

# The Impact of Marketing Mix Elements on Customer Loyalty for an Algerian Telecommunication Company

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*The main aim of this study is to examine the relationship between the marketing mix elements and customer loyalty in Algeria Telecom company and to achieve these aspects we distributed a questionnaire to a random sample of the company's customers so that we use structural equations modeling depending on the partial least squares approach "PLS" to analyze and test the search model. The study finds that product, process, and promotion have a positive and significant effect on customer loyalty.*

**Keywords:** marketing mix elements, customer loyalty, Algeria Telecom, structural equations modeling, "PLS" approach.

**JEL Classification:** M30, M31, M39

## 1. Introduction

Marketing mix is a business tool used by the management of organizations which enable them to remain in the global competitive environment. Marketing mix refers to the seven major areas of decision making (7P's) in the marketing process that is blended and mixed to obtain the results desired by the organization to satisfy the needs and wants of customers. It is the set of controllable, tactical marketing tools of product, price, place, promotion, process, people and Physical Evidence (7P's) which are the variables that marketing managers can control in order to best satisfy customers' needs.

The telecommunications sector, in general, faces many challenges resulting from economic situations, political and technological factors, which clearly affect the development of marketing in the global telecommunications industry, along with the continued development in the types and communications services specifications and the accompanying intense competition in price and methods of distribution (service and the way it is provided). These aspects which make it imperative for companies to always work to keep up with these developments and to ensure customer loyalty. In this framework, the management of Algerian Telecommunication Company is faced with the problem of ensuring sustained preference to achieve loyalty

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and retention which impacts the performance of the company. The issues faced by the Algerian Telecommunication Company are to determine what are the reasons for consumer preference for its products and the likelihood of sustained repurchases by consumers, or otherwise referred to as customer retention.

This study sheds light on the reality of the use of marketing mix tools (7P's), in an Algerian telecommunications company and its impact on customer loyalty. The research problem for this study can be formulated through the following questions: What is the reality of the use of the marketing mix in Algerian telecommunications? And what is its impact on customer loyalty?

## **2. Literature Review**

### **2.1. Services Marketing Mix**

Borden claims to be the first to have used the term "marketing mix" and that it was suggested to him by Culliton's (1948) description of a business executive as a "mixer of ingredients". However, Borden did not formally define the marketing mix; to him it simply consisted of important elements or ingredients that make up a marketing program (Rafiq and Ahmed, 1995).

McCarthy (1964) refined Borden's (1965) acclaimed concept and defined the marketing mix as a combination of all of the factors at a marketing manager's command to satisfy the target market. He regrouped Borden's 12 elements to four elements or 4Ps, namely product, price, promotion, and place for a marketing manager's command to satisfy the target market. Booms and Bitner (1980) added 3 Ps (participants, physical evidence, and process) to the original 4 Ps to apply the marketing mix concept to services (Goi, 2009). Further, we explore these 7Ps that will be examined in an empirical research.

#### **2.1.1. Product**

To define a product, we use Kotler's definition (2011) that states that a product is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need (Kotler, 2011). Therefore, while developing a service product it is important that the package of benefits in the service offer must have a customer's perspective (Kushwaha et al., 2015). Hence, we propose the first hypothesis of the study:

*H1. Product has a positive and significant effect on customer loyalty.*

#### **2.1.2 Price**

Price could be considered an attribute that must be sacrificed to obtain certain kinds of products or services (Kushwaha et al., 2015). The service pricing has to become more convenient for the customer's ability, so that he/she can afford it and be convinced by the activity. Also, pricing decisions play a major role in the marketing strategy where the price should be placed in relation to other elements such as product life cycle, sales targets, and market share (Atiq, Khadija, 2012). One recent study found that, even in an improved economy, 55 percent of consumers say they would rather get the best price than the best brand. Nearly two-thirds say that they will now shop at a different store with lower prices even if it is less convenient. It is five times cheaper to keep an old customer than to acquire a new one. Thus, companies today must shape their value propositions even more carefully and treat their profitable customers well (Kotler, 2011). Therefore, we can assume the following hypothesis:

*H2. Price has a positive and significant effect on customer loyalty.*

#### **2.1.3 Place**

Kotler and Armstrong (2006), defined place or distribution as a set of interdependent organizations involved in the process of making a product available for use or consumption by consumers. Jones, (2007) defined place as any way that the customer can obtain a product or receive a service (Owomoyela and Oyeniyi, 2013).

*H3. Place has a positive and significant effect on customer loyalty.*

#### **2.1.4. Promotion**

Promotion is concerned with any vehicle you employ for getting people to know more about your product or service. Advertising, public relations, point-of-sale displays, and word-of-mouth promotion are all traditional ways for promoting a product. Promotion can be viewed as a way of closing the information gap between would-be sellers and would-be buyers (Jones, 2007). Zeithaml et al. (1995) described promotion as part of a specific effort to encourage customers to tell others about their services (Owomoyela and Oyeniyi, 2013). Thus, we propose the following hypothesis:

#### *H4. Promotion has a positive and significant effect on customer loyalty*

##### **2.1.5. Process**

For the fifth P, the process refers to the best practices in delivering products and services to the customers with the aim of making them happy and satisfied. The concepts of persistence and process are vital in the marketing mix as customers may have the first impression based upon the delivery process and persistence depicted by marketers (Hashim and Hamzah, 2014). Therefore, we hypothesize:

*H5. Process has a positive and significant effect on customer loyalty.*

##### **2.1.6. People:**

Judd (1987) came out with another P for services, namely People. He even went further by recommending that people's power should be formalized, institutionalized and managed like the other 4Ps as a distinctive component of the market mix. In addition, customer-oriented service employees with a focus on showing personal attention, inter-personal care, willingness to help, politeness, and prompt behavior are likely to contribute significantly to strengthen the customer–employee relationship (Kushwaha et al., 2015). Thus, we propose the following hypothesis:

*H6. People has a positive and significant effect on customer loyalty.*

##### **2.1.7. Physical Evidence**

Services are often intangible, and customers cannot assess their quality well. So consumers use the service environment as an important proxy for quality. Service environments, also called servicescape or physical evidence, relate to the style and appearance of the physical surroundings and other experiential elements encountered by customers at service delivery sites. Service firms need to manage physical evidence carefully, because it can have a profound impact on customers' impressions (Kushwaha et al., 2015). Thus, we state the following assumption:

*H7. Physical Evidence has a positive and significant effect on customer loyalty.*

#### **2.2. Customer Loyalty**

Customer loyalty is described as a customer's repeated visitation or repeat purchase behavior while including the emotional commitment or expression of a favorable attitude toward the service provider. Numerous studies emphasize the value of customer loyalty to become more significant. It is known that loyal customers' visit frequency is higher and they make more purchases than non-loyal customers. They are also less likely to switch to a competitor brand just because of price and other special promotions and bring in new customers through positive word-of-mouth which can sometimes save a huge amount of expenses for advertising (Myongjee Yoo and Billy Bai, 2013).

#### **2.3. The Relationship between the Marketing Mix and Customer Loyalty**

The aim of the marketing mix is to identify the needs of the people and met a way that pleases them and then work to keep them for a lifetime of loyalty to the institution (Mohammed Abdel-Rahman Ibomendel, 2008). Marketing, more than any other business function, deals with customers. Perhaps the simplest definition is this one: Marketing is managing profitable customer relationships. The twofold goal of marketing is to attract new customers by promising superior value and keep and grow current customers by delivering satisfaction (Kotler, 2011). Mohammed Ibomendel (2008) believes that telecommunication Companies must focus their attention to the overall marketing mix elements in order to lead to better customer loyalty.

Moreover, the Mohammed Abdel-Rahman Ibomendel (2008) examined actual practices of marketing mix and their impact on customer loyalty at the Palestine Telecommunication Company (Paltel) and this research showed that there is a significant impact of the instruments that form the marketing mix (specifically, product/service, pricing, promotion, and placing/distribution) on customer loyalty.

Another study examined the elements of marketing mix in relation to brand loyalty in the drug prescription industry (Muthu Kumar, 2009) and the findings show that better product attributes and sales promotion lead to high brand loyalty. Similarly, Kwon (2011) explored the relationship between marketing mix and customer retention for herbal coffee in Malaysia and showcased similar results regarding the importance of the product attributes and promotional activities on customer retention. Interestingly, Kwon (2011)'s analysis did not present a reliable and significant relationship between price or place and customer retention. Moreover, there is also evidence of a strong, positive influence of the marketing mix elements and customer satisfaction on customer loyalty, particularly in terms of customer recommendations (Khoo Khay Hool, 2012).

Owomoyela and Oyeniya (2013) investigated, empirically, the impact of marketing mix element on customer loyalty on Nigerian breweries and found that the original 4Ps have a powerful relationship and effect on consumer loyalty. Also, Kushwaha et al. (2015) examined the context of the 7Ps of service marketing in banking and discovered a statistically significant effect of physical evidence, process, place, and people on aspects that affect the customer's perception.

A different empirical research studied the relationship between services marketing mix and brand equity dimensions. More specifically, Aghaei et al. (2014) investigates the effects of services marketing mix (namely, price, product, place, advertising, physical evidence, process, and people) on four dimensions of brand equity (namely, perceived quality, brand loyalty, brand awareness, and brand association). The outcomes of this research paper demonstrated the strong positive and meaningful relationship between brand equity dimensions and services marketing mix in chain stores - there is a direct and positive relationship between seven mix factors and loyalty to a certain brand.

### 3. Methodology

#### 3.1. Measurement Instrument

To study the impact of the marketing mix elements on consumer loyalty, we used a descriptive analysis method for which we used a questionnaire that was developed according to the definitions studied, as well as previous studies, articles, and literature review. The final questionnaire consisted of three sections. The first section of the survey contained questions regarding demographic characteristics of the respondents. In the second section, questions were related to services in terms of the 7P's of service marketing mix. In the last section of the survey, we included customer loyalty and used five-point Likert scales where the values of the statements also measured the previous two last sections.

#### 3.2. Sampling Design and Data Collection

We chose Algeria Telecom Company as a research reference, due to its large size and its outstanding presence, as well as the multiplicity of its branches in all regions of Algeria. The questionnaire was distributed to a random sample of its customers, who numbered 100 customers. Table 1 showcases frequencies and percentages that describe the sample in terms of gender, age, qualification, and occupation.

*Table 1. Demographic characteristics of participants*

Variable	Category	Percentage (%)
Gender	Male	66
	Female	34
Age	Less than 25 years	26
	From 25 to 35	27
	From 35 to 45	23
	From 45 to 55	16
	Greater than 55	8
Qualification	Primary	2
	Average	11
	Secondary	40
	Academic	47
Occupation	Officer	40
	Freelancers	14
	Student	29
	Retired	6
	Heroes	11

Source: Presented by Researchers Using SPSS v21 Outputs

### 4. Data Analysis and Findings

In this study, we have used the structural equation modeling (SEM) to test the conceptual model. The SEM technique is also useful for an assessment of both reliability and validity of the measures used in the survey. As the conceptual model is relatively complex, a partial least squares (PLS) approach was employed in a 2000 subsample bootstrapping procedure using the Smart PLS software (Kushwaha et al., 2015).

#### 4.1. Scale Validity and Reliability

To use structural equations models we must firstly check the validity of each latent variable. It is examined through confirmatory factor analysis (CFA), in order to assure the validity of the loadings' questions on the appropriate factors. We will also verify the convergence validity and discrimination validity. The first test is tested by examining the factor loadings and the average variance extracted (AVE) which should be greater than 0.5 (Jean Ramdé, 2012; Jean Marc et al., 2011). While we assess the discrimination validity based on the following criterion: the root of the AVE exceeds links with all other factors (Wetzels et al., 2009). In addition, when using structural equation models the composite reliability must be greater than 0.70, and also we must verify the reliability of latent variables through Cronbach's  $\alpha$  which should be exceed the recommended threshold of 0.6 (Uma Sakaran, 2002).

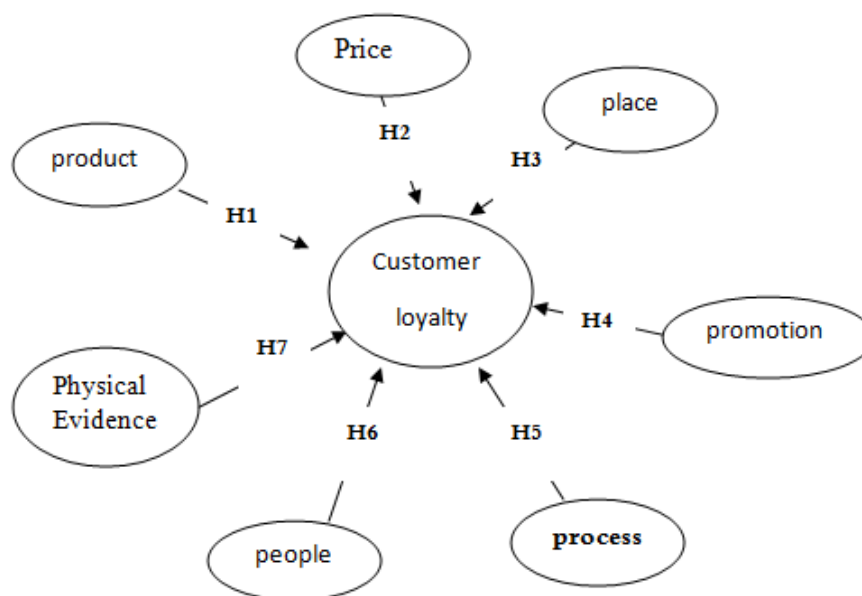


Figure 1. The conceptual framework of the study

#### 4.1.1. Measurement Model

Table 2. Measurement of underlying variables model

Latent variables		Factor loading	AVE	CR	Cronbach's $\alpha$
<b>Product</b>			0.6	0.85	0.75
	Q3	0.935			
	Q4	0.936			
	Q6	0.554			
<b>Promotion</b>	Q8	0.585			
			0.608	0.823	0.685
	Q16	0.705			
	Q22	0.804			
<b>Price</b>	Q24	0.824			
			0.523	0.761	0.601
	Q33	0.587			
	Q34	0.888			
<b>Place</b>	Q35	0.660			
			0.605	0.821	0.687
	Q40	0.797			
	Q41	0.720			
<b>Physical Evidence</b>	Q42	0.813			
			0.553	0.780	0.663
	Q47	0.736			
	Q48	0.732			
	Q49	0.815			

<b>People</b>			0.567	0.838	0.749
	Q53	0.648			
	Q55	0.756			
	Q56	0.855			
	Q57	0.737			
<b>Process</b>			0.536	0.772	0.717
	Q60	0.757			
	Q61	0.768			
	Q62	0.857			
<b>Loyalty</b>			0.541	0.874	0.825
	Q63	0.708			
	Q64	0.818			
	Q65	0.819			
	Q66	0.740			
	Q67	0.755			
	Q69	0.535			

Notes: AVE: average variance extracted, CR: composite reliability  
Source: Presented by Researchers Using Smart PLS3 software Outputs

Through the above table (Table 2) is clear that the latent variables under examination are characterized by the convergence validity of all loadings of the factors. Moreover, the average variance extracted (AVE) is greater than 0.5 for all the variables of the study and the values of CR for all latent variables exceed the threshold of 0.7, and this shows that the components are characterized by good reliability. Also, in terms of Cronbach's  $\alpha$  test of reliability, the values for all latent variables are greater than 0.6, and this is what assures us there is a persistent reliability of the study instrument.

With regard to discrimination validity, Table 3 illustrates that the square root values of AVE for all variables are greater than the inter-construct correlations. Thus, we can say that the measurement model reflects a good construct validity and reliability and can be relied upon to represent the variables of the study.

*Table 3. Discriminant validity of latent constructs*

Constructs	People	Promotion	Physical evidence	Price	Place	Product	Process	Customer
People	<b>0.752</b>							
Promotion	0.275	<b>0.780</b>						
Physical evidence	0.230	0.09	<b>0.754</b>					
Price	0.287	0.450	-0.033	<b>0.723</b>				
Place	0.289	0.417	0.112	0.315	<b>0.778</b>			
Product	0.356	0.371	0.090	0.342	0.330	<b>0.774</b>		
Process	0.335	0.143	-0.047	0.371	0.252	0.209	<b>0.795</b>	
Customer	0.371	0.422	0.048	0.375	0.409	0.490	0.423	<b>0.735</b>

Note: The bold values represent the square root of AVE  
Source: Presented by Researchers Using Smart PLS3 software Outputs

## 4.2. Structural Model Analysis

### 4.2.1. Model Assessment

The structural model evaluation through GOF index «goodness of fit index» which is defined as the geometric mean of the average of the latent variables' group and the average  $R^2$  on the underlying internal variables. According to Tenenhaus et al. (2005), this indicator can formulated as follows:

$$GOF = \sqrt{\overline{AVE} \times \overline{R^2}}$$

Thus:  $\overline{AVE} = 0.582$  and  $R^2 = 0.423$  and the value of  $GOF = 0.496$

These values indicate the quality of the model by the fact that this GOF value is greater than 0.36 (Wetzels et al., 2009).

As for the self-correlation problem between the independent variables, we have to make sure there is no problem, through the extraction of variable inflation factor values (VIF) related to these variables, which amounted to 1.324, 1.485, 1.483, 1.334, 1.097, 1.372, 1.288. The independent factors were: product, price,

promotion, place, physical evidence of the institution, people, and the process of providing the service in a row and as the variable inflation factor values (VIF) for each of the independent variables were less than number 5 (Kushwaha et al., 2015). Therefore, there is a high correlation between the independent variables of this study.

#### 4.2.2. Main Effects and Path Coefficients

Bootstrapping with a 2000 resample was achieved to derive t-values for significance testing of the structural paths. For this, we used a two-tailed t-test with a significance level of 5%, therefore the path coefficient will be significant if the t-value is larger than 1.96 (Kushwaha et al., 2015). The results are shown in the Table 4.

Table 4. Structural Model Estimates

Path	Original sample(o)	Sample Mean(M)	Standard Error (STERR)	T statistics ( O/STERR )	P values
People→ Loyalty	0.091	0.105	0.091	0.996	0.319
Promotion→ Loyalty	0.190	0.185	0.096	1.972	0.049
Physical evidence→ Loyalty	-0.016	0.009	0.126	0.130	0.896
Price→ Loyalty	0.029	0.064	0.101	0.291	0.771
Place→ Loyalty	0.141	0.134	0.092	1.531	0.126
Product→ Loyalty	0.278	0.263	0.092	3.032	0.002
Process→ Loyalty	0.253	0.253	0.090	2.817	0.005

Source: Presented by Researchers Using Smart PLS3 software Outputs

Results indicate that variables that examined the product (B = 0.278,  $p \leq 0.05$ ), process of providing the service (B = 0.253,  $p \leq 0.05$ ), promotion (B = 0.190,  $p \leq 0.05$ ) have a positive and significant effect on consumer loyalty, which further imply the acceptance of hypotheses H1, H5, and H4. Moreover, performance of employees (people) (B = 0.091,  $p \geq 0.05$ ), physical evidence (B = -0.016,  $p \geq 0.05$ ), price (B = 0.029,  $p \geq 0.05$ ), place / distribution (B = 0.141,  $p \geq 0.05$ ) do not have a significant effect on consumer loyalty and this is makes us reject hypotheses H6, H7, H2, and H3. The results obtained are shown in the Figure 2.

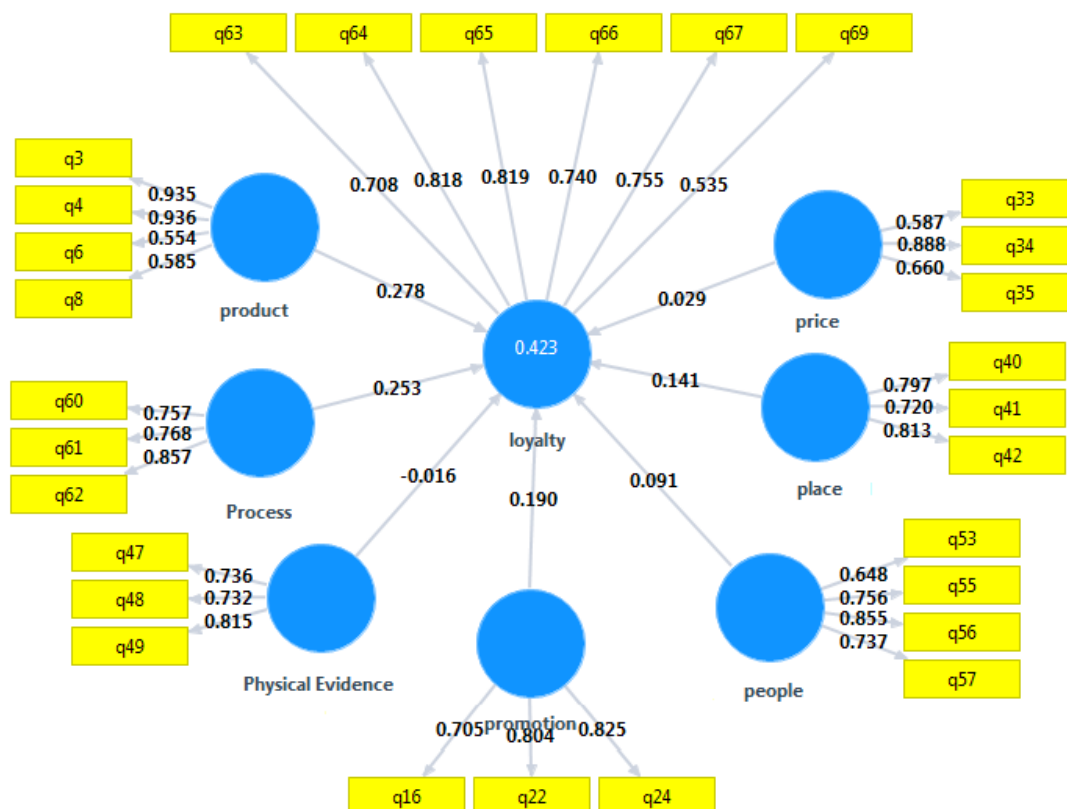


Figure 2. Model of the study and its output

Source: Presented by Researchers Using Smart PLS3 software Outputs

## 5. Discussion and Conclusion

The aim of the study is to highlight the most important elements of the marketing mix that affect consumer loyalty in order to determine the appropriate marketing mix elements in the telecommunications sector, specifically in the Algerian telecommunications' company. The study shows the critical importance of the elements of the marketing mix in the telecommunications sector in general, and in particular applied to Algerian telecommunications' company. The present study examined a model to account for the relationship between the seven elements of the marketing mix and consumer loyalty. Results obtained show that product, process of providing the service, and promotion have a positive and significant effect on consumer loyalty, while performance of employees, physical evidence, price, place / distribution do not have a significant effect on consumer loyalty. This means that the Algerian customer sees that the most important elements that influence and motivated him in dealing with the Communication Foundation is the quality of the service itself, as well as the way it is provided because it was considered as one of the most important factors consumers take into account when dealing with a company and its the service ( $B = 0.278$ ). Further, these factors were represented by the most important indicators in the company's eagerness to provide all the modern services needed to keep pace with the global technological development, namely the provision of services and products in different forms to suit the tastes and needs of customers which comes as a result of a company's presentation of Communication Services, Internet, and data transfer in different ways in terms of particular specifications (speed, quality, safety etc.....).

The company provides a number of ways that facilitate the process of bill payments in addition to the spread of payphones in different areas so that it can meet the needs of customers, which were represented by a high loadings on the product variable as estimated with the forming factor loadings of 0.554, 0.585, 0.936, 0.935, respectively. Furthermore, the process of providing the service ( $B = 0.253$ ) it is seen as a necessary aspects for the service provided by the important elements such as ease and speed. The respondents answered that they want to deal with these circumstances that imply the institution and these situations should be characterized by ease, simplicity, and speed of procedures both for paying bills, getting Internet service or installation of a telephone line. As well as the other variables, promotion has a notable impact on consumer loyalty ( $B = 0.19$ ), however this variable's effect is smaller compared to the service and process dimensions. Thus, it is very important for the foundation of the marketing process that promotion, most notably through advertising and public relations, which helps in creating a clear picture for consumers especially through the availability of many electronic services through its website, offered to meet the needs of customers in addition to the company's use of modern methods to promote them, by presenting their services and products through its website, which had a high loading on the promotion element of 0.825, while the other elements of promotion exhibited scores of 0.804 and 0.705.

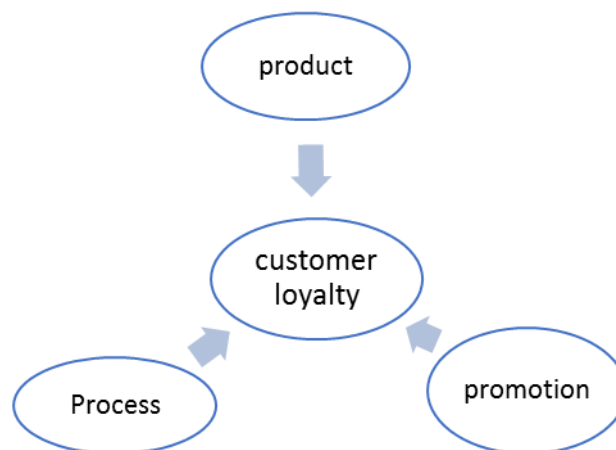
We should also note that the most important thing that reflects customer loyalty to this company is a preference for dealing with this institution due to the confidence and trust (0.818) it exudes, which leads customers to recommend to their acquaintances the services of this examined company (0.819). Also, clients feel a sense of familiarity when dealing with this company's employees (0.755), which further leads them to defend the company in case of criticism (0.74) because the respondents feel ease and have positive emotions when they are dealing with its services. (0.708). In addition, the company is clearly characterized by its name and brand in the telecommunications market (0.535). Therefore, all these elements reflect the loyalty of Algerian consumers to Algeri Telecom which means that the degree of customer loyalty to the company Algeria Telecom is considered positive and on a surging trend.

Figure 2 shows a good relationship between the elements of the marketing mix and customer loyalty so that the coefficient of determination was 0.423, which means that 42.3% of the change in customer loyalty is due to the marketing mix elements, more specifically service, process, and promotion.

The service is considered a key element of the customer - company relationship and therefore it is natural that there is a link between the service provided by the company and the degree of customer loyalty. Moreover, this relationship has a positive impact for several reasons which have been mentioned in the analysis of indicators that reflect the service provided by the institution examined in this paper. These results are consistent with the findings reached by Mohammed Abdel-Rahman Ibomendel (2008), Muthu Kumar (2009), and Kwon (2011). As for the process provided, it also represents one of the key elements that preoccupy service providers and customers alike because of its positive impact on customer loyalty. This is consistent with the findings reached by Kushwaha et al. (2015) and it implies that whenever the institution provides products quickly and the procedures are easily achieved by the consumers and whenever it leads to an increase in the customer's desire to deal with the institution, the process will increase in importance and the link to customer loyalty will improve. The company cannot fail to promote its elements, by announcing new services and



reminding customers of the current services. In addition, promotion should be used to show the distinctiveness of the company in front of its clients and work to consolidate it in the minds of customers. In its promotion strategy, the company should also keep in mind that many customers judge the product and service of the power of advertising and general marketing tactics. This is consistent with the findings reached by Owomoyela and Oyeniyi (2013) and Mohammed Abdel-Rahman Ibomendel (2008). Considering all these outcome, we can state that the elements of the marketing mix explored from the perception of Algeria Telecom Corporation's customers do exhibit an impact on the degree of loyalty particularly in terms of its service, process, and promotion. These relationships, examined for Algeria Telecom Corporation, are illustrated in Figure 3.



**Figure 3.** Modified Model for Algeria Telecom Corporation  
Source: Presented by Researchers

## 6. Limitations and Future Research

### 6.1. Limitations of the Study

We have applied this study only on the telecommunications sector and thus we cannot generalize the results that we have acquired on all service sectors.

### 6.2. Further Research

We suggest that other researchers who study the impact of the marketing mix elements on the consumer loyalty in the banking sector as a next step to provide a comparison outlook to the telecommunications industry explored in this paper.

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