collect” or using lockers in malls. Some of the biggest players, like Amazon, have also started experimenting with drones and other robotic delivery methods, but Fernie is sceptical about the viability of these methods in practice.

Fernie finally outlined the future trends for online retailing and the key logistical challenges for the future. Big players such as Amazon and Walmart have begun internationalizing, which could increase competition in local markets. With next-day deliveries being the new norm, the big players could potentially benefit by utilizing their current assets and invest in the infrastructure necessary to facilitate the customer needs. The continuous pressure on reducing lead times will lead to increased logistical costs. Therefore, Fernie expressed concerns about the viability of the existing models. He believes that increased online sales will lead to additional costs outweighing the increase in profits, thus decreasing profit margins.

Unfortunately, the last speaker was not able to make it to the Meet & Greet due to illness. Jakob Kristiansen, CEO of Burd Delivery was supposed to talk about “The last mile: Service and technology aspects” from a practice perspective. But Thomas Hechmann, Head of Secretariat at TINV, the Danish Transport Innovation Network, was able to take over with a short notice. Thomas Hechmann has great experience within networking and professional relations, and he shared his expertise within this field with the students and professionals, who attended the Meet & Greet.

Hechmann argued that a relationship goes through four phases with the end goal of establishing trust between the two parties. In our personal lives we meet, we get to know each other, we like each other and then we establish trust. However, there is a discrepancy between how we try to establish trust in personal relations and in professional relations. In the professional relations, we tend to skip the two middle phases of the process. By approaching professional relationships in a personal way, trust is more easily established. Hechmann emphasized the importance of creating trust by comparing a high performer with low trust, to a low performer with high trust. The latter is more often preferred. With this in mind, the students were well equipped to meet and network with the invited companies in Kilen’s Atrium.

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Viggo Norell is currently pursuing a master's degree in Supply Chain Management at Copenhagen Business School. Parallel to his studies, he is employed by TINV as a student assistant while writing his master thesis. The thesis will examine last mile deliveries and the effect of increasing urbanization and a growing e-commerce sector. Viggo has previous experience from the transport & logistics industry where he worked as a dispatcher for a Swedish transport company.
KOMMENDE AKTIVITETER

Lean og og Industri 4.0 Konference 2020 30. september
Eksperter og visionære Lean-specialister samles til DI og effektivitet.dk's Lean konference 2020 for at dele deres viden og indsigter med dig, så du bliver inspireret og forberedt til at følge med den hastige udvikling. Igennem inspirerende oplæg, workshop og networking får du mulighed for at stille skarpt på Lean og Industri 4.0 i din virksomhed.

Den Danske Supply Chain Konference 3. november
Vær med, og hør hvad eksperterne synes skal til, for at skabe den mest holdbare og bæredygtige Supply Chain. Sidste års vinder var Nilfisk for den transformation og de resultater, de har skabt indenfor supply chain området, samt for det meget bevidste design af en stærk platform for den fremtidige udvikling og transformation af Nilfisk.

OBS: Sæt mennesket forrest i implementering af Industry 4.0 Workshops i København og Aarhus samt Lær Lean ved kilden – tag på kaizen Tour til Japan afholdes til efteråret.

KOMMENDE UDDANNELSER

Bring SDG-erne i spil – til gavn for forretning og samfund 19.-20. maj
SDG-erne er kommet for at blive FN’s verdensmål, Sustainable Development Goals eller SDG-erne er i fokus, og virksomheder forventes at arbejde aktivt med SDG-ere. Hvis indsatsen planlægges og udføres effektivt, har det positiv virkning på både bundlinjen og samfundsøkonomien.

APICS CPIM – Part 2 Start 15. september
The APICS Certified in Production and Inventory Management (CPIM) program is recognized worldwide as the standard in production and inventory control, one of the most critical functions within an organization for reducing costs and achieving a competitive edge. Through the CPIM preparation and exam process, you will gain knowledge, learn skills and best practices required to execute, control and improve all of the internal operations within the four walls of your company.

APICS CLTD Start 17. september
The APICS Certified in Logistics, Transportation and Distribution (CLTD) designation provides a comprehensive body of knowledge, best practices and standards for those in the logistics, transportation and distribution industries. The APICS CLTD designation serves the needs of both professionals and employers around the world by reducing the impact of industry skills gaps as well as assisting employers in developing the personnel needed to meet customer demand and impact bottom-line results.

Læs mere og tilmeld dig på www.effektivitet.dk
Adfærdsdesign for forandringsagenter 22. september

Mange forandringsprojekter fejler, og ofte skyldes det, at forandringer kræver at mennesker ændrer adfærd. Men vi glemmer nok alt for ofte, at adfærdsændringer ikke sker automatisk som følge af holdningsændring men via handlingsændringer i den virkelige verden.

APICS CPIM – Part 1 Start 29. september

The APICS Certified in Production and Inventory Management (CPIM) program is recognized worldwide as the standard in production and inventory control, one of the most critical functions within an organization for reducing costs and achieving a competitive edge. Through the CPIM preparation and exam process, you will gain knowledge, learn skills and best practices required to execute, control and improve all of the internal operations within the four walls of your company.

APICS CSCP Start 1. oktober

The APICS Certified Supply Chain Professional (CSCP) program is the first and only supply chain certification that encompasses the end-to-end global supply chain. APICS CSCP designees gain the skills to effectively manage global supply chain activities that involve suppliers, plants, distributors, and customers located around the world. Earning the CSCP credential makes you a recognized expert in the supply chain field. This professional distinction sets you apart from your colleagues, proving your high level of knowledge and skills. It makes you a more valuable asset to your organization, keeping you and your organization more competitive in today’s economy.