BIJMT : Brilliant International Journal Of Management And Tourism

E-ISSN: 2827-8380
P-ISSN: 2810-076X

*Research Article*

# Analysis Of Production Capacity and Raw Materials Towards Profit Maximisation In Okey Sausage Factory

**Pesta Gultom[1*], Cynthia Bella[2], Melyani[3], Stephanie[4] Calvin Andriono Abednego[5]**

1 Sekolah Tinggi Ilmu Ekonomi Eka Prasetya Medan,Indonesia
E-mail : pestanatalingultom@gmail.com
2 Sekolah Tinggi Ilmu Ekonomi Eka Prasetya Medan,Indonesia
E-mail : cynthiabella262@gmail.com
3 Sekolah Tinggi Ilmu Ekonomi Eka Prasetya Medan,Indonesia
E-mail : Melyanichen62@gmail.com
4 Sekolah Tinggi Ilmu Ekonomi Eka Prasetya Medan,Indonesia
E-mail : stephanieliim2004@gmail.com
5 Sekolah Tinggi Ilmu Ekonomi Eka Prasetya Medan,Indonesia
E-mail : simanjuntakcalvin64@gmail.com

* Corresponding Author : Pesta Gultom

**Abstract:** This study aims to analyze the effect of production capacity and availability of raw materials on profit maximization efforts at the Okey Sausage Factory. The main problem faced by the company is the limited resources that must be allocated optimally in order to achieve maximum profit levels. This study uses an operations research approach with linear programming methods and simplex methods, which are able to solve optimization problems with two main variables, namely the number of products produced and the amount of raw materials available. The data used include machine capacity, daily raw material quantity, production time, and profit margins for each sausage product. The results of the analysis show that the optimal combination of production capacity and raw materials can significantly increase profits compared to previous production strategies. With the right mathematical model, companies can make more efficient and data-based production decisions.

**Keywords:** Operations Research; Production Capacity; Profit Maximization; Raw Material; Simplex Method

**Received: May,17,2025;**
**Revised: May,31,2025;**
**Accepted: June,09,2025;**
**Published: June,11,2025;**
**Curr. Ver.: June,11,2025;**



## 1. Background

The processed food or instant food industry, especially in sausage production, is currently growing rapidly due to the increasing consumer demand for instant and practical products to meet the needs of busy people or those looking for convenience. Okey Sausage Factory as a company in this sector faces various challenges in managing production capacity and raw material inventory in order to achieve maximum profit.

Linear programming (LP) is using mathematical methods to achieve goodresults such as maximum profit or lowest cost in a mathematical model whose terms are used in a linear relationship The main problem that arises is how to manage the use of limited resources such as raw materials (such as meat, spices, and packaging) and production capacity such as time and machines to create a combination of products that can provide maximum profit for the company. Therefore, a structured quantitative approach is needed to determine efficient and successful production strategies.

This study also aims to investigate the impact of production capacity and type of raw materials on increasing profit and loss by applying the operations research approach, especially the linear programming method and the simplex method. The reason for choosing

this approach is its ability to solve optimal problems in a structured manner by considering existing constraints and variables.

The production process is a step to change inputs such as raw materials and labor into outputs in the form of goods or finished goods and certain services that have significant economic value according to Heizer and Render (2015). In the food industry such as sausage factories for example where important factors include the availability of raw materials and the ability of equipment and workers available to be employed in production.

Production Capacity 2021 According to Gaspersz (2005), production capacity is the maximum capability of a production system to produce results in a certain period by taking into account existing resources, which can be short-term or long-term.

## 2. Theoretical Studies

### Capacity

Production capacity is not just a number, but also a limitation and potential of a production system. Experts such as Heizer and Render see it as "the number of units that a facility can store, receive, or produce in a given time period." That is, capacity is the maximum point that can be achieved under certain conditions. It also discusses the potential of the system to produce the highest output if all variables are optimal.

### Production

Production is a process of changing input (raw materials, labor, capital) into output in the form of goods or services that create or produce utility value in order to meet needs and then be utilized by consumers. According to Heizer and Render (2015), production is an activity that creates added value from input into a final product that has economic value. In the context of the food industry such as sausage factories, production is greatly influenced by the availability of raw materials and the capacity of equipment and labor.

### Production Capacity

Production capacity is defined as the ability of a maximum facility of a production system to produce output in a certain period, taking into account available resources such as machinery, labor, and raw materials. According to Gaspersz (2005), production capacity can be short-term or long-term, and is a determining factor in operational planning to avoid overproduction or underproduction. Capacity limitations will be the main obstacle in optimizing production results.

### Raw Material

Raw materials are raw materials that will be made into semi-finished materials and then become finished goods, these finished goods are used as the main input in the production process to make a product to produce a final product that is ready to be consumed or used, In the food processing industry, the quality and availability of raw materials greatly determine the continuity of the production process. According to Assauri (2004), efficient management of raw materials can minimize costs and support a smooth production process. In a sausage factory, the main raw materials such as chicken and beef are crucial elements that must be managed carefully.

### Maximize Profits

Profit maximization is the main objective in the company's production and operation activities. This concept refers to efforts to achieve the highest profit (profit) through input management involving adjustments to production levels, prices, costs to obtain optimal pricing and efficient production processes. According to Mankiw (2012), the company will produce at a level where the difference between total revenue and total cost is the largest. One approach that can be used to achieve this goal is through mathematical modeling.

## 2. Research Methods

This research was conducted using a quantitative approach to the linear programming model which was solved using the simplex method. The type of quantitative approach,

quantitative is something related to the number and quantity or quantity encompassing the method of collecting numbers measured using the numerical scale of this research, which is oriented towards the positivist paradigm to explore the relationship between variables in the selected population or sample. This article states that the research method used is quantitative, meaning that the research focuses on the collection and analysis of numerical data. The main purpose of this research is to test hypotheses, measure variables, and look for statistical relationships between variables, often with the intention of generalizing the findings to a larger population.

In the Data Collection Process, Time, and Research Location, This research was conducted at PT Charoen Pokphand Indonesia, especially on the chicken sausage production line. Data collection was carried out directly using observation and interview methods with the production and finance management. The data collected were in the form of production capacity, availability of raw materials, working hours, and profit per unit of each type of product. Data collection was carried out for two weeks, namely from March 4 to March 18, 2025, at the production facility of PT Charoen Pokphand Indonesia located in the Medan Industrial Area (KIM II).

**Data Collection Technique**

In this study, the data collection technique used by the researcher is observation: The observation carried out by the researcher is honest observation, namely observation where the researcher collects data by stating frankly to the data source that he is conducting research.

**Data Anlysis Technique**

This study uses data analysis techniques, namely analysis with a simple method with marginal calculations. The simplex method is a method for solving linear programs with many variables and many constraints with iteration steps that are adjusted to the form of objectives and constraints and their results. (Aden & Setiawan, 2020). The simplex method is one approach to solving linear programming problems that have two or more decision variables where determining the optimal combination is done through repeated iterations on This simplex table finds the value of equipment in optimization problems, namely maximizing profits and minimizing costs. This simplex method also has the advantage of allowing the solution of programming problems to obtain more possible decisions. The optimization problem revealed is about maximizing profits (maximization) in production in the home industry (Nurmayanti & Sudrajat, 2021)

## 4. Results and Discussion

**Result**

PT. Charoen Pokphand Indonesia produces processed foods known under the Okey brand. The products produced are standard products that have different qualities. In order to meet market demand, the company provides three types of sausages, namely, Jumbo Chicken Sausage, Grilled Chicken Sausage, and Mini Chicken Sausage. If sold, the profit obtained from the sale of Jumbo Chicken Sausage is IDR 500 thousand, Grilled Chicken Sausage IDR 600 thousand, and the profit of mini chicken sausage is IDR 450 thousand. To manage jumbo chicken sausage, 4 kg of chicken meat, 2 kg of flour, and 6 grams of fine kitchen spices are needed. For the type of grilled chicken sausage, 2 kg of chicken meat, 4 kg of flour, and 4 grams of fine kitchen spices are needed. For mini meat sausage, 4 kg of chicken meat and 4 kg of flour are needed. The supply of each chicken meat is 200 kg, 160 kg, and 240 kg, respectively. Determine the amount of each type of chicken sausage to maximize profit. And determine whether all resources are used up.

Identify the objective function and constraint function. The objective function in this case study is to maximize profit with the amount of production per type as the coefficient of the decision variable of the number of types of jumbo chicken sausages that must be produced (X1), the number of types of grilled chicken sausages that must be produced (X2), and the number of types of mini chicken sausages that must be produced (X3). The objective function is expressed in the form of a mathematical equation as follows: Maximize $Z = 500\ X1 + 600\ X2 + 450\ X3$

The constraint function (limitation) in this case study is the maximum capacity of 3 raw materials available in one production. The raw materials that are the constraints are chicken meat (A), flour (B), and spices (C). The constraint function is expressed in the form of a mathematical inequality as follows:
Raw material constraints:
Chicken Meat (A) : 4 X1 + 2 X2 + 4 X1 ≤ 200
Flour (B) : 2 X1 + 4 X2 + 4 X1 ≤ 160
Herbs (C) : 6 X1 + 4 X2 + 0 X1 ≤ 240

**In designing a linear programming model according to** (Sitorus, S. A., Ekowicaksono, I., Musadat, F., Hutagaol, K., Sudirman, Gultom, P., Simanjuntak, D. N., Aksa, Susilo, D., Soejono, F., Alfian, A., St. Aisyah, R., & Pratama, 2023)**,** you need to pay attention to the following things:

1. Definition of objective function. The objective function in linear programming is aimed at maximizing or minimizing the problem to be modeled. The objective function is in the form of a linear function of the decision variables.

2. The value of the decision variable must meet the existing constraints. Each obstacle is in the form of a linear equation or inequality.

3. Each variable must be defined whether the variable has a positive value (x > 0) or whether it can have a positive or negative value.

1. Definition of objective function. The objective function in linear programming is aimed at maximizing or minimizing the problem to be modeled. The objective function is in the form of a linear function of the decision variables.
Objective Function:
Maximize Z - 500X1 - 600X2 - 450X3 = 03.3
Constraint Function:
Chicken Meat (A): 4X1 + 2X2 + 4X3 + S1 = 200
Flour (B) : 2X1 + 4X2 + 4X3 + S2 = 160
Kitchen Spices (C) : 6X1+ 4X2+ S3 = 240
With X1,X2,X3,S1,S2,S3 ≥ 0
Arrange equations in a simplex table

**Table 1. Raw Materials, Products and Capacity**

| Raw Material | Type | | | Capacity |
|---|---|---|---|---|
| | Jumbo chicken sausage | Grilled chicken sausage | Mini chicken sausage | |
| Chicken Meat | 4 | 2 | 4 | 500 |
| Flour | 2 | 4 | 4 | 160 |
| Herbs | 6 | 4 | - | 240 |
| | 500 | 600 | 450 | |

**Table 2. Simplex Table 1**

| Variabel Dasar | Z | X1 | **X2** | X3 | S1 | S2 | S3 | Nilai Kunci (NK) | Indeks |
|---|---|---|---|---|---|---|---|---|---|
| Z | 1 | -500 | **-600** | -450 | 0 | 0 | 0 | 0 | - |
| S1 | 0 | 4 | **2** | 4 | 1 | 0 | 0 | 200 | 200/2=100 |
| **S2** | **0** | **2** | **4** | **4** | **0** | **1** | **0** | **160** | **160/4=40** |
| S3 | 0 | 6 | **4** | 0 | 0 | 0 | 1 | 240 | 240/4=60 |

kolom kunci angka kunci baris kunci

Determining Key Columns:

The key column is selected in row Z which has the smallest value. In the initial table, column X2 becomes the key column because the value .

Z = - 600

Determining the key row:

The key row is determined from the smallest index value (ratio).

Then select the key row that has the smallest positive ratio. In the initial table, row S2 becomes the key row because its ratio = 40.

Determining the key number / pivot element The key number is obtained from the intersection of the key column with the key row. In the initial table, the key number is obtained = 4.

Creating a new key row: Because the key value is in column X2, then row S2 is replaced with X2 and the value and all coefficients in row S2 are divided by the key number.

**Table 3. Determining New Key Rows**

| Variabel Dasar | Z | X1 | X2 | X3 | S1 | S2 | S3 | Nilai Kunci (NK) | Indeks |
|---|---|---|---|---|---|---|---|---|---|
| Z | | | | | | | | | |
| S1 | | | | | | | | | |
| **X2** | **0** | **1/2** | **1** | **1** | **0** | **¼** | **0** | **40** | |
| S3 | | | | | | | | | |

Determine the Value of a New Row other than the Key Row To find the value of a new row, use the Sturges formula. Formula:

New Row Value = NBL (AKBBK) new row value =

New Row Z
NBL 1 -500 -600 -450 0 0 0 0
AKBBK -600 (0 ½ 1 1 0 ¼ 0 40 ) -
1 -200 0 150 0 150 0 2400

New Row S1
NBL 0 4 2 4 1 0 0 200
AKBBK 2 ( 0 ½ 1 1 0 1/4 0 40 ) -
0 3 0 2 1 -1/2 0 120

New Row S3
NBL 0 6 4 0 0 0 1 240
AKBBK 4 ( 0 ½ 1 1 0 ¼ 0 40 ) -
0 4 0 -4 0 -1 1
Enter all new values into the simplex table:

**Table 4. Literacy 1 (continued)**

| Variabel Dasar | Z | **X1** | X2 | X3 | S1 | S2 | S3 | Nilai Kunci (NK) | Indeks |
|---|---|---|---|---|---|---|---|---|---|
| Z | 1 | **-200** | 0 | 150 | 0 | 150 | 0 | 24000 | - |
| S1 | 0 | **3** | 0 | 2 | 1 | -1/2 | 0 | 120 | 120/3=40 |
| X2 | 0 | **1/2** | 1 | 1 | 0 | ¼ | 0 | 40 | 40/1/2=80 |
| **S3** | 0 | **4** | **0** | **-4** | **0** | **-1** | **1** | **80** | **80/4=20** |

Because in row z there are still coefficients with negative values, the repair is continued by repeating the repair from step 4 (reference to literacy table 1) and the calculation results are made into a new table (literacy table 2)
New row Z
NBL 0 -200 0 150 0 150 0 24000
AKBBK -200 ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 0 -50 0 100 50 28000
New row S1
NBL 0 3 0 2 1 ½ 0 120
AKBBK 3 ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 0 5 1 ¼ 3/4 60

New row X2
NBL 0 ½ 1 1 0 ¼ 0 40
AKBBK ½ ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 1 3/2 0 3/8 -1/8 30
New row values enter into new table :
Because in row z there are still coefficients with negative values, the repair is continued by repeating the repair from step 4 (reference to literacy table 1) and the calculation results are made into a new table (literacy table 2)
New row Z
NBL 0 -200 0 150 0 150 0 24000
AKBBK -200 ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 0 -50 0 100 50 28000

New row S1
NBL 0 3 0 2 1 ½ 0 120
AKBBK 3 ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 0 5 1 ¼ 3/4 60

New row X2
NBL 0 ½ 1 1 0 ¼ 0 40
AKBBK ½ ( 0 1 0 -1 0 -¼ ¼ 20 ) -
0 0 1 3/2 0 3/8 -1/8 30
New row values enter into new table :

**Table 5. Literacy 2 (continued)**

| Variabel Dasar | Z | X1 | X2 | X3 | S1 | S2 | S3 | Nilai Kunci (NK) | Indeks |
|---|---|---|---|---|---|---|---|---|---|
| Z | 0 | 0 | 0 | **-50** | 0 | 100 | 50 | 28000 | - |
| **S1** | **0** | **0** | **0** | **5** | **1** | ¼ | **-3/4** | **60** | **60/5 = 12** |
| X2 | 0 | 0 | 1 | **3/2** | 0 | 3/8 | -1/8 | 30 | $20/\frac{3}{2} = 40/3$ |
| X1 | 0 | 1 | 0 | **-1** | 0 | -1/4 | 1/4 | 20 | 20/-1= -20 |

In the iteration-2 table, there is still a negative Z coefficient (-50), so the improvement is continued (reference iteration table 2) and the calculation results create a new table (iteration table 3).

New line Z

NBL 0 0 0 -50 0 100 50 28000

AKBBK -50 ( 0 0 1 1/5 1/20 -3/20 12 ) -

0 0 0 10 20 5/2 85/2 28600

New line X2

NBL 0 0 1 3/2 0 3/8 -1/8 30

AKBBK 3/2 ( 0 0 0 1 1/5 1/20 -3/20 12 ) -

0 0 1 0 -3/10 12/40 1/10 12

New line X1

NBL 0 1 0 -1 0 -¼ ¼ 20

AKBBK ½ ( 0 0 0 1 1/5 1/20 -3/20 12 ) -

0 1 0 0 1/5 -1/5 1/10 32

Values from new row input in new table.

Table 6. Literacy 3

| Variabel Dasar | X1 | X2 | X3 | S1 | S2 | S3 | Nilai Kunci (NK) | Indeks |
|---|---|---|---|---|---|---|---|---|
| Z | **0** | **0** | **0** | 10 | 205/2 | 85/2 | **28600** | - |
| X3 | 0 | 0 | 1 | 1/5 | 1/20 | -3/20 | **12** | |
| X2 | 0 | 1 | 0 | - 3/10 | 3/10 | 1/10 | **12** | |
| X1 | 1 | 0 | 0 | 1/5 | -1/5 | 1/10 | **32** | |

In the literacy table 3 (third) in the Z row all coefficients are positive or none are negative, then the optimal answer has been obtained, namely:

X1 = 32, X2 = 12, X3 = 12 and Z = 28600

From the iteration table 3 above obtained:

Maximum Z = 500X1 + 600X2 + 450X3

= 500 (32) + 600 (12) + 450 (12)

= 28600 x 1000
= 28,600,000

## Discussion

So, the amount of profit from PT Charoen Pokphand Indonesia is 28,600,000. with a production level for Jumbo Chicken Sausage 32 thousand, Grilled Chicken Sausage 12 thousand, and Mini Chicken Sausage 12 thousand, From the table above it can be seen that all resources are used up.

In the Data Collection Process and Time, , especially in the chicken sausage production line. Data collection is carried out using a quantitative method, namely analyzing literature that reviews various journals and articles related to specific cases. The data collected is in the form of production capacity, availability of raw materials, and profit per unit of each type of product. Data collection was carried out for two weeks in the form of data testing tests, namely from May 4 to May 18, 2025 based on group discussions that were tested into case questions. Results of Linear Programming Optimization Analysis After linear programming modeling and solving using the simplex method, optimal results were obtained.

The results of this study are in line with the basic principles of linear programming, namely that the optimal solution is obtained when the maximum objective function value is achieved and all constraints are met. In this case, the simplex method successfully selected the best production combination of three types of products to maximize profits.

## Conclusions and Suggestions

Based on the results of quantitative research that has been conducted using the simplex approach linear programming (LP) method, it was obtained that the optimal production combination to maximize the profit of PT Charoen Pokphand Indonesia is to produce 32 units of jumbo chicken sausages, 12 units of grilled chicken sausages, and 12 units of mini chicken sausages, which generates a maximum profit of Rp28,600,000. This finding directly answers the purpose of the study, namely to determine the most efficient production strategy based on the company's resource limitations. This study shows that all available resources are used optimally, which reflects efficient allocation in the production process. However, these results apply under certain conditions with the assumption that cost parameters and resource availability are fixed, so generalizations need to be done carefully when applied in different conditions or at other times.

Therefore, companies are advised to periodically update production data and conduct repeated evaluations of the optimization model used. This study has limitations in the scope of variables that only consider three types of products and do not include market uncertainty factors or changes in raw material prices. For further research, it is suggested to include elements of market dynamics or a stochastic optimization approach to provide more adaptive results to real conditions and fluctuations in the food industry.

## References List

1) Amini, A. N., Sutrisna, A., & Lestari, S. P. (2022). Analisis biaya bahan baku dalam meningkatkan volume produksi: Studi kasus pada perusahaan bordir Annisa Collection di Kawalu. MASMAN Master Manajemen, 1(4), 30–40. https://doi.org/10.59603/masman.v1i4.145
2) Azikin, R. A., Setiawan, B. L., & Kartikasari, A. (2017). Perencanaan unit pengendalian mutu sosis ayam dengan kapasitas produksi 1000 kg/hari pada pabrik pengolahan sosis di Pabrik "X". Widya Mandala Catholic University Surabaya. https://repository.ukwms.ac.id/id/eprint/12740

3) Fadhilla, S., Harmain, H., & Nasution, J. (2023). Pengaruh efisiensi biaya bahan baku, biaya tenaga kerja langsung dan biaya overhead pabrik terhadap rasio profit margin pada pabrik minyak kelapa sawit (PMKS) PT. Djaja Putra Indonesia Bandar Pulau. Jurnal Pendidikan Tambusai, 7(1), 2202–2210. https://doi.org/10.31004/jptam.v7i1.5544
4) Juwita, R., & Puspita, A. R. (2023). Pengaruh biaya bahan baku terhadap penjualan bersih pada PT Indofood CBP Sukses Makmur Tbk. LAND Journal, 2(1), 1–10. https://doi.org/10.47491/landjournal.v2i1.1035
5) Mulyana, A. L. (2023). Analisis pengaruh modal, biaya bahan baku, biaya tenaga kerja terhadap keuntungan penjualan pada UMKM Sumber Rejeki Babat Lamongan. JEKMA, 3(1), 45–55. https://jurnalekonomi.unisla.ac.id/index.php/JEKMA/article/view/1327
6) Priatna, H., & Trisnawan, M. R. (2022). Pengaruh persediaan bahan baku dan volume penjualan terhadap laba bersih perusahaan (Studi kasus pada CV. Cisartex di daerah Majalaya). AKURAT: Jurnal Ilmiah Akuntansi FE UNIBBA, 3(2), 60–70. https://ejournal.unibba.ac.id/index.php/akurat/article/view/105
7) Purba, D. S., & Tarigan, V. (2021). Pengaruh biaya produksi dan beban penjualan terhadap laba PT Kedaung Indah Can, Tbk. Jurnal Ilmiah Accusi, 3(1), 15–25. https://doi.org/10.36985/2ga8rs82
8) Puspayanti, K. W., & Suarmanayasa, I. N. (2022). Pengaruh modal, jumlah produksi dan bahan baku terhadap pendapatan pada pengrajin songket di Desa Jinengdalem Kecamatan Buleleng. Prospek: Jurnal Manajemen dan Bisnis, 4(2), 120–130. https://ejournal.undiksha.ac.id/index.php/Prospek/article/view/44884
9) Revanti, & Sutrisna, A. (2022). Analisis biaya pengendalian persediaan bahan baku dalam meningkatkan volume produksi pada perusahaan agar-agar Cap Apel. Jurnal Ekonomi Perjuangan, 2(1), 55–65. https://doi.org/10.36423/jumper.v2i1.651
10) Simon, S. (2010). Perencanaan industri pengolahan sosis sapi dengan kapasitas bahan baku 15 kg/hari [CD-ROM]. Widya Mandala Catholic University Surabaya. https://repository.ukwms.ac.id/id/eprint/84
11) Siswanto, Gumbira-Sa'Id, E., & Sibarani, R. W. (1996). Optimalisasi perencanaan produksi daging olah PT. Kemfoods, Jakarta. Institut Pertanian Bogor. https://repository.ipb.ac.id/jspui/handle/123456789/151437
12) Sitorus, S. A., Ekowicaksono, I., Musadat, F., Hutagaol, K., Sudirman, Gultom, P., Simanjuntak, D. N., Aksa, Susilo, D., Soejono, F., Alfian, A., St. Aisyah, R., & Pratama, Y. D. (2023). Riset Operasi Bisnis dan Aplikasi. https://kitamenulis.id/2023/10/17/riset-operasi-bisnis-dan-aplikasi/
13) Sulistiyo, A., Nasution, U. H., & Al Firah, A. (2022). Pengaruh perencanaan kebutuhan bahan baku dan pengendalian persediaan bahan baku terhadap kelancaran proses produksi pada PT. Lestari Alam Segar Medan. Jurnal Bisnis Corporate, 7(2), 85–95. https://jurnal.dharmawangsa.ac.id/index.php/jubisco/article/view/33477
14) Tjandradjaja, A. H., & Setyowati, S. A. (2013). Perencanaan unit pengendalian mutu pabrik sosis babi frankfurter dengan kapasitas produksi 100 kg per hari. Widya Mandala Catholic University Surabaya. https://repository.ukwms.ac.id/id/eprint/9320/
15) Vanda, D. N., Sinaga, B. M., & Basith, A. (2000). Analisis pengendalian mutu produk sosis dan burger di PT. Kemang Food Industries. https://repository.ipb.ac.id/handle/123456789/151209
16) Wati, V., Sulaiman, & Gasim. (2022). Pengaruh persediaan bahan baku terhadap proses produksi dengan volume penjualan sebagai variabel moderasi (Studi pada Royal Bakery Alif TDM Kupang). Jurnal Akuntansi Universitas Muhammadiyah Kupang, 9(1), 50–60. https://e-journal.unmuhkupang.ac.id/index.php/ja/article/view/753