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Kammac Knowledge

WHITE PAPER

Managing Peak Demand

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Peaks in demand can derail retailers fast even when they are expected. This can cause delays to customers and spiralling costs. Through effective planning, intelligent application of technology, and flexibility however, peaks can be managed to ensure that customer demand continues to be met, while maintaining operational efficiency.

Sudden spikes in volume can cause significant challenges for retail and logistics businesses. These spikes can result from seasonal demand, new product launches, promotional events, and unexpected shifts in consumer behaviour. To manage these spikes effectively, businesses need to have an accurate forecast of their demand and the resources required to meet it.

We incorporate a variety of research in the field as well as drawing on decades of experience and institutional knowledge in-house in order to combine approaches and provide our approach to managing peaks in demand.

Forecasting and Planning

Forecasting and planning are essential for businesses to manage sudden spikes in volume effectively. By accurately forecasting their demand, businesses can plan for the resources required to meet it. This can include staffing, inventory, equipment, and transportation.

To accurately forecast demand, businesses can use historical sales data, market trends, and predictive analytics. By analysing this data, businesses can identify patterns and trends that can help them forecast future demand more accurately.

For example, Amazon uses machine learning algorithms to predict demand for its products. These algorithms analyse various data sources, including historical sales data, weather data, and social media trends. This enables Amazon to accurately forecast demand and plan for the resources required to meet it.

Transport Capacity

Using a partner with capacity and flexibility within transport is a major requirement in order to effectively manage peak demand. Increased transport requirements without your partner having the ability to respond means that you may not be able to get sufficient stock into your warehouse site in time to get the increased demand picked and ready for distribution.
A partner such as Kammac with its flexibility to increase transport when necessary can be invaluable to ensure that there is no interruption to your distribution process.

Technology

As with Amazon technology can also play a critical role in managing sudden spikes in volume. By utilizing technology such as automation, artificial intelligence, and cloud computing, businesses can increase their operational efficiency and meet customer demand more effectively.

Many retail and logistics businesses use warehouse automation to increase their operational efficiency. This can include automated picking and packing systems, conveyor systems, and robotics. By utilizing these technologies, businesses can process orders more quickly and efficiently, reducing lead times and improving customer satisfaction.

Flexibility

Flexibility is essential for businesses to manage sudden spikes in volume effectively. By remaining flexible and adapting to changes in demand, businesses can minimize the impact of sudden spikes and maintain operational efficiency.

For example, during the COVID-19 pandemic, many retail and logistics businesses had to adapt to sudden changes in consumer behaviour. This included increased demand for ecommerce, home delivery, and contactless transactions. Businesses that were able to adapt quickly to these changes were better able to meet customer demand and maintain operational efficiency.

Ensuring Final Order Dates are as Late as Possible

Final order dates are critical for retail and logistics businesses. They determine when orders need to be placed to ensure delivery before a specific date, such as a holiday or promotional event. Ensuring final order dates are as late as possible can help businesses maximize their sales while minimizing their inventory carrying costs.

Forecasting final order dates is key, for example, a retailer may forecast that based on historical data around volumes and delivery dates that final orders for Christmas have to be in place four days prior, but that by switching delivery partners this can be reduced by an additional day.

Communication

By establishing open lines of communication with their suppliers, carriers and businesses can better understand lead times, transit times, and customer demand. This can help businesses to manage order dates.

For example, a logistics company may establish open lines of communication with its carrier partners to better understand transit times and potential delays. Based on this information, the logistics company may adjust its final order dates to ensure on-time delivery to its customers.

Process Streamlining

Process streamlining is another essential strategy for ensuring final order dates are as late as possible.

By optimizing their supply chain processes, businesses can reduce lead times and improve their operational efficiency, all of which are vital to ensuring effective management of peak periods.

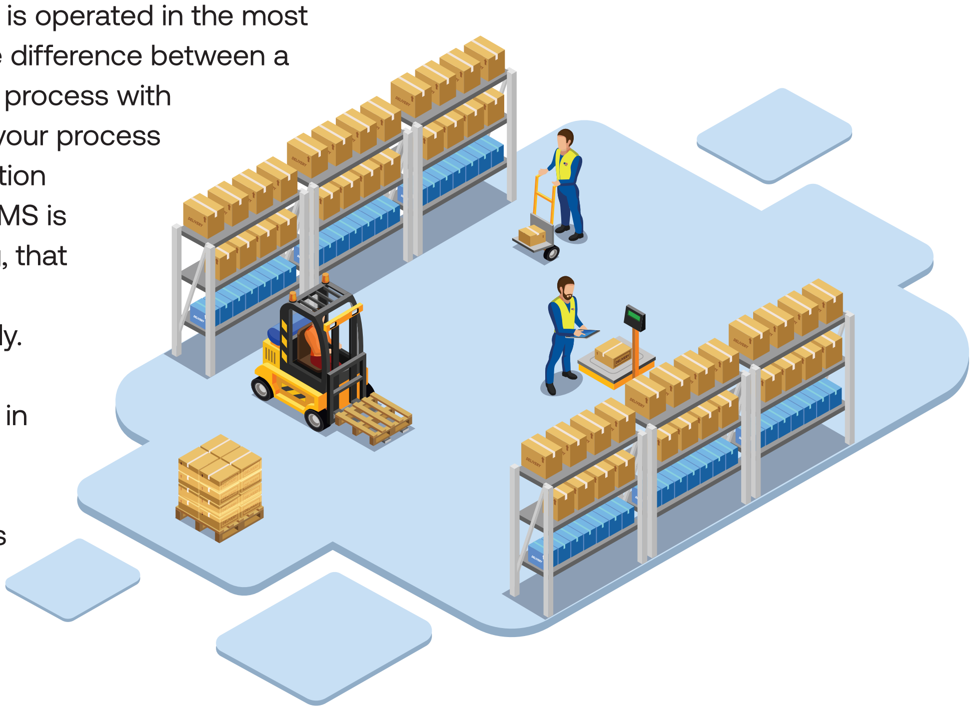
Just-in-time or just-in-case

Many retailers optimise their supply chain processes by implementing a just-in-time (JIT) inventory system. This system allows the retailer to order products as needed, minimizing its inventory carrying costs and reducing lead times. While for others a just-in-case approach may be better, particularly if they struggle with long, complex, and uncertain supply chains. However, your supply chain is optimised you will need to be prepared for peaks in demand by making the necessary changes to your supply chain and creating back up plans where necessary.

Optimising warehouse logistics

Whether you operate your own warehouse or you rely on a logistics partner for it, ensuring it is operated in the most efficient way possible can be the difference between a peak in demand being a smooth process with increased numbers of orders or your process breaking down entirely. Optimisation can include ensuring the right WMS is in place to manage order picking, that the pick sites are set up and managed, and manned effectively.

Having the right support in place in your warehouse and distribution points can make the difference between a rise in sales or serious reputational damage.



Contingency Planning

Crises can always occur, but when they happen during a peak period it is important that you have a plan in place for it. These can include strikes and outages, or even serious accidents, or natural disasters. For example, a logistics company may develop a contingency plan that includes backup carriers and alternative transportation, while a manufacturer with factories in different parts of the world might have to consider the impact of natural disasters particularly seasonal ones impacting their supply chain and keep additional stocks of components on hand.

Strikes and carrier outages can cause significant disruptions to retail and logistics businesses as well. These disruptions can result in delayed shipments, increased costs, and decreased customer satisfaction. All of these effects are multiplied by a strike occurring during a peak time. To handle potential strikes and carrier outages effectively, businesses need to have contingency plans in place and establish open lines of communication with their stakeholders, whether that's to communicate changes in delivery dates and put customers minds at ease, or to arrange alternative delivery options.

In Summary

Managing peak demand is a critical issue for retail and manufacturing businesses. They are ideal opportunities for your business to thrive, and grow, however without the right planning and partnerships in place they carry inherent risks as well.

Managing sudden spikes in volume, ensuring final order dates are as late as possible, and handling potential strikes and carrier outages are all essential challenges that businesses must overcome to meet customer demand while maintaining operational efficiency.

By utilizing forecasting and planning, technology, flexibility, agile supply chains, effective communication, process streamlining, and stakeholder collaboration, businesses can improve their operational efficiency and meet customer demand more effectively.

While there is no one-size-fits-all solution for peak demand management, businesses can develop customized strategies based on their unique needs and challenges. By investing in peak demand management, businesses can improve their customer satisfaction, reduce their inventory carrying costs, and increase their profitability.

Research

There is extensive research in the area of peak demand management in retail and logistics. Many academic studies and industry reports have been conducted to better understand the challenges and strategies for managing peak demand.

For example, a study conducted by the University of Warwick and Cranfield School of Management examined the challenges of managing peak demand in the UK retail sector. The study identified several challenges, including managing customer expectations, managing inventory levels, and managing supplier relationships.

Another study published in the Journal of Business Logistics analysed the strategies used by retailers to manage peak demand. The study identified several strategies, including increasing capacity, changing service levels, and altering pricing and promotion strategies.

Additionally, many industry reports and white papers have been published on the topic of peak demand management in retail and logistics. These reports provide insights into best practices and emerging trends in the industry.

For example, a report published by Accenture identified several emerging trends in peak demand management, including the use of artificial intelligence and predictive analytics to forecast demand, the adoption of agile supply chain strategies, and the use of automation and robotics to increase efficiency and reduce costs.

Overall, there is a wealth of research and information available on peak demand management in retail and logistics. By utilizing this research and developing customized strategies, businesses can effectively manage peak demand and maintain their competitive edge in the marketplace.

Journal of Business Logistics

The study published in the Journal of Business Logistics analysed the strategies that retailers use to manage peak demand. The study surveyed over 200 retail firms in the US and found that the most commonly used strategies for managing peak demand included increasing capacity, changing service levels, and altering pricing and promotion.

Increasing capacity involves adding resources to the supply chain to handle peak demand. This could include increasing the number of employees, increasing the number of vehicles, or increasing the amount of warehouse space. The study found that 81% of retailers surveyed used this strategy to manage peak demand.

Changing service levels involves altering the level of service provided to customers during peak demand periods. For example, retailers may offer expedited shipping or open additional store locations to better serve customers. The study found that 74% of retailers surveyed used this strategy to manage peak demand.

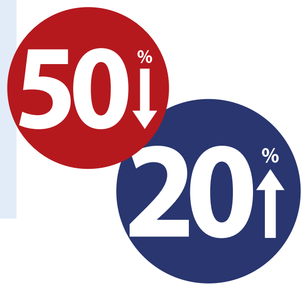
Altering pricing and promotion involves using pricing and promotional strategies to influence customer demand. For example, retailers may offer discounts or special promotions to encourage customers to shop during off-peak hours. The study found that 70% of retailers surveyed used this strategy to manage peak demand.
Other strategies identified in the study included managing inventory levels, improving forecasting and planning processes, and improving collaboration with suppliers and other partners in the supply chain.

Overall, the study highlights the importance of utilizing multiple strategies to effectively manage peak demand. By increasing capacity, changing service levels, and altering pricing and promotion, retailers can better meet customer demand and maintain their competitive edge during peak demand periods.

Accenture Study

The report highlighted several emerging trends in peak demand management that are transforming the retail industry. One of the key trends identified in the report was the use of artificial intelligence (AI) and predictive analytics to forecast demand. By analysing data from past sales and customer behaviour, retailers can more accurately predict demand and adjust their inventory and staffing levels accordingly. The report found that companies using AI and predictive analytics achieved an average **10% increase in forecast accuracy**.

Another trend identified in the report was the adoption of agile supply chain strategies. By creating flexible and responsive supply chains, retailers can better manage peak demand and respond quickly to unexpected disruptions. The report found that companies using agile supply chain strategies experienced a **50% reduction in lead times** and a **20% increase in supply chain flexibility**.



The report also highlighted the use of automation and robotics to increase efficiency and reduce costs. By automating repetitive and manual tasks, retailers can free up their employees to focus on more value-added activities, such as customer service. The report found that companies using automation and robotics achieved an average 30% reduction in operational costs.

Other trends identified in the report included the use of omnichannel fulfilment strategies, such as buy online and pick up in-store (BOPIS), and the adoption of sustainable practices in the supply chain, such as reducing packaging waste and increasing the use of renewable energy.

Overall, the report emphasized the importance of embracing emerging trends and technologies to effectively manage peak demand in the retail industry. By leveraging AI and predictive analytics, adopting agile supply chain strategies, and using automation and robotics, retailers can better meet customer demand, reduce costs, and maintain their competitive edge.

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University of Warwick and Cranfield School of Management examined the challenges of managing peak demand in the UK

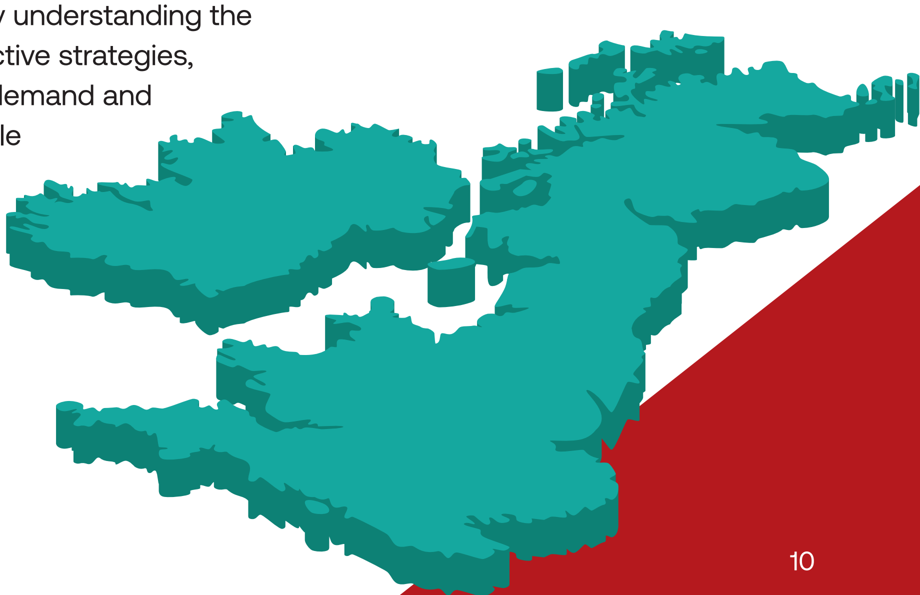
The study aimed to identify the challenges faced by UK retailers in managing peak demand, which typically occurs during seasonal events such as Christmas and Black Friday. The study found that managing customer expectations, managing inventory levels, and managing supplier relationships were the primary challenges faced by retailers.

To manage customer expectations, retailers must effectively communicate with customers about product availability, delivery times, and potential delays. Retailers must also provide alternative options for customers, such as click-and-collect or home delivery, to ensure they can meet customer demand.

To manage inventory levels, retailers must accurately forecast demand and adjust their inventory levels accordingly. This requires effective collaboration between different departments, such as marketing and logistics, and the use of technology to automate inventory management processes.

To manage supplier relationships, retailers must establish open lines of communication and work collaboratively with suppliers to ensure they can meet customer demand. This may involve developing contingency plans for potential disruptions, such as supplier bankruptcies or labour disputes.

Overall, the study highlights the importance of effective peak demand management in the retail sector. By understanding the challenges and implementing effective strategies, retailers can better manage peak demand and maintain customer satisfaction while maximizing their profitability.



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