ANTECEDENTS OF CUSTOMERS BRAND LOYALTY: AN EMPIRICAL STUDY IN TELECOMMUNICATIONS SERVICE MARKET IN ALGERIA

Taleb Meriem
MECAS laboratory, University of Tlemcen,
Algeria
ORCID 0009-0002-0772-2199

Sidi Mohammed Benachenhou*
MECAS laboratory, University of Tlemcen,
Algeria
ORCID 0000-0002-4079-973X

* Corresponding author email: sidimohamed.benachenhou@univ-temcen.dz

Abstract. Purpose: The aim of this paper is to revisit the concept of customer loyalty, without viewing the phenomenon as a purchase but as an exchange behavior. We shall present the seven commonly used relational variables that influence customers loyalty such as: perceived quality, perceived value, satisfaction, trust, commitment, attachment, and intention to change.

Design/Methodology: Based on the literature review, a conceptual framework was developed and examined through the analysis of the structural equation modeling on a sample of 978 customers in the telecommunication sector in Algeria.

Findings: Overall, the results show a mixed effect of the components on brand loyalty. Consequently, it appears that brand loyalty is positively influenced by perceived quality, perceived value, satisfaction, trust, commitment, and attachment to a brand, and negatively influenced by the intention to change.

Research limitations: In this study we focused on some antecedents of brand loyalty, therefore there are other factors such as: brand image and personality that are worth studying.

Practical implications: The implications included in our research contribute to the understanding of the antecedents that affect customer loyalty and customer response when making use of telecommunication services.

Originality/value: So far, none of the studies offer an integrated view of all antecedents of brand loyalty. However, this paper builds on previous studies to develop a more comprehensive model of brand loyalty, incorporating both antecedents of brand loyalty.

Keywords: Brand loyalty; Perceived quality; Perceived value; Satisfaction; Trust; Commitment; Attachment and intention to Change.

JEL Classification: M31, C52

INTRODUCTION

This paper discusses customer behavior in the telecommunications market and its impact on their brand loyalty. During the last years, increased competition has led telecommunications operators to develop strategies geared toward maintaining their customers and attracting competitors' customers. (Calzada et al., 2023). Therefore, the service of telecommunication has become a mature industry, increasingly calling for focusing on customer loyalty through implementing a profitable marketing strategy. According to Chiu; Hsu; Lai & Chang, (2012)
Identifying the factors that influence brand loyalty is crucial in the business market characterized by increasing competition between organizations. (Song et al., 2019). There is a famous saying in marketing that it will cost an organization much more to acquire new customers than to establish a relationship with existing customers (Heskett et al., 1994; Reicheld & Sasser, 1990; Rust et al., 1995). On this basis, it is easy for organizations active in the service sector to achieve greater profitability by gaining the loyalty of their customers. In this regard, many studies have shown that organizations can benefit from satisfied as well as loyal customers, and in order to do so, they must identify the factors affecting their satisfaction and loyalty in ways that can be translated into work that facilitates the tasks of practitioners (Lyon & Dixon, 2023).

Brand loyalty research is increasingly adopting integrative approaches to model the antecedents of brand loyalty (He et al., 2012). The question of the causes and consequences of brand loyalty has always been a major concern for researchers and managers and a main debate issue till now. Indeed, customer loyalty has been associated with different constructs, since Jackoby and Kyner (1973) that saw it as an expression of a relationship between the customer and the brand or a set of brands. The link is strengthened by a combination of factors that help build the different components of comprehensive and cumulative relationship between customers and their brands. Existent research in the service loyalty context has examined the relationship between Perceived quality & Perceived value, [e.g., Parasuraman, et al., 1990; Berraies et al., 2017; Khoi et al., 2018; El-Adly, 2019; Pang, 2021; Lin & Zhang, 2021; Huang, 2023; Kavus, Tas, Ayvildiz, & Taskin, 2022], Perceived value & Satisfaction [e.g., Lee et al., 2007; Chen and Tsai, 2008; Wu and Liang, 2009; Williams & Soutar, 2009; Chen & Chen, 2010; Deng et al., 2010; Egan, 2011; Eid, 2015; Dovaliene et al 2015; El-Adly & Eid, 2016; El-Adly 2019], Satisfaction & Trust [e.g., Forgas et al., 2010; Akamavi et al., 2015; Curras-Perez & Sanchez-Garcia, 2016], Trust & Commitment [e.g., Morgan & Hunt, 1994, 1998, 2000; Garbarino & Johnson, 1999; So et al., 2016b; Li, et al 2020; Leon & Dixon, 2023], Commitment, Attachment & Loyalty [e.g., Fedorikhin et al., 2008; Jahn, Gaus & Kiessling, 2012; Scrima, 2014; Scrima et al., 2015; Jang et al., 2015; Hwang & Lee, 2018; Hwang et al., 2021] and Loyalty & Intention to Change [e.g., Frisou, 2005; Palazón & Delgado, 2009; Song et al., 2019]. In addition, the various components of loyalty have been always analyzed separately and are presented as complementary in the customer mind.

However, none of the studies offers an integrated view of all these antecedents in a single framework. Our paper draws on previous studies to develop a more comprehensive brand loyalty model, integrating the brand loyalty antecedents. In order to complement previous studies, this research was implemented in the competitive telecommunications sector in Algeria, which is characterized by fierce relative competition, high technological and steady market growth. Given the contribution of these concepts in the conception of customer loyalty structure, we propose a theoretical model, which expresses a set of causal relationships between these concepts while emphasizing the influence of different components of the brand relationship on the formation of relational brand loyalty with customers.

The content of this article is designed as follows. First, we will review the literature on the relationship between the different components of brand loyalty (perceived quality, perceived value, satisfaction, trust, commitment, association, and switching intention) and then conceptualize our theoretical model and formulate its hypotheses based on the relationships found between the variables. Secondly, we will describe the research methodology by explaining the measures used (items) as well as presenting the results of the confirmatory factor analysis and correlations between the variables. In the third section, we presented the results of the experimental model that was tested. In conclusion, we discuss theoretical and managerial implications, limitations, and guidelines for future research.
LITERATURE REVIEW

A review of the literature reveals that perceived service quality is often considered as predictors of customer satisfaction. According to Lyon and Dixon (2023) often, service quality is examined as an exogenous variable, while non-exogenous variables are excluded. In addition, it has been observed from the existing literature that satisfaction is practically identified as the only antecedent of loyalty, and other mediating variables such as: perceived value, trust, commitment and attachment are often ignored. Moreover, when service quality and its direct relationship to loyalty are examined, the results are mixed, incomplete and poorly understood. Finally, we note that the literature that has studied loyalty has often treated and defined it inconsistently. Since the main topic of this research is to develop a better understanding of the antecedents that lead to loyalty in telecommunications service companies, additional mediating variables such as perceived value, trust, commitment and attachment were included in this research. The following subsections discuss the conceptual framework of customer loyalty and its antecedent variables in this study, and hypotheses.

Brand Loyalty

Brand loyalty indicates that customers have positive attitudes toward the brand that they intend to purchase regularly (Fullerton, 2003; Li et al., 2020). The literature review has pointed out that although loyalty has been defined in various ways, they can be categorized into two main approaches: behavioral and attitudinal (Chaudhuri & Holbrook, 2001; Dick & Basu, 1994; Zeithaml, 2000; Deng et al., 2010). A customer's behavioral loyalty refers to their repeat purchase of the same brand, assuming that repeated purchasing can really capture customer loyalty towards the brand of interest. This approach, however, cannot distinguish between the true loyalty and the spurious one. The researchers who have studied the two-dimensional approach suggest that focusing on behavior alone, i.e., repeat purchase, cannot help capture the main reasons behind purchase (Han et al, 2011). In contrast, attitudinal loyalty means that the customer has a positive attitude and highly favors the brand (Cosío-Silva, et al., 2015, Li et al., 2020). Furthermore, some researchers may view loyalty from an attitudinal perspective with the argument made that loyalty is a desire or intention to repurchase (Czepiel & Gilmore, 1987; Han & Ryu, 2009).

According to Oliver (1999), loyalty develops through a range of different stages which are: (1) preference over competing brand attributes (beliefs); (2) emotional preference (attitude) towards the product, and (3) greater intention (compatibility), to purchase the product beyond competing product offerings (Song et al., 2019). According to Oliver (1997), “these different stages of loyalty do not appear simultaneously but rather sequentially”. In other words, consumers become loyal to the service first in a cognitive way, followed by an emotional “liking” or “disliking” of the service, and later by implicit meaning (Oliver, 1997; Back, 2005; Yuksel et al., 2010). In this regard; The antecedents of customer loyalty have been substantially investigated in a large number of research studies on consumer service and retailing (Al-Adly, 2019). Furthermore, to be explicit, we will introduce the different components that constitute chain relationships that may explain the existence of brand loyalty.

Perceived quality, perceived value and satisfaction

We shall start with the perceived quality that stems from the making up of an attachment of a brand. As such, perceived quality is defined as "the focus of consumer's judgment on excellence or global superiority of a product or service” (Zeithaml, 1988). According to this author, Perceived value, however, is "an overall assessment of the utility of a product based on the established perceptions of what is given and what is received". Perceived value is considered one of the most important concepts used to understand customers in the marketing and business fields. (Berraies et al., 2017; Khoi et al., 2018; Pang, 2021). Perceived value refers to the psychological process by which a consumer compares perceived quality (benefits received) and perceived sacrifice (costs including price). (Holbrook & corfman, 1985; Lai, 1995; Holbrook, 1999). Perceived value and perceived quality are the two main variables influencing customer satisfaction (Fornel et al., 1996;
Lim et al., 2006; Deng, et al., 2010). During the consumption experience, there are many points in common between the satisfaction variable and the perceived quality variable (Oliver, 1993; Iacobucci et al., 1994). Prior research has shown that perceived quality positively relates to perceived value (Moliner et al., 2007; Pang, 2021). Thus, based on the above results, we can make the following hypotheses

H₁. Perceived service quality has a positive effect on perceived value.

It is recognized in the literature that perceived customer value in turn influences customer satisfaction, which is considered among the key variables causing long-term customer relationships (Egan, 2011; Dovaliene et al., 2015). Likewise, many researchers have found that customer perceived value has a significant positive direct effect on customer satisfaction in many retail and service organizations (e.g., Lee et al., 2007; Chen & Tsai, 2008; Chen & Chen, 2010; Deng et al., 2010; Wu & Liang, 2009; Williams & Soutar, 2009; Eid, 2015; Al-Adly & Eid, 2016; Al-Adly 2019; Matsuoka et al., 2022). Based on these results, we hypothesize that:

H₂. Perceived service value has a positive effect on customer’s satisfaction

Satisfaction, trust and commitment

For Oliver (1997, p. 144) “satisfaction means evaluating the consumer experience through a set of indicators or criteria, which can lead to either fulfillment, unfulfillment, or over-fulfillment.” Satisfaction increases consumer confidence in the brand through its positive effect. Considering the study conducted by Mayer et al. (1995, p.712) Trust is generally built on the dimensions: benevolence, ability and integrity. In the same vein, Blomqvist (1997) proposed a brief definition of trust in a business context as “an individual's expectation of the competence and good faith of the other party (the organization).” (Leon & Dixon, 2023). Some researchers argue that satisfaction leads to trust (Akamavi et al., 2015; Curras-Perez & Sanchez-Garcia, 2016; Forgas et al., 2010; Leon & Dixon, 2023). Satisfaction is considered an antecedent to trust in this study and will contribute to the literature in this area. Therefore, we hypothesize:

H₃. Satisfaction has a positive effect on trust.

Trust is often treated as a determinant of long-term commitment. (Morgan & Hunt, 1994; Garbarino & Johnson, 1999). Oliver concluded that commitment is generally determined before behavioral intentions. (Lyon & Dixon, 2023). Therefore, customer trust in the brand leads to them continuing to build committed relationships with it (So et al., 2016b). Customers who have high trust towards a brand tend to develop strong relationships with it. In the same regard, high-involvement customers tend to maintain a bond of trust with vendors (Vivek, et al., 2012). Therefore, customer engagement will undoubtedly positively enhance customer trust (So et al., 2014; Li et al., 2020). Thus, the above findings indicate that customer commitment enhances brand loyalty (Li, et al., 2020). Considering the previous literature and discussions, the following hypotheses was formulated.

H₄. Trust has a positive influence on commitment

Commitment, attachment and loyalty

Scrima (2014) recently showed that secure attachment style is positively related to the affective and normative components of a commitment variable, and that avoidant attachment styles are negatively related to affective commitment (Scrima et al., 2015). Therefore, customers’ commitment to the brand enhances their attachment to it (Park et al., 2010; Harrigan et al., 2018). Thus, these findings suggest that customers who engage in brand services are more likely to develop mental relationships with the brand. This indicates that customer engagement enhances their connection to the brand they are attached to (Li, et al., 2020). Brand attachment means customers are emotionally attached to a product or a brand (Jahn et al., 2012, Li, et al., 2020). In addition, a strongly attached individual tends to be willing to continue interacting with the object (Fedorikhin et al., 2008; Jang et al., 2015). Hence, researchers tried to explore the basic forces that drive customers’ loyalty to a brand and make them relate to it. (Hwang & Lee, 2018; Hwang et al., 2021). Given the previous discussion, the following hypotheses are formulated.

H₅. Commitment has a positive influence on Attachment
H6. Attachment has a positive influence on loyalty

Loyalty and intention to change

Loyal customers often purchase one brand and refuse to switch to another (Palazón & Delgado, 2009). In addition, customers’ loyalty to their favorite brand gives them a better impression of it compared to other competitors’ brands (Hanzaee & Andervazh, 2012; Song et al., 2019), and thus this can influence customers’ decision-making to purchase the same product (Lam, 2007; Martenson, 2007; Nyadzayo & Khadzadeh, 2016; Song et al., 2019). Therefore, this will negatively affect the customer's intention to change the brand.

H7. Loyalty has a negative effect on intention to change

Our conceptual framework integrates recent contributions that have questioned the central part played by perceived quality, perceived value, satisfaction, trust, commitment, attachment and loyalty. We propose to test the relationship between these concepts through a theoretical model represented in figure 1.

**PAPER OBJECTIVES**

The present paper aims to:
- Measure the effect of relational variables on customer’s brand loyalty in Algeria.
- Identify the role of perceived quality towards building customer brand loyalty via mediating effect of Perceived Value; Satisfaction; Trust; Commitment and Attachment among Algerian customers.

**METHODOLOGY**

We shall follow three steps: data collection, Scale Measurement and Exploratory Analysis through a PCA and finally the presentation of the structural equation modeling.

**Sample**

The construction of the sample was one of the key stages of this research. Data were collected from telecommunications users in Tlemcen city in Algeria. A total number of 1200 questionnaires were distributed and 1079 returned answered, 101 of these were (incomplete) eliminated. The final data set was comprised of 978 questionnaires which correspond to an effective response rate of 81.5%. The sample brands and service characteristics distributions appear to be representative of telecommunications users of Djezzy brand in Algeria. Our sample reflects the distribution of the population characterized by: Gender female, 47.35% [463]; male, 52.65% [515], Age (< 18 years, 2.65% [26]; 25-29 years, 37.01% [272]; 36-45 years, 33.64% [329]; 40-45 years, 21.77% [213]; >

45 years, 14.11% [138]) and education (up to secondary school, 47.9%; university or above, 52.1%).

**Measurement**

The questionnaire was primarily intended to measure seven components of customers loyalty toward brand.

**Results of Factor Exploratory Analysis**

<table>
<thead>
<tr>
<th>Items</th>
<th>Communality</th>
<th>Component</th>
<th>CR</th>
<th>Loading</th>
<th>KMO</th>
<th>Cronbach α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>qual2</td>
<td>0.561</td>
<td>0.749</td>
<td>0.944</td>
<td>0.514</td>
<td>0.525</td>
<td>0.880</td>
</tr>
<tr>
<td>qual3</td>
<td>0.589</td>
<td>0.699</td>
<td>0.94</td>
<td>0.486</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>val1</td>
<td>0.258</td>
<td>0.508</td>
<td>1.05</td>
<td>0.312</td>
<td>0.753</td>
<td>0.747</td>
</tr>
<tr>
<td>val2</td>
<td>0.367</td>
<td>0.606</td>
<td>0.933</td>
<td>0.538</td>
<td></td>
<td></td>
</tr>
<tr>
<td>val3</td>
<td>0.556</td>
<td>0.746</td>
<td>0.935</td>
<td>0.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>val5</td>
<td>0.515</td>
<td>0.718</td>
<td>0.934</td>
<td>0.561</td>
<td></td>
<td></td>
</tr>
<tr>
<td>val6</td>
<td>0.529</td>
<td>0.727</td>
<td>0.93</td>
<td>0.566</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis1</td>
<td>0.460</td>
<td>0.679</td>
<td>1.05</td>
<td>0.544</td>
<td>0.75</td>
<td>0.700</td>
</tr>
<tr>
<td>Satis2</td>
<td>0.449</td>
<td>0.670</td>
<td>0.934</td>
<td>0.546</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis3</td>
<td>0.487</td>
<td>0.698</td>
<td>0.937</td>
<td>0.579</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satis4</td>
<td>0.429</td>
<td>0.655</td>
<td>0.93</td>
<td>0.514</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>trust1</td>
<td>0.606</td>
<td>0.624</td>
<td>1.058</td>
<td>0.394</td>
<td>0.709</td>
<td>0.814</td>
</tr>
<tr>
<td>trust2</td>
<td>0.599</td>
<td>0.612</td>
<td>0.935</td>
<td>0.552</td>
<td></td>
<td></td>
</tr>
<tr>
<td>trust3</td>
<td>0.570</td>
<td>0.746</td>
<td>0.93</td>
<td>0.543</td>
<td></td>
<td></td>
</tr>
<tr>
<td>trust6</td>
<td>0.570</td>
<td>0.739</td>
<td>0.93</td>
<td>0.540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comm1</td>
<td>0.569</td>
<td>0.755</td>
<td>1.05</td>
<td>0.525</td>
<td>0.64</td>
<td>0.879</td>
</tr>
<tr>
<td>comm2</td>
<td>0.630</td>
<td>0.794</td>
<td>0.939</td>
<td>0.586</td>
<td></td>
<td></td>
</tr>
<tr>
<td>comm3</td>
<td>0.465</td>
<td>0.682</td>
<td>0.932</td>
<td>0.502</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>atach1</td>
<td>0.532</td>
<td>0.730</td>
<td>1.05</td>
<td>0.371</td>
<td>0.634</td>
<td>0.767</td>
</tr>
<tr>
<td>atach2</td>
<td>0.622</td>
<td>0.789</td>
<td>0.933</td>
<td>0.545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>atach3</td>
<td>0.355</td>
<td>0.596</td>
<td>0.926</td>
<td>0.380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loy1</td>
<td>0.691</td>
<td>0.831</td>
<td>1.104</td>
<td>0.426</td>
<td>0.5</td>
<td>0.852</td>
</tr>
<tr>
<td>loy2</td>
<td>0.691</td>
<td>0.831</td>
<td>1.06</td>
<td>0.523</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chang1</td>
<td>0.638</td>
<td>0.799</td>
<td>1.205</td>
<td>0.301</td>
<td>0.5</td>
<td>0.732</td>
</tr>
<tr>
<td>chang2</td>
<td>0.638</td>
<td>0.799</td>
<td>0.978</td>
<td>0.415</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: own elaboration by sofware SPSS.20 (N=978)

In order to compare the metrics of loyalty to a service, we selected seven variables (components) that we tested empirically and then we proceeded to compare their psychometric properties to detect which one keeps its factor structure. More conventional measures were taken into account: perceived quality constructs (03 items), value (06 items), satisfaction (05 items), trust (06 items), commitment (04 items), attachment (04 items), the intention to change (02 items), and loyalty (02 items). Through these components, respondents were asked to give their views on Djezzy brand and specify their degree of agreement or disagreement on a 5 Likert scale. Some items are taken from literature; others are specifically elaborated for the analysis.
Exploratory Analysis

A first exploratory analysis was conducted through a factor analysis in several common and specific factors. This allowed us to eliminate several items that are "Defective", i.e. those poorly correlated factors whose presence may deteriorate the internal consistency of scales construction by using Cronbach's alpha as well as the results of factor analysis with varimax orthogonal rotation. A Factor analysis is summarized in table 1, and shows that the studied dimensions are relatively distinct from each other (See table 1 for the selected scales). The items that define them exhibit high commonality on this factor and low commonalities on other factors. All the commonalities below 0.4 do not appear in this table. However, and exceptionally, items val1, val2 and atach3 with low commonality such as (0.258, 0.367 and 0.355), were selected because of their theoretical confirmation in several studies (Holbrook & Hoffman, 1985; Morgan & Hunt, 1994; Lai, 1995; Holbrook, 1999; Garbarino & Johnson, 1999). The results of this analysis that are satisfactory in terms of tests of internal consistency (commonality, KMO and Bartlett's, and alpha Cronbach), make do with the selected dimensions. On the other hand, the meaning and value of the following parameters such as CR, and loading, are presented in table 1. All the indicators specified in the model are explained by the constructs, indicates that is relationship of each items to its construct.

The structural equation modeling

To test our theoretical model, we used a structural equation analysis. We followed the "development model" approach used by (Hair et al., 1998; Raykov & Marcoulides, 2000) based on the following steps: the development of structural models and measures (incorporating observable variables for each construct, see figure 1), the selection of the input matrix data (covariance matrix), the selection of a valuation method (maximum likelihood), the selection of fitting indices (Chi-square to degrees of freedom, RMSEA, GFI), the individual validation of the constructs (measurement model) and the validation of the structural model.

Table 2

<table>
<thead>
<tr>
<th>Indice fit</th>
<th>Fitting measures</th>
<th>Model fitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$ (χ²)</td>
<td>806.765</td>
<td>992.141</td>
</tr>
<tr>
<td>Degree of freedom (df)</td>
<td>287</td>
<td>263</td>
</tr>
<tr>
<td>Probability</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>$\chi^2$ / df</td>
<td>2.81</td>
<td>3.77</td>
</tr>
<tr>
<td>Steiger and Lind RMSEA Index</td>
<td>0.056</td>
<td>0.052</td>
</tr>
<tr>
<td>Joreskög and Sorböm GFI</td>
<td>0.875</td>
<td>0.920</td>
</tr>
<tr>
<td>Joreskög and Sorböm AGFI</td>
<td>0.848</td>
<td>0.901</td>
</tr>
<tr>
<td>Joreskög and Sorböm RMR</td>
<td>0.044</td>
<td>0.044</td>
</tr>
<tr>
<td>Population Gamma Index</td>
<td>0.873</td>
<td>0.931</td>
</tr>
<tr>
<td>Adjustment Population Gamma Index</td>
<td>0.847</td>
<td>0.915</td>
</tr>
<tr>
<td>Bentler and Bonett Normed Fit Index (NFI)</td>
<td>0.879</td>
<td>0.837</td>
</tr>
<tr>
<td>Bentler Comparative Fit Index (CFI)</td>
<td>0.800</td>
<td>0.874</td>
</tr>
</tbody>
</table>

Source: own elaboration by sofware Statistica.08 (N=978)

All treatments were performed with the software Statistica. To validate the structural model, we used the two-step approach of Anderson and Gerbing (1988): the first, the validation of the measurement model by a confirmatory factor analysis (Hair et al, 1998) and the second, a structural link evaluation between the theoretical latent variables during the evaluation of adjustment measures of the integrated model (Hair & al, 1998). The objective of this validation is to check the
unidimensionality, reliability and factor contributions constructs using confirmatory factor analysis. The results of the fitting of the measurement model are summarized in the table 2. We may note that sequential tests of chi-square difference were performed to check the discriminant validity of each construct as well as their degree of freedom. Results show that ($\chi^2$/ df) are still acceptable with a value of 2.81. The overall fit indices are also good whether with classical statistics calculated on the values of the sample (GFI, AFM, CFI, NFI, CMA) or with model fit indices of population estimates (Population Gamma Index (PGI), Gamma Adjustment Population Index (GAPI), and RMSEA). Thus, we can say that the constructs used to examine the measurement model are acceptable and justify the analysis through the structural model. The results of the structural model presented in the table 2, show that the fit indices are within acceptable standards, which confirms the fit of the structural model. Therefore, it is possible to perform the analysis of model.

**Correlations between latent variables**

To test the hypotheses of our model, we conducted a structural equation analysis of over 978 customers. All the parameters specified in the model are explained by the constructs, indicate that each correlation of Student's (t) test is much higher than 1.96 thus confirming the significance of the relationship between latent variables. The quality of fit results presented in Table 3, show that all correlations ($\beta$) between latent variables (either positive or negative) sound significant with values ranging from of 0.510 to 0.968 for all variables except those between perceived quality and value with 0.244, and perceived quality relative to loyalty with 0.274.

<table>
<thead>
<tr>
<th>Relationships between latent’s variables</th>
<th>$\beta_i$</th>
<th>T</th>
<th>Error</th>
<th>p</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(QUAL)-1-&gt;(VAL)</td>
<td>0.244</td>
<td>15.81</td>
<td>0.028</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(VAL)-2-&gt;(SATIS)</td>
<td>0.788</td>
<td>8.687</td>
<td>0.187</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(SATIS)-3-&gt;(TRUST)</td>
<td>0.783</td>
<td>9.662</td>
<td>1.021</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(TRUST)-4-&gt;(COMM)</td>
<td>0.968</td>
<td>12.175</td>
<td>0.080</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(COMM)-5-&gt;(ATTACH)</td>
<td>0.738</td>
<td>9.580</td>
<td>0.262</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(ATTACH)-6-&gt;(LOY)</td>
<td>0.912</td>
<td>3.848</td>
<td>0.237</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>(LOY)-7-&gt;(CHANG)</td>
<td>-0.656</td>
<td>8.147</td>
<td>0.081</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

*Source: own elaboration by software Statistica.08 (N=978)*

**FINDINGS AND DISCUSSION RESULTS**

The first hypothesis considers that the perceived quality of customers influence positively their perceived value for this brand. This analysis shows that the contribution of the perceived quality on perceived value is significant ($H_1$: $\beta_1 = 0.244$, T > 1.96, p < 0.05). This study indicates that the perceived quality of the service offered by brand to its customers plays an important role in the value making up. This concurs with the findings of different researchers (Parasuraman, et al., 1990; Berraies et al., 2017; Khoi et al., 2018; Pang, 2021; Huang, 2023; Kavus, Tas, Ayyildiz, and Taskin, 2022), who show that perceived quality influences perceived value, confirming therefore the hypothesis. The second hypothesis which states that the perceived value has an important influence on satisfaction, is significant ($H_2$: $\beta_2 = 0.788$, T > 1.96, p < 0.05). We can see that this result is an empirical validation and consistent with previous studies, which also confirmed a positive association between perceived value and satisfaction (e.g., Lee et al., 2007; Chen & Tsai, 2008; Wu & Liang, 2009; Williams & Soutar, 2009; Chen & Chen, 2010; Eid, 2015; Dovaliene et al., 2015; El-Adly & Eid, 2016; El-Adly, 2019). Under the assumption $H_3$, we observe that
customer satisfaction from brand positively influences the trust of its customers ($H_3$: $\beta_3 = 0.783$, $T > 1.96$, $p < 0.05$). Satisfaction was found to positively influence customers trust, similar to the findings of other researchers (e.g., Forgas et al., 2010; Akamavi et al., 2015; Curras-Perez & Sanchez-Garcia, 2016). We can therefore say that this third hypothesis is validated. Like the second hypothesis, $H_4$ has a strong positive and significant trust value towards customer commitment to brand: ($H_4$: $\beta_4 = 0.968$, $T > 1.96$, $p < 0.05$). This result supports the dominant role of trust in impacting the customer commitment. The finding is consistent with those provided in previous research (Morgan & Hunt, 2000; Garbarino & Johnson, 1999; Li, et al., 2020; Leon & Dixon, 2023). This result confirms the fourth hypothesis. $H_5$ supports the hypothesis that commitment positively influences the attachment: ($H_5$: $\beta_5 = 0.738$, $T > 1.96$, $p < 0.05$). However, our results are consistent with previous research that customer engagement strengthens brand attachment (Scrima, 2014; Scrima et al., 2015; Jang et al., 2015; Hwang & Lee, 2018). The study has found that customer engagement directly affects brand attachment. The analysis proves that the more the brand’s customers are committed to the brand, the more attached they are to the brand. This hypothesis is therefore confirmed. According to the sixth hypothesis, the attachment as an independent variable positively and significantly influence brand loyalty as a dependent variable with the value of ($H_6$: $\beta_6 = 0.912$, $T > 1.96$, $p < 0.05$). These results appear to complement the literature according to which brand attachment affects customer loyalty. (Fedorikhin et al., 2008; Jahn, et al., 2012; Scrima, 2014; Hwang et al., 2021). Therefore, enhancing customer commitment is inadequate to increase customer loyalty; customer trust and customer attachment should be considered. We can thus validate this hypothesis. The last seven hypothesis $H_7$ test assumes that customer loyalty to the brand negatively influences its intention to change brand. The analysis proves that this relationship is significant ($H_7$: $\beta_7 = -0.0656$, $T > 1.96$, $p < 0.05$). This result is consistent with previous studies. (Frisou 2005; Palazón and Delgado, 2009; Song et al 2019) This hypothesis is confirmed.

CONCLUSION

The main objective of the present study was to determine the main factors of customer loyalty towards telecommunications brands in Algeria. The results highlight that the perceived quality of the service offered by the brand, the perceived value, constitute a basis for improving the level of customer satisfaction. Likewise, satisfaction helps explain customer trust. Furthermore, a customer who trusts a brand is more likely to build commitment and feel attached to the brand and be loyal. Finally, Brand loyalty often allows consumers to buy a brand and refuse to switch to another brand of a telecommunications company. Our research involves a number of theoretical and managerial implications. They also present limitations which can be translated into research perspectives.

Theoretical implications

Marketers of services now recognize the importance of retaining customers over the long term. First of all, from a theoretical standpoint, it provides a better understanding of customer loyalty towards a brand by showing that customer loyalty to a brand depends on seven variables: perceived quality; perceived value; satisfaction; trust; commitment; attachment, and negative intention to change. To put it more precisely, as the perceived quality of a brand increases, so does the perceived value, customer satisfaction, trust in the brand, level of engagement, emotional attachment, and reluctance to switch to alternative brands. Thus the study has extended the results previously found by Parasuraman et al (1988), Zeithaml (1990), Fornel et al. 1996; Lim et al. 2006; Deng, et al. (2010); Oliver (1993); Iacobucci et al. (1994); Moliner et al. (2007); Pang (2021). We can say that the satisfaction of the customer towards a brand is based on the perceived quality of that brand. Furthermore, relying on some studies that examine the process of building a long term relationship, such as Frisou (1998); Chen and Chen(2010); Khoi et al(2018); El-Adly (2019); Li, et al (2020); Hwang et al (2021); Kavus, Tas, Ayyildiz, and Taskin, (2022); Leon & Dixon(2023) we may infer that customers who show a strong relationship with brand, the constructs such as trust,
commitment, and attachment play an important role in the relationship between satisfaction and loyalty. Second, from a methodological perspective, our research validates seven measures. Overall, the results confirm most of our hypotheses finally, from a managerial point of view, our research offers a tool for management decision making as far as the making up customer loyalty is concerned.

**Managerial implications**

Our findings appear from the study to have critical implications for telecommunications service providers and managers who strive to gain the loyalty of their customers. First, it has been empirically determined that quality, perceived value, satisfaction, trust, commitment, and attachment have significant influences on customers' behavioral responses. Therefore, telecom service developers can incorporate these variables that empower customers and enhance their loyalty to the brand. According to Dovaliene et al. (2015); Li et al., (2020); Hwang et al. (2021); Uzir et al. (2021); Matsuoka et al. (2022) and Leon & Dixon, (2023) customers are more loyal and have more positive behavioral responses when the basic components mentioned previously are met. Secondly, for potential and actual customers, dealers in the communications services sector must be aware of the importance of the mediating variables of trust, commitment, and customers’ attachment to the brand. The results confirmed that these variables can increase positive behaviors in the communications environment. Therefore, communication service providers can gain the trust of customers to encourage them to commit to dealing with them, and thus encourage them to deal with them for as long as possible.

**Limitations and directions for future research**

Our study presents a set of limitations that must be acknowledged in order to benefit future studies in this area: firstly, this study was carried out among the customers of a single brand which operates in the sector of telecommunications; we therefore cannot generalize the results of this study to other brands or other service sectors. From this point of view, we advise future studies to conduct the study on a wide range of services and brands. Secondly, this study is characterized by a small sample size, so it is difficult to generalize the results to the entire population. Likewise, this study was conducted in the city of Tlemcen, which is geographically small compared to larger cities in Algeria, based on which we recommend that future studies focus on a larger sample size. Third, the questionnaire items may also pose a barrier to understanding the research objective. The items must therefore be adapted to be simple, easy to understand and consistent with the social structure of the sample studied.

**REFERENCES**


## ПЕРЕДУМОВИ ЛОЯЛЬНОСТІ СПОЖИВАЧІВ ДО БРЕНДУ: ЕМПІРИЧНЕ ДОСЛІДЖЕННЯ НА РИНКУ ТЕЛЕКОМУНІКАЦІЙНИХ ПОСЛУГ В АЛЖИРІ

**Taleb Meriem**  
*MECAS laboratory, University of Tlemcen, Algeria*

**Sidi Mohammed Benachenhou**  
*MECAS laboratory, University of Tlemcen, Algeria*

Метою цієї статті є перегляд концепції лояльності споживачів, не розглядаючи це явище як купівлю, а як поведінку обміну. В статті представлено сім часто використовуваних релативійних змінних, які впливають на лояльність клієнтів, таких як: сприйнята якість, сприйнята цінність, задоволеність, довіра, прихильність і намір змінитися. На основі огляду літератури було розроблено концептуальну основу, яка була досліджена за допомогою аналізу структурного моделювання на вибірці з 978 клієнтів у телекомунікаційному секторі Алжиру. Загалом, результати показують змішаний вплив компонентів на лояльність до бренду. Отже, виявляється, що на лояльність до бренду позитивно впливають сприйнята якість, сприйнята цінність, задоволеність, довіра, прихильність і прив'язаність до бренду, а негативно - намір змінити його. У цьому дослідженні ми зосередилися на деяких передумовах лояльності до бренду, тому існують інші фактори, такі як: імідж бренду та особистість, які варто вивчити. Висновки, зроблені в дослідженні, спирають розуміння передумов, які впливають на лояльність споживачів та їхню реакцію при користуванні телекомунікаційними послугами. Дотепер жодне з досліджень не пропонує комплексного погляду на всі антецеденти, що впливають на лояльність і реакцію споживачів на телекомунікаційні послуги.

**Ключові слова:** лояльність до бренду, сприйняття якості, сприйняття цінності, задоволеність, довіра, прихильність, прихильність та намір до змін.