# Product inventory control at a local brand forum outlet using ABC analysis

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**ABSTRACT**

*A local brand forum outlet sells Micro, Small, and Medium Enterprises (MSMEs) products with inventory management still carried out manually based on employee experience. The research objectives are to analyze problems related to the inventory system and provide recommendations for planning and controlling inventory systems at a Local Brand Forum (FBL) outlet. Primary data was collected through observation, in-depth interviews, and Focus Group Discussion (FGD). The method used is ABC analysis to obtain the product classification. The results showed that 16 items (19.05%) are included in class A, with a total sales value of 69.55% of the total value for money. Class B has 25 product items (29.76%) with a total sales value of 20.29% of the total value for money. Products in class C are 43 items (51.19%) with a total sales value of 10.16% of the total value for money. As much as 43.75% of products in class A are nine basic commodities which are the basic needs of the Indonesian people, so they have a high priority in inventory control. These results are expected to provide planning and inventory control systems using the ABC class of products to avoid shortages and overstock inventory.*

## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are important in Indonesia's economy (Maksum et al. 2020). Based on data from the Ministry of Cooperatives, Small and Medium Enterprises, the number of MSME business units in 2018 was 64.2 million, or 99.99% of the total business units in Indonesia. The workforce absorbed was 117 million workers, or 97% of the total workforce in the business world. The contribution of MSMEs to the national economy (GDP) was 61.1% (Sasongko 2020). To support this important role, a community of MSMEs called the Local Brand Forum (FBL) was formed in several regions in Indonesia. The Local Brand Forum was formed as a government facility to foster regional MSME actors to introduce brands, market products, and product development according to the latest innovations and technologies (Hamdani and Wirawan 2012). One of the Local Brand Forums is in Boyolali Regency, Central Java, called the Boyolali Local Brand Forum (FBL Boyolali), which has an outlet to sell products offline and currently has around 90 Boyolali MSMEs.

The number of MSMEs in Indonesia and their contribution to GDP is greater than that of Large Enterprises (LEs). Still, their productivity is much lower due to several constraints and problems (Tambunan 2011). The problem faced by FBL Boyolali is the absence of an inventory management system at the outlet. Inventory management is still manually, so there are often discrepancies with existing demand. A shortage occurs when demand is high, but there is no product stock due to poor inventory planning (Pradita et al. 2020). These conditions result in lost sales and disappointed consumers who do not receive the product or have to wait for it to be available (Foster et al. 2019).

Meanwhile, overstock conditions also occur when the number of products exceeds the demand, thereby increasing storage costs and potentially unsold stock (Sasanuma et al. 2022). These conditions impacted decreasing income, especially during the Covid-19 pandemic (Sonobe et al. 2021). The drastic decline in demand due to the pandemic has made many products in the outlet unsold, approximately 30% of the existing stock, even past the product's shelf life.

Based on the problems, planning and controlling an MSME product inventory system at the Boyolali FBL outlet is necessary. Risk mitigation in inventory management needs to be applied as a strategy to reduce total costs in the company. Planning and controlling inventory systems can provide benefits in supporting sustainable food production systems, such as increased efficiency, optimal productivity, cost savings, increased customer satisfaction, and accurate planning (Gabor et al. 2022). This research also involves the FBL community to support the development of MSME products using technology and as a first step in realizing Agroindustry 4.0 (Ricci et al. 2021). This study aims to analyze problems related to the inventory system at the outlet. Then determine the product classification using the Always Better Control (ABC) method to provide recommendations for planning and controlling the inventory system at the outlet. The ABC classification was used as a tool to allow outlet workers to control many items in a limited time (Wild 2017). Inventory control with product classification is needed at this outlet because it has limited storage space. The ABC method was chosen to determine inventory control by classifying products based on product priority from the largest to the smallest sales value.

## METHODS

Observations were made at the Boyolali Local Brand Forum outlet. Observation aims to see the existing inventory problems (Jilcha Sileyew 2020). In-depth interviews and questionnaires were distributed to outlet managers and MSME actors to collect more detailed data (Taherdoost 2019). Focus Group Discussions (FGD) were completed to discuss inventory management issues more clearly. The data needed were the current inventory management system, problems related to inventory, information about MSMEs, types of products sold at the outlet, product prices, and product demand in 2020. Then, ABC analysis was carried out with the data that has been obtained (Abdolazimi et al. 2021). The data obtained were processed using Microsoft Excel 365 software, and this article was written using Microsoft Word 365 software.

ABC analysis categorized products based on price and volume obtained. The ABC classification method benefits companies to determine, monitor and control inventory efficiently (Liu and Ma 2020). The steps in

carrying out an ABC analysis are as follows (Wahyuni 2016):

1. First, identify a list of MSMEs and products sold in the outlet for one year.
2. Second, determine the number of demands for each product and the price of each product.
3. Third, calculate the total sales value of each product (equation (1)).

$$Total\ sales\ value \tag{1}$$
$$= product\ demand\ x\ product\ price$$

4. Fourth, sort the data based on the largest to the smallest total sales value.
5. Fifth, calculate the cumulative total sales value.
6. Sixth, calculate the percentage of share in total sales (%) (equation(2)).

$$Percentage\ of\ share\ in\ total\ sales =$$

$$\frac{Total\ sales\ value\ of\ each\ product}{Total\ annual\ cumulative\ total\ sales\ value}\ X\ 100\% \tag{2}$$

7. Seventh, grouping products into groups A, B, and C.

The ABC method categorizes items into three groups based on importance, namely class A (very important), B (moderately important), and C (little important) (Shah 2009). Items in class A are very important, but the number of class A items is relatively small. Items in class C are less important but tend to be more numerous. Class B items fall somewhere between the two classes (Zhang et al. 2020). The ABC method was used to obtain the product classification as follows (Khanorkar and Kane 2022):

Class A: The number of units ranges from 20% of the total of all items but represents 70% of the total value for money.

Class B: The number of units ranges from 30% of the total of all items but represents 20% of the total value for money.

Class C: The number of units ranges from 50% of the total of all items but represents 10% of the total value for money.

## RESULTS AND DISCUSSION

FBL were created to communicate with each other between MSME actors. They can share about branding, marketing, product development, and all matters relating to MSME activities. Around 90 MSME actors have joined the Local Brand Forum in Boyolali, Central Java. The products produced by MSME actors include food and non-food products. Food products are processed using original Boyolali raw materials. Non-food products sold are souvenirs or handicrafts made in Boyolali. An outlet is managed by a local brand forum management. The outlet is open every Monday to Saturday from 09.00 am to 09.00 pm. Every MSME actor can sell their products at the outlet with a limit of 1 to 5 types of products. This provision was made due to the limited space for product storage at the outlet, where the average inventory for each product is 10 pieces.

Problems related to the inventory system were analyzed based on observation and in-depth interviews. The problem that occurs is that outlet management still manages inventory manually. The management checks the inventory data physically without a definite schedule. Furthermore, the outlet management will ask MSMEs to send their products when supplies run low or if they are approaching shelf life. MSMEs send the type and number of products according to the request and at the time determined by the management. If there is still a lot of stock and the product has exceeded its shelf life, it will be withdrawn from the display at the outlet. All inventory management activities are written in a notebook and reported to MSME actors. However, recording and reporting are not carried out regularly, so sometimes, there are differences in inventory data between outlet records and MSME actors.

Product inventory control is currently less efficient because it is less controlled. The inventory checking schedule has not been carried out routinely, so it can cause losses such as lost sales and additional storage costs (Malindzakova and Zimon 2019). The shortage occurred at the beginning of the year due to high demand when the outlet opened. During the Covid-19 pandemic, the demand for several products, such as traditional drinks for health, was relatively high. Still, MSMEs had difficulty producing their products resulting in a shortage of several products (Shamim et al. 2021). Meanwhile, overstock conditions occurred several times when the outlet had to close during the lockdown during the Covid-19 pandemic (Brandtner et al. 2021). As a result, many unsold products and even food products have passed their product shelf life. Product grouping has not been done according to the level of importance.

Based on these conditions, the ABC method is needed to classify products according to the annual revenue absorbed. This study classified food products because they handle more than non-food products (Nashih et al. 2016). Food products sold at the outlet include vegetables, fruits, staples, snacks, frozen foods, powdered beverages, ready-to-eat, and ready-to-drink. Vegetables and fruits were only sold according to the harvest season, so they were not included in this study. Some MSMEs that have joined since 2020 cannot sell their products in that year due to no demand for these products at the outlet. Therefore, this study only involves MSMEs that have joined local brand forums and are selling at the outlet during 2020. There are 44 MSMEs selling food products at the outlet during 2020, where each MSME has 1 to 5 types of products that have demand in a year.

The results of the ABC analysis calculation in a local brand forum outlet based on inventory quantity in 2020 are shown in Table 1. The number of product items sold is 84 pieces. The same product can come from more than one MSME actor. Products are classified A, B, and C based on cumulative total sales (Khanorkar and Kane 2022). Class A represents 70% of the total value for money, so the products included in class A have cumulative total sales from 7.97% to 69.55%. Class B represents 20% of the total value of money. Products that belong to class B have cumulative sales from 71.20% to 89.84%. Class C represents 10% of the total value of money. Products that are included in class C have cumulative total sales from 90.32% to 100%.

Based on the data obtained, cooking oil - 1 liter from MSME 14 has the highest demand of 245 units per year. Followed by rice (A) – 5 kg from MSME 4 with a demand of 65 units per year, sugar – 1 kg from MSME 14 with a demand of 210 units per year, rice (B) – 5 kg from MSME 14 with a demand of 57 units per year, and instant traditional beverage (java spices) – 180g from MSME 23 with a demand of 59 units per year. The ABC analysis method calculations showed that a product with high demand does not necessarily fall into class A because the price per unit also determines it. The total absorption of funds in one year is IDR46,118,500.00.

Table 1 Calculation results using the ABC analysis method

| No | MSME | Product | Demand per unit | Price per unit (IDR) | Sales Value (IDR) | | Share in Total Sales (%) | | Class |
|----|------|---------|-----------------|----------------------|-------------------|--|--------------------------|--|-------|
| | | | | | Total | Cumulative | Percentage | Cumulative | |
| 1 | 14 | Cooking oil – 1 l | 245 | 15,000 | 3,675,000 | 3,675,000 | 7.97 | 7.97 | A |
| 2 | 4 | Rice (A) – 5 kg | 65 | 56,000 | 3,640,000 | 7,315,000 | 7.89 | 15.86 | A |
| 3 | 14 | Sugar – 1 kg | 210 | 13,000 | 2,730,000 | 10,045,000 | 5.92 | 21.78 | A |
| 4 | 14 | Rice (B) – 5 kg | 57 | 44,000 | 2,508,000 | 12,553,000 | 5.44 | 27.22 | A |
| 5 | 13 | Instant traditional beverage (java spices) – 180 g | 59 | 39,000 | 2,301,000 | 14,854,000 | 4.99 | 32.21 | A |
| 6 | 5 | Brown rice – 5 kg | 30 | 75,000 | 2,250,000 | 17,104,000 | 4.88 | 37.09 | A |
| 7 | 5 | Rice (C) – 5 kg | 43 | 48,000 | 2,064,000 | 19,168,000 | 4.48 | 41.56 | A |
| 8 | 14 | Eggs – 1 kg | 80 | 23,000 | 1,840,000 | 21,008,000 | 3.99 | 45.55 | A |
| 9 | 13 | Curcuma and turmeric powder drink – 180 g | 68 | 26,500 | 1,802,000 | 22,810,000 | 3.91 | 49.46 | A |
| 10 | 35 | Coffee powder (arabica) – 100 g | 58 | 30,000 | 1,740,000 | 24,550,000 | 3.77 | 53.23 | A |
| 11 | 35 | Coffee powder (jackfruit) – 100 g | 62 | 25,000 | 1,550,000 | 26,100,000 | 3.36 | 56.59 | A |
| 12 | 35 | Coffee powder – 200 g | 59 | 25,000 | 1,475,000 | 27,575,000 | 3.20 | 59.79 | A |

| 13 | 35 | Coffee powder (robusta) – 100 g | 70 | 20,000 | 1,400,000 | 28,975,000 | 3.04 | 62.83 | A |
| 14 | 44 | Yogurt – 250 ml | 110 | 10,000 | 1,100,000 | 30,075,000 | 2.39 | 65.21 | A |
| 15 | 28 | Ginger powder drink – 100 g | 85 | 12,000 | 1,020,000 | 31,095,000 | 2.21 | 67.42 | A |
| 16 | 32 | Ice cream – 500 ml | 98 | 10,000 | 980,000 | 32,075,000 | 2.12 | 69.55 | A |
| 17 | 21 | Ready to drink (sour turmeric) – 330 ml | 95 | 8,000 | 760,000 | 32,835,000 | 1.65 | 71.20 | B |
| 18 | 37 | Rice (D) – 2,5 kg | 23 | 27,000 | 621,000 | 33,456,000 | 1.35 | 72.54 | B |
| 19 | 4 | Rice (A) – 3 kg | 18 | 33,500 | 603,000 | 34,059,000 | 1.31 | 73.85 | B |
| 20 | 11 | Milk candy – 40 pcs/pax | 25 | 22,000 | 550,000 | 34,609,000 | 1.19 | 75.04 | B |
| 21 | 37 | Rice (D) – 5 kg | 10 | 55,000 | 550,000 | 35,159,000 | 1.19 | 76.24 | B |
| 22 | 18 | Chocolate powder drink – 500 g | 10 | 45,000 | 450,000 | 35,609,000 | 0.98 | 77.21 | B |
| 23 | 38 | Instant traditional beverage (*wedang uwuh*) – 5 pcs/pax | 15 | 28,000 | 420,000 | 36,029,000 | 0.91 | 78.12 | B |
| 24 | 36 | Broccoli vegetable sticks – 65 g | 26 | 15,000 | 390,000 | 36,419,000 | 0.85 | 78.97 | B |
| 25 | 24 | *Kremes* crispy granules – 100 g | 19 | 20,000 | 380,000 | 36,799,000 | 0.82 | 79.79 | B |
| 26 | 19 | Banana chips – 120 g | 25 | 15,000 | 375,000 | 37,174,000 | 0.81 | 80.61 | B |
| 27 | 42 | Catfish chips – 65 g | 20 | 17,000 | 340,000 | 37,514,000 | 0.74 | 81.34 | B |
| 28 | 16 | Peanut brittle – 250 g | 19 | 17,500 | 332,500 | 37,846,500 | 0.72 | 82.06 | B |
| 29 | 18 | Chocolate powder drink – 250 g | 13 | 25,000 | 325,000 | 38,171,500 | 0.70 | 82.77 | B |
| 30 | 28 | Various snacks – 200 g | 30 | 10,500 | 315,000 | 38,486,500 | 0.68 | 83.45 | B |
| 31 | 30 | Cassava chips – 500 g | 21 | 15,000 | 315,000 | 38,801,500 | 0.68 | 84.13 | B |
| 32 | 17 | Banana choco chips – 120 g | 38 | 8,000 | 304,000 | 39,105,500 | 0.66 | 84.79 | B |
| 33 | 27 | Potato snacks – 200 g | 30 | 10,000 | 300,000 | 39,405,500 | 0.65 | 85.44 | B |
| 34 | 18 | Frozen food (chicken skewer sausage) – 100 g | 11 | 26,000 | 286,000 | 39,691,500 | 0.62 | 86.06 | B |
| 35 | 8 | Frozen food (cheese cassava) – 500 g | 18 | 15,000 | 270,000 | 39,961,500 | 0.59 | 86.65 | B |
| 36 | 25 | Dumpling chips – 250 g | 22 | 12,000 | 264,000 | 40,225,500 | 0.57 | 87.22 | B |
| 37 | 41 | Dry gingerbread – 175 g | 12 | 22,000 | 264,000 | 40,489,500 | 0.57 | 87.79 | B |

| 38 | 9 | Corn snacks – 200 g | 25 | 10,000 | 250,000 | 40,739,500 | 0.54 | 88.34 | B |
|---|---|---|---|---|---|---|---|---|---|
| 39 | 10 | Fruit syrup – 250 ml | 10 | 25,000 | 250,000 | 40,989,500 | 0.54 | 88.88 | B |
| 40 | 2 | Frozen food (moringa leaf roll dumplings) – 200 g | 15 | 15,000 | 225,000 | 41,214,500 | 0.49 | 89.37 | B |
| 41 | 26 | Various chips – 200 g | 22 | 10,000 | 220,000 | 41,434,500 | 0.48 | 89.84 | B |
| 42 | 29 | Frozen food (bamboo shoot spring rolls) – 5 pcs | 11 | 20,000 | 220,000 | 41,654,500 | 0.48 | 90.32 | C |
| 43 | 34 | Frozen food (fried tapioca flour) – 100 g | 11 | 17,500 | 192,500 | 41,847,000 | 0.42 | 90.74 | C |
| 44 | 1 | Oyster mushroom chips – 100 g | 12 | 15,500 | 186,000 | 42,033,000 | 0.40 | 91.14 | C |
| 45 | 6 | Ready to drink (pasteurized milk) – 350 ml | 17 | 10,000 | 170,000 | 42,203,000 | 0.37 | 91.51 | C |
| 46 | 6 | Yogurt – 250 ml | 17 | 10,000 | 170,000 | 42,373,000 | 0.37 | 91.88 | C |
| 47 | 15 | Chicken intestinal chips – 100 g | 10 | 17,000 | 170,000 | 42,543,000 | 0.37 | 92.25 | C |
| 48 | 3 | Fried onions – 100 g | 13 | 12,000 | 156,000 | 42,699,000 | 0.34 | 92.59 | C |
| 49 | 8 | Cassava chips – 200 g | 14 | 11,000 | 154,000 | 42,853,000 | 0.33 | 92.92 | C |
| 50 | 41 | Dry gingerbread – 325 g | 8 | 19,000 | 152,000 | 43,005,000 | 0.33 | 93.25 | C |
| 51 | 20 | Mozzarella cheese – 100 g | 5 | 30,000 | 150,000 | 43,155,000 | 0.33 | 93.57 | C |
| 52 | 34 | Mushroom & cassava chips – 200 g | 15 | 10,000 | 150,000 | 43,305,000 | 0.33 | 93.90 | C |
| 53 | 4 | Rice (A) – 2,5 kg | 5 | 28,000 | 140,000 | 43,445,000 | 0.30 | 94.20 | C |
| 54 | 39 | Frozen food (milkfish pastry) – 5 pcs | 4 | 32,500 | 130,000 | 43,575,000 | 0.28 | 94.48 | C |
| 55 | 10 | Ready to drink (sour turmeric) – 330 ml | 16 | 8,000 | 128,000 | 43,703,000 | 0.28 | 94.76 | C |
| 56 | 42 | Catfish floss – 100 g | 5 | 25,000 | 125,000 | 43,828,000 | 0.27 | 95.03 | C |
| 57 | 31 | Beef rib chips – 100 g | 4 | 30,000 | 120,000 | 43,948,000 | 0.26 | 95.29 | C |
| 58 | 35 | Coffee powder (cold brew) – 100 gr | 8 | 15,000 | 120,000 | 44,068,000 | 0.26 | 95.55 | C |
| 59 | 37 | Rice (D) – 1 kg | 10 | 12,000 | 120,000 | 44,188,000 | 0.26 | 95.81 | C |
| 60 | 23 | Coffee powder (robusta) – 150 g | 6 | 19,000 | 114,000 | 44,302,000 | 0.25 | 96.06 | C |

| 61 | 39 | Frozen food (crispy milkfish) – 250 g | 5 | 22,500 | 112,500 | 44,414,500 | 0.24 | 96.31 | C |
| 62 | 4 | Rice (A) – 1 kg | 9 | 12,000 | 108,000 | 44,522,500 | 0.23 | 96.54 | C |
| 63 | 37 | Rice (D) – 3 kg | 3 | 35,000 | 105,000 | 44,627,500 | 0.23 | 96.77 | C |
| 64 | 39 | Milkfish floss – 100 g | 2 | 50,500 | 101,000 | 44,728,500 | 0.22 | 96.99 | C |
| 65 | 23 | Coffee powder (arabica) – 150 g | 4 | 25,000 | 100,000 | 44,828,500 | 0.22 | 97.20 | C |
| 66 | 38 | Almond – 100 g | 5 | 20,000 | 100,000 | 44,928,500 | 0.22 | 97.42 | C |
| 67 | 43 | Ready to drink (date juice) – 250 ml | 8 | 12,000 | 96,000 | 45,024,500 | 0.21 | 97.63 | C |
| 68 | 21 | Ready to drink (ginger) – 250 ml | 4 | 23,000 | 92,000 | 45,116,500 | 0.20 | 97.83 | C |
| 69 | 39 | Frozen food (high-pressure cooked milkfish) – 300 g | 3 | 30,000 | 90,000 | 45,206,500 | 0.20 | 98.02 | C |
| 70 | 39 | Milkfish thorn sticks – 125 g | 4 | 22,500 | 90,000 | 45,296,500 | 0.20 | 98.22 | C |
| 71 | 43 | Ready to drink (jelly milk) – 250 ml | 9 | 10,000 | 90,000 | 45,386,500 | 0.20 | 98.41 | C |
| 72 | 10 | Ready to drink (juice) – 250 ml | 13 | 6,000 | 78,000 | 45,464,500 | 0.17 | 98.58 | C |
| 73 | 21 | Frozen food (meatball tofu) – 10 pcs | 5 | 15,000 | 75,000 | 45,539,500 | 0.16 | 98.74 | C |
| 74 | 22 | Tempeh chips – 100 g | 6 | 12,500 | 75,000 | 45,614,500 | 0.16 | 98.91 | C |
| 75 | 40 | Ready to drink (coffee milk) – 250 ml | 4 | 16,500 | 66,000 | 45,680,500 | 0.14 | 99.05 | C |
| 76 | 30 | Chili powder – 75 g | 4 | 16,000 | 64,000 | 45,744,500 | 0.14 | 99.19 | C |
| 77 | 12 | Chili shrimp sauce – 110 g | 4 | 15,000 | 60,000 | 45,804,500 | 0.13 | 99.32 | C |
| 78 | 39 | Frozen food (milkfish nuggets) – 200 g | 2 | 29,000 | 58,000 | 45,862,500 | 0.13 | 99.44 | C |
| 79 | 30 | Ready to drink (ginger) – 250 ml | 3 | 18,000 | 54,000 | 45,916,500 | 0.12 | 99.56 | C |
| 80 | 7 | Ready to drink (date juice) – 250 ml | 4 | 12,000 | 48,000 | 45,964,500 | 0.10 | 99.67 | C |
| 81 | 33 | Starch – 250 g | 3 | 15,500 | 46,500 | 46,011,000 | 0.10 | 99.77 | C |
| 82 | 11 | Beet powder – 100 g | 2 | 20,000 | 40,000 | 46,051,000 | 0.09 | 99.85 | C |
| 83 | 38 | Date – 50 g | 3 | 12,500 | 37,500 | 46,088,500 | 0.08 | 99.93 | C |
| 84 | 2 | Moringa leaf chips – 100 g | 2 | 15,000 | 30,000 | 46,118,500 | 0.07 | 100.00 | C |

Table 2 ABC analysis summary

| Class | Items | Percentage of items (%) | Total sales value (IDR) | Percentage of total value for money (%) | Action |
|---|---|---|---|---|---|
| A | 16 | 19.05 | 32,075,000 | 69.55 | Close control |
| B | 25 | 29.76 | 9,359,500 | 20.29 | Regular review |
| C | 43 | 51.19 | 4,684,000 | 10.16 | Infrequent review |

**Class A**

The products included in class A are 16 items, equal to 19.05% of the total items. Class A has a total sales value of IDR32,075,000 or 69.55% of the total value for money. Products in class A come from 8 MSMEs, or 18% of the total MSMEs that sell their products at the outlet. As many as 43.75% of products in class A are nine basic ingredients, such as cooking oil, rice, sugar, and eggs. These products are the primary basic needs of the people of Indonesia, so they have a high priority in controlling inventory at the outlet (Maulidya et al. 2021). Other MSME products that fall into class A are instant traditional beverages (java spices), Curcuma and turmeric powder drinks, ginger powder drinks, coffee powder, yogurt, and ice cream. Traditional beverages are a particular priority in inventory control because people nowadays choose to live healthily, especially to maintain body stamina during the pandemic. Products in class A require close inventory control when compared to classes B and C. Products in class A require robust managerial control, demand forecasting with accurate data, regular inventory checks, and good stock management (Kumar and Chakravarty 2015).

**Class B**

Class B has 25 products, or equal to 29.76% of the total number of items. Class B has a total sales value of IDR9,359,500 equal to 20.29% of the total value for money. Class B involves an approximate estimation of inventory value. Products in class B include nine basic ingredients, chips, snacks, foods, and instant beverages. Class B's highest total sales value is ready-to-drink (sour turmeric) - 330 ml with 95 units per year. Even though this product has a higher demand than products in class A, the total sales value is still smaller than products in class A. Products in class B require moderate managerial control by the outlet management. Products in class B have stock management with a medium term due to value moderate volume (Wahyuni 2016).

**Class C**

Products in class C are 43 items, or equal to 51.19% of the total number of items. Class C has a total sales value of IDR4,684,000 or 10.16% of the total value for money. Ready-to-drink (pasteurized milk) - 350 ml and yogurt - 250 ml from MSME 6 have the highest demand in class C of 17 units per year for each product. The highest total sales value in class C of IDR220,000 came from Frozen food (bamboo shoot spring rolls) - 5 pcs. Products in class C have an average demand and lower price than classes A and B. Products in class C require infrequent review or a limited degree of control by the outlet management (D. Annie Rose Nirmala et al. 2022). Even though inventory control in class C is infrequently reviewed, products with a fast shelf life, such as ready-to-drinks, still have to carry out routine inventory control close to the product expiry date.

The number of items, the percentage of items, the total sales value, and the percentage of the total value for money are calculated for each class, as shown in Table 2. Action recommendations are given to control product inventory in each class.

Based on the results obtained, recommendations can be given for the outlet's planning and inventory control systems. First, implementing computerized inventory record management based on predetermined ABC categories. A computerized inventory system makes inventory management more efficient and effective (Oladele et al. 2021). Second, scheduling regular product inventory controls. Inventory management that is managed efficiently is expected to overcome shortages and overstock problems so that service levels and revenues increase (Rizqi and Khairunisa 2020). Third, record real-time product inventory by using digital technology. A real-time system approach to inventory control is designed to accommodate variations in demand and eliminate excess stock (Torkul et al. 2016). Data sharing of product inventory between outlet management and MSME

business actors is needed for perishable agroindustry products to provide insight into the strategy to be carried out (Ketzenberg et al. 2023). The use of digital technology in the future will gain a competitive advantage over this local brand forum outlet (Braglia et al. 2022).

## CONCLUSION

Based on the analysis, inventory control at this local brand forum is carried out manually, where there is no product grouping. The management does not routinely carry out stock checking. The results of the ABC method showed that 16 items (19.05%) are included in class A with a total sales value of IDR 32,075,00.00 or 69.55% of the total value for money. Class B has 25 product items (29.76%) with a total sales value of IDR 9,359,500.00, equal to 20.29% of the total value for money. Products in class C are 43 items, 51.19%, with a total sales value of IDR 4,684,000.00 or 10.16% of the total value for money. As much as 43.75% of products in class A are nine basic commodities which are the basic needs of the Indonesian people, so they have a high priority in inventory control. Class A products have a higher inventory control priority than classes B and C.

Recommendations related to planning and inventory control systems that can be applied are implementing computerized inventory record management based on predetermined ABC categories, scheduling regular product inventory controls, and recording real-time product inventory by using digital technology. Further research on inventory management by determining safety stock, economic order quantity, and inventory policies such as the S, S policy can be carried out to reduce the total costs incurred.

## ACKNOWLEDGEMENTS

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