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**Article**

## Marketing-quality interface: An empirical analysis of FMCG customers

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Sumreen Khalil |

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## MARKETING | RESEARCH ARTICLE

# Marketing–Quality Interface: An Empirical Analysis of FMCG Customers

Sumreen Khalil<sup>1\*</sup>

**Abstract:** This research intends to study the interface of key concepts of Marketing and Quality in relation to Fast Moving Consumer Goods (FMCG) Customers. Marketing variables i.e. product, price, place and promotion are exogenous variables, quality perception is the endogenous variable whereas Word of Mouth (WOM) is the mediating variable for this study. For achieving the objectives of this research and test the developed hypotheses, a quantitative research strategy has been followed. In order to collect data, on the basis of literature, a questionnaire has been developed by the researcher. This research has significance in terms of its contribution both theoretically and practically as it has developed an instrument for measuring FMCG customers' quality perception. Moreover, a model has also been developed which is statistically validated. Data have been collected from 466 customers from Lahore using Stratified Random Sampling Technique. AMOS has been used for developing structural model and testing of hypotheses. Findings of the research conclude that all marketing variables i.e. price, place and promotion except product has an interface with perceived quality of FMCG customers and these relationships are mediated through WOM.

**Subjects:** Marketing; Advertising; Marketing Research

**Keywords:** Interface; marketing variables; product; price; place; promotion; quality perception; fast-moving consumer goods; word of mouth

## 1. Introduction

In a study by Edwards et al. (2020), it has been stated that marketing has a long history but a short past. As things used to be commodities rather than brands before, branding evolved later on. According to Kotler and Armstrong (2010), Marketing is a process that starts from value creation to the value capturing from customers. Marketing variables consist of 4Ps i.e. Product, Price, Place and Promotion that affect the customer perception of quality. Firstly, product has its own set of characteristics. Moreover, there are various pricing strategies. Furthermore, placement matters a lot in marketing. Lastly, promotion further consists of various techniques to promote a specific product.

## ABOUT THE AUTHOR

Sumreen Khalil is a PhD Scholar (Total Quality Management) at Institute of Quality and Technology Management, University of the Punjab, Lahore, Pakistan. This article is the part of her PhD research Thesis. Her areas of interest include Business Administration, Management, Total Quality Management and Marketing.

## PUBLIC INTEREST STATEMENT

Author is interested in exploring the interface between the subject of Marketing and the subject of Quality with special reference to the marketing mix and quality perception. Her recent work has focused on Fast Moving Consumer Goods (FMCG) customers.

On the other hand, quality is a broad term that has different meanings for different people. There are various ways to measure the quality of product, service and organization. In the study of Garvin (1987), eight product quality dimensions are introduced i.e. features, performance, perceived quality, reliability, conformance, durability, aesthetics and serviceability. Similarly, Parasuraman et al. (1988) gave Service Quality (SERVQUAL) Model which is usually used to assess the quality provided by a service sector to the customer. SERVQUAL dimensions are responsiveness, tangibility, empathy, assurance and reliability. Moreover, according to the study of Besterfield (2011) there are eight Total Quality Management (TQM) Principles for organizations, i.e. process approach, leadership, factual approach, system approach, involvement of people, mutually beneficial supplier relations, customer focus and continual improvement.

Referring to the third critical idea, Cakir and Cetin (2013) argue that, information is very much important in making an individual take a decision regarding the purchase of a product. The various sources of the information include both internal and external sources. Internal could be our own perceptions while external can be our family and friends as well as those who are related to us distantly. The good or bad experience of these sources influences their perceptions. One such form of communication of information is through word of mouth. WOM is very important in building up an opinion about a purchase decision.

In this conceptual background, this study focuses on FMCG sector in Pakistan. These goods are used on daily basis by the customers. Examples include shampoos, soaps, toothpaste, salt, sugar etc. There are various companies in Pakistan which purely deal in fast-moving consumer goods business. Moreover, in Pakistan, demand for FMCG is increasing sharply. Lower and upper socio-economic classes in Pakistan are shrinking resulting in increase of middle class which is more attracted towards branded goods, packaged materials; both edibles and non-edibles. Sales are boosting for fast-moving consumer goods (Haq, 2018).

### **1.1. Research objectives**

The present work aims to investigate the interface of marketing variables and quality perception of fast-moving consumer goods customers, where the mediating effect of word of mouth has been tested on their relationship. The research objectives developed for this research are following:

- (i) To investigate the interface of marketing variables (Product, Price, Place and Promotion) and quality perception.
- (ii) To investigate the interface of marketing variables (Product, Price, Place and Promotion) and word of mouth.
- (iii) To investigate the mediating effect of word of mouth on the interface of marketing variables (Product, Price, Place and Promotion) and quality perception.

### **1.2. Significance**

In past, a lot of work has been reported in the area of Quality and Marketing separately. According to Kohli and Haenlein (2020), Marketing is such a subject that rapidly changes from time to time because of emergence of new concepts and technologies, so, there is a need for researches that tackle different issues with an entirely different and creative approach. On the other side, majority work in Quality discipline is on healthcare, higher education institutions (HEIs), construction, manufacturing, automobile, agriculture, pharmaceutical industry and banking sector. However, limited work is available in literature which specifically focuses on a study of the interface which exists between marketing variables and quality perception with reference to FMCG sector. However, in FMCG sector, customer loyalty is attained for a very shorter period of time which makes it weak over time. Businesses must try to build loyal customers for a longer period of time (Sundström & Hjelm-Lidholm, 2020). Therefore, word of mouth is used as a mediating variable in this research which influences the relationship between marketing variables and quality perception. Limited research is present in literature on this topic which makes it unique to study in detail.

The theoretical contribution of this research is scale development and model validation. This research will also help industries to design their products keeping in view the finding of this research in order to give maximum value to their customers. This topic being related to fast-moving consumers goods sector will prove to be a great contribution in Pakistan which will help improve its economic condition and help achieve true progress by leaps and bounds.

## 2. Literature review

### 2.1. Interface of marketing variables (4Ps) and quality perception

The main feature of this study is the interface between marketing variable and quality perception; therefore, this section is of high importance. To begin with, Interface is defined by Beal (2019) as “A boundary across which two independent systems meet and act on or communicate with each other. To connect with or interact with by means of an interface”.

First of all, Kukanja et al. (2017) mentioned in their study that marketing variables are very useful in assessing the quality. Moreover, customers purchase those brands which are supposed to have advanced quality. So, exceptional brand names are supposed to have higher quality (Hillenbrand et al., 2013). In a study by Mwakaje et al. (2018), it has been discussed that brand name does matter a lot because it conveys the message about the quality of the product and company and even the country where it does belong to. Moreover, brand credibility strongly positively affects the perception of quality of brand. If credibility is high, quality will be perceived to be good. If brand credibility is low, quality perception will be lower too. This demonstrates a direct positive relationship between brand credibility and product's quality perception (Erdoğan & Büdeyri-Turan, 2012). According to Hilgenkamp and Shanteau (2010), brand name influences the purchase intention of a customer. Every brand name has a particular perception about quality. So, a direct relationship between quality perception and brand name exists.

*H<sub>2</sub>: Product has an interface with Quality Perception.*

Secondly, it is normally perceived that high price products are of high quality while low price products are of low quality (Foster, 2014). Similarly, according to Khan and Ahmed (2016), low price is related with a lower quality perception about a product. According to the study of DelVecchio and Puligadda (2012), it is perceived that, decrease in product price is related with lowering quality of that product. Moreover, in a study by Boyle et al. (2018), the effect of price of long-lasting products has been examined with reference to quality perception of products which shows a moderate correlation between product price and quality perception.

*H<sub>4</sub>: Price has an interface with Quality Perception.*

Thirdly, in a study by Bao et al. (2011), the store placement of products is considered important in forming quality perception of their customers. Furthermore, according to Yaghin (2020), placement of a product is very important for its sales. Placement is the part of a marketing supply chain which makes a product available at company outlet or at a distributor ranging from the wholesaler to the retailer. Moreover, placement at various levels of a supply chain does influence customers' perceived product quality (Ma et al., 2013). If placements are efficient, the customers perceive the firm to be efficient and FMCG to be of higher quality, but, if such placements are not efficient, the customers perceive the firm to be inefficient and fast-moving consumer goods to be of lower quality (Oke & Long, 2007).

*H<sub>6</sub>: Place has an interface with Quality Perception.*

Fourthly, according to Wang et al. (2018), to promote tourism industry, marketing plays an important role by its promotional activities. To capture the attention of the tourists, attractive pictures of the hotel's accommodation must be advertised everywhere. Moreover, in a study by Banerjee and Bhardwaj (2019), it has been stated that the marketing promotions are very important for the sales of a product. There are various ways of promoting a product ranging from advertising to personal selling. According to Porcu et al. (2019), increase in promotional activities positively influence the perception of customers regarding quality. However, positioning of a brand into the minds of customers is normally done through various promotional activities ranging from public relation to the social marketing, which build up a strong reputation (Antric et al., 2019). This discussion leads to the development of the next hypothesis.

*H<sub>8</sub>: Promotion has an interface with Quality Perception.*

## **2.2. Interface of marketing variables (4Ps) and word of mouth**

Firstly, expert senders of WOM help in boosting the sales of unknown brands because they help in forming perception regarding that brand whether it is good or bad (Lim & Chung, 2014). Moreover, brand love influences WOM which is an emotional outcome proving the interface of product with WOM (Ismail & Spinelli, 2012). On the contrary, according to Fetscherin et al. (2014), loyalty and love for brand do not influence WOM.

*H<sub>1</sub>: Product has an interface with Word of Mouth.*

The relationship between receiver and sender of word of mouth campaign is influenced by giving financial and non-financial rewards for that particular communication regarding a brand (Pongjit & Beise-Zee, 2015). Moreover, reviews about particular product affect the customers. If such reviews are positive, people go for shopping but if such reviews are negative, they avoid buying those products (Lee et al., 2011). In the study of Roy et al. (2014), it has been mentioned that the word of mouth is influenced by price paid by the customers.

*H<sub>3</sub>: Price has an interface with Word of Mouth.*

Furthermore, a positive relationship exists between placement and WOM (Royo-Vela & Casamassima, 2011). In a study by Nieto et al. (2014), it has been stated that these days, tourists rely heavily on the reviews about travel destination's accommodation from the experienced persons in this regard. It means WOM influences the perception of travelers regarding destination place. Similarly, as per Veasna et al. (2013), satisfaction of tourists is dependent upon attachment with that place along with the WOM about that place.

*H<sub>5</sub>: Place has an interface with Word of Mouth.*

Lastly, advertisement can be used for product adoption and WOM is best for product awareness phase (López & Sicilia, 2013). Moreover, according to Jalilvand and Samiei (2012) promotion greatly influences the WOM of customer regarding a product or service. Furthermore, brand image is created through promotional activities in marketing which in turn create WOM (Kim & Lennon, 2013).

*H<sub>7</sub>: Promotion has an interface with Word of Mouth.*

### **2.3. Interface of word of mouth and quality perception**

WOM is considered to be the most powerful and influential medium of affecting the customers' perception (Huete-Alcocer, 2017). Chen (2017) studied that WOM through social networking can be used for the marketing purposes as it influences the quality perception. According to Huang et al. (2011), perception of person is influenced by word of mouth. It is a form of recommendation whose reliability does matter a lot for customer. It mediates between factors of information and adoption of information (Luo et al., 2013). However, according to Cobanoglu and Tutus (2014), if a customer has a positive perception about a particular product while a negative word of mouth is conveyed, it will lead to extreme confusion.

*H<sub>9</sub>: Word of Mouth has an interface with Quality Perception.*

### **2.4. Mediation of word of mouth between marketing variables (4Ps) and quality perception**

Firstly, WOM has a mediating effect on both marketing side and perception of customers (Sweeney et al., 2014). Shi et al. (2016) studied that the quality perception and hopes lead towards customer satisfaction. The type of the product influences the relationship of quality perception and WOM which eventually leads towards the customer satisfaction. Moreover, in a study by Sallam (2014), it has been mentioned that love for a brand has a direct relationship with WOM which leads towards buying of that product based on the positive perception developed.

*H<sub>M1</sub>: Word of Mouth mediates the interface between Product and Quality Perception.*

Secondly, WOM plays a mediating role between cost or price of a product or service and its ultimate perception regarding quality in the minds of the customers (Solimun & Fernandes, 2018). Similarly, according to Jiang et al. (2016), word-of-mouth marketing regarding pricing of product also helps increasing customer perception. However, the study by Lie et al. (2019) reveals that, the price of a service provided and the quality of those particular services along with the trust of the customer in that service is checked with regard to the loyalty of the customers.

*H<sub>M2</sub>: Word of Mouth mediates the interface between Price and Quality Perception.*

Thirdly, if information about tourism place ranking is authentic, reliable, timely, relevant and value-adding, travelers develop positive perceptions about that place and tend to visit that as soon as possible (Filiari & McLeay, 2014). Moreover, in banking sector, highly committed relationships with customers' leads towards positive WOM. In other words, customers become marketers or promoters (Al-Alak, 2014). Furthermore, according to Wallace et al. (2014), Facebook is used by companies for the marketing placement purposes for their products. Positive word of mouth on that placement leads towards acceptance of that brand by the customer.

*H<sub>M3</sub>: Word of Mouth mediates the interface between Place and Quality Perception.*

Fourthly, the fans who like that particular celebrity trust their WOM communication and instantly purchase that particular product onto their recommendations and suggestion (Utami et al., 2020). According to Falahat et al. (2018), pricing, place and promotion are mediated by the perception of product. Moreover, according to the study of Araujo et al. (2017), the influencers are the most powerful ones in influencing others to retweet about a brand. Brokers are at second number while people with larger friends' circle are at third number in spreading the word of mouth about a brand. So, WOM mediated the relationship between promotion and perceived quality.



$H_{M4}$ : Word of Mouth mediates the interface between Promotion and Quality Perception.

## 2.5. Conceptual framework and theoretical underpinnings

The conceptual framework has been developed on the basis of extensive literature review and research objectives by the researcher. Figure 1 shows four exogenous variables i.e. Product, Price, Place and Promotion that reflect marketing variable, the endogenous variable i.e. Quality Perception and Word of Mouth-the mediating variable.

Furthermore, referring to theoretical underpinnings, there are various theories in the literature that can explain this conceptual model but the researcher has chosen the three most relevant theories which explain this conceptual model and its relationships in most appropriate way which are suitable to the context of this research study. These theories are cue utilization theory, dual process theory and theory of planned behavior.

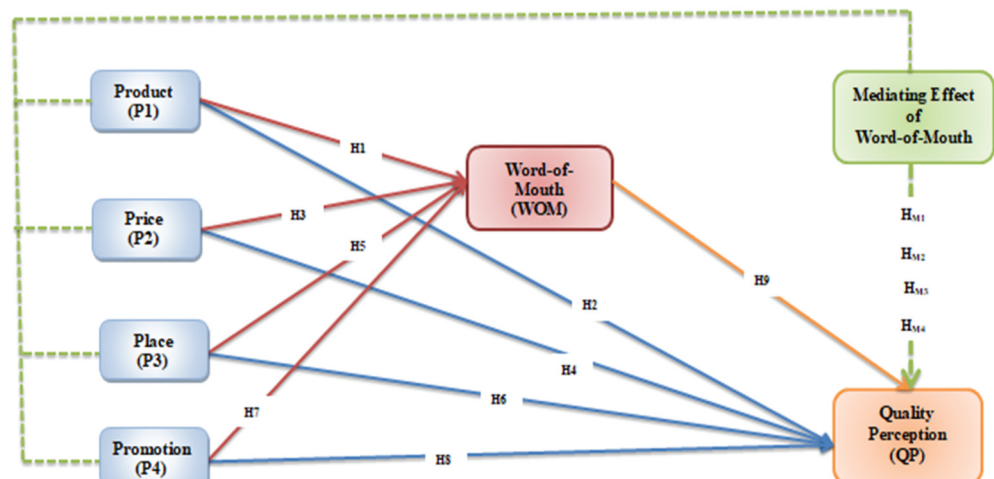
## 3. Research methodology

The quantitative research methodology has been used by the researcher as research strategy. Moreover, as far as research design is concerned, survey research design has been followed to meet the research objectives.

### 3.1. Population and sampling

According to the Pakistan Bureau of Statistics (2017), total population of Pakistan is 207,774,520 while that of the Province of Punjab is 110,012,442. However, the Lahore District consists of 11,126,285 people which is further divided into five Tehsils i.e. Lahore City Tehsil (3,655,774), Lahore Cantt. Tehsil (1,636,342), Model Town Tehsil (2,698,235), Shalimar Tehsil (2,280,308) and Riawand Tehsil (855,626). This population size is very large to cater in a study. The actual respondents of the study or the population of interest are adult Population of Pakistan, who are fast-moving consumer goods customers. The sample selected for this research is only the FMCG customers residing in Lahore because it is the largest populated city which represents Punjab province, in terms of larger number of both customers and manufacturers of FMCG. Stratified random sampling technique is used for collecting data from selected population of interest because the data was randomly collected from different strata of FMCG customers in Lahore visiting International Modern Trade (IMT) based on their demographic profile i.e. gender, age and income level. As a rule of thumb, when population is greater than 5000, size of population becomes irrelevant and a sample size of 400 is acceptable (Sekaran & Bougie, 2016). Initially, 600 questionnaires were distributed among units in the sample, out of which

Figure 1. Conceptual framework: interface of marketing variables and quality perception of FMCG customers.





466 were found to be correctly filled which implies that the valid sample size for this research stands at 466.

### 3.2. Variables and measures

As it is a survey research, instrument used is a structured questionnaire developed by researcher based on literature review. However, certain measures/items of selected variables are adapted from literature as well as mentioned in Table 1. Questionnaire consists of closed-ended questions based on 5-point Likert scale.

### 3.3. Data analysis

SPSS has been used for description of sample composition as it is widely used for quantitative analysis. Moreover, in order to conduct covariance based structural equation modeling, SPSS has been used as the basic data management tool. For testing hypotheses, SEM through AMOS has been employed. Before testing the mediation and other relational hypotheses between the variables, reliability and validity of instrument is measured through Confirmatory Factor Analysis (CFA). After confirmation of factor analysis and fitness of the measurement models, structural model was developed for giving the verdict on the hypotheses.

## 4. Data analysis and discussion

To begin with, sample composition has been discussed. Afterwards, by use of covariance-based SEM through AMOS where CFA is conducted and structural model is developed for hypotheses testing.

### 4.1. Sample composition

This section elaborates characteristics of sample included in the research. Demographic factors including gender, age and income of the respondents have been discussed here.

Table 2 displays that there is nearly an equivalent percentage of males and females with 49.8% male respondents and 50.2% female respondents. It also shows that majority of respondents belong to the age of 32–45 years. Moreover, majority of the respondents are having income of 61,000 and 90,000 with percentage of 46.1.

### 4.2. Multivariate analysis

Multivariate analysis is conducted using SEM. As mentioned earlier, first of all, CFA is conducted for testing reliability and validity of tool, followed by confirmation of model fitness through measurement modeling and then structural model is developed for testing the relational and mediation hypotheses.

**Table 1. Variables, items and sources**

Variables	Items	Sources Consulted
Product	6	(Kotler & Armstrong, 2010; Kukanja et al., 2017)
Price	5	(Kotler & Armstrong, 2010; Kukanja et al., 2017)
Place	6	(Kotler & Armstrong, 2010; Kukanja et al., 2017)
Promotion	5	(Kotler & Armstrong, 2010; Kukanja et al., 2017)
Quality Perception	8	(Garvin, 1987)
Word of Mouth	5	(Cakir & Cetin, 2013; Cobanoglu & Tulus, 2014)

**Table 2. Sample composition**

Variable		Frequency	Percentage
Gender	Male	232	49.8
	Female	234	50.2
	Total	466	100.0
Age (Years)	18–31	24	5.2
	32–45	210	45.1
	46–59	176	37.8
	60 and above	56	12.0
	Total	466	100.0
Income (PKR)	<30,000	87	18.7
	31,000–60,000	143	30.7
	61,000–90,000	215	46.1
	>91,000	21	4.5
	Total	466	100.0

#### 4.2.1 Confirmatory factor analysis

The purpose of CFA is to identify the standardized factor loadings which either needs to be retained or discarded. Moreover, it also helps to identify the construct reliability and validity of the tool along with model fitness indices. The research has used two measurement models due to the issues in factor loadings of first measurement model.

The minimum criteria to hold the standardized factor loading is 0.70. Any factor loading less than 0.70 must be dismissed from the measurement model (Hair Jr et al., 2017). As per Table 3, it can be seen that there are items such as PRD4, PRI4, PLA4, PLA6, PRO5, QLP5 and WOM5 whose standardized factor loadings are below the threshold values therefore, before running measurement model 2, these items shall be dismissed/deleted.

Figure 2 demonstrates measurement model 1 which shows standardized factor loadings and model fitness indices. The discussion of model fitness indices will be carried out in next section.

Figure 3 displays the measurement model 2 after the deletion of the items whose standardized factor loadings were below 0.70. Moreover, Table 4 discusses the comparison of model fitness indices between measurement model 1 and 2.

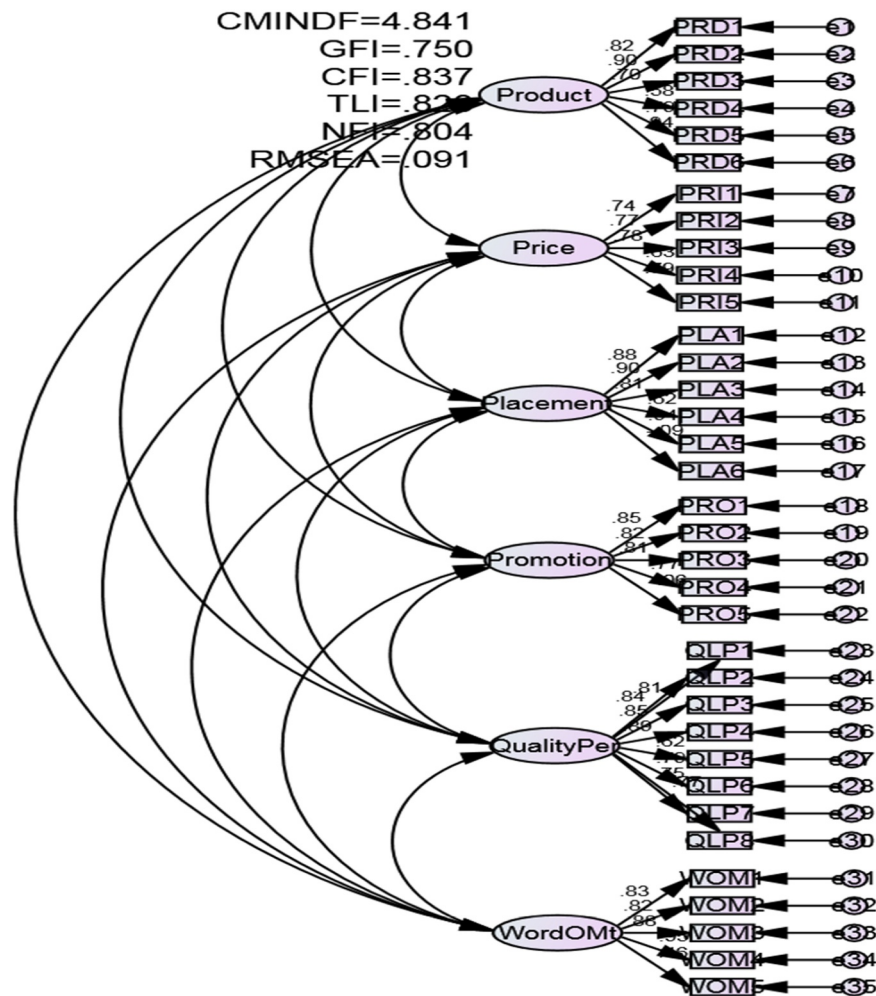
As per Table 4, it can be seen that the comparison of model fitness indices for both measurement models have been made. As the threshold value of relative chi square (CMIN/DF) i.e. up to 5, both measurement model values are well within the range i.e. 4.841 for measurement model 1 and 2.739 for measurement model 2 (Wheaton et al., 1977). Moving to the value of Goodness of Fit Index (GF), its threshold value is minimum of 0.85 (Hooper et al., 2008). Whereas, measurement model 1 shows that the value was not within the range i.e. 0.750 however, measurement model 2 helped in making the value within the range i.e. 0.882. As far as Comparative of Fit Index (CFI) is concerned, its threshold value is at least 0.94 (Hooper et al., 2008). While measurement model 1 shows that the 0.837 doesn't fall within the acceptable range however, measurement model 2 shows the acceptable value of 0.950. Moreover, Normed Fit Index (NFI) threshold value stands at minimum of 0.90 (Bentler & Bonett, 1980). As per Table 4, measurement model 1 shows the value of 0.804 which does not fall in the acceptable range whereas measurement model 2 shows the value of 0.923 which falls within the acceptable range. As far as Tucker-Lewis Index (TLI) is concerned, its minimum acceptable value is also 0.90 (Bentler & Bonett, 1980). As per Table 4, measurement model 1 shows the value of 0.827 which does not fall within desired range however,

**Table 3. Standardized regression weights**

			<b>Estimate</b>
PRD1	<—	Product	.824
PRD2	<—	Product	.899
PRD3	<—	Product	.696
PRD4	<—	Product	.575
PRD5	<—	Product	.787
PRD6	<—	Product	.944
PRI1	<—	Price	.743
PRI2	<—	Price	.770
PRI3	<—	Price	.775
PRI4	<—	Price	.631
PRI5	<—	Price	.787
PLA1	<—	Place	.881
PLA2	<—	Place	.896
PLA3	<—	Place	.810
PLA4	<—	Place	.617
PLA5	<—	Place	.939
PLA6	<—	Place	-.087
PRO1	<—	Promotion	.845
PRO2	<—	Promotion	.819
PRO3	<—	Promotion	.805
PRO4	<—	Promotion	.774
PRO5	<—	Promotion	-.055
QLP1	<—	QualityPer	.814
QLP2	<—	QualityPer	.838
QLP3	<—	QualityPer	.855
QLP4	<—	QualityPer	.888
QLP5	<—	QualityPer	.623
QLP6	<—	QualityPer	.790
QLP7	<—	QualityPer	.754
QLP8	<—	QualityPer	.768
WOM1	<—	WordOMt	.832
WOM2	<—	WordOMt	.822
WOM3	<—	WordOMt	.878
WOM4	<—	WordOMt	.946
WOM5	<—	WordOMt	.455

measurement model 2 TLI value is of 0.942 which clearly falls within desired range. Lastly, Root Mean Square of Approximate Error of Approximation (RMSEA) threshold value is up to 0.080 (Browne & Cudeck, 1993). According to Table 4, RMSEA value was 0.091 in measurement model 1 which was not within the range however its value is 0.061 in measurement model 2 which clearly shows that the value falls within acceptable range. In nutshell, it can be concluded that measurement model 1 was not good to consider due to poor fitness indices hence measurement model 2 was required which shows that the all the model fitness indices fall within the acceptable range. Now, the model is ready to be tested for construct reliability and validity.

Figure 2. Measurement model 1.



#### 4.2.2 Reliability and validity

**4.2.2.1. Reliability.** In this section, internal consistency that is composite reliability has been used. Composite reliability shows internal consistency of items. For measuring construct reliability, the acceptable range of the values of composite reliability is between 0.70 and 1 (Nunnally & Bernstein, 1994). It shows that the maximum value is 1 whereas minimum value must be 0.70. Any value which does not fall within this range will show the lack of reliability. According to Table 5, composite reliability of Product, Price, Place, Promotion, Quality Perception and Word of Mouth is 0.919, 0.854, 0.939, 0.871, 0.928 and 0.926 respectively. All values exceeding 0.70 which shows that internal consistency is present in the data.

**4.2.2.2 Validity.** Validity is accuracy of items which means that whether items measure the variable as accurate as it supposed to be. Construct validity is categorized into convergent validity and discriminant validity (Field, 2013). Apart from these two types a scale was put to Face Validity (Bryman, 2016).

##### **Convergent validity.**

Firstly, to satisfy convergent validity, three criteria must be fulfilled. One is the standardized factor loadings which must be more than 0.70. As per Table 5, it can be seen that all the items in measurement model 2 exceeds 0.70. Second criteria are about composite reliability, which states that composite reliability of each variable must be at least 0.70 which in this case is true as already

Figure 3. Measurement model 2.

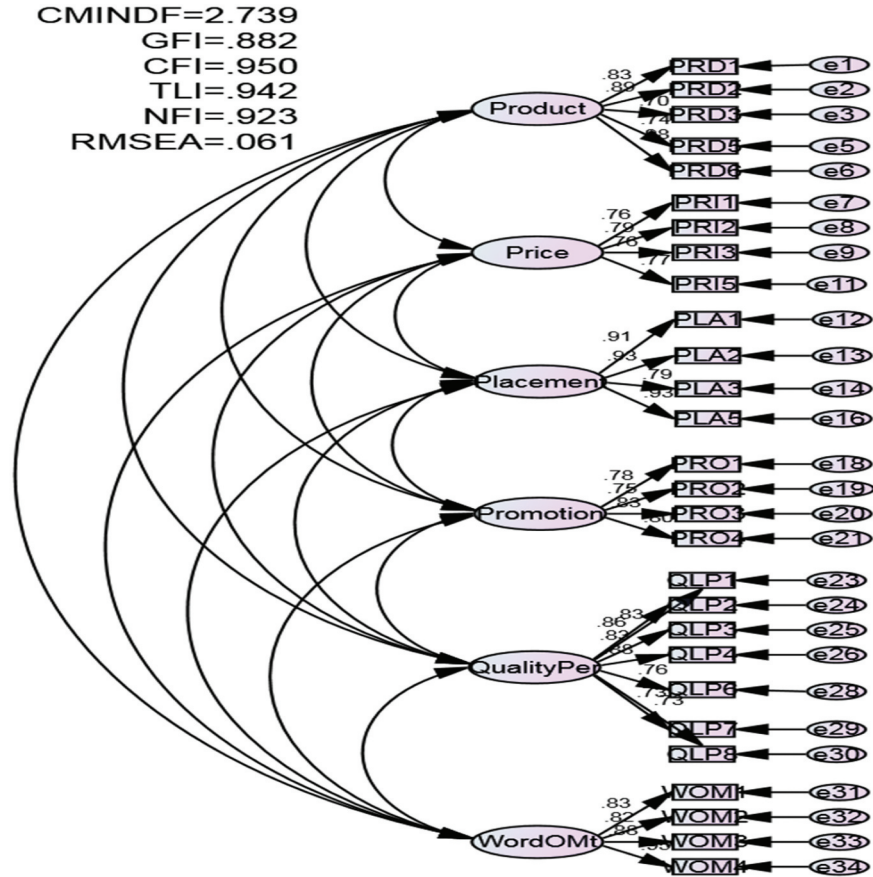


Table 4. Comparison of model fitness indices

Model Fitness Indices	Threshold Values	Measurement Model 1	Measurement Model 2	Reference
CMIN/DF	< 5	4.841	2.739	(Wheaton et al., 1977)
GFI	> 0.85	0.750	0.882	(Hooper et al., 2008)
CFI	> 0.94	0.837	0.950	(Hooper et al., 2008)
NFI	> 0.90	0.804	0.923	(Bentler & Bonett, 1980)
TLI	> 0.90	0.827	0.942	(Bentler & Bonett, 1980)
RMSEA	< 0.08	0.091	0.061	(Browne & Cudeck, 1993)

discussed in composite reliability section. Lastly, Average Variance Extracted (AVE) minimum threshold value is 0.50 which states that all the AVE values of each latent construct must be at least 0.50. As per Table 5, AVE of Product, Price, Place, Promotion, Quality Perception and Word of Mouth is 0.698, 0.593, 0.796, 0.629, 0.651 and 0.759, respectively. All values exceeding 0.50, which shows that AVE values are well beyond threshold values (Hair et al., 2006).

**Table 5. Reliability and convergent validity**

Latent Construct	Item Code	SFL	CR	AVE
<b>Product</b>	PRD1	.830	<b>0.919</b>	<b>0.698</b>
	PRD2	.893		
	PRD3	.702		
	PRD5	.740		
	PRD6	.981		
<b>Price</b>	PRI1	.758	<b>0.854</b>	<b>0.593</b>
	PRI2	.792		
	PRI3	.758		
	PRI5	.772		
<b>Place</b>	PLA1	.914	<b>0.939</b>	<b>0.796</b>
	PLA2	.927		
	PLA3	.792		
	PLA5	.928		
<b>Promotion</b>	PRO1	.784	<b>0.871</b>	<b>0.629</b>
	PRO2	.755		
	PRO3	.826		
	PRO4	.805		
<b>Quality Perception</b>	QLP1	.827	<b>0.928</b>	<b>0.651</b>
	QLP2	.861		
	QLP3	.835		
	QLP4	.884		
	QLP6	.760		
	QLP7	.732		
	QLP8	.734		
<b>Word of Mouth</b>	WOM1	.832	<b>0.926</b>	<b>0.759</b>
	WOM2	.820		
	WOM3	.879		
	WOM4	.947		

**Table 6. Discriminant validity**

	Product	Price	Place	Promotion	Quality Perception	Word of Mouth
Product	<b>0.835*</b>					
Price	0.17	<b>0.770*</b>				
Place	0.14	0.07	<b>0.892*</b>			
Promotion	0.21	0.22	0.09	<b>0.793*</b>		
Quality Perception	0.62	0.47	0.18	0.21	<b>0.807*</b>	
Word of Mouth	0.11	0.09	0.64	0.20	0.13	<b>0.871*</b>

#### ***Discriminant validity.***

Table 6 shows the working of discriminant validity which refers to the distinctness of items of one variable with items of other variables. Discriminant validity can be judged when square root of

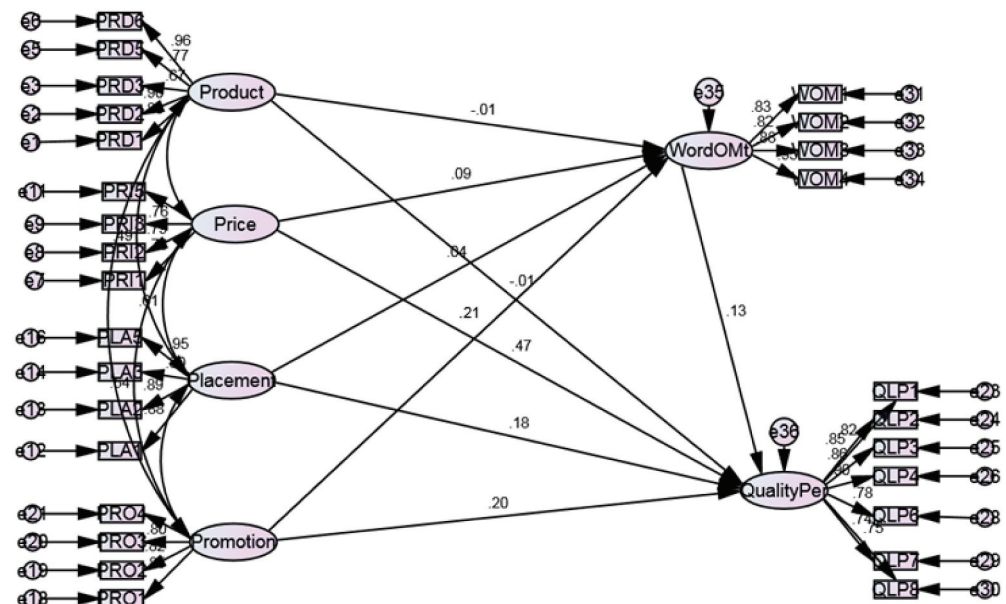
AVE of minimum value exceeds the correlational values of all the latent constructs. As per Table 6, the minimum value of square root of AVE is 0.770 which is more than all the correlational values or on contrary, all correlational values are less than the minimum value of square root of AVE. Hence, it can be concluded that the presence of discriminant validity is present in the data.

#### 4.2.3. Hypothesis testing using structural model

After the confirmation of model fitness followed by verification of construct reliability and validity, the structural model is now developed and used to test hypotheses ( $H_1$  to  $H_9$  and  $H_{M1}$  to  $H_{M4}$ ). This is the final step in structural equation modeling where causal relationships between latent constructs are identified or explored as per defined objectives of the study (Kline, 2010). These relationships have been shown in Figure 4.

As per Table 7, direct effects show that there is weakly negative but insignificant relationship between product and WOM ( $-0.01$ ) at very high p-value of 0.880. This finding has been supported by the study of Fetscherin et al. (2014). However, Ismail and Spinelli (2012) provide contradicting evidence. Furthermore, similar results have been seen in for the relationship of the construct of Product with Quality Perception with beta value of  $-0.01$  at p-value of 0.861. However, Hillenbrand et al. (2013) provide contradicting evidence after their study on brand name in psychological perspective. They argue that brand name has a positive effect on perception. Moving on to the price variable, it shows that there is a positive and significant relationship with WOM (0.09) which is supported by research of Pongjit and Beise-Zee (2015) and quality perception (0.47) which is supported by Khan and Ahmed (2016); with p-values of 0.024 and 0.000, respectively, leading to the acceptance of the hypotheses. Moreover, place relationship with WOM is also significant positive with beta value of 0.64 at p-value 0.000 which is supported by the study of Veasna et al. (2013) and with quality perception of 0.18 with p-value 0.000 which is supported by the study of Yaghin (2020). Hence, place relationships with word of mouth and quality perception are also accepted as per the stated hypotheses. As far as relationship of promotion and word of mouth is concerned, it also showed a positive and significant relationship with beta value of 0.20 which is supported by the study of Jalilvand and Samiei (2012) and with quality perception, the beta value is 0.21 which has been supported by the study of Wang et al. (2018); with both p-values 0.000. Hence, both of these hypotheses have also been accepted. Lastly, as far as direct effects are concerned, word of mouth (the mediator) was also found to be positively related with

Figure 4. Structural model.





**Table 7. Direct and indirect effects**

	Beta Coefficient/ Effect Size	P-value	Status
<b>Direct Effects</b>			
H <sub>1</sub> : PRD → WOM	−0.01	0.880	Not Supported
H <sub>2</sub> : PRD → QLP	−0.01	0.861	Not Supported
H <sub>3</sub> : PRI → WOM	0.09	0.024	Supported
H <sub>4</sub> : PRI → QLP	0.47	0.000	Supported
H <sub>5</sub> : PLA → WOM	0.64	0.000	Supported
H <sub>6</sub> : PLA → QLP	0.18	0.000	Supported
H <sub>7</sub> : PRO → WOM	0.20	0.000	Supported
H <sub>8</sub> : PRO → QLP	0.21	0.000	Supported
H <sub>9</sub> : WOM → QLP	0.13	0.001	Supported
<b>Indirect Effects</b>			
H <sub>M1</sub> : PRD → WOM → QLP	0.001	0.677	Not Supported
H <sub>M2</sub> : PRI → WOM → QLP	0.09	0.014	Supported
H <sub>M3</sub> : PLA → WOM → QLP	0.19	0.000	Supported
H <sub>M4</sub> : PRO → WOM → QLP	0.18	0.000	Supported

quality perception with beta value of 0.13 and p-value 0.001 which has been supported by the study of Chen (2017).

As far as indirect effects are concerned, which are associated with mediation hypotheses, firstly, mediatory role of word of mouth was tested with product and quality perception and it was found that there were statistically insignificant indirect effects of 0.001 at p-value 0.677 which shows that WOM does not play a mediatory role between product and quality perception. It is important to mention that these hypotheses were bound to be rejected owing to the fact that the exogenous variable was not found to be related to the mediator. However, Sweeney et al. (2014) and Sallam (2014) provided contradicting evidence after their studies. Secondly, mediatory role of word of mouth was tested with price and quality perception and it was found that there were significant indirect effects of 0.09 at p-value 0.014 which shows that WOM plays a mediatory role between price and quality perception. This finding is supported by Solimun and Fernandes (2018) and Jiang et al. (2016). Thirdly, mediatory role of WOM was tested with place and quality perception and it was concluded that there were significant indirect effects of 0.19 at p-value 0.000 which highlights that WOM plays a mediatory role between place and quality perception. This finding is supported by Filieri and McLeay (2014) and Wallace et al. (2014). Lastly, mediatory role of WOM was tested with promotion and quality perception and it was found that there were significant indirect effects of 0.18 at p-value 0.000 which shows that WOM plays a mediatory role between promotion and quality perception. This finding is supported by Utami et al. (2020) and Araujo et al. (2017). Hence, it can be seen that 3 out of four hypotheses pertaining indirect effects have been supported.

## 5. Conclusion

The main conclusions that were drawn from present study suggest that product does not have an interface with quality perception in FMCG customers while price of FMCG have an interface with quality perception of customers. Similarly, placement of FMCG influences quality perception and promotional activities also have a direct relationship with perceived FMCG quality. Furthermore, word of mouth has an interface with quality perception of FMCG customers. Moreover, the relationship of product with quality perception is not mediated through WOM. Contrarily, the relationship of price with quality perception is mediated through word of mouth. Likewise, WOM mediates the relationship between placement and perceived quality of FMCG customers. In addition to that the relationship of promotion

with quality perception is also mediated through word of mouth. Beside these conclusions, a scale was developed for testing all said relationships and a model was also validated in the present work.

### 5.1. Managerial implications

Firstly, the managers of FMCG sector must focus on the changing needs of the customers. The marketers must be well aware of the desires, trends and wants of their customer. Although the trend of doing such marketing research for investigating trends is low in Pakistan, manufacturers must invest on it. The managers, manufacturing and marketers must also focus on the design and operation aspects of the product.

In order to grab their attention immediately, the marketers must be focusing on their marketing efforts along with benefitting from the power of positive word of mouth regarding their place, pricing and promotional activities of fast-moving consumer goods. Similarly, placement at better locations, pricing high and promotional efforts through all possible media channels will enhance the quality perception of the customers of FMCG sector.

Lastly, the findings of this research can be applied to various organizations belonging to different sectors as it helps in boosting sales by improving the perception of the customers regarding the product or service being offered. It will eventually create a positive impact on to the overall economy of Pakistan and even the rest of the world where these findings are utilized in true letter and spirit.

### 5.2. Limitations

One of the basic research limitations is that the sample selected belongs only to the capital city of Punjab province while not including other three provinces of Pakistan due to the financial and time constraints. Furthermore, the research methodology was quantitative only which means many qualitative aspects of the research may have gone missing to get behavioral insights. Lastly, the study was conducted in only one sector of Pakistan i.e. FMCG which is a manufacturing sector; resulting in limited generalizability of the research to the service sector.

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**Appendix-A Validated Instrument**  
**Instrument Measuring Marketing Variables and Quality Perception of FMCG Customers**

	1	2	3	4	5
<b>PRODUCT</b>					
• Product design is important					
• Wide variety of FMCG is available					
• High number of features make the product better					
• Good packaging reflects a good product					
• Safety feature are important to me					
<b>PRICE</b>					
• A product price reflects its worth					
• Discounts make me purchase more of a product					
• Discounts are normally given on poor products					
• Expensive products are better					
<b>PLACE</b>					
• Product shelf placement influences its purchase					
• Widely available products are better					
• Abundantly available product is worth a try					
• A good product is always available					
<b>PROMOTION</b>					
• Poor products need more advertisements					
• Personal selling (through company stalls, salespersons etc.) enhance sales					
• Sales promotion offers (Buy one get one free, discounts etc.) make me purchase more					
• Public relation activities are done by good products					
<b>QUALITY PERCEPTION</b>					
• High quality products perform better					
• Good features reflect good quality					
• Good quality products are consistent in their performance					
• High quality products are durable					
• A quality product always fulfills its intended purpose					
• Quality product enhances user experience					
• Certified quality product is perceived to be good					
<b>WORD OF MOUTH</b>					
• Word of mouth information about a product is important for me					

(Continued)

	1	2	3	4	5
<b>PRODUCT</b>					
• I ask about the opinion of persons around me before selecting a product					
• The advice of my friends and family is important for my product choices					
• The information provided by people is persuasive for me					

*NOTE: The following items are to be rated using five-point likert scale. (Strongly Agree = 5 and Strongly Disagree = 1)*



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