



## Menu Engineering on Main Course to Increase Sales

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### Article History

Received on  
23 June 2020

Revised on  
26 July 2020

Accepted on  
27 August 2020

### ABSTRACT

**Purpose:** This research is to determine the level of popularity and the level of contribution margins on the main course menu and strategies that can be done to increase food sales at a restaurant of a big hotel located in Kuta, Bali, Indonesia.

**Research methods:** The method used in this research is observation, interviews, literature study, and documentation. The data analysis technique used is the menu engineering analysis technique.

**Findings:** Among 18 main course menus, 3 or 16.7% is categorized into the high popularity level and 15 or 83.3% into the low popularity level. Fourteen menus or 77.8% have a high contribution margin level is and the menu that has a low contribution margin level is 4 menus or 22.2%. There are 3 menus or 16.7% in the plowhorse category, as many as 14 menus or 77.8% into the puzzle category, and there are 1 menu or 5% into the dog category.

**Implication:** Strategies to increase food sales are by maintaining the menu, maintaining quality and increasing food prices, promoting the menu, and considering deleting the menu or replacing it with a new menu.

**Keywords:** menu engineering, main course, contribution margin.

### INTRODUCTION

Tourism sector is one of the potential sectors and is one of the country's biggest sources of income. The advancement of a region's tourism industry is highly dependent on the number of tourist arrivals in the area. The number of tourist visits

has increased due to adequate facilities and infrastructure in the tourist destination such as hotels, restaurants, good road access, transportation, travel agents, and other infrastructure. Hotel is a form of commercially managed accommodation, provided for everyone to obtain lodging services along with food and drink and others for everyone who stays at the hotel (Sujatno in Derianto, 2015). Sulastiyono in Mertayasa (2019) stated that the hotel is a service company in the form of accommodation that prepares lodging and serves food and beverage dishes and other facilities in the hotel to the public.

The hotel which restaurant is researched provides accommodation in the form of rooms, restaurants, business centers, kids stations, SPA, gyms and other facilities that support guests' needs while staying at the hotel. The biggest revenue from this hotel apart from room revenue is derived from restaurant revenue. The purpose of the existence of a restaurant is to look for profit (Marsum WA, 2005). Restaurant is a place or building that is organized commercially, which provides good service to all guests in the form of food or drink (Marsum, 2005: 7). Sihite in Hidayat (2015) stated, restaurant is a place where someone who comes to be a guest will get service to enjoy food, whether morning, afternoon, or evening according to hours and by guests who enjoy the meal must pay according to the specified price according to the list provided at the restaurant.

One menu variant sold at the hotel restaurant is the main course menu. According to Diana (2017), menu is a list of foods that are guidelines for people who prepare food and a guide for those who enjoy it. According to Sugiarto (2001: 106), the menu is a list of prepared foods that are available in restaurants. The main course menu is the main dish of a complete menu arrangement that is served at lunch and dinner. The portion size is greater than the appetizer (Mochantoyo in Martini (2016). Agustina in Angelica (2018) wrote, the main course is a meal consisting of a large portion and complete because it contains all the nutritional components such as carbohydrates, proteins, fats, vitamins, and minerals. Gisslen in Wardana (2017) said that the main course is a main dish that is larger in portion and usually uses side dishes of beef, lamb, deer and others -other combined with processed vegetables and use garnishes or garnishes on a serving plate.

Based on data of the main course menu sales, there are menus that sell and don't sell. The number of menus that are not selling or less desirable by guests is more than the menu that sold. The menu is rarely sold in a long period of time. This

has certainly a bad impact for the company because if a decrease in sales volume occurs continuously it will cause the income of the company to experience a decline or loss due to unstable sales. From this problem it is necessary to have an appropriate method and strategy to increase sales at the restaurant.

Problems that can be formulated are which main course menu has the highest and lowest margin contribution to and what strategy that needs to be carried out by management in increasing sales at the restaurant.

## RESEARCH METHODS

The data obtained from the restaurant is in the form of data on main course menu sales for the last three months, from October to December 2019. It will be analyzed using menu engineering analysis techniques.

The object of this research is the main course menu at the hotel restaurant. The type of data used in this research consisted of qualitative and quantitative data. The data sources of this research are primary and secondary data. Data collection methods include observation, interviews, literature study, and documentation.

## FINDINGS

### **Analysis of Menu Engineering on the Main Course Menu**

Menu engineering is a technique used to evaluate menus by assessing sales volume, and contribution margins for each item on the menu and food sales margins which are then classified or grouped. From the results of the menu classification it can be seen which menu items are still feasible to maintain or not (Dittmer in Oktaviani, 2018).

The analysis of menu engineering category can be divided into 4 categories: (1) Star is a menu category that has a high level of contribution margins and high popularity, (2) Puzzle is the menu category that has a high contribution margin level and low popularity, (3) Plowhorse is a menu category that has a low contribution margin level and high popularity, (4) Dogs is a menu category that has a low contribution margin level and low popularity (Wiyasha, 2011: 137).

Based on data that has been obtained at the restaurant and has been processed using engineering menu analysis techniques, the results of this research can be seen in the following engineering worksheet menu table (Table 1).

Table 1. Analysis of Engineering Worksheet in the Period of October-December 2019

| No | Nama Item Menu    | Terjual | %  | Harga Pokok | Harga Jual | Margin Kontribusi | Total Penjualan | Total Margin Kontribusi | Kategori Margin | Kategori Bauran Menu | Klasifikasi |
|----|-------------------|---------|----|-------------|------------|-------------------|-----------------|-------------------------|-----------------|----------------------|-------------|
| 1  | Nasi Goreng       | 121     | 45 | 12,753      | 85,000     | 72,247            | 10,285,000      | 8,741,887               | L               | H                    | Plowhorses  |
| 2  | Mie Goreng        | 39      | 15 | 11,931      | 85,000     | 73,069            | 3,315,000       | 2,849,691               | L               | H                    | Plowhorses  |
| 3  | Sate              | 29      | 11 | 21,652      | 90,000     | 68,348            | 2,610,000       | 1,982,092               | L               | H                    | Plowhorses  |
| 4  | Udang Belacang    | 20      | 7  | 40,711      | 185,000    | 144,289           | 3,700,000       | 2,885,780               | H               | L                    | Puzzles     |
| 5  | Bebek Garing Ktk  | 16      | 6  | 27,851      | 155,000    | 127,149           | 2,480,000       | 2,034,384               | H               | L                    | Puzzles     |
| 6  | Chicken Breast    | 10      | 4  | 21,625      | 135,000    | 113,375           | 1,350,000       | 1,133,750               | H               | L                    | Puzzles     |
| 7  | Ayam Goreng Yogya | 7       | 3  | 20,800      | 130,000    | 109,200           | 910,000         | 764,400                 | H               | L                    | Puzzles     |
| 8  | Tasmania Salmon   | 6       | 2  | 37,650      | 235,000    | 197,350           | 1,410,000       | 1,184,100               | H               | L                    | Puzzles     |
| 9  | Ayam Betutu       | 3       | 1  | 27,751      | 155,000    | 127,249           | 465,000         | 381,747                 | H               | L                    | Puzzles     |
| 10 | Beef Florentine   | 3       | 1  | 47,705      | 265,000    | 217,295           | 795,000         | 651,885                 | H               | L                    | Puzzles     |
| 11 | Chicken Kungpao   | 3       | 1  | 18,526      | 155,000    | 136,474           | 465,000         | 409,422                 | H               | L                    | Puzzles     |
| 12 | Rendang Sapi      | 3       | 1  | 27,750      | 185,000    | 157,250           | 555,000         | 471,750                 | H               | L                    | Puzzles     |
| 13 | Ayam Kalasan      | 2       | 1  | 18,100      | 155,000    | 136,900           | 310,000         | 273,800                 | H               | L                    | Puzzles     |
| 14 | BBQ Pork Rib      | 2       | 1  | 36,900      | 205,000    | 168,100           | 410,000         | 336,200                 | H               | L                    | Puzzles     |
| 15 | Egg Any Style     | 1       | 0  | 6,475       | 50,000     | 43,525            | 50,000          | 43,525                  | L               | L                    | Dogs        |
| 16 | Ayam Cabe Hijau   | 1       | 0  | 17,050      | 155,000    | 137,950           | 155,000         | 137,950                 | H               | L                    | Puzzles     |
| 17 | Ikan Menyatnyat   | 1       | 0  | 25,362      | 210,000    | 184,638           | 210,000         | 184,638                 | H               | L                    | Puzzles     |
| 18 | Surf and Turf     | 1       | 0  | 52,100      | 345,000    | 292,900           | 345,000         | 292,900                 | H               | L                    | Puzzles     |
|    | <b>Total</b>      | 268     |    |             |            |                   | 29,820,000      | 24,759,901              |                 |                      |             |
|    |                   |         |    |             |            |                   |                 |                         | Av. CM          |                      | 92,388      |
|    |                   |         |    |             |            |                   |                 |                         | Av. Volume      |                      | 10          |

In Table 1, it can be seen that the menu has the highest and lowest popularity levels as well as the highest and lowest contribution margin levels. The following is a menu mix classification table that shows the highest and lowest popularity levels and the highest and lowest contribution margins on the main course menu at the restaurant (Table 2).

Table 2. Menu Mix Classification in the Period of October-December 2019

| No. | Menu        | Amount | BM High | %    | BM Low | %    | CM High | %    | CM Low | %    |
|-----|-------------|--------|---------|------|--------|------|---------|------|--------|------|
| 1   | Main Course | 18     | 3       | 16,7 | 15     | 83,3 | 14      | 77,8 | 4      | 22,2 |

In Table 2, among 18 main course menus sold at the restaurant, there are 3 menus that fall into the most preferred menu category or have the highest level of popularity. The three menus are fried rice, fried noodles, and satay. As for menus that are less preferred or fall into the low category there are 15 menus. The menu is shrimp, crispy duck, chicken breast, Yogya fried chicken, Tasmanian salmon, betutu chicken, beef Florentine, kungpao chicken, beef rendang, kalasan chicken, BBQ pork rib, egg any style, fish catch and surf and turf. From this, the main course menu sales have not been optimal because the popular and popular menu for tourists only

has a percentage of 16.7% and is smaller than the menus that are less desirable by tourists where the percentage of menus that are less desirable which is 83.3%.

The results of data processing also showed a large contribution margin on the menus sold at the restaurant. It can be seen in the table that the menu that has a contribution level of margins that goes into the category of high is as many as 14 menus. The menu is crispy shrimp, chicken breast, Yogya fried chicken, Tasmanian salmon, betutu chicken, beef Florentine, kungpao chicken, beef rendang, kalasan chicken, BBQ pork rib, green chilli chicken, stinging fish, and surf and turf. Whereas those with contribution margins are included in the low category with 4 menus. The menu is fried rice, fried noodles, satay, and egg any style. This shows that the main course menu sales are optimal because the percentage contribution margin of the high category is 77.8% and is greater than the contribution margin of the low category which has a percentage of 22.2% where it can provide benefits to hotel side.

After categorizing the results of menu analysis into the menu mix and contribution margin categories, the next step is to group the menus into the classification of engineering menus, namely stars, plowhorse, puzzles, and dogs. The menu classification results can be seen in the following table (Table 3).

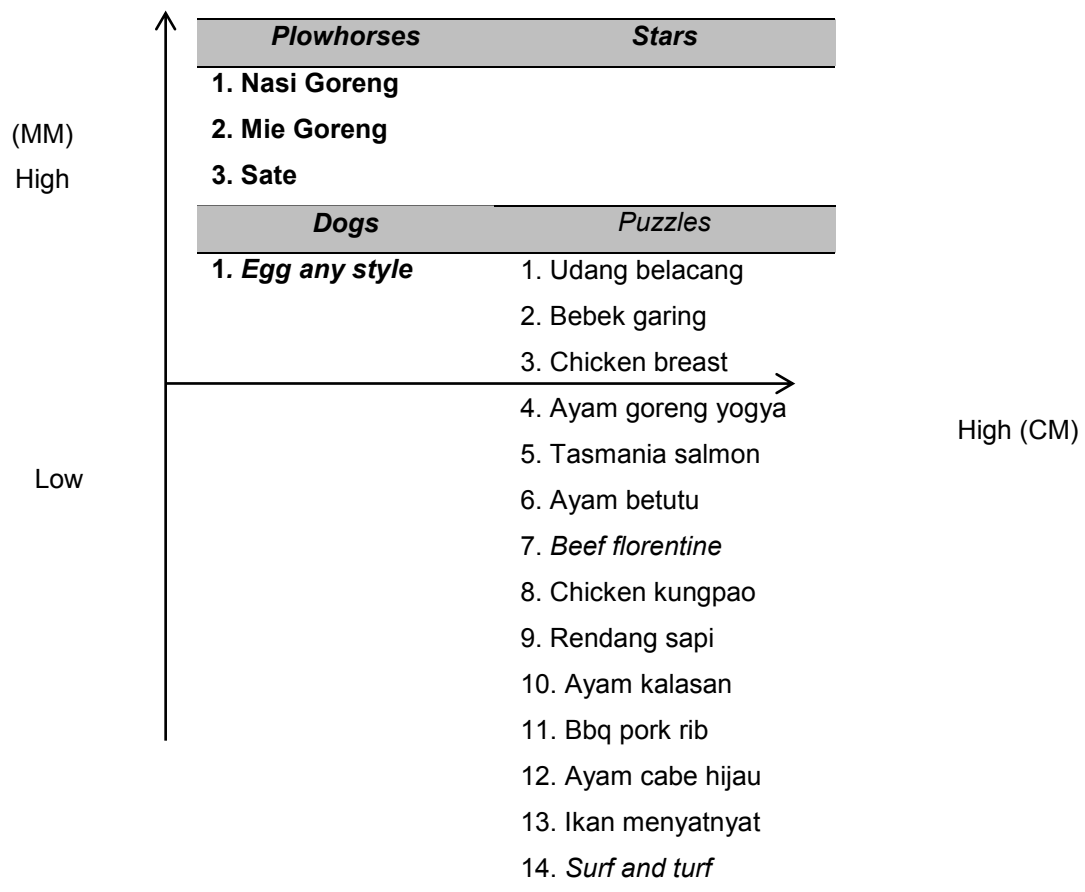
Table 3. Engineering Menu Classification in the Period of October-December 2019

| No. | Menu        | Amount | Stars | % | Plow<br>horse | %         | Puzzles | %         | Dogs | %        |
|-----|-------------|--------|-------|---|---------------|-----------|---------|-----------|------|----------|
| 1   | Main Course | 18     | 0     | 0 | 3             | 16,7<br>% | 14      | 77,8<br>% | 1    | 5,5<br>% |

In Table 3, among the 18 main course menus sold at the restaurant, none is included in the star category. Star category menu that has a high level of contribution margins or provides the greatest benefits and a high level of popularity or is the most desirable by guests. Furthermore, the menus included in the plowhorse category are 3 menus with a percentage of 16.7%. The plowhorse category is a menu that has a low contribution margin or does not provide benefits but has a high level of popularity. Furthermore, the menus included in the puzzle category are 14 menus with a percentage of 77.8%. Puzzle category is a menu that has a high level of contribution margin or that provides a large profit but low level of popularity or less desirable by guests. The last menu category is the dog category. The menu that is

included in the dog category is as much as just a menu with a percentage of 5.5%. The dog category is a menu that has a low level of contribution margins or that provides little profit and has a low level of popularity too or is less attractive to guests. From this explanation, the 18 main course menus available can be classified into the following table (Table 4).

Table 4. Menu Engineering Analysis Category in the Period of October-December 2019



After classifying the menu, the next step is to determine actions or steps that can be taken by the management of restaurant to increase sales of the main course menu.

### Strategies for Increasing Main Course Menu Sales

Based on the analysis of menu engineering on the main course menu sold at the restaurant, the steps and efforts that can be made by management in increasing sales are as follows:

1. Star category

The star menu category is a menu that has a high contribution margin level and high popularity. Efforts that can be made to increase sales in the star category menu are:

- a. Maintaining the menu is good in terms of food quality
- b. Carry out food processing in accordance with standard operational procedures in order to produce quality food and have good nutritional value.
- c. Place the menu in a strategic place on the menu list.
- d. Take into consideration the increase in selling prices if the menu is increasingly in demand so that it can increase the profits of food sales for hotels

## 2. Plowhorse Category

The plowhorse menu category is a menu that has a high level of popularity but a low contribution of margins. Efforts that can be made to increase sales in the plowhorse category menu are:

- a. Maintaining food quality such as selecting good food ingredients and using menu compositions in accordance with recipe standards.
- b. Reducing food portions gradually or slowly so that changes in the quantity of food are not too visible.
- c. Considering the purchase of cheaper foodstuffs, menu will still have quality so that it can reduce production costs.
- d. Making consideration to increase the selling price if the menu continues to be sold but still pay attention to raw materials and food quality.

## 3. Puzzle Category

Puzzle menu category is a menu that has a high contribution margin level but low popularity level. Efforts that can be made to increase sales on the puzzle category menu are:

- a. Promoting the menu being sold.
- b. Providing attractive promos such as price discounts so guests are interested in trying the menu.
- c. Place the menu in a strategic place so that it is easily seen by guests.
- d. Adjust the price of selling the menu so that it is not too expensive but does not reduce the contribution too high so that the food sales are still benefit.

## 4. Dog Category

The dog category is a menu that has a low contribution margin level and also a low level of popularity. The work that can be done on the dog category menu is:

- a. Paying attention to the quality of menus such as food ingredients, and the appearance of food when served.
- b. Making changes in the meaning and recipes of food ingredients as a whole so that it can improve food quality for the better.
- c. Make changes to the name of the menu on the menu list so that the name is more interesting.
- d. Eliminating or removing the menu from the list of menus sold because it does not contribute to the management so that it can reduce costs.

## CONCLUSIONS

Among 18 main course menus sold at the restaurant, the menu that has the highest contribution margin level or the highest profit is 77.8% or 14 menus from the total main course menu sold. The menu includes: Shrimp Belacang, Crispy Duck, Chicken Breast, Yogya Fried Chicken, Tasmanian Salmon, Betutu Chicken, Beef Florentine, Chicken Kungpao, Rendang Sapi, Kalasan Chicken, BBQ Pork Ribs, Green Chilli Chicken, Snorkeling Fish, and Surf and Surf and Turf. While the menu that has the lowest contribution margin level or which provides the lowest profit is 22.2% or 4 menus from the total main course menu sold. The menu includes: Fried Rice, Fried Noodles, Satay, and Egg Any Style.

The 18 main course menus sold have been analyzed and classified according to the categories of each menu. From these results no menus are included in the star category. Furthermore, the menu included in the plowhorse category is 16.7% or 3 menus of the total main course menus sold. The menu included in the category of puzzles is 77.8% or 14 of the total main course menus sold. The last menu category is dog. The menu that falls into the category of dog is 5.5% or only 1 menu of the total main course menu sold.

Strategies or efforts that can be carried out by management in increasing sales of main course menus at the restaurant are: (1) Star category is maintaining menu quality, and processing according to operational standard procedures. (2) Plowhorse category is maintaining food quality, reducing food position gradually, and doing a weight to increase the selling price if the menu continues to sell. (3) Puzzle category is promoting the menu sold, put the menu in a strategic place so that it is easily seen by the guests, and adjust the selling price so that it is not too expensive

but does not reduce profits for the hotel. (4) Dog category is changing food recipes, changing food names to make it more interesting, and making considerations to delete or exclude menus that do not contribute to the hotel.

## ACKNOWLEDGEMENT

The authors realize that this writing cannot be separated from the guidance, motivation and assistance of various parties. On this occasion the authors would like to thank those who have helped in the preparation of this article: I Nyoman Abdi, SE, M.eCom as the Director of Politeknik Negeri Bali, Prof. Ni Made Ernawati, MATM., Ph.D, Drs. Gede Ginaya, M.Si, Dra. Ni Nyoman Triyuni, MM, as well as the management of the hotel restaurant researched.

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