CUSTOMER SATISFACTION LEVEL TOWARD PUBLIC HOSPITAL'S HEALTHY CAFETERIA IN SABAH

D.K. Rafidzah[1*], L. Sonia[2], A.A. Azizan[3], R. H. Leoneeta[4]
Faculty of Food Science and Nutrition, Universiti Malaysia Sabah, 88400 Kota Kinabalu, Sabah, Malaysia,

[1]dkrafidzah@ums.edu.my*, [2]sonia.lourde96@gmail.com, [3]aizul83@ums.edu.my, [4]leoneeta@ums.edu.my

ABSTRACT

Customer satisfaction is influenced by factors such as food quality, service quality and price consequently affected their perception. This study was conducted to determine customer satisfaction level and to identify the difference between demographic profiles. A total of 321 respondents from healthy cafeterias located in public hospital in Kota Kinabalu, Sabah. The tests used are descriptive test, Mann-Whitney U and Kruskal-Wallis. The results show for food quality, various healthy menu items offered scored the highest mean (4.86±1.41) and food temperature based on customer preference scored the lowest mean (4.14±1.58). For service quality, presence of physical facilities scored the highest mean (5.44±1.28) and special routes for patients, senior citizens are provided scored the lowest mean (3.15±1.64) and for last factor which is price, the price is cheaper than nearby food establishments scored the highest mean (4.63±1.54) and price charged for each kind of dish is suitable is scored the lowest mean (4.40±1.57). Between three factor only price has a significant difference (p<0.05) with the demographic factors such as age, race, religion, education level, occupation, monthly income and visiting intentions except gender. In conclusion customers at Healthy Cafeteria take price as a vital factor in assessing their satisfaction level.

Keywords: Healthy Cafeteria, Customer Satisfaction, Food Quality, Service Quality and Price Satisfaction

INTRODUCTION

Non Communicable Disease (NCD) is a worldwide problem that is escalating in an alarming rate contributing to 71% of global deaths. Among the diseases classified as NCD are cardiovascular diseases, cancer, chronic respiratory diseases and diabetes (WHO, 2016). These diseases are the major contributors of death globally and several efforts have been implemented internationally to combat the issue at hand. Under the Ministry of Health (MOH), an initiative to set up several guidelines has been taken such as coming up with a few strategic plans to address this issue, namely the establishment of *Kafeteria Sihat* (MOH, 2016).

Kafeteria Sihat or Healthy Cafeteria, is based on the first strategy of the intervention programs proposed in The National Strategic Plan to combat Non- Communicable Diseases in 2010-2014 (NSP-NCD). This strategy plan aims to provide guidelines for every member of the community

in dealing with NCD by ensuring the supply of healthy foods and beverages through cheap food premises especially in public institutions such as schools, learning facilities and workplaces to supply healthy food and beverages. This is to instil a healthy eating style within the community. Thus, access to healthy food sources along with the promoting healthy eating lifestyles is improved through this strategy (Mustapha, 2014).

With that said, the quality of these products offered should be looked upon. There is no point providing healthy food and beverages, but the quality is not up to par with the standard set up the established guidelines. Thus, the potentially effective way to assess the quality of a foodservice establishment could be through measuring customer satisfaction. This will enables a us to gain insight on the customer's preferences and expectations (Pizam *et al.,* 2015).

Objectives

i. To determine customer satisfaction level based on food quality, service quality and price
ii. To identify the relationship between demographic profiles and customer satisfaction levels

LITERATURE REVIEW

Customer Satisfaction

Satisfaction could be defined as the measures taken in providing goods and services that creates levels of perceived value for the customer so that the customer remains positively engaged with the organization (Lu *et al.,* 2015). This is further reinforced the statement made by Yan *et al.* (2015), that states that the higher the likelihood of customer returning towards an establishment, it is an indication that that customers are satisfied with the food quality, service quality and price provided.

Food Quality

Food quality is based on one's perception that satisfies one's needs and wants. According to Busra *et al.* (2017) Food quality encompasses several scientific disciplines such as food science and technology, nutrition, psychology, marketing and hospitality. Armed with these qualities, the product is guaranteed for excellence which in turns satisfies the customer. Hanaysha (2016) believes that food quality is not only the main contributor to customer satisfaction but also on future intentions. Thus, it is vital for any foodservice establishment to guarantee the quality of the food they offer. Elements like temperature, taste, freshness and menu variety as a key factor in evaluating food quality. Rozekhi *et al.,* (2016).

Service Quality

Service quality referred as the act of answering the needs and wants of customer and how the service correlates with the customer's conjecture (Adil *et al.,* 2013). According to Sabir *et al.* (2014), service quality aids in building a good brand image that will lead to customer satisfaction if the service provided meets the reckoning of the customer. The SERVQUAL model was first conceptualized and proposed by Parasuraman, Zeithaml & Berry (1985) to measure customer's perceived service quality with practical implications (Amin &

Nasharuddin; 2013; Farooq *et al.,* 2018). The initial SERVQUAL model acquired 10 dimensions. This concept was further developed until they came up with a simplified model comprising five dimensions namely tangibles, reliability, responsiveness, assurance and empathy (Farooq *et al.,* 2018). This model has been widely adapted in numerous studies including hospitality and healthcare industries (Pizam *et al.,* 2015).

Price Satisfaction

Price fairness is very important to customers; this is defined as the perception of customer whether the price of a certain product is fitting of the values and quality it offers. Customers rely on past experiences to classify whether the product is fair in price. This ensures them the ability to maximize their chances of getting their money's worth, and furthermore dissatisfaction is caused when customer perceive the product as overpriced (Hanaysha, 2016). This statement is further fortified by Sabir et al., (2014) as price directly affects the customer that is willing to pay for what the product offers. In order to maintain or increase customer satisfaction, an organization must focus on values offered which they will provide the customer instead of being overly profit-oriented. According to Razak *et al.,* (2016), price is deemed into a quality that can be measured through factors such as affordability, comparison with competitor's price, suitability and price fairness which is translated as portion allocated with the price.

RESEARCH METHOD

NO	ITEM	EXPLANATION
1	Research type	Quantitative research
2	Location	Public Hospital in Kota Kinabalu Area
3	Population & sample size	(3 Hospital) 321 respondents
4	Data collection method & instrument	Survey form –Questionnaires
5	Data Analysis	Descriptive test, Mann- Whitney U & Kruskal-Wallis.

RESULT AND DISCUSSION

Table 1: Respondent Demographic Profiles (n=321)

321 out 350 questionnaires were analysed. Rate of response was found to be 92%.

Demographic Information	F(n)	%
Gender		
• Male	140	43.6
• **Female**	**181**	**56.4**
Age		
• **18 to 28 years old**	**143**	**44.5**
• 29 to 39 years old	96	29.9
• 40 to 50 years old	48	15.0
• Above 51 years old	34	10.6
Race		
• Malay	70	21.8
• Chinese	16	5.0
• Indian	10	3.1
• **Native Sabahan**	**221**	**68.8**
• Native Sarawakian	4	1.2
Religion		
• **Muslim**	**186**	**57.9**
• Christian	123	38.3
• Buddha	6	1.9
• Hindu	6	1.9

Demographic Information	F(n)	%
Education Level		
• No formal Education	3	0.9
• UPSR	18	5.6
• PMR/SPM	95	29.6
• **STPM/Certificate/Diploma**	**144**	**44.9**
• Degree	60	18.7
• PhD	1	0.3
Occupation		
• Not working	27	8.4
• **Government Employee**	**138**	**43.0**
• Private Employee	36	11.2
• Self-Employed	25	7.8
• Practical Student (Nurse)	95	29.6
Monthly Income		
• **Less than RM1000**	**143**	**44.5**
• RM1001 to RM2000	54	16.8
• RM2001 to RM3000	36	11.2
• RM3001 to RM4000	47	14.6
• RM4001 to RM5000	18	5.6
• RM5001 and above	23	7.2
Visiting Intentions		
• **Hospital Employee**	**179**	**55.8**
• Patient	5	1.6
• Visitor	137	42.7

Based on the demographic data depicted in Table 1, from 321 respondents, it was found that there are 181 females (56.4%) and 140 males (43.6%). There were 143 respondents (44.5%) found to be around the ages of 18 to 28 years old, This indicates that Healthy Cafeteria tends to receive young customers. 221 people out of 321 respondents are Native Sabahan (68.8%). As for religion, most respondents are Muslim with 186 respondents (57.9%), for education level, 144 respondents (44.9%) with STPM/Certificate/Diploma qualification. As for Occupation, 138 respondents were government employees (43%). Regarding monthly income, 143 respondents (44.5%) earn less than RM1000 per month,this indicates that Healthy Cafeteria tends to receive low- income customers. As for the visiting intentions, majority are hospital employees, consisting of 179 respondents (55.8%).

Table 2: Customer Satisfaction Levels based on Food Quality

Item	Mean Value± Standard Deviation	Scale for Level of Satisfaction
1. Evident used of food warmers in premise	4.33±1.61	satisfied
2. Food temperature based on customer preference.	**4.14±1.58**	satisfied
3. Taste of food.	4.47±1.31	satisfied
4. Taste of beverages.	4.59±1.47	satisfied
5. Various healthy menu items offered.	**4.86±1.41**	satisfied
6. Food cooked in multiple ways.	4.73±1.34	satisfied
7. Colour of food.	4.38±1.35	satisfied
8. Texture of food.	4.52±1.34	satisfied

For food quality, the most dominant item in determining food quality satisfaction amongst all Healthy Cafeteria is menu variety with mean score 4.86±1.41. This indicates that among all the

elements tested, customers are most satisfied with the menu variety offered that is balanced and nutritious. They are happy that they can obtain healthy menu items, which supports Hanasyha (2016) study. The lowest rated item is food temperature based on preference with mean score 4.14±1.58. This indicates that improvements such as ensuring the use of hot holding equipment are fully utilized to maintain the temperature of food.

Table 3: Customer Satisfaction Levels based on Service Quality

Item	Overall Mean ± Standard Deviation	Scale for Level of Satisfaction
1. Noticeably clean and appropriate dressed employees.	**4.70±1.40**	**satisfied**
2. Presence of physical facilities such as sinks.	**5.44±1.28**	satisfied
3. Employees use disposable gloves and aprons.	4.36±1.52	satisfied
4. The environment is clean and food safety is assured.	4.81±1.43	satisfied
5. Prompt service by employees.	4.53±1.43	satisfied
6. Accurate orders.	4.52±1.34	satisfied
7. Special routes for patients, senior citizens are provided.	**3.15±1.64**	**dissatisfied**
8. Presence of ramp for wheel-chair bound patients and visitor.	3.17±1.66	**dissatisfied**

For service quality, the most dominant element in affecting service quality satisfaction amongst all Healthy Cafeteria is tangibles element which is presence of physical facilities such as sinks with mean score 5.44±1.28. Empathy elements in terms of providing personalized facilities of the elderly and sickly recorded the lowest mean with 3.15±1.64. This indicates that improvements such as providing routes for these kinds of customer should be implemented. Tangibles are important in any establishment as it concerns the presence of physical facilities and equipment (Nguyen *et al.,* 2018). Although providing facilities is not one of the traits of Healthy Cafeteria, but it is a general right for customers to obtain facilities they require in a healthcare facility. Healthy Cafeteria has provided tables and chairs for customers use, utensils, the equipment used to hold and serve menu items, facilities such as washroom and sink and of course the menu item themselves. Customers are happy that the facilities and equipment provided at Healthy Cafeteria cater to their basic needs.

Table 4: Customer Satisfaction Levels based on Price

Item	Overall Mean ± Standard Deviation	Scale for Level of Satisfaction
1. Affordability to purchase complete set meal.	4.54±1.58	satisfied
2. Affordability to purchase food daily.	4.57±1.51	satisfied
3. The price is cheaper than nearby food establishments.	**4.63±1.54**	satisfied
4. The price is cheaper than nearby food establishment of similar concept (Vegetarian concept, Health conscious concept).	4.47±1.51	satisfied
5. Price charged for food is suitable.	**4.40±1.57**	satisfied
6. Price charged for the beverage is suitable.	4.59±1.49	satisfied
7. Price for food portion is reasonable.	4.46±1.54	satisfied
8. Price for beverage portion is reasonable.	4.54±1.49	satisfied

For price, the most dominant element in affecting price satisfaction amongst all Healthy Cafeteria is comparison with competitor's price with mean score of 4.63±1.54. This indicates that among all the elements tested, customers are most content with the price incurred for their meals at Healthy Cafeteria than other food establishments nearby. The lowest customer satisfaction recorded was for suitability with 4.40±1.57, indicating that improvements must be made towards food portion pricing. Chua *et al.* (2015) claims that generally a product or service is objectively deemed 'cheap' or 'expensive' by the value the product perceives. This is the determinant factor whether a customer could afford the product or service. Moreover, affordability has a strong relationship with suitability and assessing competitor's price. Hence, reducing the need to opt for competitors' products and services (Garg & Kumal, 2017). Moreover, as customers are presented with healthy menu options, customers would be inclined to take up the healthy eating lifestyle when it is at an affordable price.

Table 5: Overall Mean of Customer Satisfaction at Healthy Cafeteria

NO.	FACTOR	OVERALL MEAN ± STANDARD DEVIATION	SCALE FOR LEVEL OF SATISFACTION
1	FOOD QUALITY	**4.50±1.43**	Satisfied
2	SERVICE QUALITY	**4.33±1.43**	Satisfied
3	PRICE	**4.57±1.53**	Satisfied

Scale Mean range Dissatisfied: 1.00-3.99, Satisfied: 4.00-7.00: Source: Namkung & Jang (2007)

For the overall mean of customer satisfaction, price scored the highest mean level (4.57±1.53) followed by food quality (4.50±1.43) and the lowest mean is on service quality (4.33±1.43) all factor are on satisfied level.

Table 6: Overall Relationship between Customer Satisfaction and Demographic Factors

Demographic Factors	p Value		
	Food Quality	Service Quality	Price Satisfaction
Gender	0.552	0.172	0.375
Age	0.472	0.074	**0.004**
Race	0.316	0.478	**0.038**
Religion	0.220	0.489	**0.041**
Education Level	**0.001**	**0.006**	**0.001**
Occupation	0.098	0.291	**0.001**
Monthly Income	0.071	**0.001**	**0.001**
Visiting Intentions	**0.010**	**0.001**	**0.001**

*p<0.05: Significant, p>0.05: Not Significant

Based on Table 6, the p values which are p=0.552>0.05, p=0.0172>0.05 and p=0.375>0.05 indicates there is no significant difference between gender and food quality, service quality along with price satisfaction. This shows that there is no difference opinion between male and female towards overall customer satisfaction in terms of quality, service quality and price satisfaction. However, in Manippa *et al.,* (2017) study, it was found that there is a significant difference between gender, furthermore results from this study supports Sun & Qu (2011) as it was found there is no difference in across gender and service quality. In terms of price satisfaction, this result contradicts Kraljević & Filipovic (2017) found that there is a significant difference in gender and price satisfaction in terms of price sensitivity. In their study, it was found that women are more price sensitive than males. It is shown that there is a significant difference between price satisfaction and nearly all demographic factors. Thus, it can be said demographic profiles has an impact on price satisfaction. Food quality was only impacted by education level and visiting intentions as these demographic factors achieved a significant difference towards customer satisfaction levels. Next, based on the results obtained, two demographic factors are found to have a significant impact with all customer satisfaction level namely education level and visiting intentions with both obtaining p < 0.05. This indicates that customer satisfactions at Healthy Cafeteria are influenced by the education background and intentions of visit.

CONCLUSION AND RECOMMENDATION

Price scored the highest mean level (4.57±1.53) therefore plays a key role in customer satisfaction. in addition this finding support KKM aim for introducing Healthy Cafeteria which is to introduce healthy menu as in food quality factor : various healthy menu items offered scored the highest mean (4.86±1.41) and   the food sold at an affordable price, as in price quality factor: the price is cheaper than nearby food establishments scored the highest mean (4.63±1.54). As recommendation for service quality factor, government hospital may consider to provide facilities like special lanes or counter for payment and also wheelchair ramp for easy access to patients, visitor like senior citizen and person with disabilities.

REFERENCES

Adil, M., Ghaswyneh, O. F. M. Al, & Albkour, A. M. 2013. SERVQUAL and SERVPERF: A Review of Measures in Services Marketing Research. Global Journal of Management and Business Research Marketing. 13(6): 64–76.

Amin, M. & Nasharuddin, S.Z. 2013. Hospital Service Quality and Its Effects on Patient Satisfaction and Behavioural Intention. Clinical Governance: An International Journal. 18(3): 238–254.

Busra, N. N., Dolah, S. N., Haslina, A., Ngah, C., & Samsudin, A. 2017. Government Hospitals Food Quality and Patient Satisfaction. Journal of Tourism, Hospitality & Culinary Arts. 9(2): 593–602.

Chua, B.L, Lee, S.H., Goh, B. & Han, H. 2015. Impacts of Cruise Service Quality and Price on Vacationers' Cruise Experience: Moderating Role of Price Sensitivity.

Farooq, M. S., Salam, M., Fayolle, A., Jaafar, N., & Ayupp, K. 2018. Impact of Service Quality on Customer Satisfaction in Malaysia Airlines: A PLS-SEM Approach. Journal of Air Transport Management. 67: 169–180.

Garg, A. & Kumar, J. 2017. Exploring customer satisfaction with university cafeteria food services. An empirical study of Temptation Restaurant at Taylor's University, Malaysia. European Journal of Tourism Hospitality and Recreation. 8(2): 96-106.

Hanaysha, J. 2016. Testing the Effects of Food Quality, Price Fairness, and Physical Environment on Customer Satisfaction in Fast Food Restaurant Industry. Journal of Asian Business Strategy, 6 (2): 31–40.

Kraljević, R. & Filipovic Z. 2017. Gender Differences and Consumer Behavior of Millennials. Acta Economica Et Turistica. 3(1): 1-98

Lu, C., Berchoux, C., Marek, M. W., & Chen, B. 2015. Service quality and customer satisfaction: qualitative research implications for luxury hotels. International Journal of Culture, Tourism & Hospitality. 9(2): 168-172

Manippa, V., Padulo, C., Laan, L. N., Brancucci. 2017. Gender Differences in Food Choice: Effects of Superior Temporal Sulcus Stimulation. Frontiers in Human Neuroscience. 11: 597.

Ministry of Health. 2016. Garis Panduan Penilaian Pengiktirafan Kafeteria Sihat. Bahagian Perkhidmatan Farmasi. 2: 1-13.

Mustapha, F. 2014. Overview on Obesity, Aetiology and Epidemic in Malaysia: How Serious is the Problem? Selangor: Ministry of Health.

Nguyen, Q., Nisar, T., Knox, D., & Prabakar, G. 2018. The Influence of The Tangible Attributes of Perceived Service Quality. British Food Journal. 103(1): 36–45.

Pizam, A., Shapoval, V., & Ellis, T. 2015. Customer satisfaction and its measurement in hospitality enterprises: a revisit and update. International Journal of Contemporary Hospitality Management, 28(1): 2–35.

Razak, I., Nirwanto, N. & Triatmoto, B. 2016. The Impact of Product Quality and Price on Customer Satisfaction with the Mediator of Customer Value. An International Peer-reviewed Journal. 30: 59-66

Rozekhi, N. A., Hussin, S. Siddiq, A. S. K. A. R., Rashid, P. D. A. & Salmi, N. S. 2016. The Influence of Food Quality on Customer Satisfaction in Fine Dining Restaurant: Case in Penang. International Academic Research Journal of Business and Technology. 2(2): 45–50.

Sabir, R. I., Ghafoor, O., Hafeez, I., Akhtar, N., & Rehman, A. U. 2014. Factors Affecting Customers Satisfaction in Restaurants Industry in Pakistan. International Review of Management and Business Research. 3(2): 869–876.

Sun, L.B. & Qu, H. 2011. Is There Any Gender effect on the Relationship Between Service Quality and Word-of-Mouth? Journal of Travel & Tourism Marketing. 28: 210–224

World Health Organization. 2016. Global Action for the Prevention and Control of Noncommunicable Disease 2013-2020. Geneva: WHO.

Yan, X., Wang, J & Chau, M. 2015. Customer Revisit Intention to Restaurants: Evidence from Online Reviews. Springer Science+Business Media. New York.