



Operation Management of Grocery Retailer in the UK: A Case of Tesco

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Abstract: Tesco is the biggest grocery retailer in the UK focused on food products selling and some non-food services such as clothing, home appliances, financial, etc. Over the last five years, Tesco has had a healthy growth in revenues and net profits, which reflects the success of Tesco's operations management. The purpose of the study is to explore the successful operation management of Tesco company, which can bring some inspiration for other companies to grow. This paper mainly includes operation design (products, service, process, and layout design), resource planning and control, and capacity management. In terms of operation design, Tesco launched a new baby food range with absolutely no salt or sugar, no artificial colors or spices to protect children's health; Clubcard, Scan as you go, staff visibility, and Online shopping & Delivery adopted for giving customers' more benefits and convenience; Tesco belongs to mass service process, adopts tracking technology named thermal imaging cameras to monitor queue lengths, reduce customer waiting time, increasing service speed and flexibility. Tesco mainly uses a functional layout, keeps the layout of its stores the same to allow customers to quickly find the goods, saving shopping time, and designed the display locations of its products to increase its revenue. For Planning and control, Tesco belongs to 'Produce to stock', which shows the characteristics of a high volume of products, which can save customers' time, because the products have been produced in advance for customers to buy. Regarding Capacity management, Tesco adopted a mixed strategy which is chase demand and demand management to manage mismatches. Effective operation management strategies have made outstanding contributions to the realization of Tesco's business objectives, profit increase, and long-term development.

Keywords: Operation management; Tesco company; Operation design; Planning and control; Capacity management

1 Introduction

1.1 background

Operations management is the administration of business structure, practices, and processes to enhance efficiency and maximize profit^[38]. Tesco is the biggest retailer in the UK with more than 3400 stores and 344,117 employees^[1]. It focuses on food products selling and some non-food services such as clothing, home appliances, finances etc.^[2]. Over the last five years, Tesco has had a healthy growth in revenues and net profits, from 57.49 billion and 1.21 billion in 2015 to 63.91 billion and 1.32 billion in 2019^[3]. Tesco has established itself as a dominant player in the grocery industry, its commitment is providing high-quality products at affordable prices and its ability to adapt to changing consumer demands^[38]. Tesco's operation management practices have played a significant role in its growth and success over the years.

1.2 Purpose and Significance

The purpose of this case study is to examine the operation management practices employed by Tesco in its grocery retail operations in the UK. Operation management plays a critical role in the success of any retailer, and Tesco's approach in this area has been instrumental in its growth and sustained performance. By studying Tesco's operation management practices, we can gain insights into the strategies and methods used by a leading grocery retailer to effectively manage its operations, meet customer demands, and maintain a competitive edge. In addition, it can also provide valuable insights and lessons for other grocery retailers seeking to optimize their operations and achieve sustained growth in the UK market. Conducting a study on the operations management of a grocery retailer like Tesco in the UK holds significance in terms of practical application, identifying industry best practices, improving performance, contributing to academic research, supporting decision-making, and enhancing overall industry competitiveness.

1.3 Structure

This paper is going to concentrate on the operation management of Tesco, analyzing its products, service, process, and layout design, studying its resource planning and control as well as capacity management. These areas are essential for Tesco's ability to meet customer expectations, maintain product availability, and ensure a positive shopping experience for its customers. In addition, the contribution of these aspects to the realization of Tesco's operational objectives, the increase of profits, and the long-term development will be analyzed in detail.

2 Literature review

The grocery retail sector in the UK is highly competitive, characterized by thin profit margins, changing consumer preferences, and technological advancements. In this context, effective operations management is essential for grocery retailers to maintain competitiveness, enhance customer satisfaction, and ensure profitability. This literature review examines the key concepts, strategies, and challenges related to operations management in the UK grocery retail sector,



with a specific focus on Tesco, one of the largest retailers in the country.

2.1 Supply Chain Management:

Supply chain management (SCM) plays a crucial role in the operations of grocery retailers like Tesco. With a vast network of suppliers, distribution centers, and stores, Tesco must efficiently manage its supply chain to ensure the availability of products, minimize costs, and reduce lead times. Research by Christopher^[4] emphasizes the importance of collaboration and integration across the supply chain to achieve these objectives. Fernie^[5] and Sparks^[5] Tesco's adoption of advanced technologies such as RFID (Radio Frequency Identification) and EDI (Electronic Data Interchange) has enabled real-time visibility and coordination throughout its supply chain.

2.2 Inventory Management:

Effective inventory management is critical for grocery retailers to balance supply and demand while minimizing holding costs and stockouts. Tesco employs various inventory management techniques, including Just-In-Time (JIT) and Economic Order Quantity (EOQ), to optimize its inventory levels. Research by Slack et al.^[6] suggests that Tesco's use of sophisticated forecasting algorithms and data analytics has improved its inventory management practices, leading to enhanced efficiency and reduced wastage.

2.3 Customer Service and Experience:

In the competitive grocery retail market, providing exceptional customer service and experience is paramount. Tesco has invested heavily in technologies such as self-checkout systems, mobile apps, and online ordering platforms to enhance the shopping experience for its customers^[5]. Research by Voss et al.^[7] highlights the importance of understanding customer preferences and behaviors in designing effective service delivery processes. Tesco's focus on personalized promotions and loyalty programs reflects its commitment to delivering value to its customers.

2.4 Sustainable Operations:

As sustainability becomes increasingly important to consumers and regulators, grocery retailers like Tesco are under pressure to adopt environmentally friendly practices throughout their operations. Liu and Bai mentioned that Tesco has implemented various sustainability initiatives, including reducing food waste, sourcing locally, and investing in renewable energy^[8]. Research by Seuring and Müller^[9] emphasizes the role of operations management in driving sustainability initiatives and enhancing corporate social responsibility.

2.5 Omni-Channel Retailing:

The rise of e-commerce and omni-channel retailing has transformed the grocery retail landscape, presenting both opportunities and challenges for retailers like Tesco. Tesco's multi-channel approach, which integrates online and offline channels, allows customers to shop seamlessly across various touchpoints^[5]. Research by Ivanov et al.^[10] highlights the importance of agility and flexibility in omni-channel operations to meet changing customer demands and market dynamics.

2.6 Store Layout and Design:

Store layout and design significantly impact customer experience and operational efficiency. According to Baker^[40], an effective store layout improves customer flow, promotes impulse buying, and enhances the overall shopping experience. Retailers like Tesco invest in-store layout optimization, implementing strategies to maximize product visibility, ease of navigation, and strategic placement of items. This helps increase sales and customer satisfaction^[43].

2.7 Technology-enabled Solutions:

The integration of technology has brought fundamental changes to operation management in grocery retail. Retailers are increasingly adopting technologies such as self-checkout systems, mobile apps, and online ordering platforms^[39]. Tesco, for example, implemented self-checkout systems that facilitate faster transactions and reduce waiting times, enhancing customer satisfaction and operational efficiency. Additionally, the use of data analytics and predictive modeling helps retailers make informed decisions and improve supply chain performance^[41].

2.8 Continuous Improvement and Innovation:

In the fast-paced grocery retail industry, continuous improvement and innovation are vital for success^[42]. emphasize the importance of retailers like Tesco regularly reviewing and improving their operation management practices to adapt to changing customer expectations. Innovation in areas such as product selection, store formats, delivery methods, and sustainability practices contributes to maintaining a competitive edge^[44].

3 Operation design

3.1 Product design

Tesco, the biggest supermarket in the UK, is not a manufacturing organization, but has its products under the brand name 'Tesco' such as Tesco tea, Tesco still water, and Tesco bread.

Nowadays, a healthy lifestyle has attracted more people's attention. To support the parents' goal of nurturing a healthy diet for their babies and help the youngest customers lead healthier lives, Tesco launched a new baby food range^[11]. Unlike other food products, the recipes of baby foods are designed by experts and nutritionists, and all the products are made by Tesco, which contains absolutely no salt or sugar, no artificial colors or spices, and has at least 45 percent vegetables per meal^[11]. From Tesco's perspective, this product specially designed for babies can bring them great revenue and profits, because parents are willing to spend lots of money for their children's health. On the other hand, no salt or sugar, no artificial colors or spices can help Tesco to save costs. What's more, the act of providing babies with a healthier diet can gain parents' trust and thus further gain customers' loyalty.

3.2 Service design

To provide every customer with a great shopping experience, Tesco offers a variety of services for customers.

3.2.1 Clubcard

Clubcard is a loyalty card introduced by Tesco in 1995, which aims to give customers more ways to get the best value^[12]. Customers can use their Clubcard to collect one point from every pound they spend in-store and online, every 150 points received will be turned into £1.50 vouchers for customers, which may help them save lots of money in future shopping^{[12][37]}. What's more, in 2019, a new loyalty subscription service, Clubcard Plus, which is an add-on to the old one was launched and brings shoppers some extra benefits each month, which include 10 per cent off getting from two big shops in-store and double data receiving on Tesco Mobile^[36]. From Tesco's perspective, Clubcard can help them to win customers' loyalty, because the benefits of Clubcard can increase customers' satisfaction with shopping, thus further increasing their trust and loyalty.

On the other hand, Clubcard enables Tesco to analyze the purchasing habits and behavior of each customer, as well as the frequency of a certain product purchase. By analyzing the data, Tesco can respond to whether the product should be introduced, retained, or removed from the shelves promptly, thus effectively improving the flexibility of service.

3.2.2 Scan as you go

The Barcode system allows Tesco offer Scan as You Shop service to customers who are Clubcard members^[13]. Customers need to scan their Clubcard to start shopping and then scan the barcode of each product they want to purchase using the handset^[13].

Then, customers can put the scanned items directly into their bags and pack them as they go, so they do not need to take everything out at checkout^[13].

When the shopping is finished, customers can go straight to the Scan as You Shop checkout, paying by scanning the barcode at the top of the till^[13].

This service provides customers with great convenience, which speeds up their shopping and saves them valuable time. Because customers do not need to wait in a queue for a long time, nor do they have to wait for the cashier to scan each purchase. From Tesco's point of view, this service may help them save staff costs, because if all customers who use the handset go to the checkout, Tesco may need to open additional checkout counters and increase the number of cashiers.

3.2.3 Staff visibility

Tesco has a high staff visibility for providing timely assistance to customers. According to Tesco News^[14], employees in uniform can be seen everywhere in Tesco. When customers need any help, such as when they cannot find a specific product, they can easily identify and find nearby staff to get timely help^[14].

Tesco's high staff visibility can not only improve customers' shopping speed, and save their valuable time because their problems in the shopping process can be timely dealt with, but also improve the overall service quality of Tesco and increase customer satisfaction.

3.2.4 Online shopping & Delivery

Tesco has launched an online shopping system that allows customers to shop as quickly as possible. When customers want to make a purchase, they just need to log on to the official website of Tesco, search for their desirable products, and put them into a shopping basket^[15]. When the shopping is over, customers need to book (if available) a two-hour delivery slot, which is between 8 am and 11 pm from Monday to Sunday^[16]. The charge for delivery is from £1 to £6 depending on the period customers choose^[16]. Once all the steps have been completed, the one thing left is to pay and wait for delivery at the time customers specify^[16].

Online shopping avoids wasting customers' valuable time, increasing shopping speed. Because they do not have to walk from one shelf to another and look for specific items or wait for payment in a long queue^[15].

On the other hand, shopping online may help shoppers to save traveling costs. Although delivery is charged, it is still cheaper than a bus or taxi, or even fuel costs if they normally drive^[16]. Finally, usually timely delivery by Tesco reflects its service dependability.

3.3 Process design

3.3.1 Process types

The Service Process Matrix is a classification matrix of service industry firms based on the characteristics of the individual firm's service processes^[17]. According to Slack^[17], there are four different service process types based on

volume and variety, which are service factory, professional service, service shop, and mass service.

SERVICE PROCESS MATRIX

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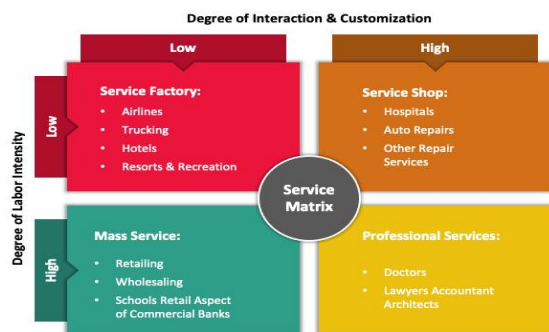


Figure 1. Service Process Matrix^[17].

Professional services involve a high variety and volume of customers, moreover, these services normally have a high degree of customization and staff discretion^[17].

Service shops involve a medium degree of customer volume, customization and staff discretion^[17].

Mass services are characterized by a high level of customer volume combined with low customer customization, and staff discretion^[17].

Service factories involve a low degree of labor intensity and a low degree of interaction and customization, which allows service firms in this quadrant to operate in a fashion similar to factories^[17].

3.3.2 Tesco process type

Tesco has a super high level of volume with millions of customers a week^[18]. As a retailer, Tesco does not offer customized services, shoppers can only choose provided products, moreover, in this process, customers usually make little communication with staff^[19]. These characteristics indicate Tesco belongs to the mass service process.

3.3.3 Tracking technology

Tesco uses thermal imaging cameras to monitor queue lengths, and reduce customer waiting time^[20]. The 'Smartlane' system can sense the number and behavior of shoppers at checkout using infrared sensors mounted on the ceiling above the tills^[20]. In addition, the smart sensor will automatically calculate the average queue length and waiting time, and predict the needs for open extra checkout within an hour, which enable Tesco to respond to potential queuing problems as quickly as possible, optimizing the deployment of checkout staff, thus may increasing service speed and flexibility^[20]. On the other hand, through the monitoring and analysis of customers, Tesco can make a reasonable allocation of personnel, such as arranging cashier staff to other posts during periods of low traffic, which improves the utilization efficiency of human resources and saves staff costs^[20].

3.4 Layout design

3.4.1 Layout types

Slack^[21] stated four different layout types. Fixed-position layout is that the transformed resources within an organization do not move between transforming resources; Functional layout is one in which similar resources or processes are normally positioned together; Cell layout is one where transformed resources entering the operation are pre-selected to move to one of the cells in which all the transforming resources are positioned; Line layout involves fully positioning people and equipment for the convenience of the transformed resources^[21].

3.4.2 Tesco layout type

Tesco mainly uses a functional layout. Products are arranged in order of functional relevance or similarity, which means each category of products such as foods and clothing, has its exclusive area and with a specific sign of the product category name. The purpose of this layout is to provide convenience for shoppers, customers can easily identify display areas for the products they want, thereby saving their shopping time and increasing shopping speed^[22].

3.4.3 Tesco layout design

Tesco keeps the layout of its stores the same, no matter where it is located. Atkinson^[23] indicated that whether Tesco is positioned in London or Cambridge, the layout of its stores is essentially the same, departments such as food and clothing are arranged in roughly the same location. The same store layout allows customers to quickly find the area where the goods are located, which greatly saves shopping time^[23].

Tesco, on the other hand, has designed the display locations of its products to increase its revenue. For example, necessities such as bread, flour, and sugar, which are relatively cheap, may be placed at the back of the store, thereby customers will go through lots of high-margin products to get the essentials^[21]. The process could help Tesco boost sales, as customers may buy products that are highly profitable but not on their shopping lists. Moreover, high-margin products are placed at eye level, while low-margin products are placed higher or lower. This may lead customers to buy higher-margin products before searching for products above or below eye level, or some customers may not want to raise their heads or squat down at all.

4 Planning and Control

Planning and control refer to coordinating the relationship between market demands and business resources^[17].

4.1 P:D ratio

P:D ratio of an operation refers to the total time the customer must wait for the product or service (D), as compared with the total time needed to produce the product or service (P)^[17]. There are four types of planning and control. 'Produce to stock' is to produce products using traditional manufacturing methods and keep them in stock until the customer buys^[24]; 'Part produce to order' is means that the products ordered by its customers are quickly produced and to some extent customizable^[25]; 'Produce to order' means that consumers can buy products customized to their specifications, and businesses only start producing products after they receive a confirmed order^[24].

'Resource to order' means individual parts are designed and assembled according to each customer's order^[26].

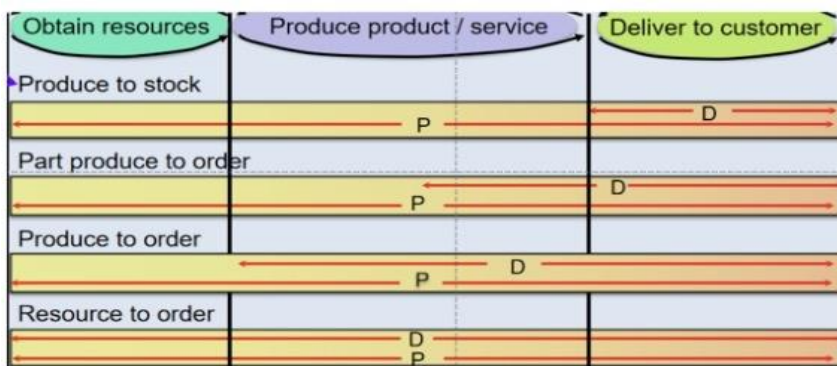


Figure 2. P:D ratio^[17].

4.2 Planning and control type of Tesco

Tesco belongs to 'Produce to stock', because it has a high volume of products, providing 90,000 products for customers every week, such as foods, drinks, and clothing, customers can only choose from the products provided^[27]. Although customers cannot enjoy the service of customized products^[19], they can

choose any delivery time between 8 am and 11 pm, and the products will be delivered on time within the period specified by them^[28]. 'Produce to stock' belongs to mass customization, which allows for mass production at a faster rate and a

lower unit cost^[29]. In addition, 'produce to stock' can save customers' time, because the products have been produced in advance for customers to buy^[30].

4.3 Influence factor

Planning and control will be influenced by supply and demand. Slack^[17] indicates two demand types which are dependent and independent demand. Some businesses can forecast demand with relative certainty because demand for their products and services depends on some other known factor, this is called dependent demand. In contrast, independent demand means that companies need to supply future demand without knowing exactly what the demand is^[17]. The demand of Tesco is mainly dependent. Tesco forecasts the demand based on local customers' transaction information. Tesco records about 8 million transactions a week, which creates about 50 gigabytes of data, through analyzing data, Tesco can understand customer's buying preferences, shopping habits, and purchase frequency of each product, determine high-demand and medium-demand products as well as products that can be removed from shelves, thereby providing more accurate demand and better inventory management^[31].

4.4 Stock planning and control

In terms of inventory, the first step for Tesco is to predict the demand in the short period and based on the forecast, prepare enough inventory to meet the needs. Tesco stores enough products in the warehouse for daily sales during normal periods. For the peak time, it will deliver more extra products by truck to deal with the lack of stock^[19].

4.5 Staff planning and control

To better serve customers and expand the market, Tesco provides its staff training during work^[32]. On the one hand, trainees have a chance to fulfill their target roles through job rotation or secondment, assuming full responsibility on a temporary or limited basis. On the other hand, employees will be trained in some specific skills, such as team-building, communication, and planning.

To motivate employees and retain them for a long time, Tesco provides its employees with many benefits, such as sick, holiday and maternity pay, and annual bonuses up to 3.5% of base salary^[33].

5 Capacity management

Capacity management refers to the understanding of the nature of supply and demand in operations and the handling of differences between them^[17].

5.1 Mismatches management between demand and capacity.

Clack^[17] indicates three ways to cope with mismatches between demand and capacity, which are the level capacity plan, Chase's demand plan, and Demand management. The level capacity plan refers to the fixed capacity during the planning period, ignoring changes in customer demand. Chase demand plan means that the organization changes capacity according to customer demand. Demand management is to change the pattern of customer demand to reduce demand fluctuations^[17].

5.2 Strategy Adopted by Tesco

Tesco adopted a mixed strategy which is chase demand and demand management to manage mismatches. On the one hand, by analyzing the transaction information of customers, Tesco can summarize the shopping habits, preferences, and product purchase frequency of customers, and then distinguish products with high demand, medium demand and, low demand^[19]. Thus, capacity and inventory can be effectively planned. On the other hand, in terms of seasonal and low-sales products, Tesco employed discounts and promotions methods. For example, Tesco offers a 20% discount on its summer clothes, which two polo shirts for £2.5 and two skirts for £8^[34]. In addition, some products buy one get one free, such as Heinz burger sauce and Playdoh^[35].

Conclusion

Tesco is a successful retailer. To achieve its operation objectives, increase profits as well, and get a better development, Tesco put efforts in many aspects. On the one hand, it launched new products for babies, and offered more services for its customers such as Clubcard, scan as you shop, and home delivery. In addition, tracking technology is used to increase its service speed. Moreover, Tesco designed its layout for customers' convenience and revenue increase. On the other hand, planning and control are also a useful part of the operation. Tesco provided useful training and benefits to its employees and for stock, inventory is always prepared for customers demand. Finally, Tesco adopted mixed methods to manage its capacity, and deal with the mismatches between demand and capacity.

Reference

[1] Statista. (2019) *Number of Tesco stores in the United Kingdom (UK) and the Republic of Ireland from financial year 2012 to 2019*. [online]. Available at:

<https://www.statista.com/statistics/490947/tesco-group-stores-united-kingdom-uk/>.

[Accessed: 7 February 2020].

[2] Statista. (2019) *Average number of employees at Tesco worldwide in 2018 and 2019, by region*. [online]. Available at:

<https://www.statista.com/statistics/490890/tesco-group-number-of-employees-worldwide/>. [Accessed: 7 February 2020].

[3] Financial Times. (2020) *Income statement in GBP*. [online]. Available at:

<https://markets.ft.com/data/equities/tearsheet/financials?s=TSCO:LSE>.

[Accessed: 7 February 2020].

[4] Christopher, M. (2016). *Logistics & Supply Chain Management*. Pearson UK.

[5] Fernie, J., & Sparks, L. (2014). *Logistics and Retail Management: Emerging Issues and New Challenges in the Retail Supply Chain*. Kogan Page Publishers.

[6] Slack, N., Brandon-Jones, A., & Johnston, R. (2019). *Operations Management*. Pearson UK.

[7] Voss, C., Tsikriktsis, N., & Frohlich, M. (2018). *Case Research in Operations Management*. International Journal of

Operations & Production Management, 38(1), 2-22.

- [8] Liu, Z., & Bai, C. (2020). An integrated framework for sustainable operations management in the food supply chain: An empirical study on Tesco UK. *Resources, Conservation and Recycling*, 158, 104796.
- [9] Seuring, S., & Müller, M. (2018). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16(15), 1699-1710.
- [10] Ivanov, D., Dolgui, A., & Sokolov, B. (2019). The Ripple Effect in Supply Chains: Trade-offs, Pareto Optimality, and Competitiveness Analysis. *International Journal of Production Research*, 57(5), 1289-1304.
- [11] Tesco plc. (2018) *Tesco helps babies discover a whole new world of tastes and textures with the launch of its exclusive own brand baby food range*. [online]. Available at: <https://www.tescopl.com/news/2018/tesco-helps-babies-discover-a-whole-new-world-of-tastes-and-textures-with-the-launch-of-its-exclusive-own-brand-baby-food-range/>. [Accessed: 8 February 2020].
- [12] Tesco plc. (2019) *Tesco Clubcard*. [online]. Available at: https://secure.tesco.com/clubcard/about?_ga=2.111037005.996452110.1581608778-1568548030.1576692593&_gac=1.94870638.1581855397.Cj0KCCQiA7aPyBRChARIsAJfWCgIGSerbTcC3BuAKIPaoMw1e42B_dfDWj1ZYUVkCFnEw_fNH9EZJTpIaAqAYEALw_wcB. [Accessed: 14 February 2020].
- [13] Tesco plc. (2019) *Scan as you Shop*. [online]. Available at: <https://secure.tesco.com/clubcard/scan-as-you-shop>. [Accessed: 14 February 2020].
- [14] Tesco News. (2012) *Better service*. [online]. Available at: <https://www.youtube.com/user/TescoMedia/search?query=better+service>. [Accessed: 14 February 2020].
- [15] Xie, Y. and Allen, C. (2013) Information technologies in retail supply chains: a comparison of Tesco and Asda. *International Journal of Business Performance and Supply Chain Modelling*, vol. 5, no. 1, pp. 46-62.
- [16] Willis, R. (2019) *Grocery Shopping Online at Tesco*. [online]. Available at: <https://skintdad.co.uk/food-shopping-online-tesco/>. [Accessed: 14 February 2020].
- [17] Slack, N. (2018) *Essentials of operations management*. UK: Pearson.
- [18] Tesco plc. (2020) *Our business in the UK*. [online]. Available at: <https://www.ourtesco.com/working-at-tesco/our-company/tesco-glance/>. [Accessed: 14 February 2020].
- [19] Xiaoyu, C. (2020) *Operations management in Tesco*. [online]. Available at: https://www.academia.edu/24712156/Operations_Management_in_Tesco. [Accessed: 14 February 2020].
- [20] IRISYS. (2016) *Intelligent queue management builds sales at Tesco*. [online]. Available at: <https://www.irisys.net/news-events/bid/25484/Intelligent-queue-management-builds-sales-at-Tesco>. [Accessed: 7 February 2020].
- [21] Slack, N. (2019) *Operations management*. Harlow: Pearson.
- [22] Adjudicator, G. C. (2016). Investigation into Tesco plc.
- [23] Atkinson. (2015) *Retail layout management at Tesco*. [online]. Available at: <https://www.scribd.com/doc/259759244/Retail-Layout-Management-at-Tesco>. [Accessed: 15 February 2020].
- [24] Hayes, A. (2019) *Make to order*. [online]. Available at: <https://www.investopedia.com/terms/m/make-to-order.asp>. [Accessed: 18 February 2020].
- [25] Kenton, W. (2020) *Assemble to order*. [Online]. Available at: <https://www.investopedia.com/terms/a/assemble-to-order.asp>. [Accessed: 18 February 2020].
- [26] Oroox. (2019) *Design to order*. [Online]. Available at: <https://oroox.com/en/design-to-order>. [Accessed: 18 February 2020].
- [27] The guardian. (2015) *Tesco cuts range by 30% to simplify shopping*. [online]. Available at: <https://www.theguardian.com/business/2015/jan/30/tesco-cuts-range-products>. [Accessed: 18 February 2020].
- [28] Tesco. (2020) *Book a slot*. [online]. Available at: <https://www.tesco.com/groceries/en-GB/slots>. [Accessed: 14 February 2020].
- [29] Pearson. (2012) *Mass customization, Build-to-order Manufacturing, and personalization*. [online]. Available at: http://wps.pearsoned.co.uk/ema_ge_turban_elec_comm_2012/217/55592/14231619.cw/content/index.html. [Accessed: 18 February 2020].
- [30] Katana. (2020). *Make to Order Vs Make to Stock: The Final Workflow Showdown*. [Online]. Available at: <https://katanamrp.com/blog/make-to-order-vs-make-to-stock>. [Accessed: 18 February 2020].
- [31] Schmarzo, B. (2013). *Big Data: Understanding how data powers big business*. John Wiley & Sons.
- [32] Business case studies. (2019) *How training and development supports business growth*. Available at: <https://businesscasestudies.co.uk/how-training-and-development-supports-business-growth/>. [Accessed: 20 February 2020].
- [33] Tesco. (2020) *Benefits*. [online]. Available at: <https://www.tesco-careers.com/explore-our-world/benefits/>. [Accessed: 20 February 2020].
- [34] Money saving expert. (2020) *F&F clothing deals*. [Online]. Available at: <https://www.moneysavingexpert.com/deals/f-and-f/>. [Accessed: 20 February 2020].

- [35] Tesco. (2020) *Buy one get one free*. [online]. Available at: <https://www.tesco.com/groceries/en-GB/products/287311803>. [Accessed: 20 February 2020].
- [36] Tesco plc. (2019) *Tesco launches new Clubcard Plus*. [online]. Available at: <https://www.tescopl.com/news/2019/tesco-launches-new-clubcard-plus/>. [Accessed: 14 February 2020].
- [37] Tesco plc. (2019) *Collect points to enjoy rewards*. [online]. Available at: <https://secure.tesco.com/clubcard/collect-points>. [Accessed: 14 February 2020].
- [38] Gou, H., Huang, B., Liu, W., & Li, X. (2003). A framework for virtual enterprise operation management. *Computers in Industry*, 50(3), 333-352.
- [39] Alserhan, B., & Dalbhanjan, T. (2019). *Retailing Technology: Enhancing Retail Operations and Customer Shopping Experience*. World Scientific Publishing.
- [40] Baker, J. (2014). Advances in Grocery Store Marketing. *International Journal of Retail & Distribution Management*, 42(8), 705-712.
- [41] Datamonitor. (2010). *Tesco PLC Case Study: Retailing Success Through Supply Chain Integration*. MarketLine.
- [42] Fernie, J., Sparks, L., & McKinnon, A. (2010). *Retailing: Value, Logistics, and Supply Chain Management*. Routledge.
- [43] Wakefield, K. L., & Baker, J. (1998). Excitement at the Mall: Determinants and Effects on Shopping Response. *Journal of Retailing*, 74(4), 515-539.
- [44] Fitzsimmons, J. A., & Fitzsimmons, M. J. (2019). *Service Management: Operations, Strategy, Information Technology*. McGraw-Hill Education.