The Determinants of Organisations' Performance in the Algerian Mobile Telecommunications Market

Ines BENATIA¹ Nabila ABID²

DOI: 10.24818/mer/2025.01-19

Assessing and improving organisations' performance is a perpetual concern for managers and a core research topic for management researchers. As a complex and multidimensional construct, performance is evaluated through a various set of indicators, including customer satisfaction and loyalty. In this article, we intend to analyse the determinants of customer satisfaction and loyalty as key metrics of the performance of mobile telecommunications operators in Algeria. Our conceptual model included service quality, competitive service pricing, service innovation, and customer experience as the main explanatory variables of customer satisfaction and loyalty, and was tested on a sample of 420 mobile operators' customers in Algeria. Following a quantitative approach, we relied on structural equation modelling to analyse the empirical data collected. The results of our analysis show that in the Algerian mobile telecommunications market, customer satisfaction is affected by customer experience, service quality and price, while customer loyalty is only determined by service quality and customer experience. The influential effect of service innovation on both customer satisfaction and customer loyalty has not been supported in this study. By underlying the specificities of the national context, the insights from this study can orient the Algerian mobile operators while shaping their customer relationship management strategies. These insights indicate the critical service aspects that customers are most sensitive to, notably network coverage and responsive support, which are determinant in optimising the overall customer experience

KEYWORDS: *customer loyalty, customer satisfaction, mobile telecommunications, performance.*

JEL CLASSIFICATION: M31, L96.

1. INTRODUCTION

ABSTRACT

As an emergent country, Algeria is involved in a digital transition in which it largely relies on its telecommunications sector to support the institutional digitisation and the social integration. Thus, the Algerian government, through its regulatory updates, explicitly encourages the integration of the most recent technologies, while maintaining fair competition between market operators.

Consequently, the three mobile operators that share the Algerian mobile telecommunications market (MTM) face a highly competitive environment, complicated by evolving regulation and technological development requirements.

¹ LIMGE laboratory, Higher National School of Management (ENSM), Kolea, Algeria, i.benatia@ensmanagement.edu.dz; ines.benatia2@gmail.com

² LIMGE laboratory, Higher National School of Management (ENSM), Kolea, Algeria, n.abid@ensmanagement.edu.dz

In such a complex competitive dynamic, developing and maintaining a satisfied and loyal customer base can be an effective strategy for mobile telecommunications operators (MTOs) to ensure a sustainable performance and to develop a resilience to evolving market expectations. Reaching this strategic goal requires a deep understanding of the factors that influence customers' behavior, consequently driving their satisfaction and encouraging their loyalty.

While customer satisfaction and loyalty constitute an indisputable concern for MTOs, the available research on their antecedents in the Algerian MTM is both limited and marginal. This study aims to reduce this obvious gap in the literature, by building an explanatory model of customer satisfaction and loyalty, including the effects of service quality, competitive service pricing, service innovation, and customer experience.

Service quality refers to meeting or exceeding customer expectations through consistent service provision, while competitive service pricing combines the attractiveness and affordability of offers. Service innovation involves creating or improving services to meet the progressing needs of customers, and customer experience reflects the overall impression shaped by all interactions a customer share with a provider.

These four independent variables compose the conceptual model of this study, which is built based on relevant literature about the determinants of customer satisfaction and loyalty in international telecommunications markets. This model is empirically tested in the Algerian context, to assess the relevance of the correlations observed internationally, as well as the specific features of the local market.

This empirical study makes valuable contributions to both academics and practitioners. At the academic level, the study enriches the research by improving the theoretical framework of factors that explain customer behaviour in emerging markets. Its contribution is particularly appreciable, as it provides insights into the relatively understudied context of Algeria. Therefore, this adds significant value to the existing literature.

On the practical side, the findings of this quantitative study could be utilised by Algerian MTOs to develop more targeted strategies to improve their customer satisfaction and loyalty. By identifying the critical elements that satisfy and retain customers, and assessing their impact on customer behaviour, the revelations of these studies indicate the practical actions that need to be prioritise during the development of business strategies and policies. Ultimately, the recommendations built on the study's observations aspire to optimise service offerings in the Algerian telecommunications sector.

In order to precise the theoretical framework of our study and develop our conceptual model, we start the article with a brief literature review on customer satisfaction and customer loyalty as performance indicators, in addition to their notable determinants.

The research methodology adopted in our study is then explained, before presenting and discussing the results of our research. We finally conclude by underlying the practical implications of the study, as well as pointing its limits and their resulting perspectives.

2. LITERATURE REVIEW AND CONCEPTUAL MODEL DEVELOPMENT

Companies that maintain long-term profitable relationships with their customers are likely to benefit from durable and even growing revenues, which makes customer satisfaction and loyalty valuable indicators of businesses' performance. In this section, we review the concepts

of customer satisfaction and customer loyalty, as they represent the measures selected to evaluate MTOs' performance in this study. We follow by exploring the determinants of these two dependent variables and their associative relations according to the literature.

2.1 Customer satisfaction and loyalty

The most common definition of customer satisfaction relies on the Expectancy-Disconfirmation theory proposed by Oliver (1977), which assesses customer satisfaction through comparing customer's expectation with the effective consumption experience.

There are actually two distinct approaches to define customer satisfaction: transaction specific satisfaction that covers customer's specific satisfaction toward each transaction with the provider, and cumulative satisfaction that refers to overall customer experience based on all the exchanges with the provider (Edward & Sahadev, 2011).

Considering the two approaches, Gerpott et al. (2001) defined customer satisfaction as an experience-based assessment made by the customer of how far his expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled.

Customer loyalty also comprises two perspectives: the behavioural loyalty that concerns repeat purchase frequency and the attitudinal loyalty that represents psychological commitment toward the brand (Han & Ryu, 2009). Customer loyalty can ultimately be defined as a deeply held commitment to rebuy or patronise a preferred product or service consistently in the future, despite situational influences or marketing efforts that can potentially encourage switching to another provider (Oliver, 1999).

2.2 Determinants of customer satisfaction and loyalty

Service quality is a common determinant of customer satisfaction and loyalty. Its significant impact on customer satisfaction was observed in different international telecommunications markets, including the Nigerian (Alabar et al., 2014), the Syrian (Rahhal, 2015), and the South African one (Shava, 2021). Service quality has also been positively correlated to customer loyalty in the Kenyan telecommunications market (Agyei & Kilika, 2013), as well as in the Tunisian one (Mbarek & Baeshen, 2019).

Furthermore, several research studies support the importance of competitive pricing in influencing customer satisfaction and loyalty within the international telecommunications market. For example, the research of Oladepo and Abimbola (2014) on the telecommunications service subscribers in Nigeria confirmed a strong positive relationship between competitive service pricing and customer satisfaction. Chakraborty and Sengupta (2014) in the Indian telecommunications market, as well as Saha et al. (2016) in the Bangladeshi one, also confirmed this relationship. In addition, competitive service pricing was influential on customer loyalty in the telecommunications markets of Pakistan (Khurshid, 2013) and Egypt (Khizindar et al., 2015).

Moreover, service innovation is another factor that is usually associated with customer satisfaction and loyalty in international telecommunications markets. Service innovation consists of introducing new or improved services to improve service performance and customer value (Gallouj & Savona, 2010). The significant impact of service innovation on customer satisfaction and loyalty was demonstrated in studies on telecommunications operators in Ghana (Awuku et al., 2023; Mahmoud et al., 2018). Service innovation was also

strongly correlated to customer satisfaction within the Indian and the Pakistani telecommunications markets (Ganesan & Sridhar, 2016; Nemati et al., 2010).

Lastly, customer experience is an additional antecedent of customer satisfaction and loyalty identified in the literature on international telecommunications markets. Customer experience includes all the interactions between a customer and a provider during their business relationship (Lemon & Verhoef, 2016).

Studies conducted in Indonesia by Tjahjaningsih et al. (2021) and in Australia by Bhatti et al. (2017) revealed that customer experience is crucial to satisfy telecommunications operators' customers. Customer experience was also linked to customer loyalty in the study of Bhatti and Hassan (2019) and Imbug et al. (2018) on the Pakistani and the Malaysian telecommunications sectors, respectively.

Overall, prior research supports strong relationships between service quality, competitive service pricing, service innovation, and customer experience with customer satisfaction and loyalty. However, certain gaps and inconsistencies remain observable. For example, Nemati et al. (2010) found that service innovation increased the satisfaction of Pakistani customers without influencing their loyalty. This indicates that the relationships between the examined variables are highly dependent on the context in which they are observed.

Additionally, service quality and competitive service pricing are consistently assessed and accepted as complementary antecedents of customer satisfaction and loyalty. However, service innovation and customer experience are clearly understudied in developing telecommunications markets comparable to those in Algeria, despite their potential influence on customer behaviour.

Thus, the four selected explanatory variables are particularly relevant to the Algerian mobile telecommunications market. First, we need to investigate whether commonly accepted factors of customer satisfaction and loyalty, such as service quality and competitive service pricing, have the same importance in Algeria.

In addition, Algerian mobile telecommunication operators continuously introduce new service options and advanced features, but their adoption by customers remains uncertain. This suggest the need to evaluate the value of these innovations for customers and their influence on customers' decisions in the context of digital services spreading. Moreover, optimal customer experiences may be decisive in the relatively saturated MTM of Algeria, where service offerings are considerably comparable.

Consequently, the proposed conceptual model hypothetically relates the four aforementioned independent variables (service quality, competitive service pricing, service innovation, and customer experience) to customer satisfaction and loyalty that represent the two dependent variables investigated in this study. The purpose of this theoretical model is to identify and understand the factors that are most likely to explain customer satisfaction and loyalty in the Algerian MTM.

To build this conceptual model, and in light of the theoretical and empirical evidence previously reviewed, we can formulate the following hypotheses regarding the Algerian MTM:

Hypothesis 1: There is a significant positive relationship between service quality and customer satisfaction.

Hypothesis 2: There is a significant positive relationship between service quality and customer loyalty.

Hypothesis 3: There is a significant positive relationship between competitive service prices and customer satisfaction.

Hypothesis 4: There is a significant positive relationship between competitive service prices and customer loyalty.

Hypothesis 5: There is a significant positive relationship between service innovation and customer satisfaction.

Hypothesis 6: There is a significant positive relationship between service innovation and customer loyalty.

Hypothesis 7: There is a significant positive relationship between customer experience and customer satisfaction.

Hypothesis 8: There is a significant positive relationship between customer experience and customer loyalty.

The conceptual model previously explained is illustrated in Figure 1 below and synthesise the eight hypotheses formulated about the direct effects of four independent variables on customer satisfaction and loyalty in the context of the Algerian MTM.

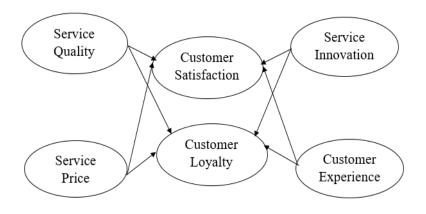


Figure 1. Conceptual model of the study Source: authors' conception

3. RESEARCH METHODOLOGY

3.1 Measurement Model

In order to test the validity of the hypotheses formulated previously, we adopted a quantitative approach based on a questionnaire survey of MTOs' customers in Algeria. Based on valid measurement instruments developed in the relevant literature, we constructed a questionnaire measuring the different constructs of our research model, by adapting the common scales to the context of the Algerian MTM. The six variables of our model were measured using multiitems scales and evaluated on five-point Likert measuring scale that ranged from "strongly disagree (1)" to "strongly agree (5)".

To ensure that the items were adapted for the Algerian context, they were pre-tested on a preliminary sample of respondents, in order to assess the clarity of the items and their relevance for Algerian mobile subscribers. The questionnaire was then adjusted according to the feedback collected from this pilot study.

Furthermore, Cronbach's Alpha test was used to assess the validity of the scales. The results, obtained using SPSS software, were well above the required 0.7 threshold, which supports the validity of the scales used.

In the following Table 1, we summarise the six constructs of the study, their definitions, the number of items per construct, and an example of items used to operationalise each construct.

Construct	Definition	Number of items	Example items
Service	The overall superiority of a service and its		"My mobile operator offers
quality	ability to consistently meet or exceed	3	good network coverage"
	customers' expectations (Zeithaml, 1988).		
Competitive	The attractiveness and affordability of		"My mobile operator offers
service	companies' offers.	4	attractive and competitive
pricing			prices"
Service	Creating or improving services to meet		"My mobile operator offers
innovation	the progressing need of customers.	3	various digital services"
Customer	The overall impression shaped by all		"My experience with my
experience	interactions a customer share with a	3	mobile operator's services
	provider.		has always been positive"
Customer	The experience- based evaluation of a		"I am satisfied with the
satisfaction	service's ability to fulfill customers'	3	services of my mobile
	expectations (Gerpott et al., 2001).		operator"
Customer	The commitment to consistently		"I will continue to use the
loyalty	repurchase a preferred service or product,	3	line and services of my
	despite potential influences that		mobile operator"
	encourage switching (Oliver, 1999).		

Source: authors' compilation

To mitigate central tendency bias, a common limitation of five-point Likert scales, we avoided overly general questions that could lead to neutral answers. Instead, we favour specific questions that are more likely to generate targeted responses. In addition, we provided in the online survey description a clear explanation of the scale to avoid potential ambiguity. Potential participants were also reassured regarding the anonymity of their responses, in order to encourage them to give honest responses instead of simply avoiding extreme responses.

3.2 Population and Sample

The population targeted in our study was subscribers to mobile telecommunications services in Algeria. According to the latest report from the Algerian Electronic Communications Regulatory Authority, this number stands at 51.973 million subscribers in the first quarter of 2024 (ARPCE, 2024).

To determine the optimal sample size required to have a representative sample of this large population, we referred to Krejcie and Morgan's (1970) sample size table. According to this table, for a 95% confidence level and a 5% margin of error, we needed to obtain 385 valid responses from MTOs' customers.

3.3 Data collection and Analysis

To collect the required data, we shared the online questionnaire with members of our personal and professional network, inviting them to share it in turn with their own network. In addition, we published the online questionnaire link on social media to increase the visibility of the survey and reach a large and diverse population. We finally managed to collect 420 valid customer responses, thus exceeding the minimum size of 385 responses recommended by Krejcie and Morgan (1970).

It is important to note that while online survey distribution allows to reach quickly and easily a large and geographically widespread population, it involves some potential biases. For instance, this method may favour over-representation of young and digital-oriented users, while neglecting those without consistent internet access. Despite these representativeness issues, the online survey distribution is commonly used by researchers and was preferred in our case for time and cost considerations.

Subsequently, we analysed the collected data using the statistical processing software AMOS 23. Relying on this software, we conducted a confirmatory factor analysis (CFA) to validate our measurement model, before testing the hypotheses of our theoretical model using structural equation modelling (SEM).

4. RESULTS AND DISCUSSION

4.1 Descriptive statistics of the sample

Our sample is dominated by female respondents, who represent 71.7% of the total responses, compared to 28.3% of male respondents. The majority of our respondents were young adults aged between 20 and 39 years. This age group, which constitutes 75% of our sample, also represents the dominant age category among the Algerian population.

Mobilis was the first preferred operator in our sample, followed by Djezzy, then Ooredoo. The distribution of the mobile operators preferred by the customers in our sample is consistent with the respective market shares of each operator. Indeed, in the first quarter of 2024, Mobilis was the market leader with 43.61% of the total mobile subscribers in Algeria, followed by Djezzy and Ooredoo, which had 30.84% and 25.55% market share, respectively (ARPCE, 2024).

Given the characteristics of our respondents, particularly their age and preferred mobile operator, our sample appears to adequately represent the population targeted by our study. The statistical distribution of our sample's characteristics is detailed in Table 2 below.

Profile	Frequency	Percentage (%)
Gender	• •	
Female	301	71.7%
Male	119	28.3%
Total	420	100%
Age		
19 years or younger	4	0.9%
20-39 years	315	75%
40-60 years	86	20.5%
61 years or older	15	3.6%
Total	420	100%
Preferred mobile operator		
Mobilis	151	36%
Djezzy	143	34%
Ooredoo	126	30%
Total	420	100%

 Table 2. Respondent profiles

Source: authors' compilation

4.2 Reliability and validity test

Table 3 below displays the results of the confirmatory factor analysis (CFA), carried out using AMOS 23 software, on the reliability, convergent validity and discriminant validity of our measurement model.

	CR	AVE	SQ	SP	SI	CE	CS	CL
SQ	0.709	0.387	0.622					
SP	0.837	0.572	0.314	0.757				
SI	0.780	0.546	0.417	0.394	0.739			
CE	0.773	0.533	0.526	0.627	0.598	0.730		
CS	0.895	0.741	0.603	0.639	0.552	0.815	0.861	
CL	0.859	0.682	0.496	0.466	0.478	0.670	0.741	0.826

Table 3. Reliability and validity indicators

CR: Composite Reliability; **AVE:** Average Variance Extracted; **SQ:** Service Quality; **SP:** Competitive service Pricing; **SI:** Service Innovation; **CE:** Customer Experience; **CS:** Customer Satisfaction; **CL:** Customer Loyalty.

Source: authors' compilation

As recommended by Fornell and Larcker (1981), we assessed the measurement model's reliability by comparing composite reliability (CR) values to the threshold of 0.7, while convergent validity was evaluated through comparing average variance extracted (AVE) values to 0.5 benchmark. The discriminant validity was examined by comparing the root of AVE values represented in the diagonal of each construct with the correlations between constructs, still with reference to the suggestions of Fornell and Larcker (1981).

The CR values for all constructs were well above the suggested value of 0.7, supporting the internal consistency among the data. The AVE values for all variables, except service quality, exceed the threshold of 0.5, indicating overall convergent validity. Moreover, the square root of the AVE for each construct, except customer experience, exceeds its correlation with the other constructs, thus confirming the overall discriminant validity of the constructs.

Despite some minor exceptions, overall, the validity of our measurement model is acceptable, especially since it is based on measurement instruments whose validity has been confirmed in the relevant literature. Furthermore, the marginal exceptions are compensated by the satisfactory reliability of our measurement model, in addition to the model's goodness of fit demonstrated in the following.

Model fit can be assessed using a set of indicators, which have to meet certain criteria. The model fit indicators retained, their values and their acceptance criteria according to Hair et al. (2019) are exposed in Table 4 below.

Indicator	Value	Acceptance criteria
Goodness of Fit Index (GFI)	0.926	≥ 0.9
Adjusted Goodness of Fit Index (AGFI)	0.898	≥ 0.8
Normed Fit Index (NFI)	0.927	≥ 0.9
Comparative Fit Index (CFI)	0.957	≥ 0.95
Root Mean Square Error of Approximation (RMSEA)	0.056	≤0.08

Table 4. Model fit indicators

Source: authors' compilation

As shown in Table 3 above, all model fit indicators meet the criteria suggested by Hair et al. (2019), indicating a good model fit. This allows us to move on to the next step, which is the structural model test.

4.3 Hypotheses test

As indicated previously, we have tested the eight hypotheses of our conceptual model by using the structural equation modelling (SEM) method. According to the results of the SEM analysis:

- Service quality had a significant positive relationship with both customer satisfaction ($\beta = 0.303$, p < 0.001) and customer loyalty ($\beta = 0.129$, p < 0.005), consequently supporting hypothesis 1 and hypothesis 2.
- The positive influence of competitive service pricing on customer satisfaction was significant ($\beta = 0.301$, p < 0.005) which confirms hypothesis 3. However, the impact of competitive service prices on customer loyalty was not significant ($\beta = 0.009$, p < 0.823), thus invalidating hypothesis 4.
- Hypothesis 5 and hypothesis 6 are supported, since customer experience had a significant positive effect on both customer satisfaction ($\beta = 0.845$, p < 0.001) and customer loyalty ($\beta = 0.417$, p < 0.001).
- Service innovation did not have a significant impact on either customer satisfaction ($\beta = -0.002$, p < 0.981) or customer loyalty ($\beta = 0.009$, p < 0.823). As a result, hypothesis 7 and hypothesis 8 were not supported.

The results of the structural model test are summarised in Figure2 below that illustrate the structural paths between the variables, as well as the amplitude of the significant ones.

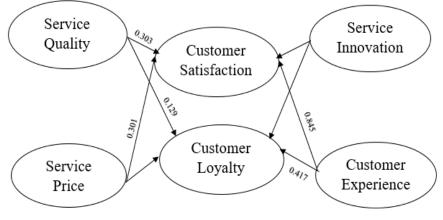


Figure 2. Structural Model *Source:* author's conception

4.4 Discussion of results

The quantitative analysis of our research used the structural equation modelling to test the theoretical model developed in the light of the relevant literature reviewed. Our model included four independent variables, which are service quality, competitive service pricing, service innovation, and customer experience. These factors were hypothetically related to customer satisfaction and loyalty, which are the two dependent variables retained in our study to measure the performance of MTOs in Algeria.

The results of our study indicated that customer experience, followed by service quality, are the main determinants of customer satisfaction and loyalty within the Algerian MTM. These revelations support the arguments of previous studies in other telecommunications markets (Alabar et al., 2014; Agyei & Kilika, 2013; Bhatti et al., 2017; Bhatti & Hassan, 2019; Imbug et al., 2018; Mbarek & Baeshen, 2019; Rahhal, 2015; Shava, 2021; Tjahjaningsih et al., 2021).

The influence of competitive service pricing on customers' behaviour was partial, since the results showed that service price impacts customers' satisfaction but not their loyalty. These results diverge from those observed in other contexts, notably in the Egyptian or Pakistani telecommunications market (Khizindar et al., 2015; Khurshid, 2013).

Furthermore, the findings concerning service price observed in our study on Algeria, are completely opposed to those revealed in Central Europe by Erjavec et al. (2016), who had shown in their study on several sectors including the telecommunications sector that the impact of service price on customers' loyalty was stronger than its impact on their satisfaction. These inconsistencies with the international literature can only highlight the local specificities that characterise the Algerian market.

Indeed, market maturity as well as economic conditions differ notably between the Algerian context and the Central European one, which explains the divergent results observed in our study. For instance, the purchasing power is relatively lower in Algeria than in Central Europe, so attractive prices generate immediate perceived value that influences customer satisfaction. However, to establish long-term engagement with their operator, Algerian subscribers favour factors such as consistent service quality and positive customer, instead of competitive service pricing.

Furthermore, the pricing strategies adopted by the three mobile operators in Algeria are hardly distinguishable. Consequently, it is understandable that for Algerian customers, service price is not a determining factor in their decision to remain loyal to their operator, since it does not constitute a criterion for differentiation between operators. In the more mature Central European markets, on the other hand, competition between operators is well established and service prices are generally an indicator of the quality of services, which explains why prices are more strongly associated with customer loyalty.

Moreover, the findings of our study regarding the effect of service innovation on customer satisfaction and loyalty also deviate from the international literature. Thus, while service innovation was significantly related to customer satisfaction and loyalty in the Ghanaian telecommunications market (Awuku et al., 2023; Mahmoud et al., 2018;), this was not the case in our study in Algeria.

This observation highlights another particularity of the Algerian context of our study, where despite the efforts of service innovation made by operators, customers do not systematically adopt the new services or functionalities offered by their operator. This indifference of customers to market innovations may partly explain the limited impact of service innovation on customer satisfaction and loyalty.

Additionally, the reliability of mobile telecommunications services in Algeria is somehow questionable, as the network coverage is still limited, particularly in some rural and isolated areas of the country. Besides, network access failures, network outages, and call drops

continue to occur, which questions the quality of the technical infrastructure of MTOs in Algeria. In such a context, it is legitimate that the quality of basic services, as well the experience shared with operator are prioritised by customers and constitute the factors that largely determine their satisfaction and loyalty.

Accordingly, the other factors, such as service innovation and even service price, become secondary for customers, who prefer to remain loyal to the operator that offers large network coverage, basic services of good quality, and with whom their experience is judged to be positive. In parallel, the cheapest or the most innovative operator is not guaranteed to retain its customers.

Collectively, these local tendencies highlight infrastructural and cultural differences distinguishing the Algerian context from the Ghanaian one. Although both are African emergent markets, telecommunications infrastructure is more developed in Ghana, than it is in Algeria, and reliability of basic services is generally insured for Ghanaian customers. Consequently, these latter are more concerned with value-added features and advanced technologies integration, in addition of being more innovation-sensitive than the Algerian users. As a result, service innovation is highly influential on customer satisfaction and loyalty, in Ghana and it constitutes a significant differentiation criterion, as well as an area of competition between Ghanaian operators.

To sum up, five of the eight initial hypotheses of our explanatory model of customer satisfaction and loyalty in the Algerian MTM were validated, as synthesised in Table 5 below.

Hypothesis	Status
1- There is a significant positive relationship between service quality and	Supported
customer satisfaction.	
2- There is a significant positive relationship between service quality and	Supported
customer loyalty.	
3- There is a significant positive relationship between competitive service	Supported
prices and customer satisfaction.	
4- There is a significant positive relationship between competitive service	Not supported
prices and customer loyalty.	
5- There is a significant positive relationship between service innovation	Not supported
and customer satisfaction.	
6- There is a significant positive relationship between service innovation	Not supported
and customer loyalty.	
7- There is a significant positive relationship between customer	Supported
experience and customer satisfaction.	
8- There is a significant positive relationship between customer	Supported
experience and customer loyalty.	

 Table 5. Summary of hypothesis testing

Source: authors' compilation

It is important, to point certain limitation inherent to this study. First, the proposed conceptual model included only four explanatory variables, while in reality customer satisfaction and loyalty are a complex phenomenon that can be explained by multiple interdependent factors. For example, perceived value, value for money, and brand image, among others, are additional relevant factors that, for simplification issues, were not involved in the model tested in this study. Their potential effects on customer satisfaction and loyalty could be investigated in future research for further insights into customer behaviour in the Algerian telecommunications market.

Moreover, the results observed in this study are limited, both on the temporal and the spatial level. Indeed, the observed findings are relevant only at the time the study was conducted, as the nature of data collected is cross-sectional. Additionally, the results of the study only apply to customers of mobile operators in Algeria, especially those with internet access, given the online survey method adopted in this research. In order to observe the evolution of customer behaviour and preferences over time, we suggest the use of longitudinal studies, while face-to-face or phone survey distribution is recommended to increase the representativeness of the respondents' sample.

Finally, the divergences noted between telecommunications markets of different geographies, clearly show that the correlations between variables are highly sensitive to the context in which they are observed. This indicates that models such as the one tested in this study should be replicated in different geographic and cultural contexts before any result generalisation attempt.

5. CONCLUSIONS

In this study conducted in the Algerian context, we aimed to examine the determinants of the performance of mobile telecommunications operators, which we chose to measure by customer satisfaction and loyalty. To explain the two performance indicators retained in our study, we have composed from the relevant literature a theoretical model integrating service quality, competitive service pricing, service innovation, and customer experience as the key antecedents of customer satisfaction and loyalty. This model was then empirically tested on a sample of users of mobile telecommunications services in Algeria, through a questionnaire survey.

Using the structural equation modelling to analyse the empirical data collected, we have found significant positive relationships relating customer experience and services quality to both customer satisfaction and customer loyalty. Customer satisfaction is also significantly influenced by competitive service pricing, as was shown in our study. However, competitive service pricing was not influential on customer loyalty, while service innovation's impact was not significant on either customer satisfaction or customer loyalty.

By highlighting the specific characteristics of the Algerian context, our research leads to precious practical implications for mobile telecommunications operators in Algeria. Thus, based on the revelations of this study, the latter have an interest in prioritising the improvement of the quality of their basic services and the extension of their network coverage, as well as the optimisation of their customers' experiences.

Understanding the critical factors that help satisfying and retaining customers is essential for mobile operators in Algeria, since maintaining long-term profitable relationships with their current customers is the best way to ensure continuous revenues and to face the intense competition and uncertainty that characterise their business environment.

This study also contributes to academic literature by supporting the understanding of factors influencing customer behavior in the relatively underexplored context of Algeria's mobile telecommunications sector. By confronting internationally established theoretical frameworks with contextual particularities, this research underlines the influence of market-specific dynamics on customer behavior in emerging markets. This contextual application challenges

existing theoretical models, by revealing complex and culture-influenced interactions between customer satisfaction, customer loyalty, and their common antecedents.

Thus, this study mitigates a critical gap in the literature by proposing a localised framework that offer a more specific explanation of customer behaviour in the understudied emerging market of Algeria. Additionally, the study underlines the necessity of developing more adaptable and culture-sensitive models of customer behaviour.

Despite its theoretical and practical contributions, this study still has certain limitations, notably the limited number of explanatory variables included in the model, the cross-sectional nature of the data collected, and the specific context to which the conclusions of the study are applied. Consequently, future research could consider additional factors that may potentially influence customer satisfaction and loyalty, consider the use of longitudinal studies, and test the model of this study in other emerging telecommunications markets.

Finally, aligning business strategies with the evolving needs of customers, in a context of digital transformation, remains the most effective initiative to develop a customer-centric innovation that is more likely to influence customer satisfaction and loyalty. As digital transformation reshapes the telecommunications industry, operators should effectively leverage it to improve service delivery and remain competitive in an increasingly customer-focused and digitally oriented market.

REFERENCES

- Agyei, P. M. & Kilika, J. (2013). The relationship between service quality and customer loyalty in the Kenyan mobile telecommunication service industry. *European Journal of Business and Management*, 5(23), 26-36.
- Alabar, T. T., Egena, O. & Gbande, R. I. (2014). Service quality and customer satisfaction in Nigerian mobile telephony. *International Proceedings of Economics Development and Research*, 82, 108.
- Autorité de Régulation de la Poste et des Communications Électroniques (ARPCE). (2024). *Observatoire du marché de la téléphonie mobile 1^{er} trimestre 2024*. Retrieved October 19, 2024, from https://www.arpce.dz/fr/file/a7y4m9
- Awuku, E., Agyei, P. M. & Gonu, E. (2023). Service innovation practices and customer loyalty in the telecommunication industry. *Plos one*, 18(3), https://doi.org/ 10.1371/journal.pone.0282588.
- Bhatti, H. S., Abareshi, A. & Pittayachawan, S. (2017). Towards the investigation of the effect of customer satisfaction and customer experience on behavioural intention in mobile telecommunication services in Australia. *Proceedings of the International Conference on Research and Innovation in Information Systems* (pp. 1-6). IEEE.
- Bhatti, H. S. & Hassan, T. (2019). The influence of customer experience on customer loyalty for the mobile telecommunication services. *Proceedings of the CONF-IRM 2019*.
- Chakraborty, S. & Sengupta, K. (2014). Structural equation modeling of determinants of customer satisfaction of mobile network providers: Case of Kolkata, India. *IIMB Management Review*, 26(4), 234-248.
- Edward, M. & Sahadev, S. (2011). Role of switching costs in the service quality, perceived value, customer satisfaction and customer retention linkage. *Asia Pacific Journal of Marketing and Logistics*, 23(3), 327-345. Doi: https://doi.org/10.1108/13555851111143240

- Erjavec, H. Š., Dmitrović, T. & Povalej Bržan, P. (2016). Drivers of customer satisfaction and loyalty in service industries. *Journal of Business Economics and Management*, 17(5), 810-823.
- Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50.
- Gallouj, F. & Savona, M. (2010). Towards a Theory of Innovation in Services: A State of the Art. In *The Handbook of Innovation and Services*. Cheltenham, UK: Edward Elgar Publishing.
- Ganesan, P. & Sridhar, M. (2016). Service innovation and customer performance of telecommunication service provider: a study on mediation effect of corporate reputation. *Corporate Reputation Review*, *19*, 77-101.
- Gerpott, T. J., Rams, W. & Schindler, A. (2001). Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market. *Telecommunications policy*, 25(4), 249-269.
- Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2019). *Multivariate data analysis*. Hampshire, United Kingdom: Cengage Learning.
- Han, H. & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of hospitality & tourism research*, 33(4), 487-510.
- Imbug, N., Ambad, S. N. A. & Bujang, I. (2018). The influence of customer experience on customer loyalty in telecommunication industry. *International Journal of Academic Research in Business and Social Sciences*, 8(3), 103-116.
- Khizindar, T. M., Al-Azzam, A. & Khanfar, I. (2015). An empirical study of factors affecting customer loyalty of telecommunication industry in the kingdom of Saudi Arabia. *British Journal of Marketing Studies*, *3*(5), 98-115.
- Khurshid, M. (2013). Determinants of Customer Loyalty, its causes and influences in Telecom Industry. *International Review of Social Sciences*, 1(1), 1-12.
- Krejcie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Lemon, K. N. & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69-96.
- Mahmoud, M. A., Hinson, R. E. & Anim, P. A. (2018). Service innovation and customer satisfaction: the role of customer value creation. *European Journal of Innovation Management*, 21(3), 402-422.
- Mbarek, R. & Baeshen, Y. (2019). Telecommunications Customer Churn and Loyalty Intention. *Marketing and Management of Innovations*, *4*, 110-117.
- Nemati, A. R., Khan, K. & Iftikhar, M. (2010). Impact of innovation on customer satisfaction and brand loyalty, a study of mobile phones users in Pakistan. *European Journal of Social Sciences*, *16*(2), 299-306.
- Oladepo, O. & Abimbola, O. (2014). Telecommunication service delivery and customer satisfaction: A study of telecom subscribers in Ogun State, Nigeria. *International Journal of Business and Management Review*, 2(6), 49-58.
- Oliver, R. L. (1977). Effect of expectation and disconfirmation on postexposure product evaluations: An alternative interpretation. *Journal of applied psychology*, 62(4), 480.
- Oliver, R. (1999). Whence customer loyalty? Journal of Marketing, 63(4), 33-44.
- Rahhal, W. (2015). The effects of service quality dimensions on customer satisfaction: An empirical investigation in Syrian mobile telecommunication services. *International Journal of Business and Management Invention*, 4(5), 81-89.

- Saha, N., Islam, M. & Hoque, A. (2016). Factors affecting customers' satisfaction of mobile phone subscribers: an empirical study on mobile telecommunication Industry in Bangladesh. *International Journal of Business and Management*, *11*(6), 252.
- Shava, H. (2021). The relationship between service quality and customer satisfaction in the South African mobile network telecommunications industry. *Journal of International Studies*, *14*(2), 70-83.
- Tjahjaningsih, E., Widyasari, S., Maskur, A. & Kusuma, L. (2021). The Effect of Customer Experience and Service Quality on Satisfaction in Increasing Loyalty. *Proceedings of the Third International Conference on Banking, Accounting, Management and Economics* (pp. 395-399). Atlantis Press.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22. https://doi.org/ 10.1177/002224298805200302