

## Conference Paper

# **Value-Based Fairness in Malaysian Five-Star Resorts: Measuring the Roles of Service-Related Attributes and Guest Behavioral Loyalty**

Md Sazzad Hossain  
*Taylor's University, Malaysia*

Gamal S. A. Khalifa  
*Fayoum University, Egypt, and Lincoln University College, Malaysia*

Muhammad Abu Horaira  
*IUBAT-International University of Business Agriculture and Technology, Bangladesh*

© The Author(s) 2019. This article is published with open access by Taylor's Press.

---

**Abstract:** A loyal guest has demanded value-based fairness at the time of purchasing a product or accommodation as a member or regular guest. The purpose of the paper is to examine the relationships between service disclosure, price fairness, problem-solving, system adaptation, guest behavioral loyalty, and value-based fairness in Malaysian five-star resorts. This study follows the questionnaire survey-based procedure to collect data from the resort's guests, and 392 valid responses were collected. The analytical technique offers SEM (Structural Modelling Equation) to test the hypotheses of the model. The results found the relationships of influencing factors of guest behavioural loyalty and value-based fairness. Furthermore, guest behavioral loyalty significantly mediates between affecting factor of guest behavioural loyalty and value-based fairness. Thus, the model synthesized the links of verifying research and providing articulation of constructs on how might apply within the resort industry context. Research findings were achieved objectives simultaneously and will, assist the resort management and implement value-based fairness for the regular guest as connecting long-term relationship.

**Keywords:** Quality disclosure, price fairness, problem-solving, system adaptation, guest behavioural loyalty, and value-based fairness

**Suggested citation:** Hossain, M.Z., Khalifa, G.S.A & Abu Horaira, M. (2019). Value-based fairness in Malaysian five-star resorts: Measuring the roles of service-related attributes and guest behavioral loyalty. *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, Vol. 8 [7th Asia Euro Conference 2018: Tourism, Hospitality & Gastronomy], 1-28.

---

## **Introduction**

Malaysia's hospitality industry plays an essential role in the country's total economic growth (Mohamud, Khalifa, Abuelhassa & Kaliyamoorthy, 2017). Although this industry has exponential growth globally, there remains many ever-growing and ever-evolving challenges, including stiff competition. These challenges signifies the guest increased range of choices, higher expenditure and levels of service (Abd-Elaziz, Aziz, Khalifa & Abdel-Aleem, 2015; Abou-Shouk & Khalifa, 2017; Khalifa & Abou-Shouk, 2014; Wangpimoon, 2017). Today's hospitality industry is exceptionally competitive, especially in Asia's countries and guest demanding standard service or looking alternatives (Daun & Klinger, 2006; Mattila, Hellström & Törrönen, 2006). Therefore, service offerings are now considered possessions that reflects on guest regular purchase and involve to join loyalty program and enjoy value-based fairness (Evanschitzky, Iyer, Plassmann, Niessing & Meffert, 2006).

While the definition of fairness is sometimes challenging to explain because what is fair to one person can be considered unfair to another (Saulters, Hendrickson & Chaddad, 2018), and value-based fairness derived from broad participation of resort guests. Value-based fairness is the decision of top management teams after taking into account how guests perceive a product or service concerning fairness (TM Ingenbleek, 2014). However, while past studies have looked at guest facilities in terms of price such as commissions, value fairness, incentives or promotions (Amer, Busson & Lassous, 2018; Doliya & Singh, 2015; Hwang, Baloglu & Tanford, 2019; Kienzler, Koch & Vázquez, 2018). It would be beneficial to include cost decreases, revenue increases and achieving profitable fairness to derive better insights for long-time relationships with guests (Hinterhuber, 2008, 2004; Kandampully & Hu, 2007).

In addition, guest behavioral loyalty is a dimension of customer loyalty (Abd-Elaziz et al., 2015; Abou-Shouk and Khalifa, 2017; Kandampully, Zhang, & Bilgihan, 2015), which is an essential part of the service-oriented industry. Oliver, (1999) has referred that guest behavioral loyalty profoundly entrenched commitment to patronize service and product consistently despite situational influence or market effort to change the preference. Thus, Ball, Simões Coelho, & Machás (2004) have divided loyalty into two dimensions; attitudinal and behavioral. Behavioral loyalty is related to repeat transaction, while attitudinal is related to the positive effect of continue relationship. Undeniably, resort guests expect standard value service that translates into loyalty. Hence, guests' profile is saved to maintain a long-term relationship as considered as a significant asset for a resort (Reichheld & Sasser, 1990). Past studies have investigated little attention to the relationship between guest behavioral loyalty and value-based fairness that helped to maintain long-term beneficial relationships with guests (Pan, Sheng & Xie, 2012). Furthermore, quality disclosure provides information about the quality of services and products,

which are available in the market (Deribe, Woldemichael, Wondafrash, Haile & Amberbir, 2008; Forbes, Lederman & Wither, 2018; Kummer, Ryschka & Bick, 2018). Past researches have examined the influence of product disclosure on human psychology and behavior (Darics, 2013; Yunong & Xiong, 2008). Little attention has been drawn in the literature on direct relationships of quality disclosure effects on guest behavioural loyalty and indirectly effects on value-based fairness through guest behavioural loyalty.

Moreover, resort mainly responsible for standardizing, which may vary in different countries, and influence on product and service price (Becerra, Santaló & Silva, 2013; Masiero, Nicolau & Law, 2015). Nevertheless, price fairness is very subjective due to price perceptions of the guest (Xia, Monroe & Cox, 2004). Price fairness, in turn, directly influence on guest behavioral loyalty and indirectly value-based fairness, which remains to be under-researched in literature with less attention. Further, currently, a prominent research area in cognitive psychology is problem-solving. Problem-solving occurred commonly in the delivery of services and investigated in various contexts (Cooke & Kemeny, 2017; D'zurilla, Chang, & Sanna, 2003; Hooker, 2017; Leal Filho, Manolas, & Pace, 2015). However, little consideration has strained in the relationships between problem-solving and guest behavioral loyalty, and the mediating effect of guest behavioral loyalty between problem-solving and value-based fairness. Moreover, system adaptation defines as a changed behavior, ability, willingness, feeling, and thoughts with the environment and requirements (McArdle, Waters, Briscoe & Hall, 2007).

Specifically, in the service industry, system adaption refers to the positive motivation towards changing oneself to be more familiar with service and its environmental effect (Chatterjee, Georgiev & Iannacchione, 2017; Peck & Waxman, 2018). A little attention has been investigated that system adaptation directly effects on guest behavioral loyalty and indirectly effects on value-based fairness through guest behavioral loyalty. To this end, this study investigates the relationship between influencing factors of guest behavioral loyalty and value-based fairness in Malaysian resorts. Moreover, this study is essential for both theoretical and managerial implications. Thus, the implication of the present study is quite crucial and meaningful in the hospitality field.

## Literature Review

### Quality Disclosure

A growing literature has shown that the guest does not use all available information; instead, the decision depends on the simplicity of calculating the information of interest (Dranove & Jin, 2010). Hospitality industry discloses quality information to the potential guest using a variety of communication channels. However, it is

common that service or product differentiates in terms of quality and a non-quality characteristic. Firstly, quality is privately observed by the resort, after observing the quality, the resort can credibly disclose it by incurring a positive cost or voluntarily disclose all information if their quality exceeds some threshold (Levin, Peck, & Ye, 2009). The basic rules that govern the disclosure about an organization's service and product, which can procure through an agreement. The social penetration theory (Altman & Taylor, 1973) considered that quality disclosure is a critical component to promote cordial relations for the formation of a long-term relationship between a service provider and guest (Crosby, Evans & Cowles, 1990).

It also provides information about service or product and options as an incentive of reciprocity to the guest (Chiang, Yang, & Hwang, 2014; Parsons, 2008). Therefore, disclosure expanded as a procedure in which guests and employees familiarise with each other (Baxter, 1987). Several scholars (Hwang, Hang & Kim, 2015) have categorized disclosure in the delivery process into two sub-dimensions; service and customer disclosure. Besides, the guest expects resort service and server facilities to establish long-time communication and transaction (Mizik & Jacobson, 2008). The relevant information about service is generally believed to be beneficial to the provider by providing better quality information (Deribe, Woldemichael, Wondafrash, Haile, & Amberbir, 2008).

However, quality disclosure directly effects on guest behavioral loyalty. This effect indicates that product or service quality information disclosure inspires to the guest for enhancing a long-term relationship. E. Kim & Ham, (2016) have investigated that quality information has significantly influenced the guest's service choices. When a guest has a positive experience with service, they tend to be positive about the product's attributes and thus, evaluation accordingly, leading to corresponding behavioral changes toward purchasing the product. On the other hand, quality disclosure indirectly effects on value-based fairness through guest behavioral loyalty. The mediating effect of behavioral loyalty denotes guest involvement and attitudinal responses. Accordingly, Bilgihan, Madanoglu, & Ricci, (2016) have examined that intention to return as a mediating effect between attitude and return. Picón-Berjoyo, Ruiz-Moreno, & Castro, (2016) also, have investigated a mediating role of customer behavioral loyalty with determinants of satisfaction. Furthermore, to the best of authors' knowledge, little consideration has drawn to the direct effect of quality disclosure and guest behavioral loyalty toward value-based fairness. The disclosure about the quality of a resort's service, environment, and other facilities should take into account for guest behavioral loyalty (Dafny & Dranove, 2008). From the above arguments, we formulated two hypotheses as follows:

*H1a: Quality disclosure has a positive effect on guest behavioural loyalty*

*H1b: Quality disclosure has a positive impact on value-based fairness through guest behavioural loyalty*

### Price Fairness

Although resorts can charge as they wish, this approach to pricing can be a cause of dissatisfaction amongst guests, leading to a negative impact in future transactions (Bolton, Warlop & Alba, 2003). Commonly, a positive perception will trigger a positive response, and a negative impression will trigger a harmful behaviour (Martin, Ponder & Lueg, 2009; Xia et al., 2004). However, past research results on accommodation pricing have been consistent; resorts located nearer to a focal point such as the city centre, generally involved with a higher price. Furthermore, the category of the resort determined by price signalling factors that help to reduce or observe market price (Hung, Shang & Wang, 2010). Besides, signalling factors formalize the service sector of a star rating, online ratings, and chain affiliation system. The star rating system categorizes accommodation establishments into classes, types, categories, and graded according to standard physical and service criteria (Hung et al., 2010; Öğüt & Onur Taş, 2012). In the global market today, the online guest influence is insignificant (Israeli, 2002) and the category of pricing determined by the services and amenities offered (Chan & Wong, 2006). Besides, the facilities like mini bar, television, items of furniture, and the provision of laundry service also contribute to higher pricing (Lee & Jang, 2012). Similarly, services like wireless internet access, express booking and check-out, and free breakfast and housekeeping all add up to a higher price (Yang, Zhang & Mattila, 2016). Pricing also influenced by the availability of amenities and facilities such as business centre, car parking, fitness centre, swimming pool, and other factors such as several rooms, brand reputation (Thrane, 2007). However, guests sometimes compare prices based on competitiveness and market evaluation. Reasonable and fair pricing can motivate guests to repeat purchase, whereas perceptions of high price may negatively influence future sales.

However, the proposition associated that price fairness directly effects on guest behavioural loyalty. It commonly addresses the reasonable or cheap price to enhance guest repurchase intention. Kaura, Durga Prasad, & Sharma, (2015) have investigated the effects of price in fairness on customer loyalty. Considering these acknowledgments, the influence of price fairness has the potential to be significant in terms of guest relationships and overall behavioral loyalty. On the other hand, price fairness effects on value-based fairness through behavioral loyalty. Price is considered to be a fundamental requirement for customer purchasing, and, there is widespread agreement on the value of pricing in behavioral loyalty (Jin, Line, & Merkebu, 2016). The mediating role behavioral loyalty plays an essential platform to achieve value-based fairness, which differs from the regular price. To this end, limited researchers examined to this mediating consideration between price fairness and value-based fairness.

*H2a: Price fairness has a positive impact on guest behavioural loyalty*

*H2b: Price fairness has a positive impact on guest behavioural loyalty through value-based fairness*

### **Problem-solving**

Problem-solving researches were revolutionized in the past decade when researchers turned from studying under which solutions reached to the process of problem-solving (Anliak & Dinçer, 2009). It generally regarded as the most significant cognitive activity in everyday and professional contexts. Few problems usually encountered, which are inconsistent with the nature of issues and required to solve in the daily operation (Tucker, Edmondson & Spear, 2002). Some of the essential problems needed to solve slowly, instead of an instant solution. Karakaya & Yilmaz, (2013) and Khalifa & Fawzy, (2017) have investigated that problem solving is an integral activity in the day-to-day operation of the service delivery process of a resort. Usually, everyday problems encountered in the resorts, including guest complaints such as noisy neighbours, dirty rooms, unpleasant staffs, and lousy quality meals (Dolnicar, 2002). It is essential to gain a clear and complete picture of the problems faced in past experiences as a reference to solve it (Spradlin, 2012). However, literature has shown that there is an exhaustive list of potential solutions for every problem identified which may not have encountered before (Qoura & Khalifa, 2013; Rittel & Webber, 1973).

Consequently, it requires innovative thinking, skills, and ability to transform a problematic into the desired solution (Adams et al., 2015). Thus, resort employee must have strong problem-solving skills such as thinking on their feet and using current technologies to find solutions (Hmelo-Silver, Duncan & Chinn, 2007). Furthermore, empirical evidence has suggested that problem-solving has a direct influence on guest behavioural loyalty, and indirectly effects on value-based fairness through guest behavioural loyalty. A little attention has drawn in the indirect or mediating effects of behavioural loyalty between problem-solving and value-based fairness (METIS & Cupach, 1990). It is noted that behavioural loyalty can create a secure and confident relationship with regular guests (Guthrie, Vallée-Tourangeau, Vallée-Tourangeau & Howard, 2015; Thomas & Lleras, 2009). According to the above arguments, we formulated two hypotheses as follows:

*H3a: Problem-solving has a positive impact on guest behavioural loyalty*

*H3b: Problem-solving has a positive impact on guest behavioural loyalty through value-based fairness*

### **System Adaptation**

Adaptation generally refers to a process, not an event, whereby changes are instituted in the resort. It is a proactive process, which allows the resort to deliberately and continually change and create an in-service system (Basadur, Gelade, & Basadur, 2014). In addition, system adaptation is a component of assessment and central motivation for the development of the observed system (Brandon, 2014; Reeve &

Sherman, 1993). Past studies have looked at system adaptation in different contexts (Baier, Rammer, & Schubert, 2015; Brandon, 2014; Schmitt & Klarner, 2015), especially in the hospitality industry. However, the resorts provide several types of services, which may not reach guest expectations. Resort guests are sometimes required to know about using technology and adopt service operation. Furthermore, system adaptation sets up environmental settings to meet their expectations (Williams & Matthews, 1966). Therefore, it encompasses the integration of technology access such as electronic door key and room facilities, information-based locations and other services (Chambers & Norton, 2016; Doyle, 2017; Janssen & Van Der Voort, 2016).

The service operation and technological system are organized by the system adaptation and changing environment (Chakravarthy, 1982). While there may be some uncertainty and fear that comes with changes in new settings, those can be adapted with convinced procedures (Guerrier & Adib, 2000; Huq et al., 2004). Schmitt & Klarner, (2015) have investigated that system adaptation also depends on the interaction between guests and resort to increasing adaptability. Therefore, the adaptation process contingent on the nature of the overall system, technology, and environment (Abou-Shouk & Khalifa, 2017; Khalifa & Hewedi, 2016; Khalifa & Mewad, 2017). However, the proposed framework hypothesizes that system adaptation directly effects on guest behavioural loyalty, that supports a long-time relationship between guest and the resort. Razalli, (2008) has examined that customized service design, flexible hotel layout, and guest participation for service adaptation that inspire the guest to come again. On the other side, system adaptation effects on value-based fairness through guest behavioural loyalty. Chi, Yeh, & Yang, (2009) have investigated the mediating role of loyalty between service awareness and purchase intention. To the best of authors' knowledge, little considerations have investigated these direct and indirect relationships in the literature. From the above discussions, we have formulated two hypotheses as follows:

*H4a: System adaptation has a positive impact on guest behavioural loyalty*

*H4b: System adaptation has a positive impact on value-based fairness through guest behavioural loyalty*

### **Guest Behavioural Loyalty**

Guest behavioural loyalty considered as repeated patrons and long-time transactions with the resort. Generally, most of the turnover comes from loyal behaviour such as the sale of higher-margin services as well as cost reductions typically spend more rather than first-time or irregular guests (Kandampully, Juwaheer & Hu, 2011; So, King, Sparks & Wang, 2013, 2016). As a part of the resort business strategy, guest behavioural loyalty associated with retaining the trust, personnel, and process of

mutual benefit based on voluntary actions. Shakhovskaya & Arakelova, (2013) have investigated that guest behavioural loyalty is a process act and positive attitude towards service or product. Furthermore, guests expect standard service and values that come from beliefs and reach to loyalty. Thus, creating and maintaining guest loyalty helps resort to improve long-term beneficial relationships between guest and resort (Pan et al., 2012). It is noted that recommend others prescribe their experiences and goodwill to observe services in the future. Bonn, Joseph-Mathews, Dai, Hayes, & Cave, (2007) have explored that resort attraction plays an essential role in determining visitors' attributes, future patronage, and willing to recommend others.

The resort services gain guest behavioural loyalty as strategic needs due to a fierce contest among service providers (Calvo-Porral & Lévy-Mangin, 2017). Thus, guest behavioural loyalty refers to the desired behaviour of guest that resulted in repeat purchase and recommended to others. Therefore, it can be an effective strategy to assign considerable resources to maintain existing guests in the competitive market environment (Kan, Cliquet, & Puelles Gallo, 2014). Under these circumstances, behavioural loyalty of the resort significantly implies to the value-based fairness for a revisit intention (Leenheer, Van Heerde, Bijmolt, & Smidts, 2007). Moreover, guest behavioural loyalty can precede plans to come with offer value fairness. However, the present study proposed that guest behavioural loyalty effects on value-based fairness. Loyal guest enhances the capability to achieve value-based fairness. Shulga & Tanford, (2018) have measured the perception of fairness with the loyalty program. In addition, value-based fairness acts as an outcome of the loyal guest to maintain a long-term relationship with the rewarding and incentives (Ganjon et al., 2007). To the best of authors' knowledge, little attention has measured in the literature between guest behavioural loyalty and value-based fairness. According to the above discussion, we have formulated two hypotheses:

*H5: Guest behavioural loyalty has a positive effect on value-based fairness*

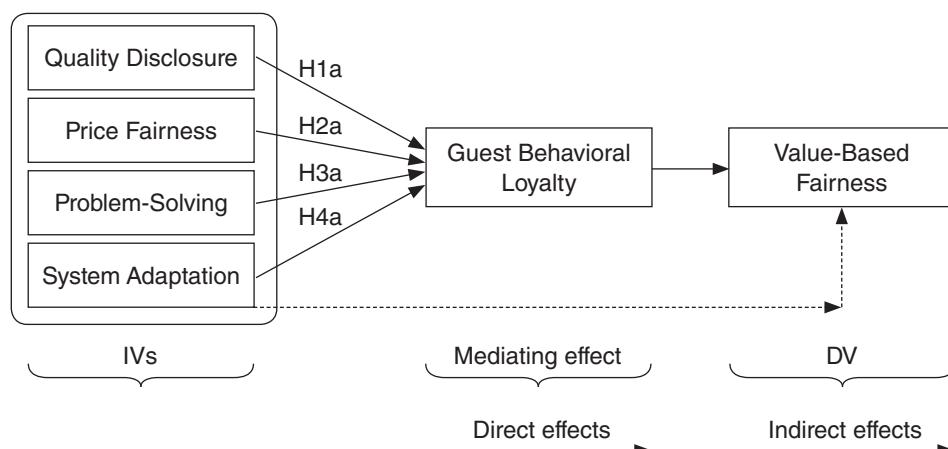
### **Value-Based Fairness**

Value based-fairness is a reward program for attachment with the long-term relationship in the future transaction of a hotel (Baloglu, Zhong, & Tanford, 2017). The fairness, which is justified by the loyal guest, particularly manifest in the service recovery context (Pan et al., 2012). In addition, the rewarding program should disperse fairly to guest in proportion to their frequent visit of spending money with equal justice (Söderlund & Colliander, 2015). According to the loyalty program, value-based fairness redeeming the benefits as clear and complete focus on operational and procedural justice (Lacey & Sneath, 2006). Critically, the resort should be communicated effectively with the aim of regular guest or members and care them as an interactional transaction (Kim, Lee, Choi, Wu, & Johnson, 2013),

which link to the communication-based value by guest perceptions (Reynolds and Arnold 2000). The guest of the resort maintains co-interact about the fairness issues between their purchase and consequent reward perceived to be unfair or less willing to revisit (H.Y. Kim et al. 2013). Based on the core principle of the resort rules and regulations, guests perceive commission for rewarding (Zingheim & Schuster, 2007). In addition, distributive justice usually corresponds to value-based fairness, respectively, for guests' patronage as more familiar rather than others.

Moreover, value fairness determines from the guest's perception of a continuous transaction and the outcome of the resort as reasonable and acceptable (Bolton et al., 2003). The research framework has indicated that value-based fairness influenced by behavioral loyalty and other factors. It is not eventually practiced some other resorts and priced unfairly (Shakhovskaya & Arakelova, 2013). It is an essential aspect of the resort business and provides a competitive advantage and a stable position (Kim, Han, & Lee, 2001).

### The Research Framework



**Figure 1.** The conceptual framework

### Methodology

#### Paradigm, Measurements, and Questionnaires

According to the research paradigm (set of beliefs that guide action), this study derived from the ontological stance, which indicates the positivism fact in the reality measurable. The epistemology has followed objective universal, and methodology is the quantitative research of methods in a questionnaire survey (Migiro & Magangi, 2011; Yvonne Feilzer, 2010). Through the review of the literature allowed

the expansion of the quantitative questionnaire approach with addressing the assumed hypotheses. This study conducted in applied research technique, where the questionnaires distributed to the target population. The target populations of the study are resort guests in Malaysia implies guests more likely to respond consciously to the area. The questionnaire is divided into two sections; the demographic profile including (gender, age, income, ethnicity, nationality, and language) and constructs measurements in five-point Likert-scale (Gadermann, Guhn, & Zumbo, 2012) strongly disagree (1)-strongly agree (5). The constructs used for analysis based on the identification establishment in the previous and current studies in different service industry namely; quality disclosure was described 5 items (J. Hwang et al., 2015), 3 items chosen for price fairness (Kukar-Kinney, Xia, & Monroe, 2007), 5 items for problem-solving; (Açıkgoz & İlhan, 2015), 4 items for system adaptation; (Kummer et al., 2018), 6 items for guest behavioural loyalty (Chahal and Bala, 2010) and 5 items for value-based fairness from (M. Kienzler, 2018). Using AMOS software (24), the analytical procedures follow (SEM-Structural Equitation Modelling) that explored hypotheses relationships in an integrated manner. The questionnaire was pre-tested in five-star resorts to evaluate its validity and reliability. Twenty-nine items were used to measure the six constructs of the hypothesized model.

### **Data Collection and Sample Characteristics**

According to the statement of (Tourism Malaysia, 2017), there are 40 above five-star resort in Malaysia. Twenty best five-star resorts accompanied with a cover letter to the resort managers for requesting guest participation in the research survey. A self-administrated questionnaire distributed to the guests of five-star resorts, while they were in the lobby by getting permission from the resort's authority. The lobby is an essential place to welcome guest at the first time entered as the point of interception in the resort (Countryman & Jang, 2006).

Consequently, guests were introduced to complete the questionnaire during living in the room before check-out. A random sample of 450 surveys distributed and 392 valid responses collected for three months. Moreover, for the case of sampling, no test of early versus late respondents was performed because of an insufficient number of the questionnaire. The respondents are over 18 years old in the sense of ability to answer the question in a short time understanding and experience. According to Krejcie and Morgan (1970), the population size of the target area direct it's a sample size of study 392, and all are resort guests those only staying in the resort.

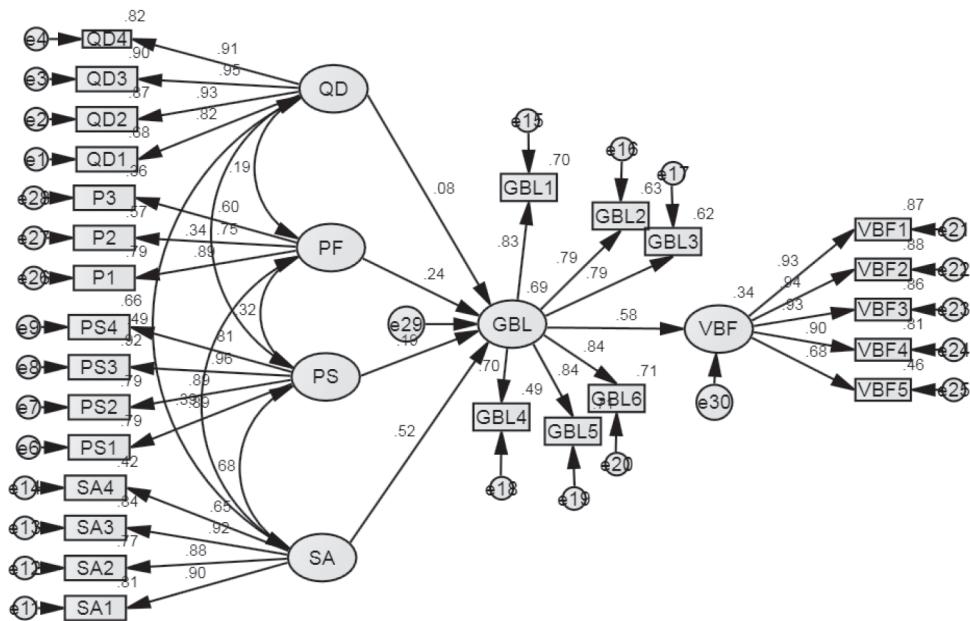
## Analysis and Results

### Descriptive Analysis

The demographic profile of respondents shows that 250, (63.7%) were male, and 142 (36.3%) female. 44.6% were the Malaysian and international foreigners were 55.4%. 40.0% were less than 30 years old, 30.8% between 30 and 39, 13.8% between 40 to 49 years, 11.9% between 50 and 59, and 3.5% is 60 years and above. In terms of monthly income consider as United States Dollar (\$), 25.0% were less than 1000, 32.1%, 1000 to 2000, 20.5% were 2001 to 3000, 9.5% between 3001 to 4000, 5.8% between 4001 to 5000 and above 5000 (\$) for 6.9%. For the spoken language were Malay, 44.6%, English 48.5%, and others 6.8%.

**Table 1.** Demographic profile of respondent's summary

Characteristics	Frequency	Percentage(n=392)
<i>Gender</i>		
Male	250	63.7
Female	142	36.3
<i>Nationality</i>		
Malaysian	175	44.6
Foreigners	217	55.4
<i>Age</i>		
Less than 30	157	40.0
30-39	121	30.8
40-49	53	13.8
50-59	47	11.9
60 above	14	3.50
<i>Monthly income (US \$)</i>		
Less than 1000	98	25.0
1001-2000	126	32.1
2001-3000	81	20.5
3001-4000	37	9.5
4001-5000	23	5.8
5000 above	27	6.9
<i>Language</i>		
Malay	175	44.6
English	190	48.5
Others	27	6.9
<b>Total</b>	<b>392</b>	<b>100</b>



**Figure 2.** Structural model assessment

**Key:** GBL: Guest behavioral Loyalty; QD: Quality Discloser; PF: Price Fairness; PS: Problem-Solving; SA: System Adaption; VBF: Value-based fairness

As shown in Table 2, all the goodness-of-fit indices surpassed their acceptance levels as recommended by previous research, hence indicating the measurement model showed a reasonably good fit. The total fit indices showed that the chi-square is not significant (*p*-value should be  $> 0.5$ ). While the chi-square is not substantial, the model still fit because the Chi-Square statistic nearly rejects the model, when large samples are used (Bentler & G.Bonnet, 1980; Jöreskog & Sörbom, 1993). The chi-square sensitive to sample size  $> 200$  (Byrne, 2010), and the sample size for this study is 392. Therefore, we could proceed to evaluate the psychometric properties of the measurement model in terms of construct and indicator reliability and convergent and discriminant validity.

**Table 2.** Factor loading, Cronbach's Alpha, CR and AVE and model stats

Factors	Variables	Loading	$\alpha$	CR	AVE	Goodness-of-fit indexes
Quality disclosure	QD1	.82	.926	.873	.593	
	QD2	.93				
	QD3	.95				
	QD4	.91				
Price Fairness	PF1	.89	.790	.833	.625	
	PF2	.75				
	PF3	.60				
Problem-Solving	PS1	.89	.879	.838	.549	
	PS2	.89				
	PS3	.96				
	PS4	.81				
System Adaptability	SA1	.90	.903	.847	.616	
	SA2	.88				
	SA3	.92				
	SA4	.65				
Guest Behavioral Loyalty	GBL1	.83	.913	.915	.643	
	GBL2	.79				
	GBL3	.79				
	GBL4	.70				
	GBL5	.84				
	GBL6	.84				
Value-based fairness	VBF1	.93	.943	.945	.776	
	VBF2	.94				
	VBF3	.93				
	VBF4	.90				
	VBF5	.68				

$\chi^2/DF = 1.539$

P-value=.000

NFI=.921

IFI=.971

GFI=.922

CFI=.97

PGFI=.756

RMSEA=.037

Note:  $\alpha$  = Cronbach's alpha; CR = Composite Reliability, AVE = Average Variance Extracted

- The measurement used is seven-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).
- All the factor loadings of the individual items are statistically significant ( $p < 0.01$ )

As concerning the construct reliability, the results show that all the individual Cronbach's alpha coefficients are more significant than the suggested level of 0.7 (Kannana & Tan, 2005). Furthermore, to assess the construct reliability, it was found that all values of the composite reliability (CR) were higher than the advised value of 0.7 (Kline, 2010; Gefen, Straub, & Boudreau, 2000), and construct reliability has been achieved (Table 4.2). The loadings for all the items surpassed the suggested value of (0.5). Thus, the loadings for all the items are fulfilled all the requirements

without being eliminated from the scale. The average variance extracted (AVE), and it indicated that all AVE values were higher than the suggested value of 0.50 (Hair, Black, Babin, & Anderson, 2010) ranging from (0.614 to 0.763). The convergent validity for all constructs has successfully fulfilled, and adequate convergent validity exhibited as Table 2 shows. The discriminant validity (the degree to which items differentiate among constructs or measure distinct concepts) of the measurement model was checked using three criteria, namely cross-loadings, Fornell-Larcker, and the heterotrait-monotrait ratio (HTMT). According to (Hair, Hult, Ringle, & Sarstedt, 2017), the cross-loadings are typically the first approach to assess the discriminant validity of the indicators. As shown in Table 2 the cross-loading criterion fulfils the requirements because the indicators outer loadings on a construct were higher than all its cross-loadings with other constructs. Hair et al. (2013) recommend that  $R^2$  must be larger than 0.75 to be deemed substantial with acceptable power above 0.25. Figure (4.1) shows the result of  $R^2$  from the structural model, which indicates that all the  $R^2$  (0.34) values are high enough for the model to achieve an acceptable level of explanatory power. It is noted that the highest variance explained in endogenous construct found in the guest behavioural loyalty impact (69%) by exogenous followed by the variance described in value-based fairness (34%) by guest behavioural loyalty. The results of discriminant validity by using the Fornell-Larcker criterion is shown in Table 3 where the square root of the AVEs on the diagonals, as represented by the bolded values, are higher than the correlations between constructs (corresponding row and column values). This indicates that the constructs are strongly related to their respective indicators compared to other constructs of the model (Fornell & Larcker, 1981; Chin, 1998), thus suggesting a good discriminant validity. In addition, the correlation between exogenous constructs is less than 0.85 (Awang, 2014). Hence, the discriminant validity of all constructs is fulfilled.

**Table 3.** Results of discriminant validity by Fornell-Larcker criterion

	<b>GBL</b>	<b>QD</b>	<b>SA</b>	<b>PF</b>	<b>PS</b>	<b>VBF</b>
<b>GBL</b>	<b>0.790</b>					
<b>QD</b>	0.679	<b>0.739</b>				
<b>SA</b>	0.344	0.170	<b>0.802</b>			
<b>PF</b>	0.414	0.314	0.623	<b>0.771</b>		
<b>PS</b>	0.581	0.494	0.258	0.234	<b>0.733</b>	
<b>VBF</b>	0.458	0.377	0.316	0.460	0.574	<b>0.760</b>

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations.

### Hypotheses Testing (Direct Effects)

The structural model assessment indications illustrated in Table 4, with five out of the five direct hypotheses of this study being supported. Quality disclosure, price fairness, problem-solving, and system adaptation significantly predict guest behavioural loyalty. Hence, H1a, H2a, H3a, and H4a are accepted with ( $\beta = .069$ ,  $p < 0.05$ ), ( $\beta = .235$ ,  $p < 0.001$ ), ( $\beta = .176$ ,  $p < 0.001$ ), and ( $\beta = .484$ ,  $p < 0.001$ ). Likewise, guest behavioural loyalty significantly predicts value-based fairness. Hence, H5 is supported ( $\beta = .740$ ,  $p < 0.001$ ). It is noted that the standardized path coefficient indicates the strengths of the relationship between independent and dependent variables, so the direct effects of system adaptation on guest behavioural loyalty are higher than to the direct effects of quality disclosure, price fairness, and problem-solving. Guest behavioural loyalty -value-based fairness relationship has the highest standardized path coefficient.

**Table 4.** Structural path analysis results

Hypothesis	DV	IV	$\beta$	S.E	C.R	Decision
H1a	GBL	QD	.069	.035	1.993*	Supported
H2a	GBL	PF	.235	.043	5.488***	Supported
H3a	GBL	PS	.176	.046	3.798***	Supported
H4a	GBL	SA	.484	.058	8.346***	Supported
H5	VBF	GBL	.740	.066	11.151***	Supported

\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ , S.E = Standard Error, C.R = Critical Ratio

**Key:** GBL: Guest behavioral Loyalty, QD: Quality Discloser, PF: Price Fairness;  
PS: Problem-Solving; SA: System Adaptation; VBF: Value-based fairness

### Hypothesis Testing (Indirect/Mediation Assessment)

To test the mediation hypotheses H1b: H4b, the Preacher & Hayes (2004, 2008) method of bootstrapping the indirect effect was applied. H1b to H4b supposes that the association between quality disclosure, price fairness, problem-solving, system adaptation, and value-based fairness were significant through guest behavioural loyalty. The bootstrapping analysis showed that the indirect effects for H1b, H2b, H3b, and H4b were significant with t-value of 8.442, 6.343, 5.788, and 7.966 respectively, and  $p\text{-value} < 0.001$ . Preacher & Hayes (2008) indicated that when the indirect impact of quality disclosure, price fairness, problem-solving, system adaptation on value-based fairness through guest behavioural loyalty, with 95% Boot CI: [LL = 0.123, UL = 0.195], CI: [LL = 0.097, UL = 0.155], CI: [LL = 0.086, UL = 0.154], and CI: [LL = 0.114, UL = 0.171], does not straddle a zero in between, this indicates there is mediation. Thus, we can conclude that the mediation effect is statistically significant, indicating that H1b, H2b, H3b, and H4b were also supported, see Table 5.

**Table 5.** Bootstrapping the indirect effect of GBL

Hypothesis	Relationship	Std Beta	Std Error	t-value	Decision
H1b	QD → GBL → VBF	0.075	0.076	8.442**	Supported
H2b	PF → GBL → VBF	0.069	0.069	6.343**	Supported
H3b	PS → GBL → VBF	0.067	0.067	5.788**	Supported
H4b	SA → GBL → VBF	0.106	0.105	7.966***	Supported

(Preacher and Hayes 2004, 2008)

**Key:** GBL: Guest behavioral Loyalty, QD: Quality Discloser, PF: Price Fairness;

PS: Problem Solving; SA: System Adaptation; VBF: Value-based fairness

\*\*\*p<.001; \*\*p<.01; \*p<.05

### Discussion and Implications

This study investigated the effects of service attributes (quality discloser, price fairness, problem-solving and system adaptation on guest behavioral loyalty and value-based fairness with theoretical and practical implications. Based on the above results, quality disclosure has an impact on guest behavioural loyalty, as resorts provide a sincere concentration to the service quality by disclosing the resorts preference into a high contrast (Huang, Fang, Huang, Chang, & Fang, 2014). Matthews & Postlewaite, (1985) have considered that tested quality can be disclosed as customer inspire to repurchase. The above findings also showed that quality disclosure effects on value-based fairness through guest behavioural loyalty. Core, (2001) has reviewed that disclosure about the product and service impacts on customer impression.

Furthermore, the above findings have shown that price fairness significantly effects on guest behavioural loyalty that indicates the fair price to a guest perceived expectation to be loyal for long-time transactions (Martin et al., 2009). Consequently, the findings also have shown that price fairness significantly effects on value-based fairness through guest behavioural loyalty. Ailawadi, Luan, Neslin, & Taylor, (2011) have examined that price fair has positive effects on customer loyalty and behavioural intention. It has been discussed in the service industry price fairness plays an essential role in enhancing guest behavioural loyalty (Grewal, Hardesty, & Iyer, 2004; Martin et al., 2009). The above findings have revealed that problem-solving significantly influence on guest behavioural loyalty. The resort guests perceived updated system for instant problem-solving during problem occurring situation. Rusbult, Morrow, & Johnson, (1987) have explained that problem-solving behavior enhances a close relationship. On the other hand, the findings showed that problem-solving significantly effects on value-based fairness through guest behavioural loyalty. Vesel & Zabkar, (2009) have investigated that the mediating role of loyalty enhances customer satisfaction and behavioral intention. Moreover, the above findings have shown that system adaptation significantly influences on guest behavioural loyalty,

and indicates that guest adaptability with the service and other technologies is made more familiarity with the resort (Clark, 1956). Finally, the results showed that guest behavioural loyalty significantly influences on value-based fairness. A loyal guest is able to get prior value in the resorts transactions (Hinterhuber, 2004).

The practical implication indicates on how management should allocate their operation to make it loyal in the sense of behavioral feedback or revisit to the resort. Resorts managers can be benefited from this study findings. First, resorts require to address their services and products information or features/options to disclose accordingly in front of the guest choice. Guest will depend and identify actual information for accommodation or other services such as ballroom booking and convention center booking (Hwang et al., 2015). Secondly, the result showed that quality disclosure to be an essential predictor of guest behavioural loyalty toward value-based fairness that effects on current experience and loyalty patronage. This study suggested that regular price or reasonable price turn into long-term behavioral loyalty (Ryu & Han, 2010). Therefore, resorts must understand guest's demand and expectation of purchasing a product by addressing price fairness to improve guest particular behavioral loyalty (Xia et al., 2004). Furthermore, managers may take suggestions for implementing problem-solving according to the guest being faced uncertain problem during the service encounter (Wood, Bruner, & Ross, 1976). The results showed that problem-solving has a direct positive and significant influence on guest behavioural loyalty and indirectly to value-based fairness. In addition, the manager of the resort required to concern on system adaptability of the guests in terms of unknown service and product and environment (Hrebiniaik & Joyce, 1985).

This study also tends to support the argument that guest behavioural loyalty mediates the relationships between influencing factors of behavioural loyalty and value-based fairness. The guest behavioral loyalty of the hotel service and product experiences helps the operator to achieve their objectives and goals. The reason for behavioral loyalty will be led to the determinant of repeat sales, positive thinking about the resort. The outcome of the behavioral loyalty and value-based fairness acts as to provide extra facilities that related to the fairness which only acceptable for the regular and loyal guests of the resorts (Ryu & Han, 2010). Two criteria must be considered by the management in a choice of behavioral loyalty and value-based fairness: build up long-term relation and rewarding program by giving commission on price (Martin et al., 2009). Despite the theoretical and practical implications of this study, the following limitations considered that data was collected from resorts in Malaysia only. Therefore, a cross-cultural generalization of the conclusion is somewhat limited and suggesting that the finding should be applied in different other countries with due caution. The limitation of the research has widely opened setting to the guests may practice loyalty program, especially in the resorts reputation case to care about a good relationship. Future research must check value-based

compensation and incentives to the guests in different countries and cultures. This research will accordingly serve as an avenue for the next researcher to contribute to the further theoretical development of unexplored research questions, especially about loyalty to other outcomes in the context of the hospitality industry.

**Open Access:** This article is distributed under the terms of the Creative Commons Attribution License (CC-BY 4.0) which permits any use, distribution and reproduction in any medium, provided the original author(s) and the source are credited.

## References

- Abd-Elaziz, M. E., Aziz, W. M., Khalifa, G. S., & Abdel-Aleem, M. (2015). Determinants of Electronic word of mouth (EWOM) influence on hotel customers' purchasing decision. *International Journal of Heritage, Tourism, and Hospitality*, 9(2/2), 194–223.
- Abou-Shouk, M. A., & Khalifa, G. S. (2017). The influence of website quality dimensions on e-purchasing behaviour and e-loyalty: a comparative study of Egyptian travel agents and hotels. *Journal of Travel and Tourism Marketing*, 34(5), 608–623.
- Açıkgoz, A., & İlhan, Ö. Ö. (2015). Climate and Problem Solving in Software Development Teams. *Procedia-Social and Behavioral Sciences*, 207, 502–511.
- Adams, R., Vista, A., Scoular, C., Awwal, N., Griffin, P., & Care, E. (2015). Automatic coding procedures for collaborative problem solving. In *Assessment and teaching of 21st century skills* (pp. 115–132). Springer.
- Ailawadi, K. L., Luan, Y. J., Neslin, S. A., & Taylor, G. A. (2011). The impact of retailers' corporate social responsibility on price fairness perceptions and loyalty. *Institut d 'économie Industrielle*.
- Altman, I., & Taylor, D. (1973). Social penetration theory. *New York: Holt, Rinehart & Mnston*.
- Amer, M., Busson, A., & Lassous, I. G. (2018). Association optimization based on access fairness for Wi-Fi networks. *Computer Networks*, 137, 173–188.
- Anlıak, Ş., & Dinçer, Ç. (2009). How children's interpersonal cognitive problem-solving skills change through the years. *Eurasian Journal Educational Research*, 37, 71–90.
- Awang, Z. (2014). *Structural Equation Modeling Using AMOS*. Shah Alam.Malaysia: Penerbit Universiti Teknologi MARA.
- Baier, E., Rammer, C., & Schubert, T. (2015). The impact of captive innovation offshoring on the effectiveness of organizational adaptation. *Journal of International Management*, 21(2), 150–165.

- Ball, D., Simões Coelho, P., & Machás, A. (2004). The role of communication and trust in explaining customer loyalty: An extension to the ECSI model. *European Journal of Marketing, 38*(9/10), 1272–1293.
- Baloglu, S., Zhong, Y. Y., & Tanford, S. (2017). Casino loyalty: The influence of loyalty program, switching costs, and trust. *Journal of Hospitality & Tourism Research, 41*(7), 846–868.
- Basadur, M., Gelade, G., & Basadur, T. (2014). Creative problem-solving process styles, cognitive work demands, and organizational adaptability. *The Journal of Applied Behavioral Science, 50*(1), 80–115.
- Baxter, L. A. (1987). Self-disclosure and relationship disengagement. In *Self-Disclosure* (pp. 155–174). Springer.
- Becerra, M., Santaló, J., & Silva, R. (2013). Being better vs. being different: Differentiation, competition, and pricing strategies in the Spanish hotel industry. *Tourism Management, 34*, 71–79.
- Bentler, P. M., & G.Bonnet, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606.
- Bilgihan, A., Madanoglu, M., & Ricci, P. (2016). Service attributes as drivers of behavioral loyalty in casinos: The mediating effect of attitudinal loyalty. *Journal of Retailing and Consumer Services, 31*, 14–21.
- Bolton, L. E., Warlop, L., & Alba, J. W. (2003). Consumer perceptions of price (un)fairness. *Journal of Consumer Research, 29*(4), 474–491.
- Bonn, M. A., Joseph-Mathews, S. M., Dai, M., Hayes, S., & Cave, J. (2007). Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor. *Journal of Travel Research, 45*(3), 345–354.
- Brandon, R. N. (2014). *Adaptation and environment* (Vol. 1040). Princeton University Press.
- Byrne, B. M. (2010). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). Routledge.
- Calvo-Porral, C., & Lévy-Mangin, J.-P. (2017). Store brands' purchase intention: Examining the role of perceived quality. *European Research on Management and Business Economics, 23*(2), 90–95.
- Chahal, H., & Bala, M. (2010). Confirmatory study on brand equity and brand loyalty: A special look at the impact of attitudinal and behavioural loyalty. *Vision, 14*(1–2), 1–12.
- Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. *Academy of Management Review, 7*(1), 35–44.
- Chambers, D. A., & Norton, W. E. (2016). The adaptome: advancing the science of intervention adaptation. *American Journal of Preventive Medicine, 51*(4), S124–S131.

- Chan, E. S. W., & Wong, S. C. K. (2006). Hotel selection: When price is not the issue. *Journal of Vacation Marketing*, 12(2), 142–159.
- Chatterjee, A., Georgiev, G., & Iannacchione, G. (2017). Aging and efficiency in living systems: Complexity, adaptation and self-organization. *Mechanisms of Ageing and Development*, 163, 2–7.
- Chi, H. K., Yeh, H. R., & Yang, Y. T. (2009). The impact of brand awareness on consumer purchase intention: The mediating effect of perceived quality and brand loyalty. *The Journal of International Management Studies*, 4(1), 135–144.
- Chiang, T. H. C., Yang, S. J. H., & Hwang, G.-J. (2014). Students' online interactive patterns in augmented reality-based inquiry activities. *Computers & Education*, 78, 97–108.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. (pp. 295–358). New Jersey: Lawrence Erlbaum.
- Clark, B. R. (1956). Organizational adaptation and precarious values: A case study. *American Sociological Review*, 21(3), 327–336.
- Cooke, A., & Kemeny, T. (2017). Cities, immigrant diversity, and complex problem solving. *Research Policy*, 46(6), 1175–1185.
- Core, J. E. (2001). A review of the empirical disclosure literature: discussion. *Journal of Accounting and Economics*, 31(1–3), 441–456.
- Countryman, C. C., & Jang, S. (2006). The effects of atmospheric elements on customer impression: the case of hotel lobbies. *International Journal of Contemporary Hospitality Management*, 18(7), 534–545.
- Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *The Journal of Marketing*, 68–81.
- D'zurilla, T. J., Chang, E. C., & Sanna, L. J. (2003). Self-esteem and social problem solving as predictors of aggression in college students. *Journal of Social and Clinical Psychology*, 22(4), 424–440.
- Dafny, L., & Dranove, D. (2008). Do report cards tell consumers anything they don't already know? The case of Medicare HMOs. *The Rand Journal of Economics*, 39(3), 790–821.
- Darics, E. (2013). Non-verbal signalling in digital discourse: The case of letter repetition. *Discourse, Context & Media*, 2(3), 141–148.
- Daun, W., & Klinger, R. (2006). Delivering the message: How premium hotel brands struggle to communicate their value proposition. *International Journal of Contemporary Hospitality Management*, 18(3), 246–252.
- Deribe, K., Woldemichael, K., Wondafrash, M., Haile, A., & Amberbir, A. (2008). Disclosure experience and associated factors among HIV positive men and women clinical service users in southwest Ethiopia. *BMC Public Health*, 8(1), 81.

- Doliya, P., & Singh, J. (2015). Auditing Fair Value Measurements: A Systematic Review and Meta-Synthesis.
- Dolnicar, S. (2002). Business travellers' hotel expectations and disappointments: a different perspective to hotel attribute importance investigation. *Asia Pacific Journal of Tourism Research*, 7(1), 29–35.
- Doyle, A. (2017). Adaptive Challenges Require Adaptive Leaders. *Performance Improvement*, 56(9), 18–26.
- Dranove, D., & Jin, G. Z. (2010). Quality disclosure and certification: Theory and practice. *Journal of Economic Literature*, 48(4), 935–963.
- Evanschitzky, H., Iyer, G. R., Plassmann, H., Niessing, J., & Meffert, H. (2006). The relative strength of affective commitment in securing loyalty in service relationships. *Journal of Business Research*, 59(12), 1207–1213.
- Forbes, S. J., Lederman, M., & Wither, M. J. (2018). Quality disclosure when firms set their own quality targets. *International Journal of Industrial Organization*.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Gadermann, A. M., Guhn, M., & Zumbo, B. D. (2012). Estimating ordinal reliability for Likert-type and ordinal item response data: A conceptual, empirical, and practical guide. *Practical Assessment, Research & Evaluation*, 17(3), 1–13.
- Ganjon, R., Hirano, G., & Hood, N. (2007, August). Method, system, and computer program product for rewarding customer loyalty. Google Patents.
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(1), 1–79.
- Gosling, J., Sassi, P., Naim, M., & Lark, R. (2013). Adaptable buildings: A systems approach. *Sustainable Cities and Society*, 7, 44–51.
- Grewal, D., Hardesty, D. M., & Iyer, G. R. (2004). The effects of buyer identification and purchase timing on consumers' perceptions of trust, price fairness, and repurchase intentions. *Journal of Interactive Marketing*, 18(4), 87–100.
- Guerrier, Y., & Adib, A. S. (2000). 'No, we don't provide that service': the harassment of hotel employees by customers. *Work, Employment and Society*, 14(4), 689–705.
- Guthrie, L. G., Vallée-Tourangeau, F., Vallée-Tourangeau, G., & Howard, C. (2015). Learning and interactivity in solving a transformation problem. *Memory & Cognition*, 43(5), 723–735.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). New York: Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2013). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications.

- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). London: Thousand Oaks: SAGE.
- Hinterhuber, A. (2004). Towards value-based pricing—An integrative framework for decision making. *Industrial Marketing Management*, 33(8), 765–778.
- Hinterhuber, A. (2008). Customer value-based pricing strategies: why companies resist. *Journal of Business Strategy*, 29(4), 41–50.
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: a response to Kirschner, Sweller, and. *Educational Psychologist*, 42(2), 99–107.
- Hooker, C. (2017). A proposed universal model of problem solving for design, science and cognate fields. *New Ideas in Psychology*, 47, 41–48.
- Hrebriniak, L. G., & Joyce, W. F. (1985). Organizational adaptation: Strategic choice and environmental determinism. *Administrative Science Quarterly*, 336–349.
- Huang, C.-C., Fang, S.-C., Huang, S.-M., Chang, S.-C., & Fang, S.-R. (2014). The impact of relational bonds on brand loyalty: the mediating effect of brand relationship quality. *Managing Service Quality*, 24(2), 184–204.
- Hung, W.-T., Shang, J.-K., & Wang, F.-C. (2010). Pricing determinants in the hotel industry: Quantile regression analysis. *International Journal of Hospitality Management*, 29(3), 378–384.
- Huq, S., Reid, H., Konate, M., Rahman, A., Sokona, Y., & Crick, F. (2004). Mainstreaming adaptation to climate change in least developed countries (LDCs). *Climate Policy*, 4(1), 25–43.
- Hwang, E., Baloglu, S., & Tanford, S. (2019). Building loyalty through reward programs: The influence of perceptions of fairness and brand attachment. *International Journal of Hospitality Management*, 76, 19–28.
- Hwang, J., Han, H., & Kim, S. (2015). How can employees engage customers? Application of social penetration theory to the full-service restaurant industry by gender. *International Journal of Contemporary Hospitality Management*, 27(6), 1117–1134.
- Isenberg, D. J. (1986). Thinking and managing: A verbal protocol analysis of managerial problem solving. *Academy of Management Journal*, 29(4), 775–788.
- Israeli, A. A. (2002). Star rating and corporate affiliation: their influence on room price and performance of hotels in Israel. *International Journal of Hospitality Management*, 21(4), 405–424.
- Janssen, M., & Van Der Voort, H. (2016). Adaptive governance: Towards a stable, accountable and responsive government. Elsevier.

- Jin, N., Line, N. D., & Merkebu, J. (2016). The effects of image and price fairness: A consideration of delight and loyalty in the waterpark industry. *International Journal of Contemporary Hospitality Management*, 28(9), 1895–1914.
- Jöreskog, K., & Sörbom, D. (1998). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago, IL: Scientific Software International Inc.
- Kan, G., Cliquet, G., & Puelles Gallo, M. (2014). The effect of country image on hypermarket patronage intention: A cross-cultural study in China and Spain. *International Journal of Retail & Distribution Management*, 42(2), 106–130.
- Kandampully, J., & Hu, H.-H. (2007). Do hoteliers need to manage image to retain loyal customers? *International Journal of Contemporary Hospitality Management*, 19(6), 435–443.
- Kandampully, J., Juwaheer, T. D., & Hu, H.-H. (2011). The influence of a hotel firm's quality of service and image and its effect on tourism customer loyalty. *International Journal of Hospitality & Tourism Administration*, 12(1), 21–42.
- Kandampully, J., Zhang, T., & Bilgihan, A. (2015). Customer loyalty: a review and future directions with a special focus on the hospitality industry. *International Journal of Contemporary Hospitality Management*, 27(3), 379–414.
- Kannana, V. R., & Tan, K. C. (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega: The International Journal of Management Science*, 33(2), 153–162.
- Karakaya, A., & Yilmaz, K. (2013). Problem solving approach at organizational development activities: A Research at Karabuk University. *Procedia-Social and Behavioral Sciences*, 99, 322–331.
- Kaura, V., Durga Prasad, C. S., & Sharma, S. (2015). Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction. *International Journal of Bank Marketing*, 33(4), 404–422.
- Khalifa, G. S. A. (2015). Ethnic Restaurants' Meal Experience: Egyptian Customers' Perceptions. *Journal of Faculty of Tourism and Hotels*, 9(1), 92–112.
- Khalifa, G. S. A., & Abou-Shouk, M. A. A. (2014). Investigating the Success Factors of Hotel Websites: The Case of Egyptian Hotels. *Asia-Pacific Journal of Innovation in Hospitality and Tourism (APJIHT)*, 3(2), 1–21.
- Khalifa, G. S. A., & Fawzy, N. M. (2017). Measuring E-Service Quality (Expectation Vs. Perception) From Travel Agencies' Perspective: An Empirical Study on Egyptian Hotel Websites. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 1(3), 36–48.

- Khalifa, G. S. A., & Hewedi, M. M. (2016). Factors Affecting Hotel Website Purchasing Intentions: Evidence from Egypt. *Journal of Faculty of Tourism and Hotels*, 8(2), 50–69.
- Khalifa, G. S. A., & Mewad, E.-H. A. (2017). Managing drivers and boundaries of information technology risk management (ITRM) to increase Egyptian hotels market share. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 1(1), 12–31.
- Kienzler, C., Koch, H., & Vázquez, J. L. (2018). Flatness implies smoothness for solutions of the porous medium equation. *Calculus of Variations and Partial Differential Equations*, 57(1), 18.
- Kienzler, M. (2018). Value-based pricing and cognitive biases: An overview for business markets. *Industrial Marketing Management*, 68, 86–94.
- Kim, E., & Ham, S. (2016). Restaurants' disclosure of nutritional information as a corporate social responsibility initiative: Customers' attitudinal and behavioral responses. *International Journal of Hospitality Management*, 55, 96–106.
- Kim, H.-Y., Lee, J. Y., Choi, D., Wu, J., & Johnson, K. K. P. (2013). Perceived benefits of retail loyalty programs: Their effects on program loyalty and customer loyalty. *Journal of Relationship Marketing*, 12(2), 95–113.
- Kim, W. G., Han, J. S., & Lee, E. (2001). Effects of relationship marketing on repeat purchase and word of mouth. *Journal of Hospitality & Tourism Research*, 25(3), 272–288.
- Kim, Y., Hwang, G., & Chong, S. (2018). Capacity, fairness, and queueing performance analysis of opportunistic scheduling with one-bit feedback. *Computer Communications*, 121, 19–32.
- Kline, R. B. (2010). *Principles and practice of structural equation modeling* (3rd ed.). New York: The Guilford Press.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Kukar-Kinney, M., Xia, L., & Monroe, K. B. (2007). Consumers' perceptions of the fairness of price-matching refund policies. *Journal of Retailing*, 83(3), 325–337.
- Kummer, T.-F., Ryschka, S., & Bick, M. (2018). Why do we share where we are? The influence of situational factors on the conditional value of check-in services. *Decision Support Systems*, 115, 1–12.
- Lacey, R., & Sneath, J. Z. (2006). Customer loyalty programs: are they fair to consumers? *Journal of Consumer Marketing*, 23(7), 458–464.
- Leal Filho, W., Manolas, E., & Pace, P. (2015). The future we want: Key issues on sustainable development in higher education after Rio and the UN decade of education for sustainable development. *International Journal of Sustainability in Higher Education*, 16(1), 112–129.

- Lee, S. K., & Jang, S. (2012). Premium or discount in hotel room rates? The dual effects of a central downtown location. *Cornell Hospitality Quarterly*, 53(2), 165–173.
- Leenheer, J., Van Heerde, H. J., Bijmolt, T. H. A., & Smidts, A. (2007). Do loyalty programs really enhance behavioral loyalty? An empirical analysis accounting for self-selecting members. *International Journal of Research in Marketing*, 24(1), 31–47.
- Levin, D., Peck, J., & Ye, L. (2009). Quality disclosure and competition. *The Journal of Industrial Economics*, 57(1), 167–196.
- Malaysia, T. (2017). Malaysia's 2016 tourist arrivals grow 4.0%. *Retrieved June, 6, 2017*.
- Martin, W. C., Ponder, N., & Lueg, J. E. (2009). Price fairness perceptions and customer loyalty in a retail context. *Journal of Business Research*, 62(6), 588–593.
- Masiero, L., Nicolau, J. L., & Law, R. (2015). A demand-driven analysis of tourist accommodation price: A quantile regression of room bookings. *International Journal of Hospitality Management*, 50, 1–8.
- Matthews, S., & Postlewaite, A. (1985). Quality testing and disclosure. *The RAND Journal of Economics*, 328–340.
- Mattila, P., Hellström, J., & Törrönen, R. (2006). Phenolic acids in berries, fruits, and beverages. *Journal of Agricultural and Food Chemistry*, 54(19), 7193–7199.
- McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, 71(2), 247–264.
- METIS, S., & Cupach, W. R. (1990). The influence of relationship beliefs and problem-solving responses on satisfaction in romantic relationships. *Human Communication Research*, 17(1), 170–185.
- Migiro, S. O., & Magangi, B. A. (2011). Mixed methods: A review of literature and the future of the new research paradigm. *African Journal of Business Management*, 5(10), 3757–3764.
- Mizik, N., & Jacobson, R. (2008). The financial value impact of perceptual brand attributes. *Journal of Marketing Research*, 45(1), 15–32.
- Mohamud, S. S., Khalifa, G. S. A., Abuelhassan, A. E., & Kaliyamoorthy, S. (2017). Investigating the Antecedents of Coffee Shop Customers' Behavioral Intentions in Kuala Lumpur. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 1(4), 1–14.
- Öğüt, H., & Onur Taş, B. K. (2012). The influence of internet customer reviews on the online sales and prices in hotel industry. *The Service Industries Journal*, 32(2), 197–214.
- Oliver, R. L. (1999). Whence consumer loyalty? *The Journal of Marketing*, 33–44.

- Pan, Y., Sheng, S., & Xie, F. T. (2012). Antecedents of customer loyalty: An empirical synthesis and reexamination. *Journal of Retailing and Consumer Services*, 19(1), 150–158.
- Parsons, R. (2008). We are all stakeholders now: The influence of western discourses of “community engagement” in an Australian Aboriginal community. *Critical Perspectives on International Business*, 4(2/3), 99–126.
- Peck, J. R., & Waxman, D. (2018). What is adaptation and how should it be measured? *Journal of Theoretical Biology*, 447, 190–198.
- Picón-Berjoyo, A., Ruiz-Moreno, C., & Castro, I. (2016). A mediating and multigroup analysis of customer loyalty. *European Management Journal*, 34(6), 701–713.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Qoura, O., & Khalifa, G. S. (2013). The Impact of Reputation Management on Hotel Image among Internal Customers: The Case of Egyptian Hotels. *Journal of Faculty of Tourism and Hotels*, 7(2), 261–274.
- Razalli, M. R. (2008). The consequences of service operations practice and service responsiveness on hotel performance: Examining hotels in Malaysia. Universiti Sains Malaysia.
- Reeve, H. K., & Sherman, P. W. (1993). Adaptation and the goals of evolutionary research. *The Quarterly Review of Biology*, 68(1), 1–32.
- Reichheld, F. F., & Sasser, J. W. E. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 68(5), 105–111.
- Reynolds, K. E., & Arnold, M. J. (2000). Customer loyalty to the salesperson and the store: examining relationship customers in an upscale retail context. *Journal of Personal Selling & Sales Management*, 20(2), 89–98.
- Rittel, H. W., & Webber, M. M. (1973). 2.3 planning problems are wicked. *Polity*, 4(155), e169.
- Rusbult, C. E., Morrow, G. D., & Johnson, D. J. (1987). Self-esteem and problem-solving behaviour in close relationships. *British Journal of Social Psychology*, 26(4), 293–303.
- Ryu, K., & Han, H. (2010). Influence of the quality of food, service, and physical environment on customer satisfaction and behavioral intention in quick-casual restaurants: Moderating role of perceived price. *Journal of Hospitality & Tourism Research*, 34(3), 310–329.

- Saulters, M. M., Hendrickson, M. K., & Chaddad, F. (2018). Fairness in alternative food networks: an exploration with midwestern social entrepreneurs. *Agriculture and Human Values*, 1–11.
- Schamel, G. (2012). Weekend vs. midweek stays: Modelling hotel room rates in a small market. *International Journal of Hospitality Management*, 31(4), 1113–1118.
- Scheiner, J. H. (1984). An empirical assessment of the impact of SEC nonaudit service disclosure requirements on independent auditors and their clients. *Journal of Accounting Research*, 789–797.
- Schmitt, A., & Klärner, P. (2015). From snapshot to continuity: A dynamic model of organizational adaptation to environmental changes. *Scandinavian Journal of Management*, 31(1), 3–13.
- Shakhovskaya, L. S., & Arakelova, I. V. (2013). Contemporary customer loyalty programs: analysis and valuation. In *Theory and practice of management of the organization as a social and economic system: the identification, analysis and resolution of problems formation. Proceedings of the International Conference. Finland, Helsinki, 14-16 September 2013*/ed. PG Isaeva (pp. 105–112).
- Shulga, L., & Tanford, S. (2018). Measuring perceptions of fairness of loyalty program members. *Journal of Hospitality Marketing & Management*, 27(3), 346–365.
- So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2013). The influence of customer brand identification on hotel brand evaluation and loyalty development. *International Journal of Hospitality Management*, 34, 31–41.
- So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2016). The role of customer engagement in building consumer loyalty to tourism brands. *Journal of Travel Research*, 55(1), 64–78.
- Söderlund, M., & Colliander, J. (2015). Loyalty program rewards and their impact on perceived justice, customer satisfaction, and repatronize intentions. *Journal of Retailing and Consumer Services*, 25, 47–57.
- Spradlin, D. (2012). The Power of Defining the Problem. Retrieved May, 18, 2016.
- Thomas, L. E., & Lleras, A. (2009). Swinging into thought: Directed movement guides insight in problem solving. *Psychonomic Bulletin & Review*, 16(4), 719–723.
- Thrane, C. (2007). Examining the determinants of room rates for hotels in capital cities: The Oslo experience. *Journal of Revenue and Pricing Management*, 5(4), 315–323.
- Tian, Y., Xu, K., & Ansari, N. (2005). TCP in wireless environments: problems and solutions. *IEEE Communications Magazine*, 43(3), S27–S32.

- TM Ingenbleek, P. (2014). The theoretical foundations of value-informed pricing in the service-dominant logic of marketing. *Management Decision*, 52(1), 33–53.
- Tucker, A. L., Edmondson, A. C., & Spear, S. (2002). When problem solving prevents organizational learning. *Journal of Organizational Change Management*, 15(2), 122–137.
- Vesel, P., & Zabkar, V. (2009). Managing customer loyalty through the mediating role of satisfaction in the DIY retail loyalty program. *Journal of Retailing and Consumer Services*, 16(5), 396–406.
- Wang, H.-J., Demerouti, E., & Le Blanc, P. (2017). Transformational leadership, adaptability, and job crafting: The moderating role of organizational identification. *Journal of Vocational Behavior*, 100, 185–195.
- Wangpimoon, H. (2017). The Impact of Brand Image and Customer Values upon Buying Decisions and Brand Loyalty of Hotels in the Thai Tourist Industry: A Case Study of Gay Men Purchasing Decision in the Thailand Metropolitan Districts. Bangkok University.
- Williams, E. S., & Matthews, B. H. C. (1966). Electrolyte regulation during the adaptation of humans to life at high altitude. *Proc. R. Soc. Lond. B*, 165(999), 266–280.
- Wodecka-Hyjek, A. (2014). A learning public organization as the condition for innovations adaptation. *Procedia-Social and Behavioral Sciences*, 110, 148–155.
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17(2), 89–100.
- Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, 68(4), 1–15.
- Yang, W., Zhang, L., & Mattila, A. S. (2016). Luxe for less: how do consumers react to luxury hotel price promotions? The moderating role of consumers' need for status. *Cornell Hospitality Quarterly*, 57(1), 82–92.
- Yunong, H., & Xiong, Z. (2008). A reflection on the indigenization discourse in social work. *International Social Work*, 51(5), 611–622.
- Yvonne Feilzer, M. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4(1), 6–16.
- Zingheim, P. K., & Schuster, J. R. (2007). Measuring and rewarding customer satisfaction, innovation and workforce engagement. *WorldatWork Journal*, 16(4), 8.