

Available online at www.sciencedirect.com**SciVerse ScienceDirect**

Procedia - Social and Behavioral Sciences 38 (2012) 380 – 387

Procedia
Social and Behavioral Sciences

AicE-Bs 2010 Kuching

Asia Pacific International Conference on Environment-Behaviour Studies, Grand
Margherita Hotel, Kuching, Sarawak, Malaysia, 7-9 December 2010

Restaurant's Atmospheric Elements: What the Customer Wants

Hashim Fadzil Ariffin^{*}, Mohamad Fahmi Bibon & Raja Puteri Saadiah Raja
Abdullah*Faculty of Hotel and Tourism Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*

Abstract

The purpose of the study is to examine youth customer behaviour due to the restaurant's atmospheric element environment. It also explores the environment of the restaurant and the use of atmospherics by the restaurateurs through the reactions of the customers. The dimensions of colour, design, lighting, and restaurant layout, among others, were measured. Qualitative data taken from 300 youth customers were analyzed, and interpretations of the relationships were made. It was found that atmospheric elements contributed significantly in each representation of customer behaviour.

© 2012 Published by Elsevier B.V. Selection and/or peer-review under responsibility of Centre for Environment-Behaviour Studies(cE-Bs), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia
Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Restaurant atmosphere; customer behaviour; youth

1. Introduction

In order to meet the expectation with actual, if not optimum performance in restaurants, customer behaviour must be studied. Obviously, it takes more than food to create a good dining experience. Presentation of the restaurant environment must be taken into consideration in creating more a meaningful

^{*} Corresponding author. Tel.: +6-012-385-6140; fax: +6-03-5543-5698.
E-mail address: hashim@salam.uitm.edu.my.

experience to restaurant patronage. The purpose of the study is to examine youth (customer) behaviour due to atmospheric elements in restaurants - and its effects on patronage mood, decision making behaviour, satisfaction level, and gestures. In addition, it explores the environment of the restaurant and the use of atmospherics by restaurateurs in regard to the reactions shown by customers to the atmosphere. The dimensions of colours, design, lighting, and restaurant layout, among others, were measured.

2. Literature Review

A review of the literature reveals that several definitions have been put forward to characterise the servicescape. Servicescape has been defined as all of the objective physical factors that can be controlled by the firm to enhance (or constrain) employee and customer actions by Bitner (1992, p. 65). Kotler (1973, p. 50) defined servicescape as "...design [of] buying environments to produce specific emotional effects in the buyer that enhance his [or her] purchase probability". Arnould, Price and Tierney (1998, p. 90) defined it as "consciously designed places, calculated to produce commercially significant actions". Added to the definition, in Babin and Attaway's (2000, p. 93), estimation, the servicescape "evokes emotions, which help determine value, and this value motivates customers to patronize a given choice repeatedly".

Atmospherics has been defined as "the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability" (Kotler, 1973, p. 50). The main sensory channels for atmosphere are sight, sound, scent and touch (Kotler, 1973, p. 51). In a review of the atmospherics literature, Turley and Milliman (2000) designated a "general interior" atmospherics category which includes music, sound, lighting, scent, colour, temperature (often referred to as "ambient" environmental cues), and visual design elements. It is generally accepted that the term '*atmospherics*' was coined by Kotler (1973) who first documented the influence of the in-store environment on the perceptual processes of customers' (cf. Turley & Milliman, 2000, p. 193-211), leading to purchase/non-purchase decisions. Based on the early research in environmental psychology, Kotler (1973) took a narrower perspective by focusing on consumer behaviour and the effects that the physical environment has on it. He asserted that customers perceive store atmosphere through a combination of visual (color, lighting, proximity and number of visual elements); aural (music type, sound level); tactile (cleanliness); and olfactory (scent); cues present within the service environment.

Ezeh and Harris in the Marketing Review 2007 cited in Kotler (1973) called for further research in the area as they observed that there was, quite frequently, a disconnection between the use of nonverbal cues to project the atmosphere intended by the retailer, and the same as perceived by the customer. In one of their studies, Ezeh and Harris (2007, p. 59), mentioned that back in 1943, looking at the bombed House of Commons, Winston Churchill is recorded saying: "*we shape our buildings and afterwards, they shape us*". This lasting quote by Churchill signals his recognition of the servicescape influence on human behaviour. Churchill's position was reflected almost fifty years later by Bitner (1992, p. 59) who stated that the belief "that human behaviour is influenced by the physical setting in which it occurs is essentially a truism". Based on this classification, Bitner (1992) made up the term 'servicescapes' in reference to the physical surroundings as fashioned by service organizations to facilitate the provision of service offerings to customers. It is asserted that the servicescape comprises both tangible and intangible features which make up the service experience (cf. Hoffman and Turley, 2002) and exact an influence on employee and customer behaviour (cf. Baker, 1987; Bitner, 1992; Hoffman and Turley, 2002; Turley and Milliman, 2000). The influence of atmospherics in marketing contexts is based on the premise that the design of an environment through a variety of means — including lighting, layout, sound, colour, and temperature — could stimulate perceptual and emotional responses in consumers and affect their behaviours (Kotler, 1973). Sustained with the matter, Bitner (1992) pointed out that the ability of the physical environment to

influence behaviours and to create an image is particularly apparent for service businesses such as hotels, restaurants, professional offices, banks, retail stores, and hospitals. She also cited the same opinions from Baker (1987), Bitner (1986), Booms and Bitner (1982), Kotler (1973), Shostack (1977), Upah and Fulton (1985), and Zeithaml, Parasuraman, and Berry (1985). The service generally is produced and consumed simultaneously, the consumer is "in the factory," who often experience the total service within the firm's physical facility. The physical environment is rich in such cues (Rapoport, 1982) and may be very influential in communicating the firm's image and purpose to its customers.

A very limited number of empirical studies in consumer research confirm that ambient factors may influence customer responses. For example, in studies of restaurants and supermarkets, it has been illustrated that music tempo can affect the pace of shopping, length of stay, and amount of money spent (Milliman 1982, 1986). In another study, familiarity of music played in a department store setting was found to affect the shopper's perceptions of how long they spent shopping; when the music was unfamiliar to subjects, they believed they had spent more time shopping (Yalch and Spangenberg, 1988). Wall and Berry (2007, p. 59) in their research stated that although food quality is basic, the ambience and service performance greatly influence a customer's evaluation of a particular establishment. Diners use the following types of clues to judge a restaurant experience: functional—the technical quality of the food and service; mechanic—the ambience and other design and technical elements; and humanism—the performance, behaviour, and appearance of the employees sharing the same principle. This is consistent with the findings of Parsa, Self, Njite, and King (2005), who found that while food quality was critical to restaurant success; excellent food alone did not guarantee success.

According to Han and Ryu (2009) in their research, customer loyalty depends largely on customer satisfaction. The same idea is shared with Fornell, Johnston, Anderson, Cha, and Bryant (1996), Ladhari, Brun and Morales (2008), and McDougall and Levesque (2000). Thus, a large body of research in services marketing has focused on identifying the factors that enhance customer satisfaction level. Research suggests that ultimately, customer satisfaction is strongly influenced by physical surroundings and price perception (Dube, Johnson and Renaghan, 1999; Knutson and Patton, 1995; Ryu, 2005; Varki and Colgate, 2001). Unlike buyers of tangible products, service customers are limited to a small number of cues to evaluate their overall experience because of the intangible nature of service (Nguyen and Leblanc, 2002; Reimer and Kuehn, 2005). In many cases, price and the physical environment (e.g., décor and artifacts, spatial layout, and ambient conditions) are the only tangible cues available (Bitner, 1992; Zeithaml, 1981).

Thus, from the service provider's point of view, the physical environment and reasonable price are two essential elements that determine the level of customer satisfaction, and ultimately enhance customer loyalty (cf. Bolton and Lemon, 1999; Nguyen and Leblanc, 2002; Reimer and Kuehn, 2005; Ryu and Jang, 2007; Varki and Colgate, 2001). The importance of the physical environment in influencing behaviours has been verified in many consumer behaviour studies such as by Reimer and Kuehn (2005), and Wakefield and Blodgett (1994). It was found that making the atmosphere more pleasant and innovative was essential for a firm's success. The role of the physical environment in influencing customer behaviours and in creating a provider's image is especially pertinent in a service industry such as the restaurant industry (Booms and Bitner, 1982).

Kotler (1973) indicated that, in some situations, the atmosphere of the place could be as much important as the product itself (e.g., foods and services) in purchasing decision making. According to research in environmental psychology, human behaviour is strongly associated with the physical environment (Mehrabian and Russel, 1974; Russel and Pratt, 1980). Several studies from Aubert-Gamet (1997), Dawson, Bloch and Ridgeway (1990), and Hutton and Richardson (1995) have substantiated the link between emotions and approach-avoidance behaviour. It has been argued that arousal interacts with pleasure thereby increasing approach behaviours in pleasant servicescapes, and increasing avoidance

behaviours in unpleasant servicescapes (Donovan and Rossiter, 1982; Donovan, Rossiter, Marcolyn and Nesdale, 1994). Similarly, Baker, Levy and Grewal (1992) found that pleasure and arousal were both related to willingness to buy. In addition to that, Gardner (1985) even proposes that small changes in the servicescape can lead to changes in customers' moods at the point of purchase because affective stimulation is responsible for cases of impulse purchasing. Based on the examination of previous research, five atmospheric elements were included in this study namely style, layout, colour, lighting, and furnishing.

The third category is ambient conditions, cited from Baker (1987), and Nguyen and Leblanc (2002) as they defined them as intangible background characteristics that generally have a subconscious effect on customer perception and response to the environment. Bitner (1992) added that, these conditions include elements that are considered background characteristics of the environment. The ambient conditions of the physical environment in service settings encourage customers to pursue the service consumptions and consequently affect their attitudes and behaviours toward the provider (Hui, Dube and Chebat, 1997; Nguyen and Leblanc, 2002). Pleasant scent, pleasing music, comfortable temperature, low noise level and adequate lighting, all harmonising with other elements in a restaurant, may result in customers having more favourable perceptions of an operation and evaluating their experiences more positively. According to Mehrabian and Russel (1974), and Russel and Pratt (1980), research in environmental psychology has proven that human behaviour is strongly associated with the physical environment. Specifically, Mehrabian's and Russel's (1974) theory indicated that individuals generally react to the environment in two opposite ways: approach and avoidance. Whereas approach behaviours can be seen as positive responses to the environment of a place (e.g., desire to stay, work, and affiliate), avoidance behaviours can be described as negative responses (e.g., a desire not to stay, work, and affiliate).

3. Methodology

Data were collected via questionnaires and the sampling method was used as convenience sampling. The questionnaire was divided into two parts: Part 1- Atmospheric elements of the restaurant and Part 2- Customer behaviour. The dimensions for atmospheric elements are style of the restaurant, layout of the restaurant, colours of the restaurant, lighting of the restaurants and furnishing of the restaurant. The dimensions for consumer behaviour such as word of mouth, intentions revisit intentions, and attitude to the restaurant are derived from the scales developed by Zeithaml et al. (1996). On the other hand, positive mood was measured by the 10-item positive mood scale and negative mood was measured by the 10-item negative mood scale, both from Positive and Negative Affect Scale (Watson, Clark, and Tellegen, 1988). The items on Atmospheric Elements will be further used as the exogenous variables in a multiple regression model that utilised Customer Behaviour endogenous variable. The reliability of the scale was measured.

4. Results

4.1. Subject demography

There were 108 males (36 percent) and 192 females (64 percent) surveyed, which amounted to 300 respondents. Majority of the respondents were in between the age of 21 and 25 years old (71 percent). The educational level of the respondents ranged from Diploma (24 percent), to Masters (14 percent). The majority of the respondents (62 percent) possessed a Bachelor's Degree.

4.2. Reliability

Commonly accepted measure of testing the reliability is through measuring the value of Cronbach’s Alpha (Cronbach, 1990; Tabachnick and Fidell, 2001), and calculated using SPSS 17. Part A consisted of 18 items which measured respondents’ attitude towards atmospheric elements of the restaurants which they recently visited or patronised. Reliability of five sub-dimensions were measured for style, layout, colour, lighting and furnishing of the restaurant and they respectively achieved reliability values of 0.82, 0.70, 0.83, 0.85, 0.79. Part B consisted of all dimensions that measured respondents’ attitude when they visited the restaurant such as attitude to the restaurant, word of mouth intentions, revisit intentions, good mood and bad mood; which scored 0.36, 0.86, 0.90, 0.92, and 0.95 respectively. All values that were found to be above 0.70 were hence considered reliable as proposed by Pallant (2005). Furthermore, it is acceptable if the alpha score is 0.50 and above when measuring attitudes (Chandon, Pierre-Yves and Philippe, 1996). Guilford (1958) also suggested the minimum acceptable level of reliability is 0.3.

4.3. Multiple Regression

Multi regression analysis was made to test how well the measure of atmospheric elements predict attitudes, word of mouth intention, revisit intention, good moods and bad moods. Overall, atmospheric elements were found significant (sig. value = 0.000 < α = 0.05); thus the model can be used for explanation or prediction of customer behaviour. However, some of the variables were found to be insignificant to be included in the model (sig. value > α = 0.05). Therefore, these variables were considered to be removed in order to improve the model. In addition, Beta coefficient indicates which variables are important to the model by looking at the largest value derived. Prediction of customer behaviour is explained in Figure 1. The most significant and largest unique contribution to the model is how restaurant’s style contributes especially to customer behaviour in regards to good mood. The variable is also contributing significantly in each representation of customer behaviour. However, colour is omitted due to its insignificant function played.

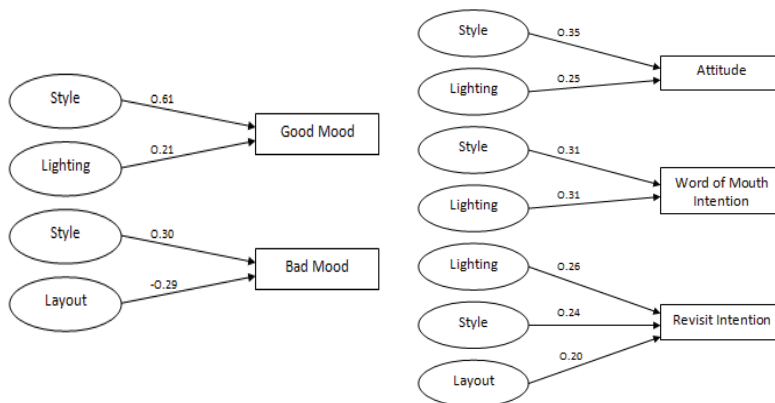


Fig. 1. Standardized beta scores by significant variables of atmospheric elements to customer behaviour

5. Discussion, Implication and Conclusion

It is very crucial to discover the importance of dimensions involved in effort to grasp the complexity of youth customer behaviour. Restaurateurs need to be tactful in order for such aspects in creating the right atmospheric elements so that youth customers are not neglected. Thus, planning and executing design and layout must be made meticulously to ensure the atmospheric elements in a restaurant will later paint the desired experience to patronising customers.

The study has identified atmospheric elements which future and present restaurateurs may want to consider in creating the right ambiance to youth customers. Elements of style particularly have its significance in contributing to customer behaviour in various ways, as measured in this study. On the contrary, element of colour was removed, as it did not give much significance to project any type of customer behaviour. The study showed that certain atmospheric elements generated different types of customer behaviour. For instance, in order for revisit intention to occur, it was suggested that the restaurant refurbish itself with appropriate lighting, refined style, and accommodating layout (Reimer and Kuehn, 2005). Thus, future restaurateurs may use the model to manipulate their customers. A creative restaurateur should easily be able to be inspired by the findings of this study, and make it into good practices. Efforts in enhancing lighting and style of the restaurant would easily save vast amounts for promotion and advertisement, as word of mouth would easily spread around.

Experience deals with intangible and tangible products. Creating meaningful atmospheric elements in a restaurant would help to justify why the customer behaves in a certain manner. The nature of these behaviours is possible be controlled and formed. Indeed, the study and results gained from this study can be very useful to restaurateurs in rejuvenating their atmospherics to mutually benefit themselves and their customers.

References

- Arnould, E. J., Price, L. L., & Tierney, P. (1998). Communicative staging of the wilderness servicescape. *The Service Industries Journal*, 18 (3), 90-115.
- Aubert-Gamet, V. (1997). Twisting servicescapes: Diversion of the physical environment in a re-appropriation process. *International Journal of Service Industry Management*, 8(1), 26-41.
- Babin, B. J., & Attaway, J. S. (2000). Atmospheric affect as a tool for creating value and gaining share of customer. *Journal of Business Research*, 49(2), 91-99.
- Baker, J. (1987). The role of the environment in marketing services: The customer perspective," in *The Services Challenge: Integrating for Competitive Advantage*, John A. Czepiel, Carole A. Congram, and James Shanahan, eds. Chicago: *American Marketing Association*, 79-84.
- Baker, J., Levy, M., & Grewal, D. (1992). An experimental approach to making retail store environmental decisions. *Journal of Retailing*, 68, 4, 445-460.
- Bitner, M.J. (1986). Consumer Responses to the Physical Environment in Service Settings," in *Creativity in Services Marketing*, M. Venkatesan, Diane M. Schmalensee, and Claudia Marshall, eds. Chicago: American Marketing Association, 89-93.
- Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, 56(2), 57-71.
- Bolton, R. N., & Lemon, K. N. (1999). A dynamic model of customers' usage of services: Usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research*, 36, 171-186.
- Booms, Bernard H. & Bitner, M. J. (1982). Marketing services by managing the environment. *Cornell Hotel and Restaurant Administration Quarterly*, 23(May), 35-39.
- Chandon, J. L., Pierre-Yves., & Philippe, J. (1996). Service encounter dimension- a dyadic perspective: Measuring the dimension of service encounters as perceived by customers and personnel, *International Journal of Service Industry Management*, 8, 65-86.
- Churchill, W. (1943). Address to members of the House of Commons (Meeting in the House of Lords), WSC, 28 October.
- Cronbach, L. J. (1990). *Essentials of Psychological Testing* (5th Ed.). New York: Harper & Row.

- Dawson, S., Bloch, P.H., & Ridgeway, N. (1990). Shopping motives, emotional states and retail outcomes. *Journal of Retailing*, 66, 4, 408-427.
- Donovan, R., & Rossiter, J. (1982). Store atmosphere: An environmental psychology approach. *Journal of Retailing*, 58 (Spring), 34-57.
- Donovan, R. J., Rossiter, J. Marcolyn, G., & Nesdale, A. (1994). Store atmosphere and purchasing behaviour. *Journal of Retailing*, 70(3), 283-294.
- Dube, L., Johnson, M. D., & Renaghan, L. M. (1999). Adapting the QFD approach to extended service transactions. *Production and Operations Management*, 8, 301-317.
- Ezeh, C., & Harris, L. C. (2007). Servicescape research: a review and a research agenda. *The Marketing Review*, 7(1), 59-78. Westburn Publisher Ltd.
- Fornell, C., Johnston, M. D., Anderson, E., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60, 7-18.
- Gardner, M. P. (1985). Mood states and customer behaviour: A critical review. *Journal of Consumer Research*, 12(3), 281-300.
- Guilford (1958). *Fundamental Statistics in Psychology and Education* (5th ed.). New York: McGraw-Hill.
- Han, H., & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality & Tourism Research*, 33, 487. Published by sagepublicatons.
- Hoffman, K. D., & Turley, L. W. (2002). Atmospherics, service encounters and consumer decision making: An integrative perspective. *Journal of Marketing Theory and Practice*, 10(3), 33-47.
- Hui, M. K., Dube, L., & Chebat, J. (1997). The impact of music on consumer's reaction to waiting for services. *Journal of Retailing*, 73, 87-104.
- Hutton, J. D., & Richardson, L. D. (1995). Healthscapes: The role of the facility and physical environment on consumer attitudes, satisfaction, quality assessments, and behaviours. *Health Care Management Review*, 20, 2, 48-61.
- Knutson, B. J., & Patton, M. E. (1995). Restaurants can find gold among silver hair: Opportunities in the 55+ market. *Journal of Hospitality & Leisure Marketing*, 1(3), 79-90.
- Kotler, P. (1973). Atmospherics as a marketing tool. *Journal of Retailing*, 49(4), 48-64.
- Ladhari, R., Brun, I., & Morales, M. (2008). Determinants of dining satisfaction and post-dining behavioral intentions. *International Journal of Hospitality Management*, 27, 563-573.
- McDougall, G., & Levesque, T. (2000). Customer satisfaction and future intentions: The role of perceived value and service quality. *Journal of Services Marketing*, 14, 392-410.
- Mehrabian, A., & Russel, J. A. (1974). *An Approach to Environmental Psychology*. Cambridge: MIT Press.
- Milliman, R. (1982). Using background music to affect the behavior of supermarket shoppers. *Journal of Marketing*, 46 (Summer), 86-91.
- Milliman, R. (1986). The influence of background music on the behavior of restaurant patrons. *Journal of Consumer Research*, 13 (September), 286-289.
- Nguyen, N., & Leblanc, G. (2002). Contact personnel, physical environment and the perceived corporate image of intangible services by new clients. *International Journal of Service Industry Management*, 13, 242-262.
- Pallant, J. (2005). *SPSS Survival Manual: a Step by Step Guide to Data Analysis using SPSS for Windows version 12* (2nd Ed.). Sydney: Allen & Unwin.
- Parsa, H. G., J. T. Self, D. Njite, & T. King. (2005). Why restaurants fail. *Cornell Hotel and Restaurant Administration Quarterly*, 46 (3), 304-323.
- Rapoport, A. (1982). *The Meaning of the Built Environment*. Beverly Hills, CA: Sage Publications, Inc.
- Reimer, A., & Kuehn, R. (2005). The impact of servicescape on quality perception. *European Journal of Marketing*, 39, 785-808.
- Russel, J. A., & Pratt, G. (1980). A description of affective quality attributed to environment. *Journal of Personality and Social Psychology*, 38, 311-322.
- Ryu, K. (2005). DINESCAPE, emotions, and behavioral intentions in upscale restaurants. Unpublished doctoral dissertation, Kansas State University, Manhattan, KS.
- Ryu, K., & Jang, S. (2007). The effect of environmental perceptions on behavioral intentions through emotions: The case of upscale restaurants. *Journal of Hospitality & Tourism Research*, 31, 56-72.
- Shostack, G. Lynn (1977). Breaking free from product marketing. *Journal of Marketing*, 41 (April), 73-80
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th Ed.). New York: HarperCollins.
- Turley, L.W., & Milliman, R.E. (2000). Atmospheric effects on shopping behavior: a review of the experimental evidence. *Journal of Business Research*, 49, 2, 193-211. New York: HarperCollins.
- Upah, G. D., & Fulton, J. N. (1985). Situation creation in services marketing. In *The Service Encounter*, John Czepiel, Michael Solomon, & Carol Surprenant, eds. Lexington, MA: Lexington Books, 255-264.
- Varki, S., & Colgate, M. (2001). The role of price perceptions in an integrated model of behavioral intentions. *Journal of Service Research*, 3, 232-240.

- Wakefield, K. L., & Blodgett, J. G. (1994). The importance of servicescapes in leisure service settings. *Journal of Services Marketing*, 8(3), 66-76.
- Wall, E. A., & Berry, L. L. (2007). The combined effects of the physical environment and employee behavior on customer perception of restaurant service quality. *Cornell Hotel and Restaurant Administration Quarterly*, 48, 59.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070.
- Yatch, R., & E. Spangenberg (1988). An Environmental Psychological Study of Foreground and Background Music as Retail Atmospheric Factors, in Efficiency and Effectiveness in Marketing Gary Frazier et al., eds., Chicago, IL: American Marketing Association, 106-110.
- Zeithaml, V. A. (1981). How consumer evaluation processes differ between goods and services. In J. Donnelly & W. George (Eds.), *Marketing of services proceedings series* (pp. 186-190). Chicago: American Marketing Association.
- Zeithaml, V. A., A. Parasuraman, & L. L. Berry (1985). Problems and strategies in services marketing. *Journal of Marketing*, 49, 22-46.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60, 31-46.