

## **THE APPLICATION OF MENU APPETIZER BASED ON MENU ENGINEERING TO INCREASE SELLING VOLUME IN EL PATIO RESTAURANT, SOL BEACH HOUSE BENOA BALI**

I Gusti Ngurah Dhyangga Prawesta Putra<sup>1</sup>, Ida Ayu Elistyawati<sup>2</sup>,  
I Made Darma Oka<sup>3</sup>

<sup>1,2,3</sup>Tourism Department, Politeknik Negeri Bali

email: [1dyangga19@gmail.com](mailto:dyangga19@gmail.com), [2ayuelistyawati@pnb.ac.id](mailto:ayuelistyawati@pnb.ac.id), [3madedarmaoka@pnb.ac.id](mailto:madedarmaoka@pnb.ac.id)

### **ABSTRACT**

Restaurant is a business that plays an essential role in tourism. The management of restaurant is always attempting to increase the sales menu by evaluating the offered menu in order to gain maximum profits. This article focuses on: (1) The application of menu appetizer based on menu engineering in El-Patio Restaurant and (2) its attempts to increase the sales volume of appetizer menu in El-Patio Restaurant. Data was collected by using observation, documentation, and intensive interviews method. Data analysis used in this research is menu engineering analysis. The result showed that from 21 items of appetizer menu analyzed, there were 47,6% or 10 menus with a high popularity level while 52,4% or 11 menus were on the low popularity level. Meanwhile, there were 7 menu items or 33,3% that has the highest contribution margin and 66,7% or 14 items with the lowest contribution margin. Then, from 21 items of appetizer menu analyzed, 28,6% or 6 menu items are categorized as star, 19% or 4 items are categorized as plowhorse, 4,8% or 1 item is categorized as challenge and 47,6% or 10 items are categorized as dog. Attempts that can be done by the management of F&B Department, Sol Beach House Benoa Bali is to improve the menu quality, promote th menu , suppress the production cost, removing unfavorable menu and develop a new menu. It is recommended for the management of F&B Department, Sol Beach House Benoa Bali to evaluate the menus with the analysis of menu engineering at least every 3 months.

Keywords: appetizer, menu engineering, contribution margin.

### **INTRODUCTION**

Sol Beach House Benoa Bali is a five stars hotel, located in Tanjung Benoa area which is famous because of its beautiful beaches as well as its various watersport activities that can be enjoyed by tourists. Sol Beach House Benoa Bali offers a comfortable resting place with various facilities such as restaurant, swimming pool, bar, SPA, gym center, kids' corner; games room, in house clinic, gift shop & shopping, foreign exchange, as well as a clean and beauty of private swimming pool. It also provides a pleasant restaurant for every tourist to fulfill their foods and beverages need.

Sol Beach House Benoa Bali has 3 restaurants and 2 bars. One of 3 restaurants owned by Sol Beach House Benoa Bali is El-Patio Restaurant, a 24 – hour's restaurant.

This restaurant provides a variety menu such as a 'la carte and buffet menu. A'la carte menu is a list with different kind of foods as well as its prices and compositions of each foods so that every hotel guests are easier and freely to choose any foods based on their budget and preferences. It usually consists of appetizer, main course, dessert as well as any kind of beverages.

Appetizer is usually called by starter, or first course. Appetizer is a first dish served that aims to arouse appetite (Cahyana and Guspri. 2009: 6). Appetizer served in a small portion (70– 100 gram) so that it doesn't glut and has salty, savory, and wry taste, as well as it is also presented with appealing look to attract.

EI-Patio Restaurant, Sol Beach House Benoa Bali always attempts to create an attractive menu list for the customers. The offered appetizer menu starts from Indonesia appetizer, Asian and Spain with various prices, ranging from Rp. 50.000 to Rp. 75.000. With delicious taste to arouse appetite, this price is affordable for customers. Besides, it helps tourists to choose and order foods, menu list also help the restaurant in recapping foods amount that are ordered by the customers. It certainly helps the restaurant to identify the food sales volume whether it has decreased or increased.

Table 1  
 Sales Volume of Appetizer Menu at EI-Patio Restaurant, Sol Beach House Benoa Bali 2015– 2017 (Portion)

Food Name	Year			Total
	2015	2016	2017	
Calamaries ala Romana	93	63	66	222
White bean soup	0	0	8	8
Garden salad	47	43	35	125
Quesadilla	149	101	104	354
Caesar salad	154	119	98	371
Cobb salad	59	45	26	130
Beef & orange salad	0	0	9	9
Rocket grape & walnut salad	0	0	16	16
Gazpacho	52	58	31	141
Potato & leek soup	80	56	57	193
Cucumber yogurt soup	0	0	20	20
Tom yam goong	0	0	37	37
Gado-gado	51	37	37	125
Lumpia semarang	119	111	112	342
Soto ayam	70	56	43	169
Chicken porridge	0	0	9	9
Fried dim sum	0	0	16	16
Sate lilit ayam & lawar kacang	0	0	18	18
Won ton soup	0	0	27	27

Noodle soup	0	0	30	30
Udang saos tomat	0	0	14	14
<b>Total</b>	<b>874</b>	<b>689</b>	<b>813</b>	<b>2376</b>

Source: F&B Department, Sol Beach House Benoa Bali (2018).

Table 1 showed that sales of appetizer menu at El-Patio Restaurant are decrease for some menus within year 2015-2017. It is caused by many factors such as product's quality, service, promotion, the amount of visited customers from 2015–2017, as well as customer's interest to the menu that is offered. The sales of appetizer menu will certainly affect to the turnover received by El-Patio restaurant. The increasing of sales volume of appetizer will be in line with profits and turnover gained. Similarly, profits and turnover gained by restaurant will also decrease if the decrement within the sales of appetizer occurred. There are several ways to overcome with the decrement of appetizer sales, one of them is by evaluating the menus or applying the menu engineering.

Menu engineering is a gradual process which is designed to help the management in evaluating the current and future menu prices, menu composition, as well as designing decisions upon prices and menus (Ninemeier, 2009: 122). It is used to measure menu ability in fulfilling customer's desire as well as identify the profits distribution that is gained by the restaurant from foods and beverages sales (Puri, 2015). By implementing this menu engineering, it helps the management to assess the development of food sales in El-Patio Restaurant which will affect the profits gained by them. Therefore, this article examines "The Application of Menu Appetizer Based on Menu Engineering to Increase Selling Volume in El Patio Restaurant, Sol Beach House Benoa Bali".

## RESEARCH METHOD

This research conducted in El-Patio Restaurant by considering the amount of appetizer menu sales which is decreased from 2015–2017. It used secondary data, sourced from F&B Department of Sol Beach House Benoa Bali through observation, documentation, and intensive interview. The analysis technique used in this research is menu engineering analysis. Menu engineering is a gradual process that helps management to evaluate the current and future menu, prices, design, as well as the menu content.

In doing menu engineering analysis, there are several things that need to be known, such as: Contribution Margin. According to Wiyasha (2011: 196), contribution margin (CM) is the difference of selling price with variable cost of each unit. Rayburn (1999: 3) explains that the contribution margin is the result of reduced sales variables for production, marketing, and administration. Contribution margin is the available sales proceeds to cover fixed costs and make profits, which can be stated in total, amount of each unit, or made in the form of percentage. Formula used to determine contribution margin is as follows: Contribution Margin = Selling price– cost of goods sold of certain item..... (1).

Formula used to determine the popularity level of a menu is (Wiyasha (2011: 137 – 138): Popularity leve =  $70\% \times 1n \times N$ ..... (2)

Note:

70% = Proportion of menu item sold as well as the minimum limit to be achieved

n = Amount of items offered

N = Amount of portion sold

The next step is to enter the data that has been obtained from F&B Department Sol Beach House Benoa Bali into the worksheet of menu engineering. After entering the data, the calculation is made to obtain the menu classification. There are calculation used as follows:

a. Sales = Amount sold divided with the total sold x 100%

b. Total sold = Amount sold x selling price

c. Total of Contribution Margin = Amount sold x contribution margin

d. Av. CM = Total of contribution margin divided with total sold.

After calculating by using menu engineering method, food menu classification is obtained according to the menu mix which refers to the popularity of a menu item, and contribution margin which based on its selling prices as well as the food cost or gross profits which are obtained from each product.

Table 2  
 Menu Classification

MM Ranking	CM Ranking	Classification
High	High	Star
High	Low	Plowhorse
Low	High	Challenge
Low	Low	Dog

Source: Ninemeier (2009: 125).

Table 2 explained that menu can be classified after calculating the menu mix and contribution margin from each menu. If MM is as high as CM, the menu is classified into star. If it has a high number of MM, but the CM is low, the menu is classified into plowhorse. If both MM and CM is low, the menu is classified into dog menu. According to the menu classification's result, it can be known which menus that are classified into popular and unpopular. Menu is considered to be popular if it is profitable or has a high number of MM and CM, Meanwhile, if the menus have a low number of MM and CM, it is considered to be unpopular.

## RESULTS AND DISCUSSION

Menu engineering is a method used to evaluate the current and future of menu price, design, and decision making (Mulyani et al, 2014). Menu engineering analysis within a restaurant is essential in order to increase the sales number and determine which menu that has a high as well as the low profits. By doing menu analysis, it will certainly help the restaurant management to take steps and determine the right strategy to increase the sales of appetizer menu. Before moving further, the obtained data from company will be included in the analysis of menu engineering worksheet. There are some steps to analyze the menu engineering further as follows:

1. Calculating the Percentage of Sales

$$\% \text{ Sales} = \frac{\text{Amount Sold}}{\text{Total Sold}} \times 100\%$$

2. Calculating Contribution Margin for each food variant

$$MK = \text{Selling Price} - \text{Basic Food Cost}$$

3. Calculating the Total Sales

$$\text{Total Sales} = \text{Amount Sold} \times \text{Food's Selling Price}$$

4. Calculating the Total of Contribution Margin

$$\text{MK Total} = \text{Amount Sold} \times \text{Contribution Margin}$$

5. Determining the category of contribution margin for each appetizer menu. The first step is determining the average contribution margin rate by dividing the total contribution margin with the total sold.

$$\text{CMAchievementRate} = \frac{\text{Total Contribution Margin}}{\text{Total Sold}}$$

6. Determining the category of popularity level

$$\text{Popularity level} = 70\% \times \frac{1}{n} \times N$$

Worksheet upon the result of menu engineering analysis in El-Patio Restaurant, Sol Beach House Benoa Bali ranged from 2015 – 2017 is presented as follows.

Table 3  
Menu Engineering Worksheet in El-Patio Restaurant, Sol Beach House Bena  
Bali, ranged from 2015 – 2017

Menu Item Name	Number of Sold (Portion)	Popularity (%)	Item Food cost (Rp)	Selling Price	Margin Contribution	Total Revenue	Total Margin Kontribusi	Margin Kontribusi Category	Menu Mix Category	Classification
Calamaris ala Romana	222	9,3%	Rp 11.421	Rp 65.000	Rp 53.579	Rp 14.430.000	Rp 11.894.538	H	H	STAR
White Bean Soup	8	0,3%	Rp 13.431	Rp 50.000	Rp 36.569	Rp 400.000	Rp 292.552	L	L	DOG
Garden Salad	125	5,3%	Rp 7.359	Rp 65.000	Rp 57.641	Rp 8.125.000	Rp 7.205.125	H	H	STAR
Quesadilla	354	14,9%	Rp 8.221	Rp 65.000	Rp 56.779	Rp 23.010.000	Rp 20.099.766	H	H	STAR
Caesar Salad	371	15,6%	Rp 8.071	Rp 65.000	Rp 56.929	Rp 24.115.000	Rp 21.120.659	H	H	STAR
Cobb Salad	130	5,5%	Rp 13.387	Rp 65.000	Rp 51.613	Rp 8.450.000	Rp 6.709.690	H	H	STAR
Beef & Orange Salad	9	0,4%	Rp 12.195	Rp 60.000	Rp 47.805	Rp 540.000	Rp 430.245	L	L	DOG
Rocket Grape & Walnut Salad	16	0,7%	Rp 15.782	Rp 60.000	Rp 44.218	Rp 960.000	Rp 707.488	L	L	DOG
Gazpacho	141	5,9%	Rp 8.991	Rp 40.000	Rp 31.009	Rp 5.640.000	Rp 4.372.269	L	H	PLOWHORSE
Potato & Leek Soup	193	8,1%	Rp 8.974	Rp 50.000	Rp 41.026	Rp 9.650.000	Rp 7.918.018	L	H	PLOWHORSE
Cucumber Yogurt Soup	20	0,8%	Rp 8.538	Rp 40.000	Rp 31.462	Rp 800.000	Rp 629.240	L	L	DOG
Tom Yam Goong	37	1,6%	Rp 15.813	Rp 60.000	Rp 44.187	Rp 2.220.000	Rp 1.634.919	L	L	DOG
Gado-Gado	125	5,3%	Rp 9.330	Rp 60.000	Rp 50.670	Rp 7.500.000	Rp 6.333.750	H	H	STAR
Lumpia Semarang	342	14,4%	Rp 12.180	Rp 60.000	Rp 47.820	Rp 20.520.000	Rp 16.354.440	L	H	PLOWHORSE
Soto Ayam	169	7,1%	Rp 10.489	Rp 50.000	Rp 39.511	Rp 8.450.000	Rp 6.677.359	L	H	PLOWHORSE
Chicken Porridge	9	0,4%	Rp 10.830	Rp 60.000	Rp 49.170	Rp 540.000	Rp 442.530	L	L	DOG
Fried Dim Sum	16	0,7%	Rp 12.432	Rp 60.000	Rp 47.568	Rp 960.000	Rp 761.088	L	L	DOG
Sate Lilit Ayam & Lawar Kacang	18	0,8%	Rp 12.074	Rp 60.000	Rp 47.926	Rp 1.080.000	Rp 862.668	L	L	DOG
Won Ton Soup	27	1,1%	Rp 9.429	Rp 50.000	Rp 40.571	Rp 1.350.000	Rp 1.095.417	L	L	DOG
Noodle Soup	30	1,3%	Rp 9.055	Rp 50.000	Rp 40.945	Rp 1.500.000	Rp 1.228.350	L	L	DOG
Udang Saos Tomat	14	0,6%	Rp 14.214	Rp 75.000	Rp 60.786	Rp 1.050.000	Rp 851.004	H	L	CHALLENGE
Total	2376						Rp 117.621.115		Av. CM	Rp 49.503,84
									Av. Volume	79,2

Source: *Data Processed.*

Table 3 showed that there are 10 appetizer menus with a high popularity level, while 11 appetizer menus are on low popularity level. Within contribution margin, there are 7 appetizer menus with a highest number of contribution margin while 14 appetizer menus are on the lowest number of contribution margin. It means that out of 50% of the total of offered appetizer menu are having a low rate of popularity and contribution margin. This research is similar with the previous study, conducted by Puri (2015) which stated that half of the dessert menus in The Roses Restaurant are unpopular with a low number of contribution margin. This research is slightly different with the research result conducted

by Hernowo (2014) as most of menus in Katumiri Coffee Shop have a high rate of popularity. In order to know more clearly upon the existing menu group, the related data of menu classification based on its category is presented as follows.

Table 4  
 Appetizer Menu Classification in EI–Patio Restaurant, Sol Beach House Benoa Bali,  
 Ranged from 2015-2017.

<b>Plowhorse</b> (4 menus or 19%)	<b>Star</b> (6 menus or 28,6%)
Gazpacho Potato & Leek Soup Lumpia Semarang Soto Ayam	Calamaries ala Romana Garden Salad Quesadilla Caesar Salad Cobb Salad Gado-gado
<b>Dog</b> (10 menus or 47,8%)	<b>Challenge</b> (1 menu or 4,8%)
White bean Soup Beef & Orange Salad Rocket Grape & Walnut salad Cucumber Yogurt Soup Tom Yam Gong Chicken Porridge Fried Dim Sum Sate lilit Ayam & Lawar Kacang Wonton Soup Noodle Soup	Udang Saos Tomat

Source: *Data Processed.*

Table 4 showed that most of offered appetizer menus are classified into dog category. This research is different from the research conducted by Mulyani et al (2014) that resulted as most of patisserie menus in Grand Jatra Balikpapan Hotel is classified into plowhorse. To overcome with the high number of menus that are classified into dog as well as increase the sales for the entire appetizer menu, the management of EI–Patio Restauran, Sol Beach House Benoa Bali is able to make efforts as follows:

1. For star category, things that can be done is by maintaining the menus quality, put them strategically in the menu list, always recommend them to the customers, and supervise the basic food price as well as the use of food ingredients.
2. For plowhorse category, things that can be made is to reduce the production cost by controlling the procurement of ingredients, processing to the food presentation,



concerning the replacement of ingredients which is cheaper but with has the equal quality, and always recommend the plowhorse menus to customers.

3. For the challenge category, things that can be done is by doing any changes to the appearances of food presentation, always recommend the challenge category menus to customers, reduce the selling price of foods by still concerning to the price of food's ingredients used, as well as adding the challenge category menus into a special event held by hotel.
4. For dog category, things that can be done is by putting dog category menus strategically into menu layout / menu list, making overall changing to the menu composition, rename the menus to be more attractive for the customers, develop the new menus by doing any new innovations as well as concerning to delete any dog category menus.

## CONCLUSION

According to the research of the application of appetizer menu engineering based the increase the sales volume in El-Patio Restaurant, Sol Beach Benoa Bali, it can be concluded as follows: From 21 menu items analyzed, there were 10 menu items (47,6%) that has a high level of popularity, while the rest for around 11 menu items (52,4%) are on the low level of popularity. Within contribution margin, 7 menu items (33,3%) has a high contribution margin while 14 menu items (66,7%) has a low contribution margin. Furthermore, there were 6 menu items (28,6%) are classified into star category, 4 menu items (19%) are on plowhorse category, 1 menu item (4,8%) were challenge category, and 10 menu items (47,6%) are classified into dog category.

Attempts that are done to increase the sales number of star category is by maintaining the menu's quality, putting star category menus strategically in the menu list, and keep recommending star category menus to customers. For plowhorse category, it can be done by reducing the production cost of plowhorse category menus, concerning the replacement of ingredients which is cheaper but with has the equal quality, and always recommend the plowhorse menus to customers. In challenge category, things that can be done is by doing any changes to the appearances of food presentation, always recommend the challenge category menus to customers. Meanwhile, in dog category,

things that can be done is by making overall changing to the menu composition, develop the new menus by doing any new innovations as well as concerning to delete any dog category menus.

Based on the result of the study as well as the conclusion above, it can be suggested that: The management of F&B Department, Sol Beach House Restaurant to do a menu evaluation by using the menu engineering analysis for at least every 3 months in order to determine the right attempts in increasing the sales number of appetizer menu in El-Patio Restaurant, Sol Beach House Benoa Bali. The whole staffs and management of Sol Beach House Benoa Bali have to continue the promotion of the entire appetizer menu, either it is star, plowhorse, challenge, or dog category in order to increase the popularity rate of menus and provide a massive profit. The management of Sol Beach Benoa Bali has to pay attention to tourist's interest in order to create new innovations of foods so it suits within tourist's taste and desire.

## REFERENCES

- Cahyana, Cucu dan Guspri Devi Artanti. 2009. *Buku Pintar Pengolahan Hidangan Kontinental: Hidangan Pembuka Dingin-Cold Appetizer*. Jakarta: PT. Gramedia Pustaka Utama.
- Hernowo, Andrew. 2014. "Rekayasa Menu di Katumiri Coffee Shop The Travelhotel Cipaganti Bandung".
- Mulyani, Yogiana, Ramli, and Tuatul Mahfud. 2014. "Analisis Menu Engineering Hotel Grand Jatra Balikpapan sebagai Langkah Penetapan Menu Cycle Praktikum Patiseri Program Studi Tata Boga Politeknik Negeri Balikpapan". *Jurnal Sains Terapan No. 1 Vol. 1*.
- Ninemeier, Jack D. 2009. *Planning and Control for Food & Beverage Operation*. Orlando: American Hotel & Lodging Educational Institute.
- Puri, Suharyanti Wahyu. 2015. "Strategi Berbasis Menu Engineering dalam Upaya Meningkatkan Volume Penjualan Menu Dessert di The Rooses Restaurant The Amaroossa Hotel Bandung". *Skripsi Dipublikasikan*. Universitas Pendidikan Indonesia, Bandung.
- Rayburn, L. Gayle. 1999. *Akuntansi Biaya Edisi Keenam*. Jakarta: Erlangga.
- Wiyasha, IBM. 2011. *Akuntansi Manajemen untuk Hotel dan Restoran*. Yogyakarta: Andi Offset