

**UNDERGRADUATE THESIS**

**MAINTAINING THE QUALITY OF KITCHEN PASTRY  
RAW MATERIALS THROUGH FIFO METHOD  
AT RENAISSANCE BALI NUSA DUA RESORT**



**POLITEKNIK NEGERI BALI**

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**TOURISM DEPARTMENT  
POLITEKNIK NEGERI BALI  
BADUNG  
2024**

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**This undergraduate thesis is submitted as one of the requirements to earn  
Applied Bachelor's Degree in Tourism Management Study Program  
in Politeknik Negeri Bali**



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## UNDERGRADUATE THESIS APPROVAL SHEET

### MAINTAINING THE QUALITY OF KITCHEN PASTRY RAW MATERIALS THROUGH FIFO METHOD AT RENAISSANCE BALI NUSA DUA RESORT

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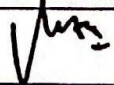
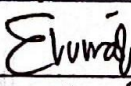

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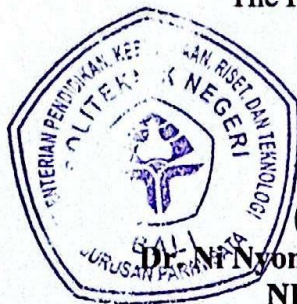
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### **MAINTAINING THE QUALITY OF KITCHEN PASTRY RAW MATERIALS THROUGH FIFO METHOD AT RENAISSANCE BALI NUSA DUA RESOR** LETTER

by Ni Kadek Dwi Laksmi (NIM 2015834025) has been successfully defended in front of the Board of Examiners and accepted as partial fulfillment of the requirements for the Applied Bachelor's Degree of Tourism Business Management in Undergraduate Thesis Examination on Tuesday, July 16<sup>th</sup>, 2024

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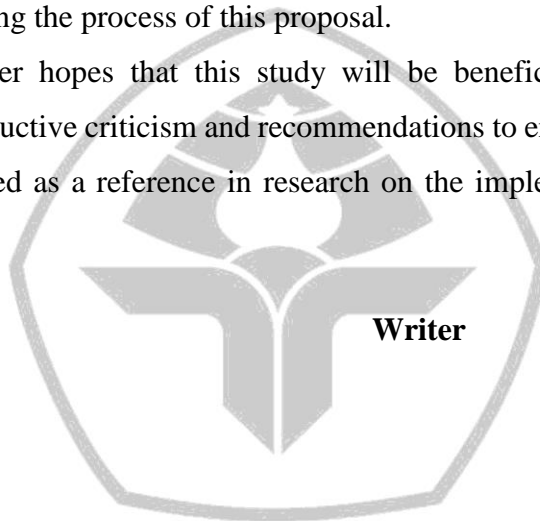
Praise the author goes to Ida Sang Hyang Widhi Wasa, who has given the opportunity for the writer to complete the thesis entitled “Maintaining The Quality Of Kitchen Pastry Raw Materials Through FIFO Method at Renaissance Bali Nusa Dua Resort” which can be completed in a timely manner. This proposed proposal was prepared to meet the requirements for making an Applied Bachelor Thesis in Tourism Business Management at the Bali State Polytechnic.

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## ABSTRACT

Dwi Laksmi, Ni Kadek, (2024), *Maintaining the Quality of Kitchen Pastry Raw Materials Through FIFO Method at Renaissance Bali Nusa Dua Resort*. Undergraduate Thesis: Tourism Business Management, Tourism Department, Politeknik Negeri Bali.

This undergraduate thesis has been supervised and approved by Supervisor I: Drs. I Ketut Astawa, MM, and Supervisor II: Putu Virgananta Nugraha, S. TI., M.Eng.

Keywords: FIFO method, digital labeling, quality of kitchen pastry raw materials

This research is motivated by the frequent use of raw materials that do not comply with the FIFO method and the food labeling system for raw materials in kitchen pastries is often not implemented. The problems discussed in this research include the application of the FIFO method to the use of raw materials in pastry kitchens, the application of digital labels to measure the storage period for raw materials in pastry kitchens, the role of FIFO and digital methods. The aim of this research is to analyze the extent to which the FIFO method and Digital Labeling are implemented at the Renaissance Bali Nusa Dua Resort, especially in the kitchen pastry to maintain the quality of raw materials in the kitchen pastry. The data analysis technique used in this research is qualitative descriptive. The data collection methods used to obtain research results are interviews, observation, documentation and literature study. In determining informants, this research used a purposive sampling technique. Based on the results of observational research and interviews conducted by the author regarding the application of the FIFO method and digital labeling: the application of the FIFO method, especially in kitchen pastry, has been implemented, but needs to be improved from an individual and communication perspective. The application of label making using a digital label system has also been implemented in the pastry kitchen, however there are obstacles in terms of staff habits which must be consistent in carrying out labeling and problems in terms of software. FIFO method and digital labeling have an important role in maintaining the quality of raw materials and food preparation. It can be concluded that the role of the FIFO method and digital labeling, especially in the kitchen pastry at the Renaissance Bali Nusa Dua Resort, is very important to maintain the quality of raw materials and food products in a safe and suitable condition to be served to customers.

## ABSTRAK

Dwi Laksmi, Ni Kadek, (2024), *Maintaining the Quality of Kitchen Pastry Raw Materials Through FIFO Method at Renaissance Bali Nusa Dua Resort*. Skripsi: Manajemen Bisnis Pariwisata, Jurusan Pariwisata, Politeknik Negeri Bali.

Skripsi ini telah disetujui dan diperiksa oleh Pembimbing I: Drs. I Ketut Astawa, MM, dan Pembimbing II: Putu Virgananta Nugraha, S. TI., M.Eng.

Kata Kunci: *FIFO method, digital labeling, kualitas bahan baku kitchen pastry*

Penelitian ini dilatarbelakangi oleh seringnya penggunaan bahan baku yang tidak sesuai dengan metode FIFO dan sistem pelabelan pada bahan baku di *kitchen pastry* sering tidak diterapkan. Permasalahan yang dibahas dalam penelitian ini antara lain penerapan metode FIFO pada penggunaan bahan baku di dapur pastry, penerapan label digital untuk mengukur jangka waktu penyimpanan bahan baku di *kitchen pastry*, peranan metode FIFO dan digital labeling. Tujuan dari penelitian ini adalah untuk menganalisis sejauh mana penerapan *FIFO method* dan *Digital Labeling* di Renaissance Bali Nusa Dua Resort khususnya pada *kitchen pastry* untuk mempertahankan kualitas bahan baku pada *kitchen pastry*. Teknik analisis data yang digunakan pada penelitian ini adalah *qualitative descriptive*. Metode pengumpulan data yang digunakan untuk mendapatkan hasil penelitian yaitu wawancara, observasi, dokumentasi dan studi literatur. Dalam menentukan *informant*, penelitian ini menggunakan teknik *purposive sampling*. Berdasarkan hasil penelitian observasi dan wawancara yang telah dilakukan penulis terkait penerapan *FIFO method* dan *digital labeling*: penerapan *FIFO method* khususnya di *kitchen pastry* sudah diterapkan, namun perlu ditingkatkan dari segi individual dan komunikasi. Penerapan pembuatan label yang dilakukan dengan *system* label digital juga sudah terimplementasi di *kitchen pastry*, namun ada kendala dari segi kebiasaan staff yang harus konsisten dalam melakukan pelabelan dan kendala dari segi *software*. *FIFO method* dan *digital labeling* memiliki peran penting dalam mempertahankan kualitas bahan baku dan *food preparation*. Dapat disimpulkan bahwa peran dari pada *FIFO method* dan *digital labeling* khususnya di *kitchen pastry* Renaissance Bali Nusa Dua Resort sangat penting untuk tetap mempertahankan kualitas bahan baku dan produk makanan tetap dalam kondisi aman dan layak untuk disajikan kepada *customer*.

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# CHAPTER I

## INTRODUCTION

### 1.1 Research Background

Hotels are one of the accommodation services that cannot be separated from the world of tourism. A hotel is a place that has elements of service, comfort and accommodation facilities needed for those who want to travel long distances or go on holiday. Various departments support hotel operations in carrying out their activities, as hotels cannot operate alone. One of the departments is Food & Beverage Products. Food & Beverage Product is a department that has facilities and is used to prepare process and make food. Food & Beverage Product has several outlet sections, including Hot Kitchen, Cold Kitchen, Butcher, Banquet Kitchen, and Pastry & Bakery Kitchen. Food & Beverage Products is responsible for processing the food served to visiting consumers (Sudjarwadi, 2017).

The hotel consistently endeavors to meet consumer demands by maintaining product quality standards in hotel operations and, adhering to standard recipes set by the establishment for raw materials used. Quality raw materials enable the production of excellent food products, ensuring guest satisfaction. Establishing a suitable storage facility ensures the prolonged freshness of food ingredients, aligning with the durability of each ingredient. These ingredients can be classified into two categories: perishable and non-perishable. The activities in sorting food ingredient by applying the First in First out (FIFO) method to maintain the quality.



FIFO method is a method that can be used to organize the storage of raw materials to maintain the quality of raw materials in good condition and suitable for use. The application of the FIFO method is very important in storage regarding the shelf life of food ingredients, because the first food ingredients that arrive must be used first to avoid damage it will affect the quality of raw materials in storage. The FIFO method means that the goods that arrive or are stored first must be the first to be used or processed, with the aim that raw materials that already have a long shelf life are not damaged or wasted. FIFO method has many benefits, especially in storing raw materials in hotels, because implementing this method can affect the progress of quality standards and affect hotel costs.

Furthermore, the hotel industry utilizes digital labeling to support the application of the FIFO method in creating labels for storing raw materials. Digital labeling is one of the new digital-based technological innovations applied in the hotel industry to simplify the process of labeling raw materials. Technology has responded by focusing on creating new innovations that will help consumers make better decisions, which will ultimately lead to a decrease in food waste. As an example: New packaging options have emerged in recent times with the goal of increasing product shelf life and assisting consumers in monitoring food quality and freshness more effectively (Firouz et al., 2021). Applying digital labeling to the labeling of raw materials can make it easier for employees to know the shelf life of raw materials. The application of digital labeling can make it easier for employees to know the type of food. Digital labeling provides many benefits so that by implementing digital labeling can maintain the quality

standards of raw materials. The application of the FIFO method and digital labeling are related to each other in the storage of raw materials to maintain the quality of food ingredients so that they are always in good condition.

Renaissance Bali Nusa Dua Resort is one of the hotels that apply the FIFO method and digital labeling. One of those implemented is related to FIFO method is controlling raw material storage, which includes general storage, dry storage, daily storage, chiller, and freezer. Renaissance Bali Nusa Dua Resort also implementing digital labeling in the raw material labeling process using the “PreppyPro” application. The digital labeling application at Renaissance Bali Nusa Dua Resort can be accessed by all employees, making it easier for employees to use digital labels.

However, the application of the FIFO method is still not optimal in kitchen pastry. As time goes by, the application of FIFO and digital labeling methods in hotels still requires improvement and training to improve the quality of raw materials. In fact, there are still many employees who have not implemented the FIFO method for storing goods in the pastry kitchen. There are still many employees who do not label the raw materials and preparations that have been made. The storage area for goods such as boxes, cups and packaging is not neatly arranged, the placement of raw materials on the shelves is still messy and does not match the type of raw materials. The hotels should provide training and education to employees to achieve the goals which emphasizing the importance of applying FIFO method and proper labeling to enhance the quality standards of food raw materials, particularly in the pastry kitchen.

Based on this background, the writer is interested in researching “Maintaining the Quality of Kitchen Pastry Raw Materials through FIFO Method at Renaissance Bali Nusa Dua Resort”.

## **1.2 Research Questions**

Based on description of the background above, the main problem in this research as follows:

1. How is the implementation of FIFO method at Renaissance Bali Nusa Dua Resort?
2. How is the implementation of digital labeling at Renaissance Bali Nusa Dua Resort?

## **1.3 Research Objective**

Based on the research problems, the purpose of this research is:

1. To analyze the implementation of FIFO method at Renaissance Bali Nusa Dua Resort.
2. To analyze the implementation digital labeling at Renaissance Bali Nusa Dua Resort.

## **1.4 Research Significance**

### **1. Practical Benefit**

From the results of preparing this proposal, it can become input and material for consideration regarding the FIFO method and digital labeling to improve quality of kitchen pastry raw material in companies that aim to achieve company targets.

### **2. Theoretical Benefit**

The results of this study can make a positive contribution to readers and can be used as a reference for students at the Bali State Polytechnic campus who will conduct research in the field of Food & Beverage Product Department with the theme Digital Technology.

### **3. Self-Benefit**

The preparation of this research is the implementation of the theory given on campus which is practiced in the tourism industry. The results of this study are useful to provide a more real picture, especially regarding the implementation of FIFO method and digital labeling which affects the quality of kitchen pastry raw material which certainly affects the company's operations. In addition, this research is also a final project to complete the D4 Tourism Business Management study program at the Bali State Polytechnic.

## **1.5 Limitations and Scope of Problems**

Based on the research topic on the application of FIFO method and digital labeling in Renaissance Bali Nusa Dua Resort the material is very broad; therefore, it

is necessary to limit the problem to the research focus so that it has a specific scope, including:

1. The variable in this study is FIFO method, digital labeling and quality of kitchen pastry raw materials.
2. The dimensions variables in this study include: storage the impact of implementing First in First out (FIFO) method. The Digital Labeling variable include: benefit of smart labels and concerns about smart labels. The Quality of Kitchen Raw Materials variable include: appearance, odor or smell, texture, and taste.
3. This study took samples from the Food & Beverage Product Department and Purchasing Department at Renaissance Bali Nusa Dua Resort.



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## BAB V

### CONCLUSION AND SUGGESTION

#### 5.1 Conclusion

Based on the result and discussion of Chapter IV can be concluded Maintaining the Quality of Kitchen Pastry Raw Materials Through FIFO Method at Renaissance Bali Nusa Dua Resort as follows:

1. The implementation of FIFO method at Renaissance Bali Nusa Dua Resort

Renaissance Bali Nusa Dua Resort has implemented the FIFO (First in First out) method, especially in the kitchen pastry. Renaissance Bali Nusa Dua Resort in the BSA assessment is in the gray position, which means it has achieved a score of "K" or 100 points. A general store is a warehouse specifically for storing tools and equipment such as boxes, cardboard, ice cream cup and packaging. Renaissance Bali Nusa Dua Resort does not have a special general store, but equipment such as boxes, cardboard and packaging are stored neatly in the chef's office. Figure 4.7 shows the problems seen in the storage of packaging, cups and boxes are still messy and not in accordance with the application of the FIFO method. Daily storage in the kitchen at the Renaissance Bali Nusa Dua Resort is a warehouse for storing food ingredients used daily such as storing fruit, vegetables and spices. Dry storage in the kitchen at Renaissance Bali Nusa Dua Resort is a warehouse for storing dry food ingredients such as flour, sugar, chocolate, canned food, dried fruit, nuts and seeds. Figure 4.8

shows where white sugar is stored in dry storage and in containers. Figure 4.9 shows where white sugar is stored in dry storage and in containers.

The pastry kitchen at the Renaissance Bali Nusa Dua Resort has a special chiller for storing raw materials and processed pastry. The implementation of the FIFO method in refrigerator/chiller in the kitchen pastry at the Renaissance Bali Nusa Dua Resort, such as; Where from the beginning the milk and cream come from purchasing and will be removed from cardboard or plastic packaging and then stored in the chiller. Based on the results of observations made in the kitchen pastry at the Renaissance Bali Nusa Dua Resort, strawberry storage has implemented the FIFO method. Figure 4.12 shows where the problem seen in fruit and juice storing in chiller it still gets messy and hits fruit that has a soft texture, causing the fruit to spoil quickly. This incident shows that the FIFO method has not been fully implemented in the process of storing raw materials in the chiller. A freezer is a place to store raw materials or processed pastry which must be frozen, such as frozen fruit, puree, ice cream and pastry or bakery dough. Based on Global Food Safety (GFS) regulations in HACCP form A3, the temperature that must be set in the freezer is  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ). Base on the figure it looks still very messy, the fruit puree is not arranged neatly and is not arranged according to the type of taste.

## 2. The Implementation of Digital Labeling at Renaissance Bali Nusa Dua Resort

Food Labeling is one of the requirements of Marriott International BSA. The application of digital labeling in the labeling of food ingredients and food in the Renaissance Bali Nusa Dua Resort kitchen will start in September 2023. The research result from Barone & Aschemann-witzel (2022) shows that smart labels can alleviate the contributing factor of incorrect interpretation of expiration date labels. The following is the application of digital labeling in the kitchen pastry of the Renaissance Bali Nusa Dua Resort which is divided into two dimensions, namely Benefits of smart labels and Concerns about smart labels: Based on the results of observations made at the Renaissance Bali Nusa Dua Resort pastry kitchen, the application of digital labeling does not directly affect the reduction of food waste. By providing a label containing the name and date, the pastry staff will know that the fruit left over from breakfast is no longer used and can be reprocessed into jam. So that the remaining breakfast fruit is not wasted and the staff does not take new fruit to make Jam.

The implementation of digital labeling carried out in the kitchen pastry at the Renaissance Bali Nusa Dua Resort is useful for external control of food freshness. Figure 4.15 show that the process of external control of food freshness with the example leftover milk storage. The digital labeling applied in the kitchen pastry at the Renaissance Bali Nusa Dua Resort is very important regarding the easier and faster selection process in storage. Figure 4.16 show that the picture the food ingredients are labeled, it will make it easier and faster to find out the ingredients you want to take by reading the label. The digital labeling that has been implemented in the Renaissance



Bali Nusa Dua Resort pastry kitchen provides the benefit of comfort in the process of storing food ingredients. Figure 4.17 show that the examples of materials that have the same appearance but different types. Based on the results of observations that have been made, the application of digital labeling carried out in the Renaissance Bali Nusa Dua Resort kitchen, which will begin to be implemented around September 2023, will certainly require more expensive costs. Based on the results of observations made by the writer, the application of digital labeling in the kitchen pastry of the Renaissance Bali Nusa Dua Resort has had both positive and negative impacts. One of the concerns regarding the implementation of digital labeling is the environmental impact on the kitchen's environment itself. Figure 4.18 show that the picture examples of label marks on containers that have not been cleaned so they look dirty and some have been piled up or label marks that have not been removed first. Based on the results of observations and interviews conducted by the writer regarding effective labeling when freezing.

## **5.2 Suggestion**

Based on the result and discussion, suggestion are givens to improve the Maintaining the Quality of Kitchen Pastry Raw Materials through FIFO Method and Digital Labeling at Renaissance Bali Nusa Dua Resort, as follows:

### **1. Suggestion for the Hotel**

From the results of the research carried out by the writer, it is hoped that the kitchen staff, especially in the kitchen pastry at the Renaissance Bali Nusa Dua Resort, will continue to apply the FIFO Method in storing raw materials and preparing food

ingredients. It is recommendation for the hotel arrange the position of the shelves systematically, organizing storage areas or shelves for goods systematically is very important in general storage and frozen storage to make it easier to store goods so that older items are easier to reach than new items. It is recommendation for the hotel Using colored containers can be a good alternative for separating types of materials that have different entry periods. Apart from that, using colored containers can make it easier for staff to identify the type of food that will be stored. To implement digital label in the kitchen pastry Renaissance Bali Nusa Dua Resort, it is recommended that all staff have the PreppyPro application and are connected to a digital label printing tool so that all kitchen staff can make labels easily and quickly. Because labeling is very important to know the shelf life of raw materials and to make it easier to search for raw materials or food preparation.

## 2. Suggestion for further research

It is recommended for future researchers to further expand research in the field of Food & Beverage. Researchers who wish to conduct similar research are advised to conduct research discussing the application of LIFO regarding the storage of materials in storage. And if future researchers want to conduct research related to digital labeling, they should discuss digital labeling using a barcode system.

## REFERENCE

- Arjana. (2008). *IKR.2008.Pengendalian Biaya Hotel. Denpasar: Sekolah Tinggi Pariwisata Bali Internasional Bartono, & Ruffino (2005). Food Product Managemen. Yogyakarta: Andi.*
- Astuti, F., & Wahyudin, W. (2021). Quality Improvement of Gentong Products Using the Seven Tools Method (Case Study: Mr. Ojid's Home Industry). *Barometer Journal*, 307–312.
- Bagyono. (2014). *Pariwisata dan Perhotelan. Alfabeta.*
- Barone, A. M., & Aschemann-witzel, J. (2022). Food handling practices and expiration dates : Consumers ' perception of smart labels. *Food Control*, 133(PB), 108615. <https://doi.org/10.1016/j.foodcont.2021.108615>
- Da-Wen, S., Varzakas, T., & Tzia, C. (2016). *Handbook of Frozen Food Processing and Packaging, Second Edition.* <https://books.google.com/books?hl=en&lr=&id=sxzOBQAAQBAJ&pgis=1>
- Firouz, M. S., Mohi-Alden, K., & Omid, M. (2021). A critical review on intelligent and active packaging in the food industry: Research and development. *Food Research International*, 110113. <https://doi.org/10.1016/j.foodres.2021.110113>
- Ginting, R., & Fattah, M. G. (2020). Production Quality Control With New Seven Tools for Defect Minimization on PT. Dirgantara Indonesia. *IOP Conference Series: Earth and Environmental Science.*
- Hadinata, S. T., & Adriyanto, H. (2020). Tinjauan Penyimpanan Sistem Fifo Pada Bahan Hewani Yang Berdampak Pada Proses Pengolahan Makanan Di Morrissey Hotel Jakarta. *Emerging Markets : Business and Management Studies Journal*, 6(2), 10.
- Hansen, T., Petersen, M. A., & Byrne, D. V. (2005). *MEAT Sensory based quality control utilising an electronic nose and GC-MS analyses to predict end-product quality from raw materials.* 69, 621–634. <https://doi.org/10.1016/j.meatsci.2003.11.024>
- Heryana, A., & Unggul, U. E. (2018). *Informan dan Pemilihan Informan dalam Penelitian Kualitatif. December.*
- Kavanaugh, M., & Quinlan, J. J. (2020). Consumer knowledge and behaviors regarding food date labels and food waste. *Food Control*, 115, 107285. <https://doi.org/10.1016/j.foodcont.2020.107285>
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2017). *Akuntansi Keuangan Menengah (Intermediate Accounting).*

- Laksmi, H. (2018). *Prosedur Pembelian Bahan Baku Pada Hotel@Homplatinum*.
- Ljusic, N., Fagerstrøm, A., Pawar, S., & Arntzen, E. (2022). *behavioral sciences Effects of Digitalized Front-of-Package Food Labels on Healthy Food-Related Behavior : A Systematic Review*.
- Martina, E., & Kurniawan, B. (2020). Peranan Purchasing Dalam Menunjang Operasional. *Jurnal Daya Saing*, 31–37.
- Miles, B. M., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook and The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: SAGE, 381 Pp.
- Minaty. (2020). *Pengertian Dapur*. 4–10.
- Mulyani, H. H. D. (2016). *Pengaruh Kualitas Bahan Baku Dan Proses Produksi Terhadap Kualitas Produk Pada UD. Tahu Rosydi PusanMaronProbolinggo.Prosiding Seminar Nasional*.
- Nursetiowati, O., & Dewi, K. (2023). *Pentingnya penerapan metode fifo dalam meningkatkan standart kualitas bahan baku di hotel*. 5(1), 46–51.
- Rika, I. P., & Andika, M. (2022). *Penerapan Metode First In First Out ( Fifo ) pada Bahan Makanan di Hotel Fairfield by Marriot Bali Legian Application of The First In First Out ( Fifo ) Method on Food Materials at Fairfield*. 01(05), 1065–1080.
- Rudianto. (2014). *No Title*. 9–17.
- Sari. (2022). *Green Products*.
- Shilda. (2016). 済無. *Journal OfiChemicaliInformation and Modeling*.
- Sudarso, A. (2016). *Managemen Pemasaran Jasa Perhotelan*. Yogyakarta: Deepublish.
- Sudjarwadi, A. (2017). *Food and Beverage Restaurant Product*.
- Sugiyono. (2013). *Metode penelitian bisnis (pendekatan kuantitatif, kualitatif dan R&D)No Title* (Cet. 17.). Alfabeta.
- Sugiyono. (2015). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*. Alfabeta.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.
- Susepti, A., Hamid, D., & Kusumawati, A. (2017). *Pengaruh Kualitas Pelayanan Terhadap Kepuasan Dan Loyalitas Tamu Hotel (Studi tentang Persepsi Tamu Hotel Mahkota Plengkung Kabupaten Banyuwangi)*. *Administrasi Bisnis SI Universitas Brawijaya*.