THE EFFECT OF MENU DESIGN ON CUSTOMER PURCHASE INTENTION: A CASE STUDY OF ‘WAROENG MAS KEMAL’ RESTAURANT

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ABSTRACT

The purpose of this study is to investigate whether the elements of menu design have a significant effect on customer purchase intention in Waroeng Mas Kemal Restaurant, thus providing better comprehension regarding the implementation of menu design elements related to customer purchase intention. The study employs a questionnaire as the main data collection, which addressed the customers who ate at Waroeng Mas Kemal Restaurant within a two month period. The questionnaire contains questions and statements regarding the customers’ general information, as well as their opinion towards the menu design. The gathered data was later analyzed using multiple regressions technique.

Purchase intention is affected by menu design variables, in which the menu’s cover design has the highest contribution, followed by font style and description. Meanwhile, pictures and sizes do not have any effect towards customer purchase intention.

The study suggests, the restaurant management need to develop better menu design, especially focusing on the menu’s cover design, font style and description in order to increase sales and profits for their restaurant.

Keywords: Menu design, Menu appearance, Menu message, Picture, Purchase intention

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INTRODUCTION

Nowadays, many people are seeking diverse experiences while enjoying their leisure time. Leisure services like hotels and restaurants generally offer customers the opportunity to spend extended periods of time in the physical surroundings of the service provider. The customers experience the service while consuming the service (Turley & Fugate, 1992). One of the places that could attract people to come and enjoy their leisure time is a restaurant as it can be an alternative dining area for people besides their home.

The restaurant industry has become one of the major hospitality businesses. A study has shown that consumers spend 49% of their budget food in restaurants, in contrast with only 25% in 1995 (National Restaurant Association, 2011). It seems that the restaurant industry has made many improvements in many aspects of its services. In Indonesia, the food and beverage industry’s prospects looked healthy with a rise of 7 - 8% in 2011 (Gabungan Pengusaha Makanan dan Minuman Indonesia, 2011).

A memorable experience is something that restaurateurs should focus on developing and delivering to the customers. Therefore, in making a better food service, a restaurateur should begin with developing its menu (Holtzman, n.d.). Developing a menu becomes important to give competitive advantages for a restaurant. A menu can be a character that gives a “professional speech” (Bowen & Morris, 1995) on behalf of the restaurant. A menu lists all of the food and beverage items offered by a restaurant, and it can act as a contract between the restaurant and its customers. When the restaurant delivers food or beverages, they should resemble those indicated on the menu list. Thus, it becomes an important part of marketing strategy, which could enable an increase in sales. An attractive menu design has a causal impact on sales (Arnoult, 1998; Korrey, 1998).

Waroeng Mas Kemal is an independent restaurant that positioned its food and beverages to be one of their main selling points by offering unique products on the menu. The researcher realizes that there is a
need to investigate the effectiveness of menu design on customer purchase intention at Waroeng Mas Kemal Restaurant.

THEORETICAL FOUNDATION

Restaurant Concept
Originally, the word ‘restaurant’ comes from the French word ‘restaurant’ which means ‘restorer of energy’. In the mid-1700s the word restaurant meant a public places that offered soup and bread, but nowadays the concept of a restaurant is wider. A restaurant is a for-profit food service operation whose primary business involves the sale of F&B products to individuals and small groups of guests. (Ninemeir, Jack D. Hayes, David K., 2006). Every restaurant has its own characteristics that could be defined based on its service, food, and pricing. Powers and Barrows (2006) classified restaurants into two types; the dining market (restaurants that primarily serve social needs; fine dining, casual dining restaurants) and the eating market (restaurants that primarily serve biological needs; quick-service restaurants).

Established in 2010, Waroeng Mas Kemal is a casual dining with family style restaurant that serves authentic Javanese cuisine and seafood. Waroeng Mas Kemal’s specialty food, ‘bloar’ 3 that originated from Central Java cuisine, is named for its spicy taste. The taste is similar to Tom Yum (Thai cuisine), which is sour and spicy, but with a more Indonesian flavour. Mas Kemal Rausyan Fikri, who is the founder of the restaurant, realized that besides the food, restaurant design and location, there is another factor, which affects customer’s interest when they want to purchase the products. One of the essential parts when forming a successful restaurant is creating an appealing menu design.

The Concept of Menu Design
The menu is essential for internal marketing and as a sales tool for a restaurant to sell its food and beverages to customers. The menu

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3**bloar**: a soup-like dish, consisting of meat, tofu, and spices originally from West Java, Indonesia.
communicates what will be offered, indicates the type of service to be expected, and reflects the amenities that will become the guest’s dining experience (Reynolds & Taylor, 2009). The menu is a printed medium that lists food and beverages to be read by the guest (Pavesic, 2005). It can be printed to fit the hand, board-sized, or even digital as long as the customers can read about all of the menu items that are available in the restaurant. Moreover, the menu design has to be congruent with the concept and image of the restaurant and effectively communicate the overall dining experience to the guest. It introduces the customer to the restaurant regarding the décor, service, food quality and the price range. A properly designed menu enables a restaurant to achieve its goals. The process of designing an effective menu must be properly planned using certain theories and practices that have already been conducted by professional restaurateurs.

There are several important menu design factors that have been used in restaurants, such as: menu cover, overall size, materials, and the menu message, which is made up of description, type style, and layout (Ninemeier, Jack, Hayes, & David, 2006). McCall and Lynn discussed the idea of menu design as a fundamental form of psychology:

“Menu designers and restaurateurs should selectively choose what to appear on the menu. In other words, it has to be objective on what items to include or delete on the data. Place desirable and profitable items where consumers will notice them, as well as use pictures of items, which reflect the products.” – (McCall and Lynn, 2008, p. 444)

**Concept of Purchase Intention**

Intentions are possibly the best predictor of actual behavior (Fishbein & Ajzen, 1975). According to Monash University of Business and Economics, the definition of purchase intention is:

“The likelihood that a consumer will buy a particular product resulting from the interaction of his or her need for it, attitude towards it and perceptions of it and of the company which produces it” – (Monash University of Business and Economics, 2010)
Referring to the statement above, purchase intention helps a companies and researchers answer essential questions about the number of products that they should supply, given the demand predicted. Purchase intention is frequently used as a foundation to predict actual purchases (Newberry, Klemz, & Bonshoff, 2003). Newberry, Klemz, & Bonshoff (2003) further explained that purchase intention is insufficient for a purpose compared to actual purchase behavior data. Thus, so many management teams are mistaken when understanding purchase intention as being the same as purchase behavior, and therefore they would incur a loss for any product that they used for forecasting purchase behavior. According to Morrison (1979), the collection of actual purchase data assists with the inquiry of stated intention in order to facilitate the assessment of purchase intention. Based on the literature, the following hypotheses are formulated:

**H₀**: Menu’s cover, size, description, font style, and pictures as elements of menu design have no significant effect on costumers purchase intention.

**H₁**: Menu’s cover, size, description, font style, and picture as elements of menu design have a significant effect on costumers purchase intention.

Based on previous studies and research, the researcher is examining the effectiveness of menu design by applying similar theories and measurements. However, there are several adjustments from the research literature, such as the factors of menu design. For instance, material and placement factors that were applied in previous research have been removed.

**RESEARCH METHODOLOGY**

The objective of this research is to investigate whether each element of menu design has an effect towards customer purchase intention in Waroeng Mas Kemal. Thus, by measuring the effects of variables of menu design that influence customers’ intent to purchase, this research would also enable better menu design and better comprehension of what approach of menu design elements relate to.
purchase intention. The framework in Figure 1 shows the hypotheses that are used to show the effect of menu design towards customer purchase intention in Waroeng Mas Kemal Restaurant:

**Figure 1.** The research model of menu design – purchase intention

An attractive menu, which is developed through menu design elements such as menu’s cover, size, description, font style, and picture, can influence customers’ purchase intention.

**H₃:** *Menu’s cover, size, description, font style, and picture as elements of menu design have significant effects on customers' purchase intention.*

With the best selection of a menu cover such as inclusion of a display cover, photograph, and its design - related with the restaurant’s theme - will significantly have an effect on intention to purchase.

**H₁:** *Cover (X₁) as one of elements of menu design has a significant effect on purchase intention (Y).*
The overall size of the menu can help customers or create difficulty to read the menu. Hence, by using large or small overall size of menu could significantly affect the intention to purchase.

**H2**: Size (X2) as one of elements of menu design has a significant effect on purchase intention (Y).

Information about ingredients, history, and nutrition will help customer’s familiarize themselves with the menu items, thus the use of menu descriptions have significant effects on purchase intention.

**H3**: Description (X3) as one of elements of menu design has a significant effect on purchase intention (Y).

Restaurateurs can choose variations of font style for enhancing their menu design. By using font colors, font sizing, font characters, emboldening, and italicizing fonts, will significantly affect customer’s intention to purchase.

**H4**: Font style (X4) as one of elements of menu design has a significant effect on purchase intention (Y).

Using pictures that reflect the menu item or product will help customers in visualizing what the food or beverage will look like, which significantly affects customer’s intention to purchase.

**H5**: Picture (X5) as one of elements of menu design has a significant effect on purchase intention (Y).

The questionnaire addressed customers who eat at Waroeng Mas Kemal Restaurant, and contains both questions and statements pertaining to the customers’ general information, as well as their opinion towards the menu design. This research used SPSS 16 as the statistical software in conducting three data analyses, which were a reliability test, a validity test, and a multiple linear regression.

**DATA ANALYSIS**

This section will explain about the results of the data that have been collected through the questionnaire in a natural setting, where work proceeds normally and with minimal interference from the researchers. The data collation process managed to obtain 211 eligible
responses, ready for further analyses. The data will be illustrated in a pie chart, a bar chart and a table with descriptive statistics.

Demographic Information of Waroeng Mas Kemal’s Respondents

Reliability Analysis
In this research, the author uses Cronbach’s Alpha, in which, if the value of Cronbach’s Alpha for any variables is below 0.60 it means that the variable is considered to be poor and would have to be removed in order to increase the inter-item consistency measurement (Sekaran and Bougie, 2010).

Table 1. Reliability Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>N of Item</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>0.832</td>
<td>4</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
<tr>
<td>Size</td>
<td>0.827</td>
<td>2</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
<tr>
<td>Description</td>
<td>0.806</td>
<td>3</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
<tr>
<td>Font Style</td>
<td>0.865</td>
<td>4</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
<tr>
<td>Picture</td>
<td>0.786</td>
<td>3</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.691</td>
<td>5</td>
<td>&gt; 0.6 RELIABLE</td>
</tr>
</tbody>
</table>

Validity Analysis
Validity analysis is a method of data analysis to measure the degree of the results that can be accurately interpreted and applied. The researcher used convergent validity where the function is to indicate a high degree of correlation between two different variables in the same measure (Sekaran & Bougie, 2010). The r-value will be based on the measurement for minimum convergent validity that every variable should obtain more in order to get valid data. The r-value that was obtained in this result is 0.14 meaning that every question inside one variable that exceeded the r-value has a high degree of correlation.
Table 2. Validity Result and Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Items (questions)</th>
<th>Corrected Item - Total Correlation</th>
<th>r – value (Convergent Validity)</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>CV1</td>
<td>0.629</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CV2</td>
<td>0.724</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CV3</td>
<td>0.712</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>CV4</td>
<td>0.586</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td>Size</td>
<td>SZ1</td>
<td>0.706</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>SZ2</td>
<td>0.706</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td>Description</td>
<td>DS1</td>
<td>0.702</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>DS2</td>
<td>0.638</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>DS3</td>
<td>0.630</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td>Font Style</td>
<td>FS1</td>
<td>0.718</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>FS2</td>
<td>0.690</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>FS3</td>
<td>0.703</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>FS4</td>
<td>0.758</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td>Picture</td>
<td>PC1</td>
<td>0.500</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PC2</td>
<td>0.648</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PC3</td>
<td>0.753</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>PI1</td>
<td>0.607</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PI2</td>
<td>0.473</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PI3</td>
<td>0.425</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PI4</td>
<td>0.357</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
<tr>
<td></td>
<td>PI5</td>
<td>0.418</td>
<td>&gt; 0.14</td>
<td>VALID</td>
</tr>
</tbody>
</table>

Multiple Regression Result
The aim of multiple regressions is to learn more about a dependent variable and several independent dependent variables, because both variables are correlated. Therefore, in this research, the authors desire to see the outcome between independent variables towards dependent variable and the estimate of the value on dependent variable based on the values of independent variables. Indeed, by using the multiple regression method, this study seeks to find the effect of cover, size, description, font style and pictures on purchase intention. Further explanations will be given in the graphs below:
Table 3. Model Summary & ANOVA

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>R Square</th>
<th>F</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H0: Menu’s cover, size, description, font style, and picture as elements of menu design have no significant effect on customers purchase intention</td>
<td>0.479</td>
<td>36.672</td>
<td>0.000</td>
<td>Accepted Hα</td>
</tr>
<tr>
<td>H1: Menu’s cover, size, description, font style, and picture as elements of menu design have significant effect on customers purchase intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regression analysis was conducted for this research and the result showed the significance of menu design elements (picture, font-style, size, cover, and description) is 0.000, which is below 0.05. It means that the Hα is supported. Moreover, from this result the researcher found that the use of menu design elements could affect customers purchase intention, instead of the H0 statement that stated menu designs elements have no effect on customers purchase intention. Indeed, a menu’s cover, size, description, description, font style, and picture as elements of menu design have significant effects on customers purchase intention. Thus, the null hypothesis is rejected.

Table 4. Multiple Regression Result (Coefficient)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>B</th>
<th>Partial Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Cover</td>
<td>0.245</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: Size</td>
<td>0.66</td>
<td>0.126</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: Description</td>
<td>0.113</td>
<td>0.054</td>
<td>Accepted*</td>
</tr>
<tr>
<td>H4: Font Style</td>
<td>0.225</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5: Picture</td>
<td>0.013</td>
<td>0.795</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

* Even though the result exceeds the significant level of 0.05, the value is still very close to the significant level, which is 0.054 thus the researcher still includes this result.

In purchase intention as a dependent variable, there are five independent variables that affect purchase intention, which are cover, size, description, font style and picture. After that, based on the result of the data that the researcher obtained the most important factor of menu design that affects purchase intention in Waroeng Mas Kemal.
Restaurant is the menu cover. Furthermore, the results indicate if the value of cover increases by 1 it means that the value of purchase intention will increase by 0.245. The value of purchase intention can increase by 0.066 if the value of the size variable also increases by 1. The description variable will contribute to the value of purchase intention by 0.113 if the value of description increases by 1. Font style will also affect the value of purchase intention by 0.225 if the value of font style increases by 1. Last but not least, if the value of picture increases by 1 the value of purchase intention will increase by 0.013.

Multiple regression equations:
\[ Y = \text{Constant} + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 \ldots \]

Thus, the result for the multiple regression equations can be defined as following the formula:
\[ Y_{\text{PI}} = 1.122 + 0.245X_{\text{Cover}} + 0.066X_{\text{Size}} + 0.113X_{\text{Description}} + 0.225X_{\text{Font Style}} + 0.013X_{\text{Picture}} \]

The results show the significance of the overall regression equation and the partial significance of every variable. With the maximum value of significance of 0.05, the results indicate that 3 from 5 of the regressions are significant. For the description regression the researcher give an exception, since the value of partial significance exceeded the significant level 0.05 but the value was still close to the significant level at 0.054.

**H\text{01}:** Cover (X1), as one of the elements of menu design has no significant effect on purchase intention (Y)

**H1:** Cover (X1), as one of the elements of menu design has a significant effect on purchase intention (Y)

As shown in Table Multiple Regressions Result (Coefficient), the partial significance for regression of the cover variable is 0.000. H1 is supported, meaning that the cover as independent variable has systematic association with the dependent variable in the model. It also indicates that cover as one of elements of menu design has a significant effect on purchase intention.

**H\text{02}:** Size (X2), as one of the elements of menu design has no significant effect on purchase intention (Y)
H2: Size (X2), as one of the elements of menu design has a significant effect on purchase intention (Y)

H2 is not supported as shown in table 4.15, as the partial significant for regression for H2 is above the maximum significance level, which is 0.126, meaning that size of the menu, as one of elements of menu design has not significantly affected purchase intention in Waroeng Mas Kemal Restaurant.

H03: Description (X3), as one of the elements of menu design has no significant effect on purchase intention (Y)
H3: Description (X3), as one of the elements of menu design has a significant effect on purchase intention (Y)

Based on the result in table 4.15, H3 is supported. Although the result exceeds the significance level of 0.05 the value is still very close at 0.054, thus the researcher still tolerates this result. Moreover, customers in Waroeng Mas Kemal Restaurant mentioned during the study that the use of description as one of the menu design elements can make a menu become attractive and thus influence purchase intention.

H04: Font style (X4), as one of the elements of menu design has no significant effect on purchase intention (Y)
H4: Font style (X4), as one of the elements of menu design has a significant effect on purchase intention (Y)

The H4 result is supported as is shown in table 4.15. The partial significance for this regression is 0.000 meaning that font style as one of elements of menu design has a significant effect on purchase intention. The variable represents the use of font style that can make a menu more attractive and readable.

H05: Picture (X5), as one of the elements of menu design has no significant effect on purchase intention (Y)
H5: Picture (X5), as one of the elements of menu design has a significant effect on purchase intention (Y)

Based on the result on the table 4.15, H5 is not supported because this partial significant regression was 0.795, which is above 0.05.
Therefore, the use of pictures as one of elements of menu design has no significant effect on purchase intention.

**CONCLUSION AND RECOMMENDATION**

Based on the demographic data that has been collected, most of Waroeng Mas Kemal Restaurant’s customers are men in the age group of 16-25 years old. Most have a high school education and mostly work as private employees. Their monthly income is in the range of Rp 500,000 – Rp 4,999,999. They tend to spend less than Rp 50,000 per person to eat there. Most of the customers lived in the Tangerang area and had visited this restaurant at least 3 times a year and got the information about Waroeng Mas Kemal Restaurant from their friends or relatives. It implies that word of mouth is the biggest contributor for Waroeng Mas Kemal’s brand awareness.

Furthermore, the study observed whether menu design factors affected customers’ purchase intention. The researcher found that menu design elements (cover, size, description, font style, and picture) have a significant effect on customers purchase intention in Waroeng Mas Kemal Restaurant. Moreover, the researcher found that menu cover is the most influential factor affecting customers’ purchase intention.

**REFERENCE LIST**


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