Satisfaction and revisit intentions at fast food restaurants

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Abstract

This study is to identify the positive association of food quality, restaurant service quality, physical environment quality, and customer satisfaction with revisit intention of customers at fast food restaurants. Additionally, word of mouth is investigated as moderator on the relationship of customer satisfaction with revisit intentions of customers at fast food restaurants. Data were collected through a questionnaire survey from 433 customers of fast food restaurants through convenience sampling. Hypotheses of proposed model were tested using structural equation modeling with partial least squares SEM-PLS in SMART PLS 3. The results confirmed the positive association of food quality, restaurant service quality, physical environment quality, and customer satisfaction with revisit intentions of customers at fast food restaurants. However, word of mouth does not positively moderate the relationship of customer satisfaction with revisit intentions of customers at fast food restaurants. This study emphasizes the importance of revisit intention as a vital behavioral reaction in fast food restaurants. This study reveals revisit intention's positive association with food quality, restaurant service quality, physical environment quality, and customer satisfaction based on stimulus-organism-response (S-O-R) theory. Furthermore, it is identified that social conformity theory does not hold its assumption when consumers experience quality and they are satisfied because word of mouth does not moderate the relationship of customer satisfaction with revisit intention of customer.

Keywords: Food quality, Restaurant service quality, Physical environment quality, Customer satisfaction, Word of mouth, Revisit intention

Introduction

Background of the study

Hospitality industry is observing diversified changes in highly competitive environment for restaurants [1]. Consumers are becoming conscious of food quality (FQ), restaurant service quality (RSQ), and physical environment quality (PEQ) of the fast food restaurants. Consumers switch easily in case of just one evasive experience [2, 3]. Fast food restaurants must attract new customers and retain the existing customers. There is a growing trend in Pakistani culture to dine out at fast food restaurants with family, friends, and colleagues [4]. Restaurants focus to provide a dining experience by combining tangible and intangible essentials [5]. Decisive objective is to achieve customer satisfaction (CS), word of mouth (WOM), and future revisit intention (RVI) at fast food restaurant.

Restaurants differ in offerings, appearance, service models, and cuisines; this classifies restaurants as downscale and upscale [6, 7]. Revisit intention is the willingness of a consumer to revisit a place due to satisfactory experience. Customer satisfaction generates a probability to revisit in presence or absence of an affirmative attitude toward the restaurant [8]. Revisit intention is a substantial topic in hospitality research [8–10]. To date there has been little agreement on that word of mouth can affect revisit intention after experience of customer satisfaction. For instance, when a customer is satisfied at a fast food restaurant experience, however, the customer's family and friends do not share the same satisfying experience. Will this word of mouth affect the customer's revisit intention? Food quality is

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acknowledged as a basic component of the restaurant's overall experience to affect consumer revisit intention. Fast food quality is substantially associated with customer satisfaction and it is an important predictor of behavioral intention [11]. Service quality is an essential factor to produce consumers' revisit intentions [12]. Furthermore, physical environment quality affects behavior of consumers at restaurants, hotels, hospitals, retail stores, and banks [13]. Physical environment quality is a precursor of customer satisfaction [9]. This suggests that customer satisfaction is associated with fast food quality, restaurant service quality, physical environment quality, and revisit intention.

Aims of the study

This study is to investigate the association of fast food quality, restaurant service quality, physical environment quality with customer's revisit intention through mediation of customer satisfaction using S-O-R theory and moderation of word of mouth on the relationship of customer satisfaction with revisit intention based on social conformity theory. This study empirically tests a conceptual research framework based on S-O-R and social conformity theory adding value to the knowledge. Objectives of the study are given below.

- To investigate the association of fast food quality, restaurant service quality, and physical environment quality with revisit intention through customer satisfaction based on S-O-R theory in the context of Pakistani fast food restaurants.
- To investigate moderation of WOM on relationship of customer satisfaction with revisit intention based on social conformity theory in the context of Pakistani fast food restaurants.

Furthermore, little empirical evidence is present about customer satisfaction with respect to fast food restaurant service quality [14]. Customer satisfaction is a post-consumption assessment in service industry. Customer satisfaction acts as the feedback mechanism to boost consumer experience [15]. Customer satisfaction brings competitive advantage to the firm and produces positive behavioral revisit intention [16]. Marketing literature emphasizes customer satisfaction in anticipation of positive word of mouth, revisit intention, and revisit behavior [5]. Behavioral intention is assessed through positive WOM, and it is important in service industry [15], whereas social influence in shape of WOM affects the behavior of individuals toward conformity leading to a driving effect based on social conformity theory [17].

Food quality

Food quality plays a central role in the restaurant industry. Food quality is essential to satisfy consumer needs. Food quality is a substantial condition to fulfill the needs and expectations of the consumer [18]. Food quality is acknowledged as a basic component of the restaurant's overall experience. Food quality is a restaurant selection's most important factor, and it is considerably related to customer satisfaction [11]. Food quality affects customer loyalty, and customer assesses the restaurant on the basis of food quality [19]. Food quality entails food taste, presentation, temperature, freshness, nutrition, and menu variety. Food quality influences customers' decisions to revisit the restaurant [20]. Academic curiosity is increasing in the restaurant's menus, as variety of menu items is considered the critical characteristic of food quality [11]. Taste is sensual characteristic of food. Taste is assessed after consumption. Nonetheless, customers foresee taste before consumption through price, quality, food labels, and brand name. Taste of food is important to accomplish customer satisfaction. Presentation of food enhances dining customer satisfaction [21, 22]. Customer's concerns of healthy food substantially affect customer's expectations and choice of a restaurant [23]. Freshness is assessed with the aroma, juiciness, crispness, and fresh posture of the food. Food quality enhances customer satisfaction [24].

Restaurant service quality

Quality as a construct is projected by Juran and Deming [25, 26]. Service quality is comparatively a contemporary concept. Service quality assesses the excellence of brands in industry of travel, retail, hotel, airline, and restaurant [27]. Restaurant service quality affects dining experiences of customers. Service quality creates first impression on consumers and affects consumers' perception of quality [28]. Service industry provides good service quality to the customers to attain sustainable competitive advantage. Customer satisfaction depends on quality of service at the restaurant [29]. Service quality entails price, friendliness, cleanliness, care, diversity, speed of service, and food consistency according to menu. Customer satisfaction also depends on communication between restaurant's personnel and the customers [30]. Consumer's evaluation of service quality is affected by level of friendliness and care. Service quality leads to positive word of mouth, customer satisfaction, better corporate image, attraction for the new customers, increase revisits, and amplified business performance. Service quality increases revisits and behavioral intentions of customers in hospitality industry [12].

Physical environment quality

PEQ is a setting to provide products and services in a restaurant. Physical environment quality contains artifacts, decor, spatial layout, and ambient conditions in a restaurant. Customers desire dining experience to be pleasing; thus, they look for a physical environment quality [31]. Physical environment quality satisfies and attracts new customers. PEQ increases financial performance, and it creates memorable experience for the customers [9]. Consumers perceive the quality of a restaurant based on cleanliness, quirky, comfortable welcoming, physical environment quality, and other amenities that create the ambiance [32]. Effect of physical environment quality on behaviors is visible in service businesses such as restaurants, hotels, hospitals, retail stores, and banks [33]. Physical environment quality is an antecedent of customer satisfaction [34]. Thus, restaurants need to create attractive and distinctive physical environment quality.

Customer satisfaction

Customer satisfaction contains the feelings of pleasure and well-being. Customer satisfaction develops from gaining what customer expects from the service. Customer satisfaction is broadly investigated in consumer behavior and social psychology. Customer satisfaction is described "as the customer's subjective assessment of the consumption experience, grounded on certain associations between the perceptions of customer and objective characteristics of the product" [35]. Customer satisfaction is the extent to which an experience of consumption brings good feelings. Customer satisfaction is stated as "a comparison of the level of product or service performance, quality, or other outcomes perceived by the consumer with an evaluative standard" [36]. Customer satisfaction constructs as a customer's wholesome evaluation of an experience. Customer satisfaction is a reaction of fulfilling customer's needs.

Customer satisfaction brings escalated repeat purchase behavior and intention to refer [37]. Dissatisfied consumers are uncertain to return to the place [38]. Satisfactory restaurant experience can enhance revisit intention of the consumer. Positive WOM is generated when customers are not only satisfied with the brand but they demand superior core offering and high level of service [15].

Word of mouth

Word of mouth is described as "person-to-person, oral communication between a communicator and receiver which is perceived as a non-commercial message" [39]. WOM is also defined as "the informal positive or negative communication by customers on the objectively existing and/or subjectively perceived characteristics of the products or services" [40]. Moreover, [41] defines it as "an informal person to person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, an organization or a service". WOM is described as a positive or negative statement made by probable, actual or former customers about a product or a company, which is made available through offline or online channels [42, 43]. WOM is an important and frequent sensation; it is known for long time that people habitually exchange their experiences of consumptions with others. Consumers complain about bad hotel stays, talk about new shoes, share info about the finest way of getting out tough stains, spread word about experience of products, services, companies, restaurants, and stores. Social talks made more than 3.3 billion of brand impressions per day [44].

WOM has substantial impact on consumer's purchasing decision; therefore, a vital marketing strategy is to initiate positive WOM [45]. However, negative WOM is more informative and diagnostic where customers express their dissatisfaction [38]. Word of mouth communications are more informative than traditional marketing communications in service sector. WOM is more credible than advertisement when it is from friends and family [46]. WOM is a vital influencer in purchase intention. WOM escalates affection that enhances commitment of consumer purchase intention. WOM is generated before or after the purchase. WOM helps the consumers to acquire more knowledge for the product and to reduce the perceived risk [47]. WOM in the dining experience is very important. People tend to follow their peers' opinions when they are to dine out.

Revisit intention

To predicting and to explain human behavior is the key determination of consumer behavior research. Consumer needs differ and emerge frequently with diverse outlooks. Revisit intention is to endorse "visitors being willing to revisit the similar place, for satisfactory experiences, and suggest the place to friends to develop the loyalty" [48]. Consumer forms an attitude toward the service provider based on the experience of service. This attitude can be steady dislike or like of the service. This is linked to the consumer's intention to re-patronize the service and to start WOM. Repurchase intention is at the core of customer loyalty and commitment. Repurchase intention is a significant part of behavioral and attitudinal constructs. Revisit intention is described as optimistic probability to revisit the restaurant. Revisit intention is the willingness of a consumer to visit the restaurant again. Furthermore, the ease of visitors, transportation in destination, entertainment, hospitality, and service satisfaction influence visitor's revisit intention.

Consumer behavior encircles the upcoming behavioral intention and post-visit evaluation. Post-visit evaluation covers perceived quality, experience, value, and the satisfaction. Restaurant managers are interested to understand the factors of consumer revisit intention, as it is cost effective to retain the existing customers in comparison with attract new customers [49]. Substantial consideration is prevailing in literature for the relationship among quality attributes, customer satisfaction, and revisit intention. There is a positive association between customer satisfaction and revisit intention. Indifferent consumer, accessibility of competitive alternatives and low switching cost can end up in a state where satisfied consumers defect to other options [2]. Consumer behavior varies for choice of place to visit, assessments, and behavioral intentions [50]. The assessments are about the significance perceived by regular customers' satisfactions. Whereas, future behavioral intentions point to the consumer's willingness to revisit the similar place and suggest it to the others [51].

S-O-R model is primarily established on the traditional stimulus–response theory. This theory explicates individual's behavior as learned response to external stimuli. The theory is questioned for oversimplifying ancestries of the behaviors and ignoring one's mental state. [52] extended the S-O-R model through integrating the notion of organism between stimulus and response. S-O-R concept is embraced to reveal individual's affective and cognitive conditions before the response behavior [53]. S-O-R framework considers that environment comprises stimuli (S) leading changes to the individual's internal conditions called organism (O), further leading to responses (R) [52]. In S-O-R model, the stimuli comprise of various components of physical environment quality, organism indicates

to internal structures and processes bridging between stimuli and final responses or actions of a consumer [9]. Behavioral responses of an individual in a physical environment quality are directly influenced by the physical environment quality stimulus [54]. S-O-R framework is implemented in diverse service contexts to examine how physical environment quality affects customer's emotion and behavior [55]. The effect of stimulation in an online shopping environment on impulsive purchase is investigated through S-O-R framework [56]. The effects of background music, on consumers' affect and cognition, and psychological responses influence behavioral intentions [57]. Perceived flow and website quality toward customer satisfaction affect purchase intention in hotel website based on S-O-R framework [58]. Therefore, this study conceptualizes food quality, restaurant service quality, and physical environment quality as stimuli; customer satisfaction as organism; and revisit intention as response.

Moreover, social conformity theory (SCT) is to support the logical presence of WOM in the conceptual framework as a moderator on the relationship of customer satisfaction and revisit intention. Social conformity influences individual's attitudes, beliefs and behaviors leading to a herding effect [17, 59]. Thus, social influence (WOM) moderates the relationship of customer satisfaction and revisit intention. Following hypotheses are postulated, see Fig. 1.

H_1 Food quality is positively associated with customer satisfaction in fast food restaurant.

H_2 Restaurant service quality is positively associated with customer satisfaction in fast food restaurant.
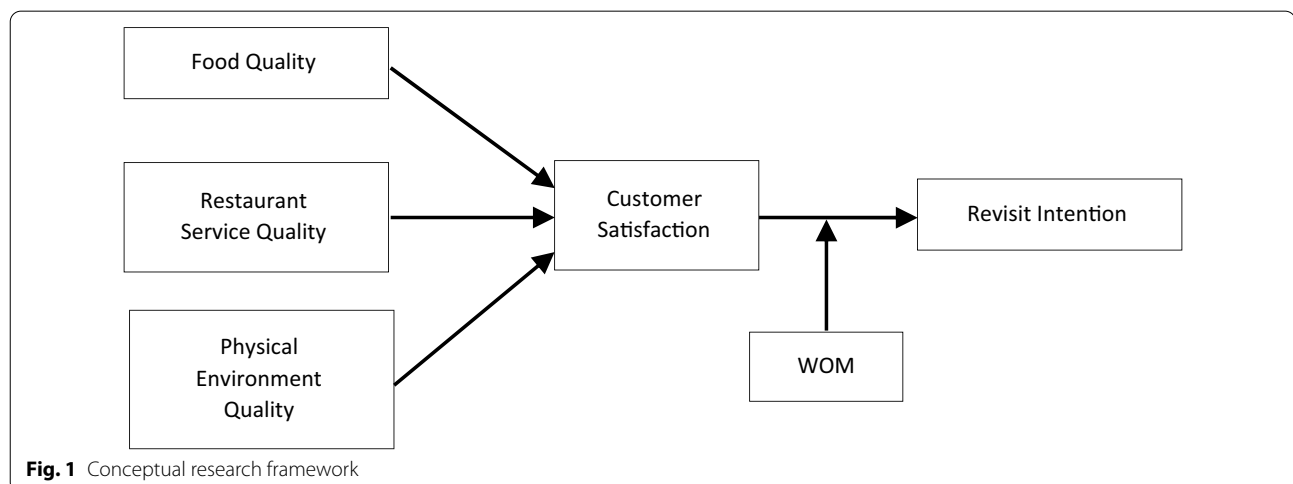

Fig. 1 Conceptual research framework

H₃ Physical environment quality is positively associated with customer satisfaction in fast food restaurant.

H₄ Customer satisfaction is positively associated with revisit intention of customer in fast food restaurant.

H₅ Customer satisfaction mediates between food quality and revisit intention of customer in fast food restaurant.

H₆ Customer satisfaction mediates between restaurant service quality and revisit intention of customer in fast food restaurant.

H₇ Customer satisfaction mediates between physical environment quality and revisit intention of customer in fast food restaurant.

H₈ WOM positively moderates the relationship between customer satisfaction and revisit intention of customer in fast food restaurant.

Methods

There are two research approaches such as deductive (quantitative) and inductive (qualitative). This study utilized the quantitative research approach as it aligns with the research design and philosophy. Quantitative research approach mostly relies on deductive logic. Researcher begins with hypotheses development and then collects data. Data are used to determine whether empirical evidence supports the hypotheses [60]. The questionnaires survey is used. This study chose the mono-method with cross-sectional time horizon of 6 months. Deductive approach is utilized in this study. Cross-sectional time horizon also known as "snapshot" is used when investigation is related with the study of a specific phenomenon at a particular time [61]. Questionnaire survey is mostly used technique for data collection in marketing research due to its effectiveness and low cost [62]. Data are collected through self-administered questionnaires. Following the footsteps of Lai and Chen [63] and Widianti et al. [64] convenience sampling is applied. Famous fast food restaurants in twin cities (Rawalpindi and Islamabad) of Pakistan were chosen randomly. Furthermore, 650 questionnaires (with consideration of low response rate) were distributed to the customers at famous fast food restaurants. Moreover, researchers faced difficulty in obtaining fast food restaurant's consumers data.

It yielded a response rate of 68.92% with 448 returned questionnaires. Fifteen incomplete questionnaires are not included; thus, 433 responses are employed for data analysis from fast food restaurant customers. The obtained number of usable responses was suitable to apply structural equation modeling [65–68].

Sample characteristics describe that there are 39.7% females and 60.3% males. There are 31.4% respondents of age group 15–25 years, 48.3% of age group 26–35, 12.2% of age ranges between 36 and 45, 6.7% of age ranges between 46 and 55, and 1.4% of age group is above 56 years. The educational level of the respondents indicates that mostly respondents are undergraduate and graduate. Occupation of respondents reflects that 28.6% work in private organizations and 24.9% belong to student category. Monthly income of 29.3% respondents ranges between Rupees 20,000 and 30,000 and 25.6% have monthly income of Rupees 41,000–50,000. Average monthly spending in fast food restaurants is about Rupees 3000–6000, see Table 1.

Table 1 Demographic analysis

Category	Frequency	Percentage
Gender		
Female	172	39.7
Male	261	60.3
Age		
15–25	136	31.4
26–35	209	48.3
36–45	53	12.2
46–55	29	6.7
Education		
High school	41	9.5
Intermediate	64	14.8
Bachelor	115	26.6
Master	131	30.3
Work		
Employee (public)	57	13.2
Employee (private)	124	28.6
Own business	80	18.5
Student	108	24.9
Income		
20,000–30,000	127	29.3
31,000–40,000	94	21.7
41,000–50,000	111	25.6
51,000–60,000	50	11.5
Average monthly fast food spending		
Below 3000	135	31.2
3000–6000	200	46.2
6001–9000	67	15.5
9001–12,000	17	3.9
Above 12,000	14	3.2

Measures of the constructs

Food quality is adopted from measures developed by [69]. Food quality contains six items such as: food presentation is visually attractive, the restaurant offers a variety of menu items, and the restaurant offers healthy options. Restaurant service quality is adopted with six items [70]. This construct contains items such as: efficient and effective process in the welcoming and ushering of the customers, efficient and effective explanation of the menu, efficient and effective process in delivery of food. Physical environment quality is adopted with four items [71], and one item is adopted from measures developed by [70]. The items are such as: the restaurant has visually striking building exteriors and parking space, the restaurant has visually eye-catching dining space that is comfortable and easy to move around and within, and the restaurant has suitable music and/or illumination in accordance with its ambience. Revisit intention is measured through four adapted items [8]; such as: I would visit again in the near future and I am interested in revisiting again. Customer satisfaction is measured by three adopted items [29]; such as: I am satisfied with the service at this restaurant, and the restaurant always comes up to my expectations. Word of mouth is measured with four adopted items such as: my family/friends mentioned positive things I had not considered about this restaurant, my family/friends provided me with positive ideas about this restaurant [72]. Each item is measured on 5-point Likert scale, where 1 = strongly disagree, 3 = uncertain, and 5 = strongly agree.

Results and discussion

Validity and reliability

Validity taps the ability of the scale to measure the construct; in other words, it means that the representative items measure the concept adequately [73]. The content validity is executed in two steps; firstly, the items are presented to the experts for further modifications; secondly, the constructive feedback about understanding of it was acquired by few respondents who filled the questionnaires. Each set of items is a valid indicator of the construct as within-scale factor analysis is conducted.

The factor analyses allotted the items to their respective factor. Fornell and Lacker's [74] composite reliability p is calculated for each construct using partial least squares (PLS) structural equation modeling and Cronbach's coefficient α [75]. Cronbach's α is used to evaluate the reliability of all items that indicates how well the items in a set are positively related to one another. Each Cronbach's α of the instrument is higher than .7 (ranging from .74 to .91); see Table 2.

Common method bias

Same measures are used to collect data for all respondents; thus, there can be common method bias [76]. Firstly, questionnaire is systematically constructed with consideration of study design. Secondly, respondents were assured for the responses to be kept anonymous [77]. Common method bias possibility is assessed through Harman's single factor test [78–83]. Principal axis factor analysis on measurement items is exercised. The single factor did not account for most of the bias and it accounted for 43.82% variance that is less than 50%. Thus, common method bias is not an issue [80, 81].

SEM-PLS model assessment

Survey research faces a challenge to select an appropriate statistical model to analyze data. Partial least squares grounded structural equation modeling (SEM-PLS) and covariance-based structural equation modeling (CB-SEM) are generally used multivariate data analysis methods. CB-SEM is based on factor analysis that uses maximum likelihood estimation. PLS-SEM is based on the principal component concept; it uses the partial least squares estimator [84]. PLS-SEM is considered appropriate to examine complex cause–effect relationship models. PLS-SEM is a nonparametric approach with low reservations on data distribution and sample size [84].

Measurement model assessment

To evaluate convergent validity measurement model (outer model) is assessed that includes composite reliability (CR) to evaluate internal consistency, individual indicator reliability, and average variance extracted (AVE) [85]. Indicator reliability explains the variation in the items by a variable. Outer loadings assess indicator reliability; a higher value (an item with a loading of .70) on a variable indicates that the associated measure has considerable mutual commonality [85]. Two items RSQ 14 and PEQ 24 are dropped due to lower value less than .60 [86]. Composite reliability is assessed through internal consistency reliability. CR values of all the latent variables have higher values than .80 to establish internal consistency [85]; see Table 2.

Convergent validity is the extent to which a measure correlates positively with alternative measures of the same variable. Convergent validity is ensured through higher values than .50 of AVE [74], see Table 2. Discriminant validity is the degree to which a variable is truly distinct from other variables. Square root of AVE is higher than the inter-construct correlations except customer satisfaction to hold discriminant validity [74]. Additional evidence for discriminant validity is that indicators' individual loadings are found to be higher than the respective cross-loadings, see Table 3.

Table 2 Construct reliability and results of outer model

Variable	Indicators	Loadings	Cronbach's *α*	CR	AVE
Food quality	FQ8	.769	.846	.886	.565
	FQ9	.733			
	FQ10	.723			
	FQ11	.740			
	FQ12	.771			
	FQ13	.773			
Restaurant service quality	RSQ16	.713	.794	.866	.618
	RSQ17	.830			
	RSQ18	.830			
	RSQ19	.766			
Physical environment quality	PEQ20	.764	.747	.856	.665
	PEQ21	.873			
	PEQ23	.805			
Customer satisfaction	CS25	.886	.833	.900	.750
	CS26	.854			
	CS27	.857			
Word of mouth	WOM28	.813	.844	.895	.681
	WOM29	.844			
	WOM30	.847			
	WOM31	.796			
Revisit intention	RI32	.887	.916	.941	.800
	RI33	.916			
	RI34	.895			
	RI35	.878			

Table 3 Discriminant validity—Fornell and Larcker criterion

Sr. no.	Constructs	1	2	3	4	5	6
1	Customer satisfaction	*0.866*					
2	Food quality	0.767	*0.752*				
3	Perceived environment quality	0.632	0.654	*0.815*			
4	Restaurant service quality	0.701	0.721	0.650	*0.786*		
5	Revisit intention	0.784	0.703	0.641	0.695	*0.894*	
6	Word of mouth	0.720	0.635	0.604	0.663	0.721	*0.825*

The off-diagonal values are the correlations between latent variables and the italic values are the square root of AVE

Structural model assessment

Structural model is assessed after establishing the validity and reliability of the variables. Structural model assessment includes path coefficients to calculate the importance and relevance of structural model associations. Model's predictive accuracy is calculated through R^2 value. Model's predictive relevance is assessed with Q^2, and value of f^2 indicates substantial impact of the exogenous variable on an endogenous variable in PLS-SEM [85]. SEM is rigueur in validating instruments and testing linkages between constructs [87]. SMART-PLS produces reports of latent constructs correlations, path coefficients with t test values. The relationships between six constructs of food quality, restaurant service quality, physical environment quality, customer satisfaction, word-of-mouth, and revisit intention are displayed in Fig. 2 after bootstrapping. Bootstrapping is a re-sampling approach that draws random samples (with replacements) from the data and uses these samples to estimate the path model multiple times under slightly changed data constellations [88]. Purpose of bootstrapping is to compute the standard error of coefficient estimates in order to examine the coefficient's statistical significance [89].

Fig. 2 Bootstrapping and path coefficients

of the endogenous construct. R^2 values represent the exogenous variables' mutual effects on the endogenous variables. This signifies the amount of variance in endogenous constructs explained by total number of exogenous constructs associated to it [88]. The endogenous variables customer satisfaction and revisit intention have $R^2 = .645$ and .671, respectively, that assures the predictive relevance of structural model. Further the examination of the endogenous variables' predictive power has good R^2 values.

Blindfolding is to cross-validate the model's predictive relevance for each of the individual endogenous variables with value of Stone–Geisser Q^2 [90, 91]. By performing the blindfolding test with an omission distance of 7 yielded cross-validated redundancy Q^2 values of all the endogenous variables [88]. Customer satisfaction's $Q^2 = .457$ and RVI's $Q^2 = .501$; this indicates large effect sizes. PLS structural model has predictive relevance because values of Q^2 are greater than 0, see Table 5.

Assessing f^2

Effect size f^2 is the measure to estimate the change in R^2 value when an exogenous variable is omitted from the model. f^2 size effect illustrates the influence of a specific predictor latent variable on an endogenous variable. Effect size f^2 varies from small to medium for all the exogenous variables in explaining CS and RVI as shown Table 6.

Additionally, H_5: CS mediates between food quality and RVI is supported as CS partially mediates between FQ and RVI. Variation accounted for (VAF) value indicates that 70% of the total effect of an exogenous variable FQ on RVI is explained by indirect effect. Therefore, the

Food quality is positively associated to customer satisfaction in fast food restaurant; H_1 is supported as path coefficient $= .487$, T value $= 8.349$, P value $= .000$. Restaurant service quality is positively associated with customer satisfaction; H_2 is supported as path coefficient $= .253$, T value $= 4.521$, P value $= .000$. Physical environment quality is positively associated with customer satisfaction in fast food restaurant; H_3 is supported as path coefficient $= .149$, T value $= 3.518$, P value $= .000$. Customer satisfaction is positively associated with revisit intention of customer in fast food restaurant; H_4 is supported as path coefficient $= .528$, T value $= 11.966$, P value $= .000$. WOM positively moderates the relationship between customer satisfaction and revisit intention of customer in fast food restaurant; H_8 is not supported as path coefficient $= -.060$, T value $= 2.972$, P value $= .003$; see Table 4.

Assessing R^2 and Q^2

Coefficient of determination R^2 value is used to evaluate the structural model. This coefficient estimates the predictive precision of the model and is deliberated as the squared correlation between actual and predictive values

Table 5 Results of R square and Q square

Endogenous latent variable	R^2	Adj R^2	Q^2 (= 1 − SSE/SSO)	Effect size
CS	.645	.643	.457	Large
RVI	.671	.669	.501	Large

Small: Q^2 effect size < 0.15; medium: Q^2 effect size < 0.35; large: Q^2 effect size > 0.35

Table 4 Results of hypotheses with path coefficients

Hypotheses		Path coefficients	T statistics	P values	Decision
H_1	FQ → CS	.487	8.349	.000	Supported
H_2	RSQ → CS	.253	4.521	.000	Supported
H_3	PEQ → CS	.149	3.518	.000	Supported
H_4	CS → RVI	.528	11.966	.000	Supported
H_8	WOM × CS → RVI	− .060	2.972	.003	Not supported

Table 6 Results of f square

	f^2	Effect size
FQ → CS	.274	Medium
RSQ → CS	.064	Small
PEQ → CS	.034	Small
CS → RVI	.141	Small
CS × WOM → RVI	.004	Small

effect of FQ on RVI is partially mediated through CS. Similarly, the VAF value indicates that 70% of the total effect of an exogenous variable RSQ and 35% VAF of PEQ on RVI is explained by indirect effect. Therefore, the effects of RSQ and PEQ on RVI are also partially mediated through CS. H_6 is supported as the effect of CS is partially mediated between RSQ and RVI of customer in fast food restaurant. H_7 is supported as the effect of CS is partially mediated between PEQ and RVI of customer in fast food restaurant, see Table 7. This clearly indicates that customer satisfaction mediates between all of our exogenous variables (food quality, restaurant service quality and physical environment quality) and dependent variable revisit intention of customer in fast food restaurant [88, 92] (Additional files 1, 2 and 3).

Discussion

This is interesting to note that food quality, restaurant service quality, physical environment quality, and customer satisfaction are important triggers of revisit intention at fast food restaurants. However, surprisingly, word of mouth does not moderate the relationship of customer satisfaction with revisit intention of customer at fast food restaurant. The results of the study correspond with some previous findings [15, 29, 32, 69, 93]. Positive relationship between customer satisfaction and revisit intention is consistent with the findings of the previous studies [5, 8, 94–96]. Food quality is positively associated with revisit intention; this result as well corresponds to a previous study [24]. Furthermore, interior and amusing physical environment is an important antecedent of revisit intention at a fast food restaurant; this finding is congruent

with previous findings [29, 70, 97, 98] and contrary to some previous studies [9, 15].

Intensified competition, industry's volatile nature, and maturity of the business are some challenges that fast food restaurants face [5]. Amid economic crunch, competition becomes even more evident, driving fast food restaurants to look for unconventional ways to appeal the customers. In fact, these findings somehow show that significance of physical environment quality in creating revisit intention is probably lower in comparison with food quality and restaurant service quality. Nonetheless, fast food restaurant's management should not underrate the fact that physical environment quality considerably affects the revisit intention. Due to this, the importance of physical environment quality must not be overlooked when formulating strategies for improving customer satisfaction, revisit intention and creating long-term relationships with customers.

Managerial implications

The results imply that restaurant management should pay attention to customer satisfaction because it directly affects revisit intention. Assessing customer satisfaction has become vital to successfully contest in the modern fast food restaurant business. From a managerial point of view, the results of this study will help restaurant managers to better understand the important role of food quality, restaurant service quality and physical environment quality as marketing tool to retain and satisfy customers.

Limitations

There are certain limitations with this study. This study is cross sectional, and it can be generalized to only two cities of Pakistan. Scope of research was limited as the data were collected from two cities of Pakistan (Islamabad and Rawalpindi) using convenience sampling.

Future research

A longitudinal study with probability sampling will help the researchers to comprehensively investigate the relationships among the constructs. Moreover, it would be useful for future research models to add information overload as an explanatory variable and brand image as moderating variable in the research framework.

Table 7 Mediation analysis of customer satisfaction

Exogenous variables	Direct effect	Indirect effect	Total effect	VAF	Mediation	Hypotheses	Decision
FQ	0.287	0.235	0.334	0.703	Partial	H_5	Supported
RSQ	0.234	0.123	0.338	0.364	Partial	H_6	Supported
PEQ	0.134	0.067	0.189	0.353	Partial	H_7	Supported

Additionally, moderation of WOM can be investigated in other relationships of conceptual model.

Conclusion

The study encircles the key triggers of customer satisfaction and revisit intention in fast food restaurants. It also offers a model that defines relationships between three factors of restaurant offer (food quality, restaurant service quality, and physical environment quality), customer satisfaction, word of mouth, and revisit intention at fast food restaurants. The model specially focuses the revisit intention as dependent variable of conceptual model despite behavior intentions. The findings suggest the revisit intention is positively associated with customer satisfaction, food quality, restaurant service quality, and physical environment quality in a fast food restaurant.

However, contrary to the findings of a previous study [99], WOM do not positively moderate between the relationship of customer satisfaction and revisit intention. The empirical findings confirm the significant impact of food quality, restaurant service quality, physical environment quality, and customer satisfaction which are important antecedents of revisit intention at fast food restaurant through mediation of customer satisfaction. Moreover, findings of the research support the assumptions of SOR theory strengthening our conceptual model which states the external stimuli (FQ, RSQ, PEQ) produced internal organism (CS) which led to the response (RVI). However; assumption of social conformity theory failed to influence the satisfied customer. In other words, customer satisfaction plays dominating role over social influence (i.e. WOM) in making revisit intention. Therefore, WOM was not able to influence the strength of relationship of CS and RVI.

Supplementary information

Supplementary information accompanies this paper at https://doi.org/10.1186/s43093-020-00021-0.

Additional file 1. PLS Algorithm.

Additional file 2. Bootstrapping.

Additional file 3. Blindfolding.

Abbreviations

CS: Customer satisfaction; FQ: Food quality; PEQ: Physical environment quality; RSQ: Restaurant service quality; RVI: Revisit intention; SCT: Social conformity theory; S-O-R: Stimulus-organism-response; SEM-PLS: Structural equation modeling with partial least squares; WOM: Word of mouth.

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