

**FINAL  
ALTERNATIVE ASSESSMENT**

(COVER PAGE)

Session : January 2022

Programme : Diploma in Business (DIB)

Course : **MGT2100: Operations Management**

Date of Examination : March 7, 2022 (Monday)

Time Start : March 7, 2022 (Monday) @ 12.00pm

Time End : March 8, 2022 (Tuesday) @ 12.00pm

Duration : 24 Hours

**Special Instructions** :

Answer **ALL** questions.

Material permitted : Nil

Materials provided : Nil

Examiner(s) : **Vasanthakumar Gunasakaran & Fauziah Din**

Chief Moderator : Cedric Choong

*This paper consists of 7 printed pages, including the cover page*

DIPLOMA IN BUSINESS PROGRAMME (DIB)  
MGT2100: OPERATIONS MANAGEMENT  
FINAL ALTERNATIVE ASSESSMENT: JANUARY 2022 SESSION

**INSTRUCTIONS**

**Take Home Examination/Assignment**

(a) How it is Conducted

- The questions will be released on a specific date and time via Blackboard.
- Download the question and answer the question. Answers must be typed and submitted to Black board before the deadline. Late submission will be subjected to a penalty.

(b) Technical and Material Requirements

- A computer and access to Black Board.
- MSWord software or any other word processor.
- Relatively good internet connection to be able to download and upload documents. Recommend to get additional or alternative data plan before the assessment to reduce risk.

(c) Conditions and Rules of Take Home Examination/Assignment

The following rules will apply to maintain the integrity of the assessment: -

- Your attendance will be recorded based on Blackboard log in time.
- If you have applied to defer the alternative assessment, you should not log in at all. If you do log in, it will be considered as an attempt even if you do not submit any scripts at the end of the assessment deadline.
- You may log off after downloading the questions, but you need to log in to submit your answers before the exam ends. Manage the risks by logging in before the deadline instead of waiting till the last minute to upload your work.
- It is your responsibility to find a suitable venue / space to complete your exam. We will not accept any appeal for additional time or special consideration for any disruption you may face during the scheduled exam time.
- Scripts without the cover page or with incomplete information will not be accepted.
- You must name your file/document with the module code and your student ID. For example, COM1104\_J19xxxxxx. Page 4 of 4

- \*Plagiarism rule shall apply. The guideline for plagiarism is as follows: 0 – 25% of plagiarised material: NO deduction of marks 26 – 50% of plagiarised material: 30% deduction of marks 51 – 80% of plagiarised material: 50% deduction of marks 81 and more: 0 mark awarded and student will receive a failed grade for the paper
- \*Submission after the deadline will be subjected to the following penalty: a. Within one hour after the deadline: 50% of the awarded marks. b. More than one hour after the deadline: Zero marks c. You are only allowed to submit ONE time. d. Any suspicion of misconduct (e.g. high similarity with including but not limited to peers, students and etc) will be investigated in accordance to the Academic Dishonesty Policies and Regulations outlined in your Student Handbook.
- These rules are to be read together with any other rules, regulations, policies and will be applicable as stated in the Blackboard. It will be upon the discretion of the School to determine which supersedes or takes prerogative in the event that there is conflicting /misinterpretation of the said rules and regulations

## CASE STUDY

### **IKEA supply chain: How does IKEA manage its inventory?**

The world's largest home furnishing retailer has 355 stores in 29 countries. What are the best-kept secrets behind IKEA's supply chain management processes? It ranks Number 40 on Forbes' esteemed World's Most Valuable Brands list and took in \$39.3 Billion in sales in 2017. IKEA has certainly come a long way in its 65 years of business since its 1943 founding in Sweden. The world's largest home furnishing retailer has 355 stores in 29 countries. What are the best-kept secrets behind IKEA's supply chain management processes? It ranks Number 40 on Forbes' esteemed World's Most Valuable Brands list and took in \$39.3 Billion in sales in 2017. IKEA has certainly come a long way in its 65 years of business since its 1943 founding in Sweden. This organization impresses not just its consumers with affordable, high-quality furniture, but also competitors and companies around the world – especially with its unique supply chain and inventory management techniques. Each IKEA store is huge and holds more than 9,500 products! How in the world does IKEA offer so much at such a low price while always being able to keep items in stock? To start off, IKEA has a clear vision – to provide well designed, functional home furnishings at prices so low that as many people as possible will be able to afford them. Its various functions (supply chain operations and inventory management included) work together to support its distinctive value proposition. IKEA is distinctive in committing to a catalog of products that will be stocked for a year at a guaranteed price.

#### **Cost savings in furniture design**

IKEA stock incurs low manufacturing costs while meeting strict requirements for function, efficient distribution, quality, and impact on the environment. According to a case study produced by The Times of London, more than 50% of the products are made from sustainable or recycled products. IKEA seeks to use as few materials as possible to make the furniture, without compromising on quality or durability. By using fewer materials, the company cuts down on transportation costs because it uses less fuel and manpower to receive materials and ship products.

#### **Sustainable relationships with suppliers**

A key part of IKEA's success is credited to its communications and relationship management with materials suppliers and manufacturers to get good prices on what it procures.

IKEA is a very high volume retailer – it buys products from more than 1,800 suppliers in 50 countries, and uses 42 trading service offices around the world to manage supplier relationships. They negotiate prices with suppliers, check the quality of materials, and keep an eye on social and working conditions. Although IKEA fosters competition among suppliers to ensure it attains the best prices and materials, the company also makes longstanding commitments to suppliers by signing long-term contracts, thus lowering prices of products further. For example, IKEA has a code of conduct called the IKEA Way of Purchasing Home Furnishing Products (IWAY), containing minimum rules and guidelines that help manufacturers reduce the impact of their activities on the environment. The requirements within IWAY raise standards by developing sustainable business activities and leaving positive impacts on the business environment in which

the suppliers operate. This also underlines IKEA's commitment to the 'low price but not at any price' vision. Although IKEA wants its customers to enjoy low prices, this should not happen at the expense of its business principles.

### **Do-It-Yourself assembly lowers packaging costs**

Most IKEA furniture is designed and sold in pieces for the customer to assemble. The pieces are placed into convenient and efficient, flat packages for low-cost transport because they take up less room in trucks, maximizing the number of products that can be shipped and minimizing order fulfillment costs. The unique packaging also takes up less space in warehouse bins and reserve racks, allowing for more room to stock additional items for order fulfillment. What the company saves in fuel and holding costs is passed on to customers.

### **Streamlining the IKEA supply chain**

Every IKEA store has a warehouse on the premises. On the main showroom floor, customers can browse for items. They then obtain the products themselves from the floor pallet location with racking as high as the typical person could reach, where furniture can be purchased and taken home. Additional products are stored in reserve racks above these locations. IKEA stock is let down to the lower slots at night (forklifts and pallet jacks are not used during store hours for safety reasons). About one-third of the lower level is comprised of a warehouse off limits to customers. This space contains items too bulky for customers to load without help from the staff. Since IKEA wants as much self-service as possible, it works to minimize the number of items in this bulk storage area.

### **Cost-per-touch inventory tactic**

Having customers select the furniture and retrieve the packages themselves is an inventory management tactic called 'cost-per-touch'. As a rule of thumb, companies find that the more hands touch the product, the more costs are associated with it. For example, imagine when someone selects a piece of furniture to buy. The item is then ordered, shipped from the manufacturer, moved from the delivery truck into storage in the warehouse, moved from the warehouse to the customer's vehicle or delivered by the furniture retailer to the customer's home. Every time the product is shipped, moved, and loaded, it costs money. The fewer times someone moves or touches the item, the fewer costs are associated with it. IKEA saves costs with this guiding principle to minimize touches because it does not have to pay the customer to retrieve the furniture and take it home.

### **In-store logistics**

IKEA also relies on something rare and unique concerning its logistical management of reordering products – it employs in-store logistics personnel to handle inventory management at its stores. According to the ARC Advisory Group (professionals and consultants on logistical and supply chain operations), there is an in-store logistics manager responsible for the ordering process and a store goods manager responsible for material handling logistics at all IKEA stores. The duties of the logistics personnel are to monitor and record deliveries, carefully check

delivery notices, sort and separate the goods, and get them off to the correct sales area or designated overstock locations. Overall, they ensure an efficient flow of goods within IKEA stores, which is essential to maintaining high sales and enhancing customer loyalty.

### **Maximum/minimum settings as a proprietary system**

The in-store logistics managers use an inventory replenishment management process developed by IKEA called ‘minimum/maximum settings’ to respond to store-level inventory reorder points and reorder products.

Minimum settings: The minimum amount of products available before reordering.

Maximum settings: The maximum amount of a particular product to order at one time.

Since all IKEA inventory is only stocked at night after opening hours, the logic of its min/max settings is based on the number of products that will be sold from the reserve stack of the bin in a single day or two-day period. The process meets customer demand while minimizing ordering too few or too many products. This strategy also ensures that IKEA has inventory ready to meet customers’ demands, lowering the cost of lost sales. Using IKEA’s proprietary inventory system, logistics managers know what is sold through point-of-sale (POS) data and how much inventory comes into the store through direct shipping, and from distribution centers through warehouse management system data. Using this data, they can forecast sales for the next couple of days and order in the suitable amount of products to meet that demand. If the sales data doesn’t match the projected number of items that should have been sold that day, the logistics manager goes directly to the pallet and bin to do a manual stock take. IKEA believes its process and system allows for the right goods to be in the store with greater certainty, and at a lower cost, than the traditional retail forecasting and replenishment process.

### **Usage of high-flow & low-flow warehouse facilities**

IKEA’s store operations are supported by high-flow facilities (focused on the 20% of SKUs that account for 80% of the volume) and low-flow warehouses that are more manual. In its high-flow warehouses, IKEA employs automatic storage and retrieval systems to drive down its costs-per-touch. Products stocked in a low-flow facility are not in high demand, and operations rely on manual processes since workers will not be shifting and moving inventory around too much. These strategies have made IKEA the world’s most successful furniture retailer with low operating costs and high product demand. This allows the company to stay competitive in the industry as it continually seeks more advanced methods to streamline supply chain management.

IKEA has a clear vision supported by complementary cross-functional logic. This not only differentiates IKEA from its peers, but also provides it with a competitive advantage that is difficult to duplicate at other organizations.

### QUESTION 1

Based on the article given above, discuss **THREE (3)** the importance of inventory management practices for IKEA.

In your opinion, what are the effects of proper inventory management on IKEA's survivability?  
(25 marks)

### QUESTION 2

Based on the article above, identify **TWO (2)** good practices implemented by IKEA and discuss **THREE (3)** reasons why you would recommend other organizations to follow these practices.  
(25 marks)

### QUESTION 3

Taking IKEA as an example, discuss **FIVE (5)** importance a firm should actively manage their relationship with suppliers.  
(25 marks)

### QUESTION 4

By analyzing IKEA's operations, discuss **TWO (2)** ADVANTAGES and **TWO (2)** DISADVANTAGES of organizations operating their own warehouse facility.  
(25 marks)

**~THE END~**

*MGT2100(F)/ January 2022 Session/ formatted*