HISTORY:

Pre-1900s: Local supply chains

Prior to the first industrial revolution, supply chains were typically local and restricted to regions. As the use of railroads increased so did the distance that goods could be distributed.

1900-1950s: Supply chains continue to grow

Between the 1900s and 1950s, global supply chains started to take shape, organisations such as UPS began to look at improving manual processes, researching the use of mechanisation, and demonstrating the benefits of analytics in military logistics following World War II. Leading up to the 1950s the concept ‘unit load’ became popular, later to be extended to transportation management.

1960s-70s: Physical distribution

By the 1960s, DHL joined the growing number of logistics providers, along with FedEx in the 1970s. In this time, time-dependent freight transportation transitioned to trucks, which led to organisations coining the concept ‘physical distribution’.

1963: Key breakthroughs

The National Council of Physical Distribution Management was formed. meanwhile, IBM developed the first computerised inventory management and forecasting system.

1975: First real-time WMS

Home decor company JC Penney created the first real-time warehouse management system (WMS). Updating stock inventory in real-time, Jit reduced time spent looking for stock and allowed the company to focus on growing the business.

1980s: inbound, outbound and reverse flows

With the development of personal computers, supply chains had better access to planning capabilities, including spreadsheets and map-based interfaces. By the mid-1980s supply chains were considered an expensive, important, and complex function. Reflecting this transition, the National Council of Physical Distribution Management changed its name to the Council of Logistics Management (CLM) to represent inbound, outbound and reverse flows.

1982: Supply chain management coined

Keith Oliver coined the term ‘supply chain management, using the term in an interview with Arnold Kransdorff of the Financial Times, on 4 June 1982. Oliver is a British logistician. Oliver defined it thus: “Supply chain management is the process of planning, implementing, and controlling the operations of the supply chain with the purpose to satisfy customer requirements as efficiently as possible. It spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption.”

1990s-2000s: tech revolution and globalisation

This period saw the supply chain industry grow further, with solutions such as enterprise resource planning and advanced planning and scheduling, as well as the increase in global imports and exports.

1996: First cobot is invented

A cobot, or collaborative robot, is a robot intended for human interaction. They were invented in 1996 by J Edward Colgate and Michael Peshkin, professors at Northwestern University. Their invention sprang from a 1994 General Motors initiative to find a way to make robots or robot-like equipment safe enough to team with people.

1997 Amazon goes public

Amazon founder and CEO Jeff Bezos opened the virtual doors of Amazon's online store in July 1995. It went public on May 15, 1997, with an IPO price of $18. It was the first Internet retailer to secure 1 million customers.

2010-2020: Industry 4.0

While the likes of AI, data, and the Internet of Things IoT have been around prior to 2010, the past decade has seen an exponential increase in their adoption, and supply chains have not been left out. Organisations around the world have been using Industry 4.0 tech to drive their digital transformation strategies.

2020: Covid-19

The pandemic spread around the world, and supply chains grinded to a halt, leaving no one in any doubt as to the importance of these vital functions of business. The outbreak of Covid-19 spurred investment in localisation, and further investment in digitalisation, to mitigate the pandemic's impact.

PROCESS:

The supply chain manager tries to minimize shortages and keep costs down. The job is not only about logistics and purchasing inventory.

Productivity and efficiency improvements can go straight to the bottom line of a company. Good supply chain management keeps companies out of the headlines

IMPORTANCE:

 Reduced cost:

Supply chain managers are often focused on reducing the costs incurred at all steps within the supply chainThe overall benefit of reducing costs throughout the supply chain is an increase in firm profits. Even reducing the cost of items by a few cents can result in millions of dollars saved if you

Interconnected Supply Chain –

Supply chains can appear like independent strings of a few companies working together to reach a common goal of delivering products to consumers. It is crucial for supply chain managers to focus on visibility and communication between all components as well as on the growth of their organization, partnerships, and outsourcing.

Information Transfer and Communication –

Supply chain management (SCM) is a necessity for the foundation of all societies. Effective communication and information transfer in real-time is a necessity for the foundation of a robust supply chain.

Better Customer Service –

Effective supply chain management can provide direct improvement to your customer service. This is because SCM processes will ensure that the correct quantity of the correct items will be delivered in a timely manner. Supply chain management will usually increase visibility and allow both customers and customer service personnel to know of the status of each order at all

Times.

Agility –

Supply chain management is important to allow organizations to remain agile and be able to handle any unexpected issue or variability that may occur.

KEY FEATURES:

* **Connected:**Being able to access unstructured data from social media, structured data from the Internet of Things (IoT) and more traditional data sets available through traditional ERP and B2B integration tools.
* **Collaborative:** Improving collaboration with suppliers increasingly means the use of cloud-based commerce networks to enable multi-enterprise collaboration and engagement.
* **Cyber-aware:**The supply chain must harden its systems and protect them from cyber-intrusions and hacks, which should be an enterprise-wide concern.
* **Cognitively enabled:** The AI platform becomes the modern supply chain's control tower by collating, coordinating and conducting decisions and actions across the chain. Most of the supply chain is automated and self-learning.
* **Comprehensive:**Analytics capabilities must be scaled with data in real time. Insights will be comprehensive and fast. Latency is unacceptable in the supply chain of the future.

COVID-19

The COVID-19 pandemic was a global disruption across trade, finance, health and education systems, businesses and societies like few others in the past 100 years. It is no surprise then that only 2% of companies who responded to the survey said they were fully prepared for the pandemic. Serious disruptions affected 57%, with 72% reporting a negative effect (17% reported a significant negative effect, and 55% mostly negative).

TRENDS SHAPING FUTURE:

1. Artificial Intelligence and Automation

The use of artificial intelligence (AI) and automation is on the rise in many supply chains. Automation allows you to streamline repetitive tasks, while AI — which attempts to mimic human intelligence and “learn” — can assist with more complex, challenging tasks.

2. Increased Focus on Sustainability

As a [growing number of consumers prioritize the environment](https://www.nielsen.com/us/en/insights/article/2018/global-consumers-seek-companies-that-care-about-environmental-issues/), more businesses have increased their sustainability efforts. Because there are so many different opportunities to focus on sustainability, you’ll need to tailor your efforts to suit the unique needs of your organization.

3. Customization

You can expect to see an increasing level of customization in different parts of the supply chain. You may have to segment your supply chain, building a customized strategy and approach for each segment.

4. The Internet of Things

The IoT already plays a significant role in the supply chain, particularly when it comes to logistics, but with increasingly diverse applications, it will likely continue to grow in importance.

5. Digitization

Digitization is a practice of putting information into a digital format. When it comes to [securing the future of the supply chain](https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-40--the-next-generation-digital-supply-chain), digitization is non-negotiable.

6. Strengthened Relationships

SCM will need to focus on fortifying your relationships with your team members, vendors, and suppliers to increase collaboration and cooperation at each step in the supply chain.

7. Risk Management and Resiliency

, the supply chain is constantly at risk of disruption. You cannot control the weather, predict political events, or foresee the effects of an unprecedented pandemic — but you can control how your supply chain prepares for and responds to these threats.

8. Increased Visibility

Increased visibility will help you understand the state of your supply chain as a whole, as well as at each link, no matter what kind of volatility threatens the organization.

9. Circular Supply Chain

Traditionally, supply chains have been thought of as linear. Now, more people subscribe to the idea of a circular supply chain, wherein raw materials, and even discarded products, are recycled and re-introduced into the manufacturing process.

10. Cloud-Based Solutions

Similar to digitization, cloud-based software solutions are the way of the future in supply chain management. Traditional and localized supply chain management solutions won’t cut it. To stay competitive, you need accurate, agile, and accessible solutions for your organization.