# **OPERATIONS MANAGEMENT**

# BST803 - ASSIGNMENT NO. 1 BUSINESS CASE REPORT <u>DOMINO'S</u>



Student Number: C21084397 Word count: 1646/1500 +-10%

"I declare that this work is entirely my own and no part of it has been produced by Generative AI tools."

# **Introduction**

Domino's was launched in 1960 and has grown into a global pizza fast-food giant, operational in over 90 countries (Domino's, 2023). This report will focus on operational activity within the UK. Section one provides a detailed operational matrix alongside a discussion of two critical areas, the ability to provide swift delivery within their service provision, and secondly, the dependency on centralised distribution networks, critically discussing affected operational metrics and sustainability measures. Section two lays out a foundation of how Domino's manages its inventory through key functional classifications. Furthermore, exploring theoretical application of the Order Up to (OUT) inventory model, discussing trade-offs between product availability (Service level) and consequential effects on safety stock and reliance on forecasted horizon.

# **Operation Strategy & Performance**

# 1.1 Operational Strategy Matrix

Speed	Over 1,300 stores around the UK, covering 83% of the UK, supporting their promised 20-30 minute delivery commitment to a broad customer base (Dominos, 2023).	Operation of two high-volume continuous dough production facilities in Ashland and Milton Keynes, making over 33 million kilos of fresh dough. Local stores receive fresh dough constantly, replenished every 24-48 hours (Domino's Annual Report, 2023).	Automated dough preparation processing systems are used in production facilities to weigh, separate, and provide adequate separations for dough balls. Reducing in-store processes and cutting pizza preparation time to under six minutes (Business Insider, 2023).	Domino's uses the franchise model as a vital source of inorganic growth, fueling its rapid expansion across the UK. Offering an average of 20% return on investment, an excellent opportunity for entrepreneurs (Dominos, 2023; Franchise, 2024).		
Flexibility	Continuous flow layout is optimised for high volumes, supported by an average of 30 team members during rush hour. Scalability increases volume flexibility, while preorder options add delivery flexibility (Domino's Annual Report, 2023; Business Insider, 2023).	Strong partnerships with UK- based local suppliers allow for an expanded product range and greater mix flexibility. This includes seasonal products such as "Vegan Plant-Based" Pizza and After-eight dessert options (Restaurant Planet, 2023; Slack, 2019)	AnyWare software allows consumers to place orders through multiple platforms, including IOS, Amazon Alexa and Google Assistant. Flexibility within ordering helps dominos maintain strong engagement with consumers (Google Customer Insight, 2018)	Stores provide standardised employee training, which allows flexibility within their workforce. Stores facing higher-than-expected demand or a shortage of staff can request additional workers, coming from less busy local stores (Observation, 2024; Dominos, 2024)		
Cost	Stores in more densely populated areas operate in smaller, efficient units designed to handle large demand volumes. Eliminating dining space further reduced operational costs (Domininos, 2023; Observation, 2024).	Bulk purchasing from key suppliers, such as Leprino Foods UK, for ingredients such as flour, milk and cheese offers significant purchasing economies of scale, reducing cost per unit value (Leprino Foods, 2024; Dominos Annual Report, 2023)	Driver app assigns an optimised route to the delivery. Driver Locations are mapped in-store in real-time, allowing in-store members to anticipate driver returns, streamlining the preparation and handoff of upcoming orders, and reducing idle time between orders (Observation, 2024; Dominos, 2023).	Efficient training and onboarding process for recruits reduces costs of staffing gaps, which can be costly for Dominos with their 182% turnover rate (Bassam, 2019; Dominos, 2023; Observation, 2019)		
Dependability	Workers operate in an assembly line focusing on single repetitive tasks, with additional guidelines such as the number of toppings enabling them to create reliably consistent pizzas.  Automated ovens further support this allowing for consistent cooking (Dominos, 2023)	Vertically intergraded centralised distribution centres reliably manage inventories for an average of 300 stores within a 150-mile radius. Supplying franchisees with all inflows (Logistics Manager; Commercial Motor, 2022; Domino's, 2023)	Domino's automated inventory system takes into account both continuous and periodic inventory review systems. It automatically calculates the optimal order up to the level, delivers daily, and provides consumers with fresh ingredients (He, Hayya, 2010; Domino's Annual Report, 2023).	Frequent franchisee support through events. Strategic management transfers to low-performing stores allow skill transfer, consistent operational standards, and workforce stability (Dominos Anual & ESG Reports, 2023).		
Quality	Domino's operates several centralised production facilities. It is responsible for distributing fresh dough and other ingredients to over 1,200 stores and maintaining a standardised quality across its stores (Blink,2024; Dominos, 2023).	Strong relationships with local suppliers such as Leprino Foods, Glanbina Cheese UK, British meat suppliers and sustainable palm oil (RSPO), prioritising high-quality local produce and upholding social sustainable development locally (Dominos Annual & ESG Reports, 2023)	Pizza Tracker allows transparency of real-time data to the Consumer through their app. This provides value to 91% of consumers who highly value real-time tracking (Ji, 2024; Business Insider, 2023).	Investment into dedicated Quality Assurance teams, conducting unannounced inspections of stores in order to monitor adherence to critical food safety procedures at all times while continuously improving quality benchmarks (Dominos, 2023)		
	Capacity	Supplier Network	Process Technology	Development and Organisation		
Operationally Critical Areas Discussed						

Figure 1 Operational Strategy Matrix

#### 1.2 Discussion on Critical Areas

# Maximising Operational Swiftness At Large Capacity.

SWIFTNESS AT LARGE CAPACITY.							
Speed	Multiple stores in close geographical proximity concideration demographic and sales data, ensuring deliveries are consistently made within 20-30 minutes	Dependability	Higher turnover rate, frequent absenteeism and vacancies, hinder ability to meet demand. Leading to cancelled orders or longer delivery times				
Flexibility	Stores facing stockout or lack of resources such as staff, have the ability to transfer resources within extensive store network quickly.	Quality	Focus on speed increases mistakes. Consumers often complain about missed items and wrong orders, with avarage ratings of 3.6 stars.				
Cost	Reliance on human capital with high turnover rate suggests frequent recruitment costs and absenteeism. Improvements in staff retentionention is recommended by paying a fair living wage.	Sustainability	Profit: Significant 20% return on investment for franchisee owners  People: stressful poor working condisions, terrible emplyee pay,  Planet: Drivers use old, non environmentally friendly cheap cars. Redeliveries caused by mistakes further increase CO2 emissions.				

Figure 2: Summary of Operational Measures (1)

Dominos operates around 1,300 stores, covering 83% of the UK (Dominos, 2024). They can achieve this expansive reach due to their utilisation of the franchisee model, offering Domino's a rapid source of inorganic growth (What-Franchise, 2024). Multiple stores are located nearby, established on demographic data patterns, taking into consideration delivery zones and infrastructure accessibility to nearby homes (Dominos, 2024). This extensive reach is critical in their operations, allowing them to prioritise speed and flexibility, consistently delivering within 20-30 minutes. This focus on fast delivery is often a decisive order winner, placing dominos ahead of close competitors such as Papa John's and Pizza Hut, who deliver in around 30-45 minutes, taking even longer depending on location (Papa Jhons, 2024; Pizza Hut, 2024; Slack, 2019).

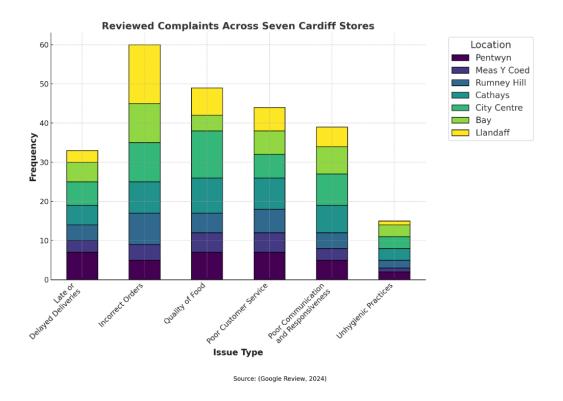


Figure 3: Reviewed Complaints (Appendix)

However, a major problem with Domino's overfocus on speed is that it has a catastrophic impact on the quality of service provided. The average rating of stores in the Cardiff area is around 3.6 stars, and consumers frequently complain about missed items and wrong orders (Figure 3). Working at higher speeds sacrifices quality and leads to a higher chance of errors and mistakes, leading to unsatisfied consumers (Kostami, 2014).

Additionally, the extensive network and continuous flow layout Domino's uses require considerable human resources, with an average of 20 staff members per store (Slack, 2019; Domino's, 2024). A high turnover rate is expected due to the nature of the industry, but Domino's turnover rate of 182% is higher than the industry average of 150%

(Vasiliki, 2014). Domino's staff receive minimum wage, often understaffed and overstressed, leading to employee dissatisfaction and, consequently, more people leaving, impacting the dependability of the operation (Indeed, 2024). Moreover, absenteeism and recruiting expenses are significantly higher than retention costs (CAP, 2012).

Overall, the business is economically sustainable, promising franchisee owners with around 20% return on investments (Dominos, 2024). Nevertheless, environmental sustainability is degraded by the high number of drivers needed and increased redeliveries caused by frequent errors. The understaffing and retention crisis severely impacts social sustainability, increasing employee pay to a living wage is likely to encourage enhanced retention rates, a vital resource that can prevent the business from operating (Dawson, 2011).

## **Dependability on Centralised Distribution Centre Supply Networks**

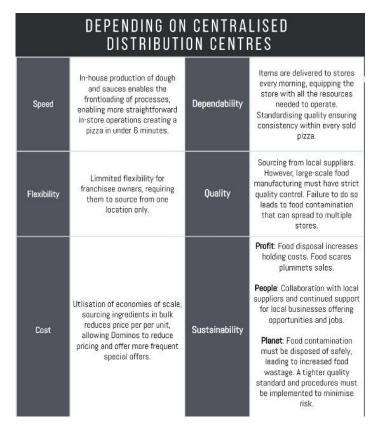


Figure 4: Summary of Operational Measures (2)

Dominos utilises vertically integrated distribution centres to reliably manage and distribute inventories to an average of 300 stores within a 150-mile radius (Dominos, 2024). The distribution centres are responsible for the manufacturing and distribution of all local store's needs (Business Insider, 2021). Automated dough preparation systems frontload the process, spacing and sizing the dough, reducing preparation time in local stores and enabling the assembly of a complete pizza in under 6 minutes (Business Insider, 2021). Operating centralised distribution centres enhances dependability for franchisee owners and consumers, ensuring a consistent product experience regardless of location within the UK.

Additionally, manufacturing at much larger scales, making an average of 33 million kilos of fresh dough annually, allows the organisation to benefit from economies of scale, purchasing at larger quantities and reducing the price per unit (Hiemstra, 2000). Cost savings enable Domino's to reduce its pricing further and offer more frequent deals, stimulating consumers' purchasing behaviour, and therefore profit sustainability for franchisee owners (Surapati, 2020).

However, aggregating enormous production quantities increases the risk of potential large-scale mistakes or food contamination that could spread across multiple stores (FSA, 2024). This is evident in the recent recall of all of its sauces in October 2024 due to possible contamination, posing a "significant risk to individuals with peanut allergies" (Telegraph, 2024; The Sun, 2024). Food scares and large-scale recalls degrade consumers' trust in the organisation, leading to a lower perception of quality and undermining Domino's reputation (Wowak et al., 2022).

Contaminated items must be disposed of safely, which impacts environmental sustainability. Substantial amounts of food are wasted, thrown in landfills, or incinerated (GOV, 2024). A tighter food standard should be upheld. In contrast, Domino's focuses on sourcing its ingredients locally and supporting smaller businesses, provides many jobs in the region and creates opportunities nationally upholding social sustainability (Dominos, 2024).

# 2. Inventory Management

# 2.1 Inventory Functional Classification

<u>Functional</u> <u>Clasifications</u>	SKU & Description				
Buffer / Saftey Stock	<ul> <li>Different Uniform SKU to meet a variation of unexpected staff recruitment (Helmets and motorcycle gear for moped drivers; Hats and jackets for instore and drivers)</li> <li>Core Ingredients such as Dough, cheese and Sauces likely utilise a higher Service level due to the importance they contribute to a sale and, therefore, likely has higher safety stock levels to ensure availability</li> </ul>				
Anticipation Inventory	- Pre-made Stacked pizza boxes are made before rush hour, awaiting sales and fresh pizzas, avoiding bottlenecks in packaging and speeding up delivery times  - Seasonality Ingredients such as pumpkin-flavoured sauces and Christmas turkey are stocked in advance, awaiting planned seasonal marketing campaigns and promotions (Dominos, 2024).				
Pipeline/WIP Inventory	- Transported daily inventories from distribution centres are pipelined into local stores  - Dough that is partially pre-proofed before arriving at stores, reducing the time needed to complete proofing, enabling quicker preparation and faster service to consumers				
Decoupling Inventory	<b>Dough, Sauces, and toppings arrive separately</b> , postponing the commitment stage until consumers order, reducing the variation in forecasting. This enables the handling of a wide range of consumer variations, offering increased flexibility and customisation at the order point.				

Figure 5: Summary of Functional Classifications

Inventory data is continuously tracked through a detailed sales record that calculates the ingredients used to fill each order (Dominos, 2024). Periodic review periods track discrepancies between sales and actual stock, identifying waste (Business Insider, 2021). A single order is placed after each review period, delivering every morning (Business Insider, 2021). The organisation adopts a First in First Out (FIFO) policy to

manage fresh ingredients' perishability, ensuring that older stock is sold first (Manohar, 2017).

Moreover, the organisation holds a vast range of decoupled SKUs stored separately to make a range of pizza variations from different toppings, sauces and dough sizes, postponing and delaying the commitment decision until a more precise forecast is made by consumers placing an order (Yang, 2004). The dough is often used as a foundation on the menu due to its versatility. It's used across different pizza sizes, sides and desserts, including dough balls and cinnamon sticks (Dominos, 2023). Decoupled inventories allow Domino to offer a range of other options and flexibility to consumers while also providing alternatives if a stockout of ingredients occurs (Olhager, 2003)

Additionally, the organisation must hold adequate safety stock of uniforms due to their extremely high turnover rate of 182% and short onboarding processes (Domino's, 2024). Each local store holds a buffer stock of mandatory uniform SKUs such as branded jackets, hats and helmets in different popular sizes (Observation, 2024). Safety stock for uniforms protects against uncertainty where forecasting individuals leaving or joining is challenging to determine and constantly changing. Demand for recruits is likely to increase during the time of university starting and ending as dominos are often second jobs that are popular with students.

# 2.2 Trade-offs using Order Up to (OUT)

## **Balancing Costs to Optimise Product Availability**

$$P_1 = \Phi(z) = \frac{b}{h+b}$$

$$SS = Z\sigma_{dL}$$

#### Figure (6)

Safety stock is decided by calculating an optimal product availability (P1) (z) and multiplying it by the demand over replenishment lead time standard deviation. P1 counterbalances both Holding cost (H) and Backorder cost (B) (Figure 6). Backordering costs occur when items are unavailable or out of stock, unable to meet consumer demand, leading to loss of sales and consumer dissatisfaction (Liberopoulos, 2010). The organisation offers consumers various options where less vital ingredients such as toppings could suggest a substitute sale. However, more critical SKUs such as dough and sauces would suggest a sale may be lost to a competitor, therefore, a higher product availability (Liberopoulos, 2010). On the other hand, holding costs are exceptionally high for Domino's due to their city centre locations and limited storage space (Azzi, 2014). Refrigerated areas increase the holding cost, which requires frequent maintenance and constant electricity. Higher product availability raises the likelihood of food wastage, increasing holding costs and clashing with Domino's sustainability focus on reducing food wastage (Domino's ESG, 2023). Subsequently,

higher product availability has a direct positive correlation with safety stock (SS) and customer service level.

## Trading SS for Accuracy and Reliance on Forecasted Demand

$$S_t = dL + SS$$

Figure (7)

As mentioned, product availability impacts safety stock. Maintaining low safety stock levels places greater emphasis on demand accuracy over the replenishment period (*dL*) (Figure 7) (Kwak, 2021). Therefore, reducing safety stock requires highly accurate demand forecasts to prevent stockouts. The organisation reduces dL variability by acquiring large historical data sets across 1,300 stores and focusing on real-time, short-term data from a centralised system, keeping an extremely short forecast horizon (Syntetos, 2009: Domino's, 2023). Domino's prioritises cutting cycle times and preserving produce freshness, increasing the frequency of deliveries, raising WIP inventory to compensate for holding low SS due to limited space, and helping meet demand consistently (Business Insider, 2021).

Nevertheless, overreliance on dL can suggest the potential for understocking or overstocking if forecasts are inaccurate due to an unexpected surge or drop in demand

caused by a sudden shift within the market or a rapid change in consumer preference (Kwak, 2021). Overstocking increases the risk of excess inventory, leading to food waste and disposal and raising holding costs (Tan et al., 2017). Conversely, stockouts of critical SKUs will lead to missed sales, which heavily impacts customer satisfaction levels.

#### Conclusion

To Conclude, the findings in this report highlight two critical operational areas alongside Domino's inventory management system. Firstly, discussing how operational swiftness is maximised at a large capacity, providing a speedy service of 20-30 minutes within, exceeding all close competitors (Dominos, 2024). However, an overemphasis on speed weakens quality and dependability with deteriorated social sustainability. Secondly, Domino's leverages vertically integrated distribution centres vital for the dependability of consistent products and to exploit economies of scale, allowing for increased availability of special offers. But, aggregating food in large production increases the risk of large-scale food contamination. Part two discusses the organisation's inventory management method, specifically within local stores, highlighting functional classifications and FIFO policy, fundamental when working with perishable goods, moving onto trade-offs Domino's faces using the Order-Up-to Inventory management method.

#### References

- Aljohani, K., 2024. The Role of Last-Mile Delivery Quality and Satisfaction in Online
   Retail Experience: An Empirical Analysis. Sustainability, 16(11), p.4743.
- Azzi, A., Battini, D., Faccio, M., Persona, A. and Sgarbossa, F., 2014. Inventory holding costs measurement: a multi-case study. *The International Journal of Logistics* Management, 25(1), pp.109-132.
- Barton, A. (2024). *Domino's Pizza withdraws garlic dip*. [online] The Telegraph. Available at: <a href="https://www.telegraph.co.uk/news/2024/09/17/dominos-pizza-withdraws-dips-allergy-concerns/">https://www.telegraph.co.uk/news/2024/09/17/dominos-pizza-withdraws-dips-allergy-concerns/</a>. [Accessed 14th November 2024]
- Blink (2020). How Domino's transformed their internal communication strategy:
   <a href="https://www.joinblink.com/case-studies/dominos">https://www.joinblink.com/case-studies/dominos</a>. [Accessed 14th November 2024]
- Commercial Motors (2022). Asset Alliance to supply 31 new trucks to pizza company
   Dominos: <a href="https://www.commercialmotor.com/news/article/asset-alliance-supply-31-new-trucks-pizza-company-dominos">https://www.commercialmotor.com/news/article/asset-alliance-supply-31-new-trucks-pizza-company-dominos</a> [Accessed 14th November 2024]
- Dawson, M., Abbott, J., & Shoemaker, S. (2011). The hospitality culture scale: A measure organizational culture and personal attributes. International Journal of Hospitality
   Management, 30(2), 290-300.
- Domino's (2012). Domino's Food FAQs. Dominos.co.uk:
   <a href="https://corporate.dominos.co.uk/food-faqs">https://corporate.dominos.co.uk/food-faqs</a>. [Accessed 14th November 2024]
- Dominos (2023) Annual Report [AR]:
   https://investors.dominos.co.uk/system/files/uploads/financialdocs/2023-annual-report.pdf [Accessed 14th November 2024]

- Dominos (2023) Q3 trading statement, Domino's Pizza Group PLC ("DPG") Trading statement: <a href="https://investors.dominos.co.uk/system/files/press/q3-24-rns.pdf">https://investors.dominos.co.uk/system/files/press/q3-24-rns.pdf</a>
- Dominos (2023) Sustainability Accounting Standards Board (SASB) Report:
   https://corporate.dominos.co.uk/Media/Default/Corporate%20Responsibility/SASB%20

   2023%20-%20Final.pdf
- Dominos (2023) Sustainability Report (ESG):
   https://investors.dominos.co.uk/system/files/uploads/financialdocs/dominos-sustainability-report-2023.pdf
- Dominos (2024) Home Page: <a href="https://corporate.dominos.co.uk/">https://corporate.dominos.co.uk/</a> [Accessed 14th
   November 2024]
- Food Standards Agency (FSG). (2018). Food and cooking oil waste:
   https://www.food.gov.uk/business-guidance/food-and-cooking-oil-waste. [Accessed

   14th November 2024]
- Franchise Costs (2024). Franchise-Cost | All Franchise Opportunities: <a href="https://franchise-cost-in-uk/">https://franchise-cost-in-uk/</a> [Accessed 14th November 2024]
- Glanbia nutritional's (2024) Home Page: <a href="https://www.glanbianutritionals.com/en">https://www.glanbianutritionals.com/en</a>
   [Accessed 14th November 2024]
- Global Data. (No Date). Shield Square Captcha: <a href="https://www.globaldata.com/company-profile/dominos-pizza-group-plc/">https://www.globaldata.com/company-profile/dominos-pizza-group-plc/</a>. [Accessed 14th November 2024]
- GOV.UK. (2014). How food businesses must dispose of food and former foodstuffs:
   https://www.gov.uk/guidance/how-food-businesses-must-dispose-of-food-and-former-foodstuffs.
   [Accessed 14th November 2024]
- He, X. and Hayya, J.C., 2002. The impact of just-in-time production on food quality. *Total quality management*, *13*(5), pp.651-670.

- Hiemstra, S.J., 2000. Economies of scale in the US foodservice industry. Foodservice
  Research International, 12(2), pp.109-117. https://doi.org/10.1111/j.17454506.2000.tb00008.x
- Indeed (2024), Dominos employee reviews:
  <a href="https://uk.indeed.com/cmp/Domino%27s/reviews?fcountry=ALL&fjobtitle=Team+Mem">https://uk.indeed.com/cmp/Domino%27s/reviews?fcountry=ALL&fjobtitle=Team+Mem</a>
  <a href="mailto:ber">ber</a> [Accessed 14th November 2024]
- Kwak, J.K., 2021. An Order-Up-to Inventory Model with Sustainability Consideration.
   Sustainability, 13(23), p.13305.
- Leprino Foods. (2024). About Leprino, Dairy Industry Leader since 1950:
   <a href="https://leprinofoods.com/about/">https://leprinofoods.com/about/</a>. [Accessed 14th November 2024]
- Liberopoulos, G., Tsikis, I. and Delikouras, S., 2010. Backorder penalty cost coefficient
   "b": What could it be? *International Journal of Production Economics*, 123(1), pp.166-178.
- Logistics Manager. (2022). Domino's strengthens UK supply chain with 15 new trucks:
   https://www.logisticsmanager.com/dominos-strengthens-uk-supply-chain-with-15-new-trucks/. [Accessed 14th November 2024]
- Maloney, D. (2018). Google Customer Insights, Why Domino's delivers more than 15
  ways to order pizza: <a href="https://www.thinkwithgoogle.com/intl/en-emea/consumer-insights/consumer-trends/dominos-customer-expectations-mobile/">https://www.thinkwithgoogle.com/intl/en-emea/consumer-insights/consumer-trends/dominos-customer-expectations-mobile/</a>. [Accessed 14th November 2024]
- Manohar, H.M. and Appaiah, S., 2017. Stabilization of FIFO system and Inventory
   Management. International Research Journal of Engineering and Technology, 4(6),
   pp.5631-5638.
- Mustafa, A. (2024) Observation on Domino's recruitment process. Observation notes,
   Whitchurch and Cathays Domino's, 22 October.

- Olhager, J. 2003. Strategic positioning of the order penetration point. International
   Journal of Production Economics 85(3), pp.319-329. Available at: <a href="http://bit.ly/2egrEYN">http://bit.ly/2egrEYN</a>
- Papa Jhons (2024). Pizza Delivery | Order Quality Pizza Online with Papa John's:
   <a href="https://www.papajohns.co.uk/">https://www.papajohns.co.uk/</a>. [Accessed 14th November 2024]
- Pinkstone, J. (2024). *Domino's barbecue dip recalled over peanut fears*. [online] The Telegraph. Available at: <a href="https://www.telegraph.co.uk/news/2024/10/21/dominos-bbq-dip-recalled-over-fears-it-may-contain-peanuts/">https://www.telegraph.co.uk/news/2024/10/21/dominos-bbq-dip-recalled-over-fears-it-may-contain-peanuts/</a> [Accessed 14th November 2024]
- Pizza hut (2023). Pizza Delivery, Deals, Restaurants and Takeaway, Pizza Hut Online
   Ordering: <a href="https://www.pizzahut.co.uk/">https://www.pizzahut.co.uk/</a>. [Accessed 14th November 2024]
- Raemason, S. (2024). Huge pizza chain issues urgent warning to customers over popular dip feared to be contaminated [online] The Sun. Available at:
   https://www.thesun.co.uk/money/31180191/pizza-chain-contaminated-dip-peanuts-allergy-recall/ [Accessed 14th November2024]
- Slack, N., Chambers, S. and Johnston, (2019). *Operations management*. Pearson education. Chapters 1,2,3,4
- Surapati, U. and Mahsyar, S., 2020. Relationship Between Consumer Behavior,
   Discounts And Purchase Decision. International Journal of Economics, Business and
   Accounting Research (IJEBAR), 4(01).
- Syntetos, A.A., Boylan, J.E. and Disney, S.M., 2009. Forecasting for inventory planning: a 50-year review. *Journal of the Operational Research Society*, pp.S149-S160.
- Tan, Y., Paul, A.A., Deng, Q. and Wei, L., 2017. Mitigating inventory overstocking: Optimal order-up-to level to achieve a target fill rate over a finite horizon. *Production and Operations Management*, 26(11), pp.1971-1988
- The Restaurant Planet. (2024). Menu's Archives The Restaurant Planet:
   <a href="https://therestaurantplanet.com/category/menus/">https://therestaurantplanet.com/category/menus/</a> [Accessed 14th November 2024]

- Van Donk, D.P., 2001. Make to stock or make to order: The decoupling point in the food processing industries. *International Journal of Production Economics*, 69(3), pp.297-306.
- Vasiliki Kostami, V. and Sampath Rajagopalan, S., 2014. Speed–quality trade-offs in a dynamic model. *Manufacturing & Service Operations Management*, 16(1), pp.104-118.
- Vrhovac, V., Dakić, D., Milisavljević, S., Ćelić, Đ., Stefanović, D. and Janković, M., 2024.
   The Factors Influencing User Satisfaction in Last-Mile Delivery: The Structural Equation
   Modeling Approach. *Mathematics*, *12*(12), p.1857.
- What Franchise. (2017). UK Domino's Pizza Franchise for Sale: <a href="https://www.what-franchise.com/franchise-opportunities/pizza-franchises/dominos-pizza">https://www.what-franchise.com/franchise-opportunities/pizza-franchises/dominos-pizza</a>. [Accessed 14th November 2024]
- Wowak, K.D., Craighead, C.W., Ketchen Jr, D.J. and Connelly, B.L., 2022. Food for thought: Recalls and outcomes. *Journal of Business Logistics*, 43(1), pp.9-35.
- Yang, B., Burns, N.D. and Backhouse, C.J., 2004. Postponement: a review and an integrated framework. *International journal of operations & production management*, 24(5), pp.468-487.

#### **Appendix**

#### All tables and graphs created by writer (C21084397)

Complaints	Pentwyn	Meas Y cCoed	Rumney Hill	Cathays	City Centre	Bay	Llandaff	Total	Avarage
Late or Delayed Deliveries:	7	3	4	5	6	5	3	33	5
Incorrect Orders	5	4	8	8	10	10	15	60	9
Quality of Food	7	5	5	9	12	4	7	49	7
Poor Customer Service	7	5	6	8	6	8	6	46	7
Poor Communication and Responsiveness	5	3	4	7	8	7	5	39	6
Unhygienic Practices	2	1	2	3	3	3	1	15	2
Review Rating	3.4	3.7	3.6	3.3	3.6	3.6	3.6		3.54

Data collected to make figure 2 from Google Reviews (2024), created using Excel