

ANALYZING THE EFFECTF QUALITY OF FOOD, SERVICE, AND PHYSICAL ENVIRONMENT ON CUSTOMER SATISFACTION CASE STUDY OF CABAL DINING

*ANALISA PENGARUH KUALITAS MAKANAN, PELAYANAN, DAN LINGKUNGAN
FISIK TERHADAP KEPUASAN PELANGGAN STUDI KASUS PADA CABAL DINING*

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ABSTRACT

The primary needs of food resulted in booming of culinary industry. Recently, in Manado city, the culinary business is growing rapidly. Customer satisfaction is the most fundamental asset in this industry because it is the key to sustainable competitive advantage. The study aims: (1) To identify the effect of Quality of Food, Service and Physical Environment on Customer Satisfaction simultaneously, (2) To identify the effect of Quality of food on Customer Satisfaction partially, and (3) To identify the effect of Service Quality on Customer Satisfaction partially, (4) To identify the effect of Physical Environment on Customer Satisfaction partially. 130 people of Manado city by incident sampling randomly were surveyed as respondents. The result shows that food quality has a significant influence to customer satisfaction, service quality has a significant effect to customer satisfaction, and physical environment has a significant effect to customer satisfaction.

Keywords: Food Quality, Service Quality, Physical Environment Quality, Customer Satisfaction

ABSTRAK

Pemenuhan kebutuhan utama manusia adalah makanan, hal ini mengakibatkan maraknya dan berkembangnya industri kuliner. Belakangan ini, di Kota Manado, bisnis kuliner ini sangat berkembang pesat. Kepuasan pelanggan merupakan hal utama dalam bisnis kuliner ini karena hal ini merupakan kunci utama keberlangsungan dalam memperoleh keuntungan dalam berkompetisi. Dalam penelitian ini, ada tiga tujuan utama, yaitu (1) Untuk mengetahui pengaruh Kualitas makanan, layanan dan Lingkungan Fisik Terhadap Kepuasan Pelanggan secara bersamaan maupun secara pasial.. Metode yang digunakan dalam penelitian ini adalah penelitian kuantitatif dan data dianalisis dengan menggunakan Analisis Regresi Berganda. Data untuk penelitian ini data yang dikumpulkan menggunakan kuesioner, dengan sampel 130 responden. Hasil yang ditemukan adalah bahwa kualitas makanan memiliki pengaruh yang signifikan terhadap kepuasan pelanggan, kualitas pelayanan memiliki pengaruh yang signifikan terhadap kepuasan pelanggan, dan lingkungan fisik memiliki efek signifikan terhadap kepuasan pelanggan.

Kata Kunci: Kualitas Makanan, Kualitas Pelayanan, Kualitas Lingkungan Fisik, Kepuasan Pelanggan.

Stevany Carolin Tanjaya : Analyzing The Effectf Quality Of Food

1. INTRODUCTION

1.1 Research Background

Business development in Indonesia is progressing rapidly. Indonesia has now entered the era of globalization; it was on the mark with the development of the business. This led to the development of the business world increasingly weighing competition. Therefore, Performance Management should be able to survive once developed in accordance with the vision, mission, and purpose of his life. Development of business goes hand in hand with people's behaviour through tremendous changes. As well as in the management of the cafe as a place that is often used as a place to eat and used to spend time with relatives. To be able to compete in the business world, every cafe should have a specific marketing strategy to attract customers and make the cafe as a favourite place to meet with adhesive business.

We can see the growing proliferation of places to eat and a place of business casual or culinary attractions, one of which "Cabal Dining". Cabal Dining offers a diverse menu of food, e.g. snacks. Drinks offered are varied e.g. soft drink, kinds of coffee and tea, cocktail, and others. Cabal Dining is located in Megamas. The strategic location is one of the factors that made this business grows better. It is located in one of the business district city of Manado Boulevard, in where most of the shopping malls in Manado established.

Many cafes have varieties of concepts or ideas offered to lure customers of both the young and the elderly, in terms of economic, moderate to high. Each café or restaurant introduces and offers unique or new menus to be well received by the consumer. These situations bring out the competition among the owners in attracting the buyers as many as possible to visit and enjoy the services. It is undeniable that the cafes should do their best to maintain the success. It needs to be considered that the proliferations of new cafes with different types of concepts are also doing the same thing. In this case, menu is one of important aspects to grab the interest of the customers who have strong desires. Successful cafes are those who successfully penetrate the competition required in becoming as creative as possible to conceptualize the cafe itself. Currently, consumers' assessment is determined by several aspects, among others; Quality of food on offer, quality of service from the cafe, as well as physicals environment.

1.2 Research Objectives

Based on the research problem, this research is aimed to:

1. Is there any significant effect of quality of food, service and physical environment on customer satisfaction simultaneously?
2. Is there any significant effect of quality of food on customer satisfaction partially?
3. Is there any significant effect of service on customer satisfaction partially?
4. Is there any significant effect of physical environment on customer satisfaction partially?

2. THEORITICAL FRAMEWORK

2.1. Customer Satisfaction

Customer satisfaction is defined as the result of a cognitive and affective evaluation, where some comparison standard is compared to the actually perceived performance. If the perceived performance is less than expected, customers will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, customers will be satisfied. Otherwise, if the

perceived expectations are met with performance, customers are in an indifferent or neutral stage. Customer satisfaction is defined as a customer's overall evaluation of the performance of an offering to date. This overall satisfaction has a strong positive effect on customer loyalty intentions across a wide range of product and service categories (Gustafsson, 2005).

2.2. Quality of Food

The extension of this definition of sensory quality to food quality requires only that the phrase 'perceived characteristics' be interpreted to include the perception of all characteristics of the food, not simply its sensory attributes, i.e. the perception of its safety, convenience, cost, value, etc. In order to understand food quality one must understand the psychology of food acceptance choice and consumption. In order to measure food quality, one must account for the context in which food is presented and eaten, and the psychological factors that influence contextual and relative judgments. Yet, the indicators of quality of food are appearance (size, shape, colour, gloss, and consistency), texture and flavour/taste (Kisang, 2009).

2.3. Service Quality

In achieving company's offer to reach the customers, there is a need for services. These services depend on the type of product and it differs from the various organizations. Service can be defined in many ways depending on which area the term is being used. An author defines service as "any intangible act or performance that one party offers to another that does not result in the ownership of anything" (Kotler and Keller, 2009, p. 789). In all, service can also be defined as an intangible offer by one party to another in exchange of money for pleasure.

2.4. Physical Environment

Physical environment is a space in where interaction between customers and employees includes all tangible elements that facilitate the process of discharging the services. DINESCAPE is the scale of physical environment for the dining area of upscale restaurants that includes six dimensions: facility aesthetics, lighting, ambience, layout, table settings and services staff. Facility aesthetics means architectural design, interior design and décor that contribute to the attractiveness of the dining environment restaurants. Other aspects of interior design, including furniture, pictures/painting, plants/flowers, or wall decorations may serve to intensify the perceived quality of the environments, eliciting emotions and influencing the behaviour of a customer (Ekaterina, 2012).

2.5. Previous Research

There are several literatures are used in the supporting of the research. They provide the grand concept and link between the previous research and this research.

1. Kisang Ryu(2007) in his conducted research "Influence of the Quality of Food, Service, and Physical Environment on Customer Satisfaction and Behavioural Intention in Quick-Casual Restaurants: Moderating Role of Perceived Prices" state that What is most important to customers of the quick-casual dining sector is quality of food, followed by quality of physical environment and services.
2. Jenet Manyi Abgor (2011) in her conducted research "The Relationship between Customer Satisfaction and Service Quality: a study of three Service sectors in Umeå." State that reliability, responsiveness and assurance had significant relationships with both customer satisfaction and service quality.
3. Ekaterina Jysmä (2012) in her conducted research "The physical environment and its relevance to customer satisfaction in boutique hotels; Hotel Haven, Helsinki" State that

According to research results, physical environment is an important element in the customers' satisfaction process.

2.6. Research Hypotesis

The hypothesis of this research:

- H0 : Quality of food, service, and physical environment do not have simultaneous effect on Customer satisfaction at Cabal
- H1 : Quality of food, service, and physical environment has simultaneous effect on Customer satisfaction at Cabal
- H0 : Quality of food does not have partial effect on Customer satisfaction at Cabal
- H2 : Quality of food has partial effect on Customer satisfaction at cabal
- H0 : Service quality does not have partial effect on Customer satisfaction at Cabal
- H3 : Service quality has partial effect on Customer satisfaction at Cabal
- H0 : Physical environment do not have simultaneous effect on Customer satisfaction at Cabal
- H4 : Physical environment have simultaneous effect on Customer satisfaction at Cabal

3. RESEARCH METHOD

3.1. Type of Research

This research uses causal type of research where this research analyzes the effect of quality of food, service and physical environment on customer.

3.2. Place and Time Research

This research was conducted in Cabal Dining and Resto between June-September 2015.

3.3 Conceptual Framework

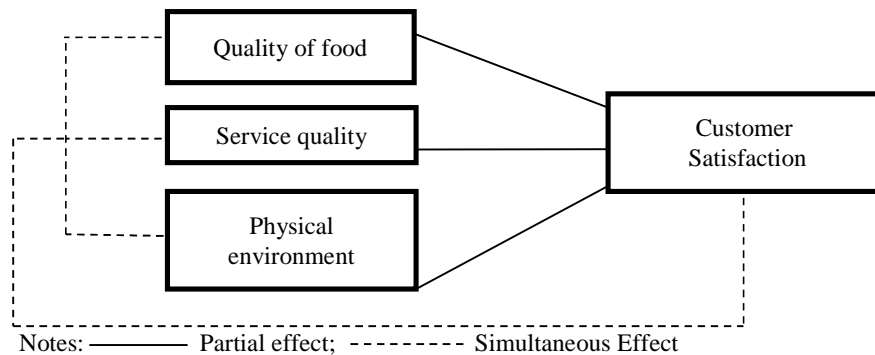


Figure. 1 Conceptual Framework
 Source: Data Processed, 2015

3.4 Population and Sample

According to Sekaran and Bougie (2009;262) Population is “The entire group of people, events of things of interests that the researcher wishes to investigate”. The population mainly observed in this current research was all the customers of Cabal Dining Manado. According to Sekaran and Bougie (2009;276), a sample is “a part of the population”, As stated by Roscoe (1975) in

Hill (1998) The sample size of this research was minimum 10 times larger than the number of variables being considered. Because there were 4 variables in this research and the minimum sample used were 40 customer of Cabal Dinning.

3.5. Data Collection Method

This research uses primary source of data. Primary data is data originated by the researcher specifically to address the research problem. The researcher also gets primary data form the result of questionnaires. Questionnaires are distributed to respondents so they can respond directly on the questionnaire. There were two sections in the questionnaire. First section asked about respondent’s identities and the second section asked about things that related with the variables.

3.6. Measurement of Research Variable

Questions in the questionnaire made by using Likert scale, respondents will not have problems in understanding and filling out the questionnaire, and it is easy for the researcher to measure, interpreting and analyze the data.

3.7. Data Analysis Method

Multiple Regression Analysis Model. Multiple Regression is an extension of bivariate regression. It allows us to examine the effect of two or more independent variables on the dependent variable (Frankfort, 2008:452). Researcher use a Multiple Regression analysis model which the variables as shown below: (The study analyzed by using software SPSS).

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Whereas:

- Y = Customer satisfaction; = Intercept
- X1 = Quality of food; X2 = Service quality
- X3 = Physical environment; e = error
- 1 2 3 = the regression coefficient each variable;

4. RESULT AND DISCUSSION

4.1. Validity and Reliability Test

Table 1. Validity Test Result

Variable	Indicator	Pearson Correlation	Conclusion
X1	Q1	0.703	Valid
	Q2	0.639	Valid
	Q3	0.775	Valid
X2	Q1	0.721	Valid
	Q2	0.725	Valid
	Q3	0.669	Valid
X3	Q1	0.758	Valid
	Q2	0.682	Valid
	Q3	0.654	Valid
	Q4	0.655	Valid
	Q5	0.613	Valid
Y	Q1	0,725	Valid
	Q2	0,725	Valid
	Q3	0,576	Valid

Source: Data Processed, 2015

Table 1 shows that the significant score for each statement is >0.05. Can be concludes that every statements are valid.

Table 2. Reliability Statistics

Cronbach's Alpha	N of Items
.822	15

Source: Data Processed, 2015

Table 2 it showed that Alpha Cronbach is 0.822; meant the variable had a value above the acceptance limit of 0.6. Therefore, the research instrument was reliable.

4.2. Multiple Regression Analysis

Table 3. Multiple Regression Analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.458	.334		4.366	.000		
	X1Av	.206	.094	.205	2.183	.031	.596	1.679
	X2Av	.238	.077	.265	3.106	.002	.721	1.387
	X3Av	.202	.082	.238	2.463	.015	.563	1.775

a. Dependent Variable: YAv

Source: Data Processed, 2015

$$Y = 1,458 + 0.206X1 + 0,238X2 + 0,202X3$$

The interpretation of the result is:

1. Constant value of 1,458 means that if all the independent variables in this research: quality of food (X1) and service (X2) are equal to zero, then the customer satisfaction (Y) of Cabal Dining is predicted to be 1,458.
2. Coefficient value of 0,206 means that if the variable in this research, quality of food (X1) increases by one scale or one unit, it will increase customer satisfaction (Y) of Cabal Dining by 0,206.
3. Coefficient value of 0,238 means that if the variable in this research, service (X2) increases by one scale or one unit, it will increase customer satisfaction (Y) of Cabal Dining by 0.238. Coefficient value of 0.202 means that if the variable in this research, physical environment (X3) increases by one scale or one unit, it will increase customer satisfaction (Y) of Cabal Dining by 0.202.

4.3. Testing the goodness of Fit: Coefficient of Multiple Correlation (R) and Coefficient of Determination (R²)

Table 4. Coefficient Determination

Model Summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.583 ^a	.339	.324		.31755	1.458

a. Predictors: (Constant), X3Av, X2Av, X1Av

b. Dependent Variable: YAv

Source: Data Processed, 2015

The coefficient of correlation (R) was 0.583 meant that the level of relationship between independent and dependent variable was considered moderately correlated. The value of coefficient of determination was between 0 and 1. The coefficient of determination (R²) of 0.339 showed that the linear relationship in this model was able to explain the customer satisfaction (Y) for 33.9% while the rest 66,1% was explained by other factors not discussed in this research.

4.4. Test of Classical Assumption

Table 5. Multicollinearity Test

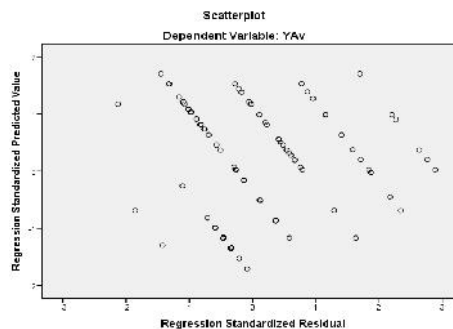
Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1. Quality of food	,596	1,679
2. Service	,721	1,387
3. Physical Environment	,563	1,775

a. Dependent Variable: Customer satisfaction

Source: Data Processed, 2015

The table above shows the value of VIF and tolerance. If the value of VIF and tolerance is <10 then the regression model is free from multicollinearity. Based on the result in the table 4.5, the symptoms of multicollinearity did not occur, because VIF value of quality of food (X1) service (X2) and physical environment (X3) on customer satisfaction (Y) are <10 or has value of 1.387. Also, since all the tolerance value was more than 0.2 or had value of 0,563, thus, this research concluded to be free from multicollinearity.

4.4.1. Heteroscedasticity Test

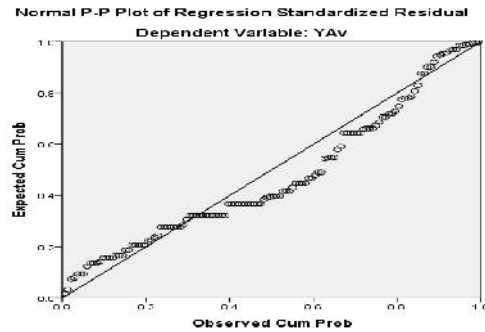


Graph 1. Heteroscedasticity Test

Source: Data Processed, 2015

Based on the graph above, it can be seen that there was no established pattern. In other words the graph describing the plot spread above and below the number 0 (zero) on the Y axis. This proved that the independent variable Quality of food (X1) Service (X2) and physical environment (X3) on Customer satisfaction (Y) were free of Heteroscesdasticity.

4.4.2. Normality Test



Graph 2. Normality Test

Source: Data Processed, 2015

Graph 2 shows the data represented by the dots are spreading near and follow the diagonal line. This proves that regression model of the effect of quality of food (X₁) and service (X₂) and physical environment (X₃) on customer satisfaction (Y) in Cabal Dining fulfills the condition of normality assumption.

4.5. Hypothesis Testing

4.5.1. F-test

Table 6. F-test

ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.525	3	2.175	21.570	.000 ^b
	Residual	12.706	126	.101		
	Total	19.231	129			

a. Dependent Variable: YAv

b. Predictors: (Constant), X3Av, X2Av, X1Av

Source: Data Processed, 2015

By using the level of significant of 0.05 ($\alpha = 0.05$) and degree of freedom (df) of 3, the F value from F distribution table is $F_{table} = 2.67$, while the value of F_{count} from the table above is $F_{count} = 21.570$. It meant, $F_{count} = 21.570 > F_{table} = 2.67$. The table also showed that the significance value was $0.000 < 0.05$. It meant the overall influence of Quality of food (X₁), Service (X₂) on Customer satisfaction (Y) was very significant. Therefore, H₀ is rejected and H_a is accepted. In other words, the independent variables simultaneously influenced the dependent variable very significantly.

4.5.2. T-Test

Table 7. Coefficient T-Test

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.458	.334		4.366	.000		
X1Av	.206	.094	.205	2.183	.031	.596	1.679
X2Av	.238	.077	.265	3.106	.002	.721	1.387
X3Av	.202	.082	.238	2.463	.015	.563	1.775

a. Dependent Variable: YAv

Source: Data Processed, 2015

The interpretation of the table above as follows:

1. t_{count} for quality of food (X_1) was 2,183 Value on t_{table} used for comparison was found at the level of significance of 0.05, which was at the confidence level of 95%. From the table above we could see $t_{table} = 1.660$. The result was $t_{count} = 2,183 < t_{table} = 1.660$. It meant quality of food (X_1) did not have significant partial influence on customer satisfaction (Y). Therefore, H_0 is accepted and H_1 is accepted.
2. t_{count} for service (X_2) was 3,106 Value on t_{table} used for comparison was found at the level of significance of 0.05, which was at the confidence level of 95%. From the table above we can see $t_{table} = 1.660$. The result is $t_{count} = 3,106 > t_{table} = 1.660$. It meant service (X_2) partially influenced the customer satisfaction significantly. Therefore, H_0 is rejected and H_1 is accepted.
3. t_{count} for physical environment (X_3) is 2,463 Value on t_{table} used for comparison was found at the level of significance of 0.05, which was at the confidence level of 95%. From the table above we can see
4. $t_{table} = 1.660$. The result was $t_{count} = 2,463 > t_{table} = 1.660$. It meant physical environment (X_3) partially influenced the customer satisfaction significantly. Therefore, H_0 is rejected and H_1 is accepted.

5. CONCLUSIONS AND RECOMENDATION

5.1. Conclusions

Based on the result of analysis and the discussion in the previous chapter, several conclusions can be formulated.

1. Quality of food, service and physical environment simultaneously influence on customer satisfaction at Cabal Dining.
2. Quality of food (X_1) has a significant influence to Customer satisfaction(Y) at Cabal Dining.
3. Service (X_2) has a significant influence to Customer satisfaction (Y) at Cabal Dining.
4. Physical environment(X_3) has a significant influence to Customer satisfaction (Y) at Cabal Dining.

5.2 Recommendation

Based on the previous conclusion, the following are recommendations that can be used as an input :

1. Since the Quality of food greatly influences a customer’s satisfaction level in addition to good service and pleasant atmosphere, Cabal Dining have to maintain and improving

the quality of food to maximize the customer satisfaction level, because providing high quality food is a key component of running a successful restaurant.

2. Based on the result, service has a significant influence to customer satisfaction, Cabal Dining should consider to provide training for their kitchen employees or waiters so they can serve the customer with delicious and nutritious food presented attractively and in a consistent manner, so they can deliver good service that lead to customer satisfaction.
3. Since the physical environment has a significant influence to customer satisfaction, Cabal Dining should pay attention to the operation of the physical environment (facility aesthetics, lighting, ambience, layout, and table settings) in Cabal Dining to satisfy their customer, in addition, since management can control the physical elements representing ambience (music, lighting ,color ,and aroma) and layout at little expense, Cabal Dining should always consider physical elements that increase the entire dining experience as a marketing tool to attract more customers it is also important to note that customers may seek a dining experience totally different from that they may obtain at home, and the atmosphere may do more attract them than the food itself.

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