



The Influence of Food Quality, Service Quality, and Physical Environment on Customer Satisfaction Mediated by Restaurant Image in Indonesia's Ethnic Restaurant

Abigail Enrica

abby.enrica@gmail.com

Natasha Leonida

natashaleonida@gmail.com

Verliana Try Istiqomah

pillyly@gmail.com

Faculty of Economics - Trisakti University Jakarta

Abstract

Purpose – The objective of this study is to investigate the influence of food quality, service quality, and physical environment towards customer satisfaction mediated by restaurant image.

Design/methodology/approach – We proposed hypotheses to examine the relationship of food quality, service quality, physical environment, restaurant image and consumer satisfaction in ethnic restaurants. Survey data was collected from 220 consumers of ethnic restaurants in Jakarta. Structural equation modeling was used to test hypothesized

Research limitations – The limitations of this study were the respondents which were only university students.

Practical implications - This study will provide information on factors that influence service quality to customer satisfaction settings.

Keywords – Service quality, food quality, physical environment, restaurant image

Introduction

Presently, The restaurant industry can be divided into different segments according to unique characteristics that define each segment. Although there are several suggestions associated with this classification even though there is no standardization in this section (Goldman, 1993; Jones and Lockwood, 1998; Muller and Woods, 1994). For example, ethnic restaurants have grown rapidly. Ethnic restaurants not only serve as a place to eat, but also serve as a "cultural ambassador" who introduces food to the local and foreign cultures (Wood and Munoz, 2007)

In addition, the ethnic food consumption is on the rise as consumers look for new food experiences, and a better way to get a balanced diet and more nutritious food as well as ethnic restaurants and food becomes more readily available to consumers. (B.E. Bell et al., 2010). Furthermore, the ethnic restaurant is defined as a restaurant promising to serve and serves national / regional other countries (Turgeon and Pastinelli, 2002).

However, Indonesian food has been known by other countries, especially in Asia. Indonesian foods consist of many varieties from plenteous ethnic groups. One of the ethnic restaurants in Indonesia is Padang Restaurant. In ethnic food like Padang restaurant there are certain factors that affect customer satisfaction. Customer will be satisfied by obtaining satisfaction from the food, service, physical design with purpose of describing restaurant image. Padang food is the ethnic food from Padang which constitute city in Sumatra, Indonesia.

Padang food was introduced to another country like Malaysia and Singapore. Padang cuisine is well known for its rich flavor of juicy coconut milk and spicy flavor. Indian & middle eastern are likely influencing the culinary culture of Indonesia's culture especially Minangkabau with dishes that cooked in curry sauce with coconut milk and thick use of spices.

Although the quality of food and type of food is identified as a significant variable in the restaurant of choice, the restaurant atmosphere and style differential element in the final decision of consumers to determine one restaurant over another (Auty, 1992). The quality of service is one of the key elements to succeed in a highly competitive environment today (Abdelmo, 2012).

These quality assurance outline to the consumers, the aspect of "quality" has also been accepted as an important dimension of marketing that offers producers a great opportunity to differentiate themselves to their products (Jervell and Borgen, 2004). Thus, taste, delicious food, and social experiences while dining is important in evaluating the quality of food (Amarantos et al, 2001; Won et al, 2006)

Indeed, in the ethnic restaurant there is a uniqueness in design so consumer can enjoy their meal. Thus, this study was to examine the customer satisfaction from ethnic restaurant in Indonesia. In particular, this study developed a model that examined relationship among service quality, food quality, physical design and restaurant image. To better explain the focus of this study, a conceptual framework is depicted in figure 1.

The objective of this study is to investigate the influence of service quality towards customer satisfaction mediated by restaurant image and to examine ethnic restaurant in Indonesia which states that is a favorite food for Indonesian. They will talk positively about the restaurant if they have been satisfied. (Prof. Daniel Petzer 2014)

Literature Review

Customer satisfaction

Kondou (1999) showed that customer satisfaction as a subjective evaluation of a person from his or her situation outcome in a positive emotional response.

According to Pantelidis (2010), three factors explain customer satisfaction is the quality of food, service and atmosphere, based on analysis of customer comments on the contents of the online restaurant guide.

However, satisfaction may not be enough to actually achieve loyalty (Woodside et al, 1989; Cronin and Taylor, 1992; Suhartanto and Kandampully, 2000; Lovelock and Wright, 2002; Hong and Goo, 2004; Ekinici et al, 2008; Faullant et al, 2008). In addition, less money needs to be invested in attracting new customers as highly satisfied customers to give positive word of mouth and recommend the service to others (Lovelock and Wright, 2002).

As far as the restaurant experience is concerned, some authors argue that food, physical environment, and the employees of the service is a major component and an impact on customer satisfaction (Ryu et al, 2012; Chow et al, 2007; Jang and Namkung 2009).



Service quality

Several models exist for measuring the quality of service received by consumers. One of the most famous is the quality of service. Quality of service, which is may the most known by the quality of the restaurant (Cronin and Taylor, 1992; Dabholkar et al, 2000; Ha and Jang, 2010; Mattila, 2001).

In the restaurant industry, the quality of service seen through intangible benefits, such as responsiveness, politeness, caring and professional conduct provided by the service staff (Stevens et al., 1995).

Yu'ksel and Yu'ksel (2002), for example, showed that the quality of service has the most significant effect on satisfaction in the restaurant market segments and service-seekers aggregate. Andaleeb and Conway (2006) showed that the quality of service (responsiveness) is the most notable determinant of customer satisfaction, and more important than the food quality / reliability, physical design, and price.

H1: Functional services quality has significant effect on restaurant image.

Food quality

The quality of food is considered a very important dimension of quality restaurants (Ha and Jang, 2010; Namkung and Jang, 2007; Ryu and Han, 2010).

As restaurant is assumed in the business of selling food, quality of food is perhaps the most important of all the constituent in a full service restaurant in terms of satisfying customers. Ryu and Han (2010) also showed that the quality of food is the most important attribute for customers in fast-casual dining sector, followed by the quality of the physical environment and services.

Namkung and Jang (2007) saw the quality associated with food critical to improve customer satisfaction, and showed that the taste and presentation make contributions two greatest. Ryu and Han (2010) states that when the food and service quality is acceptable, pleasant physical environment may determine their overall satisfaction for the most part.

Mattila (2001) reported that the quality of food is the most important attribute of quality restaurants and a key predictor of customer loyalty.

H2: Food quality has a significant positive impact on brand image.

Physical Environment

Physical Environment hearts the importance of creating emotions and affect customer satisfaction is strongly associated with the restaurant industry you Because visitors usually experience Everything hearts Physical Environment From the restaurant you (Wall And Berry, 2007).

Besides Physical Environment, Behavior employees currently provide Strength In services influence perception of food From Experience their customers (Chow et al, 2007; .. Ladhari et al, 2008). Because services mainly Tangible And Often Require customers to review Present during the process, the Physical Environment may have a significant impact on perception Excessive all equality Meeting Services, which in turn affects customer satisfaction in your restaurant industry (Bitner 1990, 1992, Brady & Cronin, 2001; Kotler, 1973;. Parasuraman et al, 1988; Ryu& Jang, 2007).

Research shows a direct relationship between Physical Environment commercial articles such as customer satisfaction (Chang, 2000; Chebat&Michon, 2003). In addition , Chang (2000) suggested that the Physical Environment Indicators Perceived Is Direct From customer satisfaction, indicating that customer satisfaction directly and positively Subscribe with aspect Behavior positive approach.

H3: The physical appearance and design of the restaurant, is positively related with customer satisfaction.

Restaurant Images

Gro'nroos (1982) identifies that the image of the company plays an important role in the evaluation of the quality of service and vice versa. The company's image is believed to influence the customer's perception of service quality through filtering stock (Andreassen and Lindestad, 1998a, b; Kandampully and Suhartanto, 2000; Brunner et al, 2008).

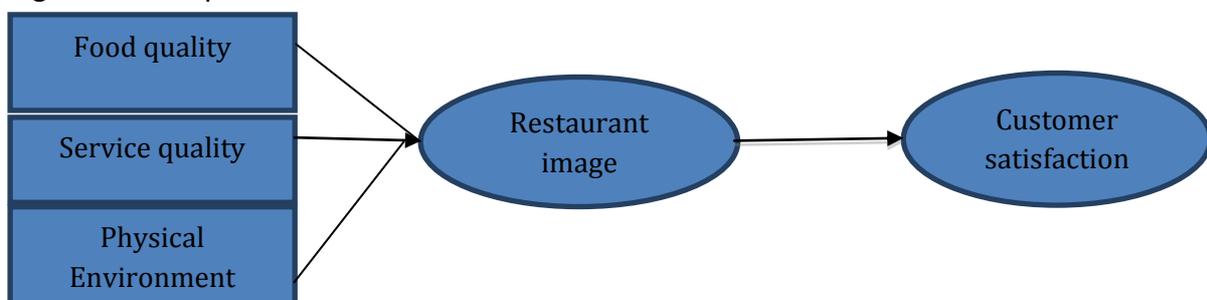
Furthermore, the expectations at this stage of pre-experience and perception after the experience is influenced by the way customers see the company (Gro'nroos, 1982). This means that if the customer experienced good service, one automatically has a more favorable image of the company.

On the other hand, if the customer already has a positive image of companies that are more likely to feel good and forgiving service if the service is not optimal.

However, Brunner et al. (2008) argued that if the customer already has a high image companies also expect higher service quality. Kandampully and Suhartanto (2000) confirms the positive image associated with customer loyalty.

H4: Restaurant image has a positive influence on customer satisfaction

Figure 1. Conceptual Model



A purposive sample was taken from university students . From 220 responses collected , 220 valid responses were used for further analysis.

Measures



Service quality

Three items (e.g. employees serve me food exactly as I ordered it) were adapted from Jimmy Sugianto dan Sugiono Sugiharto, S.E., M.M. ,2013.

Food quality

Three items (e.g. the food offers fresh food) were adapted from Seyed Alireza Mosavi and Mahnoosh Ghaedi , 2013.

Physical Environment

Six items (e.g. lighting creates a comfortable atmosphere) were adapted from Kisang Ryu and Heesup Han , 2011.

Restaurant image

Four items (e.g. The restaurant is sophisticated) were adapted from Kisang Ryu et. al. , 2012

Customer satisfaction

Five items (e.g. I am very satisfied with my overall experience at this restaurant) weradapted from Hong Qin and Victor R. Prybutok ., 2009

RESULT AND DISCUSSION

Table 1

Validity and Reliability Test

No.	Variable and Indicator	Loading Factor	Cronbach's Alpha	Result
Food Quality (FQ)			.661	Reliable
1.	The food was delicious	.800		Valid
2.	The restaurant offered a variety of menu items	.787		Valid
3.	The fast food offers fresh food	.738		Valid
Service quality (SQ)			.701	Reliable
1.	Employees served me food exactly as I ordered it	.704		Valid
2.	Employees provided prompt and quick service	.820		Valid
3.	Degree of knowledge of the needs of the service provider customers.	.850		Valid
Restaurant image (RI)			.608	Reliable
1.	The restaurant has authentic Padang cuisine	.751		Valid
2.	Personal hygiene of servers	.706		Valid
3.	This Padang Restaurant have a specific serving method	.789		Valid
Customer satisfaction (CS)			.817	Reliable



1.	Parking Area is available	.682	Valid
2.	I am very satisfied with my overall experience at this restaurant	.834	Valid
3.	I have really enjoyed myself at this restaurant	.776	Valid
4.	I am satisfied with the price of their purchased product(s) in this company.	.692	Valid
5.	I am satisfied with the customer service in transactions'	.875	Valid
Physical Environment (PE)		.854	Reliable
1.	Colors used create a warm atmosphere.	.740	Valid
2.	Furniture (e.g., dining table, chair) is of high quality.	.807	Valid
3.	Lighting creates a comfortable atmosphere	.789	Valid
4.	Table arrangement gives me enough space	.771	Valid
5.	Layout gives me enough tangible privacy.	.772	Valid
6.	The decoration is in keeping with its image and price range	.688	Valid

Table 2. Frequency Table Based on Gender

Gender - Ages Crosstabulation

		Age		Total
		14 – 25 Years	26 – 70 Years Old	
Gender	Man	43 20.19%	4 57.14%	47
	Women	170 79.81%	3 42.86%	173
Total		213 96.82%	7 3.18%	220

Table 3. Respondent Distribution Based on Gender and Education



	University in Jakarta		University outside Jakarta		Total	%
Men	48	26.37%	12	31.58%	60	27.27
Women	134	73.63%	26	68.42%	160	72.72
Total	182		38		220	
	82.73%		17.27%			

Table 4 . Criteria Goodness of Fit Models

Goodness of fit index	Criteria (cut-off value)	Value of indicators	conclusion
Chi-Square (X^2)	Close to 0	465.525	Poor Fit
Probabilita	$\geq 0,05$	0.000	Poor Fit
TLI	≥ 0.90	0.818	Marginal Fit
IFI	≥ 0.90	0.862	Marginal Fit
NFI	≥ 0.90	0.802	Marginal Fit
CFI	≥ 0.90	0.859	Marginal Fit
RMSEA	$\leq 0,10$	0.039	Goodness of Fit

Based on the information above, we can conclude that the research using RMR, CFI, and RMSEA approach resulted in a fit model.

Hypotheses were tested using regression .

Table 5 .Results ofHypothesis Test

Hypothesis			Estimate	P (sig)	Result
H1	Service Quality	→ Restaurant image	0.250	0.048	Supported
H2	Food Quality	→ Restaurant image	0.378	0.018	Supported
H3	Physical environment	→ Restaurant image	0.446	0.000	Supported
H4	Restaurant image	→ Customer satisfaction	0.889	0.000	Supported

Based on table 5 , hypothesis 1 supported (p value $0.048 < 0.5$, $\beta = 0.250$) ,it means that there is a positive influence of the Service Quality towards Restaurant image.



Hypothesis 2 was also supported (p value $0.018 < 0.5$, $\beta = 0.378$), indicating that there is a positive influence of the Food Quality towards Restaurant image.

Furthermore, hypothesis 3 and 4 were also supported (p value $0.000 < 0.5$, $\beta = 0.446$; p value $0.000 < 0.05$; $\beta = 0.889$), indicating that there is a positive influence on the Physical Design towards Restaurant Image , and there is a positive influence of Restaurant Image on Customer satisfaction.

Conclusion and Implication

The recent study shows a model that predict customer satisfaction in Indonesia for ethnic restaurant. The consumer revealed that the most influential effect on ethnic restaurant is physical environment.

The restaurant have to remark the physical environment by reason of that variable have a strong affect to customer satisfaction. This invention suggest that managers of ethnic restaurant have to concern the physical environment by showing the authentical from ethnic restaurant.

Limitations and future research

This study is discussed to developing most influence variable of ethnic restaurant industry beyond previous studies. We research about service quality, food quality, physical environment related with restaurant image to customer satisfaction. First ,Present study have a limitation from physical environment. In addition, these studies did not captured component of physical environment such as ambience, lighting. Second ,the respondents in this study were only university students. However, there are some differences between the present study and those previous studies. For future study it require to research and explanation about component of physical environment.

References

Alonso, A. D. and O'Neil, M. A. (2010), "Consumers' ideal eating out experience as it refers



- to restaurant style: A case study", *Journal of Retail & Leisure Property*, Vol. 9, 263–276.
- Andreassen, T. W., & Lindestad, B. (1998), "Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise", *International Journal of Service Industry Management*, Vol. 9, No. 1, pp. 7-23.
- Bitner, M.J. (1990), "Evaluating service encounters: The effects of physical surroundings and employee responses", *Journal of Marketing*, Vol.54, no.2, pp. 69-82.
- Brady, M.K., & Cronin, J.J. (2001), "Some new thoughts on conceptualizing perceived service quality: A hierarchical approach", *Journal of Marketing*, Vol. 65, no.3, pp. 34-49.
- Brunner, J.L., Richards, K., Collins, J.P., (2005), "Dose and host characteristics influence virulence of ranavirus infections", Vol. 144, pp. 399–406.
- Bujisic, M., Hutchinson, . and Parsa, H. G. (2014), "The effects of restaurant quality attributes on customer behavioral intentions", *Journal of Contemporary Hospitality Management*, Vol. 26 No. 8, pp. 1270-1291.
- Carolyn, C. S. and Irene, B. (2006), "School of Business, Penn State Erie, The Behrend College, Erie, Pennsylvania", *USA Journal of Services Marketing*, Vol. 20: Issue. 1: Pages. 3-11
- Chow, I.H., Lau, V.P., Lo, T.W., Sha, Z. & Yun, H. (2007), "Service quality in restaurant operations in China: decision- and experiential-oriented perspectives", *International Journal of Hospitality Management*, 26(3), 698–7
- Cronin Jr., J. J., & Taylor, S. A. (1992), "Measuring service quality: a reexamination and extension" *The Journal of Marketing*, 56(3), 55–68.
- Gro nroos, C. (1989), "Defining marketing: a market-orientated approach", *European Journal of Marketing*, Vol. 23, No. 1, pp. 52–59
- Ha, J., & Jang, S.C. (2010), "Effects of service quality and food quality: the moderating role of atmospherics in an ethnic restaurant segment", *International Journal of Hospitality Management* ,Vol.29, No.3, pp. 520-529.
- Namkung, Y., & Jang, S.C. (2007), "Does food quality really matter in restaurants: its impact of customer satisfaction and behavioral intentions", *Journal of Hospitality & Tourism Research*, Vol. 31, No.3, pp. 387-410.
- H Lee, H., Lee, Y., & Yoo, D. (2000), "The determinants of perceived service quality and its relationship with satisfaction", *Journal of Services Marketing*, Vol.49, No. 4, pp. 48-64
- Kandampully, J. and Suhartanto, D. (2000), "Indonesi", *International Journal of Contemporary Hospitality Management*, Vol. 12: Issue. 6: Pages. 346-351.
- Kandampully, J.; and Hu, H.H., (2007), "Do hoteliers need to manage image to retain loyal customers?", *International Journal of Contemporary Hospitality Management*, Vol. 19 , No. 6, pp. 435 – 443.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988), "SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality", *Journal of Retailing*, Vol. 64
- Ryu, K., Lee, H. R. and Kim, W. G. (2012), "The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions", *Journal of Contemporary Hospitality Management*, Vol. 24 No. 2, pp. 200 – 223.
- Ryu, K., Lee, H. R., Kim, W. G. (2012), "The influence of the quality of the physical environ-



- ment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions,” *International Journal of Contemporary Hospitality Management*, Vol. 24, No. 2, pp. 200-223
- Sia, F. T. and Subagio, H. (2013), “Analisa pengaruh price, service quality, dan corporate image terhadap customer loyalty dengan customer satisfaction sebagai variabel intervening konsumen IPO korean kafe dan restaurant surabaya”, *Jurnal Manajemen Pemasaran*, Vol. 1, No. 1, pp. 1-8.
- Stevens et al., Stevens, P., Knutson, B., and Patton, M., (1995), “Dineserv: A tool for measuring service quality in restaurants” *The Cornell Hotel and Restaurant Administration*, Quarterly 36, No.2, pp. 56-60.
- Subagio, H. and Robin, S. (2012), “Pengaruh perceived service quality, perceived value, satisfaction dan image terhadap customer loyalty”, *Jurnal Manajemen Pemasaran*, Vol. 7, No. 1, pp 42 – 52.
- Sukaisih, E., Suharyono., Solimun., Hamid, D. (2015), “Effect of Functional Service Quality on Customer Satisfaction and Image and the Impact on Loyalty Intention (Study at ThreeStar Hotel in Malang City and Batu City)”, *Journal of Business and Management*, Volume 4 Issue 2, pp. 43-51.
- Syed, S. A., Sam and Irene, B. (2006), “ School of Business, Penn State Erie, The Behrend College, Erie, Pennsylvania, USA Carolyn Conway Sam and Irene Black School of Business, Penn State Erie, The Behrend College, Erie, Pennsylvania”, *USA Journal of Services Marketing*, Vol. 20: Issue. 1: Pages. 3-11.
- Syed, S. A. S. and Irene, B. (2001), “ School of Business, Penn State Erie, The Behrend College, Erie, Pennsylvania, USA The effectiveness of service recovery in a multi-industry setting Anna S. Mattila”, *Journal of Services Marketing*, Vol. 15: Issue. 7
- Wall and Berry (2007), “ Wall, E.A. & Berry, L.L. (2007). The Combined Effects of the Physical Environment and Employee Behaviour on Customer Perception of Restaurant Service Quality”, *Cornell Hotel and Restaurant Administration*, Quarterly 48.