

The impact of service quality on customer satisfaction and loyalty: the results of an exploratory study with 4G Ooredoo users

Arrouche Nacera

Mouloud MAMMERI University of Tizi-Ouzou– Algeria

nacera86@live.com

Reçu le :19/11/2022

Accepté le :29/12/2023

Publié le :31/12/2023

Abstract:

The main purpose of this article is to identify the link between service quality and customer satisfaction/loyalty in the field of mobile telephony. To Carry out our survey, we conducted an exploratory study with a sample of customers who use 4G services launched by the Algerian operator Ooredoo. The data collected is processed using SPSS-22 software.

The results obtained underline that the satisfaction of the people questioned depends as much on the quality of the offer proposed as on the welcome and attentive listening that the staff in contact reserve for customers. Just as the loyalty of the latter, measured by their intention to change operator, is impacted by the quality of service offered to them.

Keywords:service quality; satisfaction; loyalty; 4G, Ooredoo

Jel Classification Codes : L21 ; M31.

ملخص:

الهدف من هذه المقالة هو تحديد الرابط بين جودة الخدمة ورضا / ولاء العملاء في مجال الهاتف المحمول. للقيام بذلك، أجرينا دراسة استكشافية على عينة من العملاء الذين يستخدمون خدمات G4 التي أطلقتها شركة Ooredoo الجزائرية. تتم معالجة البيانات التي تم جمعها باستخدام برنامج SPSS-22.

تظهر النتائج التي تم الحصول عليها أن الرضا يعتمد إلى حد كبير على جودة العرض المقدم كما يعتمد على الاستماع الترحيبي واليقظ الذي يحتفظ به الموظفون المتصلون بالعملاء. مثلما يتأثر ولاء هؤلاء، الذي يقاس بنيتهم في تغيير المشغل، بجودة الخدمة المقدمة لهم.

الكلمات المفتاحية : جودة الخدمة ، الرضا ، الولاء ، G 4 ، Ooredoo.

تصنيف JEL : L21 ; M31.

I. Introduction:

The transition to a market economy leaves no chance to those who do not adapt to it. It encourages companies to adopt new forms of management allowing them to optimally combine their various resources (human and financial). This aims to continuously improve the quality of their offers in a market where competition is intense, and where customer requirements are growing.

The increased development of new information and communication technologies, particularly the Internet, is leading to changes in consumer behavior. The use of mobile Internet and applications on users' mobile phones is constantly increasing.

Service marketing research shows that service quality remains the antecedent of customer satisfaction. To this end, quality has become a fundamental principle, an imperative and a real strategic tool. In the field of mobile telephony, customer satisfaction depends on the access to the network, the ease of access to the service, the reliability of the service, the durability of the service (Sutherland, 2007) but also on the pricing applied by the operator and the behavior of the staff in contact and the reception it reserves for users...

4G is the fourth generation of mobile telephony technologies. The 4G network is the advanced generation of 3G (third generation). It is a technology that brings together a set of performance criteria such as: technology compliance, data transfer rate, capacity, architecture IP (Internet Protocol) and speed...etc. In this context, the quality of services has become a variable of differentiation and an essential component of the offer aimed at customer satisfaction and loyalty.

Ooredoo is the first telephone operator to have launched 4G services in 2016 in Algeria, and Tizi-Ouzou is one of the three wilayas chosen by the operator for this launch. That is why we have chosen to conduct this exploratory study with Ooredoo customers in this wilaya. The objective is to show to what extent the quality of service influences customer satisfaction and loyalty in the field of mobile telephony, by looking for the link between these variables.

To do this, we have articulated our article in four points. First, we recall the concepts of service quality and the models that have proposed its measurement, we present an overview of the literature dealing with the relationship that links the concepts of service quality and customer satisfaction, then the one that links consumer satisfaction and loyalty. Secondly, we present the methodology used. The results of our research are presented in the third part. Finally, the interest of the results of this work and its limits are highlighted in the conclusion of this article.

II. The concept of service quality:

In the recent decades, quality has gotten a noticeable attention from academic researchers, and many scholars advanced definitions focused on meeting customer needs.

Quality is defined as: “the ability of a product or service to meet consumer needs” (Kotler and Dubois, 2000, p.90). For Loudoyer (2000), the quality of a product or a service is: “made up of all of its characteristics and aspects that are appreciated by the customer and that meet their requirements and this, for a given price”.

According to Jean-Marie Chatelet (1996, p.12), quality: “is the set of properties and characteristics of a product or service that gives it the ability to meet the needs of its users”.

Baruche (1992, p. 86) states that quality of the service is: “the provision, the accompaniment, the advice, the after-sales service associated with the main service, in a way the human dimension which is at every moment of service”.

To measure the concept of service quality, some authors have proposed models based on different dimensions.

The Gronroos model

Presented mainly by Gronroos (1984), he analyzed the factors determining the quality of service, and identified two service quality dimensions, the technical and the functional aspect.

The technical aspect: this is the core of the service offered to customers and the expected result of the service delivery process (“what” service is provided).

The functional aspect: it relates to the service delivery process, to the way the service experience takes place (“how” the service is provided).

The SERVPERF model

The word originates from two concepts: service and performance. It was formulated by Cronin.J and Taylor.S (1992), who propose a measurement scale based on performance, and demonstrate that service quality is an antecedent of customer satisfaction.

The SERVPERF model assesses the quality of services based on the perceived performance of the services provided without taking into account consumer expectations.

The SERVQUAL model

Researchers Parasuraman, Zeithman and Berry (1988) developed a service quality measurement scale composed of several criteria called determinants of perceived quality, namely:

- Tangibility: physical facilities, equipment and appearance of personnel.
- Reliability: or the ability to perform the services promised in a safe and precise manner.
- Responsiveness: willingness to help consumers and provide prompt service.
- Assurance: competence and courtesy of employees as well as their ability to inspire trust and confidence.
- Empathy: consideration, individualized attention that the firm provides to its customers.
- In the context of this study, we retain the performance and reliability of the service, in particular through the quality of the connection when watching videos and browsing social networks, as well as the quality of telephone calls following the use of the 4G offered by the operator Ooredoo.

III. The concept of satisfaction:

Works on consumer satisfaction in the world of services are numerous and several authors have contributed to the advancement of the research (Menvielle, Menvielle and Mars, 2008).

Customer satisfaction is considered as a major lever of the company's profitability. Indeed, the study conducted by Simmerman (1992) demonstrated that one of the consequences of unpleasant clientele is the loss of 70% of them to competitors.

Evrard (1993) mentions that satisfaction is an essential element which allows not only to explain but also to predict the future actions of consumers in regards to a service. Oliver (1997) points out that satisfaction is a pleasure that appears during a period of consumption. For Levy and Manceau (1993), satisfaction is a sentimental and spontaneous response that appears at the end of the consumption period.

According to Lendrevie, Levy and Lindon (2009, p. 859), satisfaction can be defined in marketing as: “the feeling of pleasure or displeasure that arises from the comparison between

prior expectations and a consumption experience”. Kotler and Armstrong (2018), on their part view that customer satisfaction indicates how the services provided meet or surpass customer expectations.

The research of Czepiel, Rosenberg and Akerele (1974), proposed that satisfaction with an organization is cumulative, that is an attitude that is composed of a feeling of satisfaction with regards to several components, such as the staff or the products/services offered by the company. Thus, from the perspective of services, it is interesting to assess satisfaction with the different dimensions of the service, in order to know precisely what is working or what is not (Tremblay, 2006).

IV. Quality of service and customer satisfaction:

The quality of services is the factor that comes to mind immediately when we talk about customer satisfaction.

A customer can only be satisfied if the services are of high quality. Quality and satisfaction are thus fairly close concepts, quality is a characteristic of the product or service, it is cognitive; Satisfaction is part of the state of the person, in this case the customer, it is affective and emotional. Moreover, quality has no effect on the customer and can only lead to his satisfaction through two mechanisms, the perception of this quality and the comparison with his own expectations.

Perceived service quality and overall satisfaction are two concepts that have been the subject of numerous studies in service marketing. From a global or relational perspective, satisfaction corresponds to a global judgment resulting from an accumulation of experiences over time (Anderson, Fornell and Lehmann, 1994; Ngobo, 1997; Garbarino and Johnson, 1999; Jamal and Naser, 2002; Vanhamme, 2002; Montoya-Weiss et al., 2003, cited by Seck, 2009).

Besides, to measure it, different methods can be used by the company. The complaint is one of the indirect methods that allows the customer to express his dissatisfaction with the service provided by the company. We integrate this variable in the framework of our study, in order to measure the dissatisfaction of the people questioned.

Sureshchandar et al. (2002) point out that customer satisfaction and service quality are two different but strongly correlated concepts. Cronin and Taylor (1992) find that service quality is an antecedent of satisfaction.

In addition, many studies have shown the existence of a causal relationship between these two constructs. Indeed, according to Carman (1990), Fornell (1992), perceived quality precedes consumer satisfaction.

The quality of customer service determines the degree of customer satisfaction (Ramachandran and Chidambaram, 2012). The results of the study carried out by Sivadas and Baker-Prewitt (2000) confirm that service quality and customer satisfaction are two related constructs. As well as Keaveney and Parthasarathy, 2001; Lim et al., 2006; Shin and Kim, 2008) pointed out that service quality is closely linked to consumer satisfaction.

Various studies on mobile services have confirmed the relationship between service quality and customer satisfaction (Wang and Lo, 2002; Kim et al., 2004; Turel and Serenko, 2006; Wang and Liao, 2007; Shin and Kim, 2008; Kuo et al., 2009; Lai et al., 2009). The company must take customer complaints into account, as it is a valuable source of free information that allows the malfunction to be identified.

A complaint is a: "request for information, rectification and/or compensation, from the client and intended for the organization, following a dissatisfaction involving the responsibility of the organization" Prim Allaz and Sabadie (2003, cited by Boyer and Nefzi, 2008).

In this sense, the complaint is an attempt by the customer to leave the company. In this way, he tries to express his dissatisfaction but he gives the company a chance to retain him.

V. Customer satisfaction and loyalty:

Customer satisfaction is the main explanatory factor and an important determinant of loyalty. Measuring the level of satisfaction has become a fundamental point of the customer loyalty policy. For Kotler et al., (2009, p.152), “satisfaction is the positive or negative impression felt by a customer vis-à-vis a purchase and/or consumption experience”.

Thus, satisfaction leads to loyalty. Indeed, research has shown that customer satisfaction is positively related to repurchase intentions and loyalty (Anderson and Fornell, 1994; Anton, 1996; Bitner, 1990, cited by Gemme, 2004). For Oliver (1997) “loyalty is a deep commitment to repurchase on a regular basis a product or service more appreciated than the others in spite of changing constants or marketing actions presenting a potential impact sufficient to maintain a change in behavior”.

From a service perspective, some authors considered loyalty to have two dimensions: behavioral and attitudinal (Day, 1969; Dick and Basu, 1994; Snyder, 1986, cited by Ibrahim, 2017). For other marketing researchers, loyalty is more than just a repeat purchase behavior but can be defined through a multidimensional approach.

In this sense, Olivier (1997) emphasizes that true fidelity is an evolutionary psychological process. At each phase of this process, the customer shows a certain degree of loyalty. The author distinguishes:

- **Cognitive loyalty:** it is linked to the performance of the product or service offered by the company,
- **Emotional loyalty:** emotional ties will be gradually forged between the customer and the brand; he therefore develops a favorable attitude towards the product or service;
- **Intentional or intentional fidelity:** at this stage, these affective bonds have been reinforced during repeated consumption experiences;
- **Loyalty-action (behavioural):** an ultimate stage where the customer is prepared for action (purchase and redemption).

Selnes (1993) observes that satisfaction, determined by perceived quality, is an antecedent of loyalty. For Olivier (1999) customer satisfaction is considered as a major driver of loyalty.

Customer satisfaction is the guarantor of their loyalty as long as there is no failure in the behavior of service delivery staff (Kaura, 2013). For Hoq and Amin (2009), satisfaction is the most dominant indicator of customer loyalty. Thus, a customer satisfied with the services offered by the service provider can encourage him to benefit from them (Lam et al., 2004). The study by Mohsan et al. (2011) revealed that customer satisfaction is positively correlated with customer loyalty.

However, the relationship between satisfaction and loyalty is not linear. In the event of dissatisfaction, it is likely that the customer will abandon the company and spread a bad reputation around him about the company services. In the event of average satisfaction, he may be loyal out of habit, but a more interesting offer made by a competitor may lead him to change the supplier. On the other hand, a very satisfied customer is less inclined towards change.

In this research, we retain the following criterion: the intention to change operator, to assess the loyalty shown by respondents to the operator Ooredoo.

VI. Methodology:

Our study aims, in particular, to analyze the levels of consumer satisfaction as well as their loyalty to their operator and the services they offer.

The choice of the sample fell on the non-probabilistic method. This is a technique which consists in administering a questionnaire without taking into account a list drawn up in advance comprising individuals belonging to the population to be studied (2003, cited by Rachidi, 2009).

Given the objectives of our research and the type of information to be collected, we have chosen to carry out a survey by means of a self-administered questionnaire.

The choice of our approach is exploratory, taking into account the few studies carried out in the field and the inaccessibility of databases relating to the characteristics of the customers of this Algerian telephone operator, to better explore the phenomenon to be studied.

Our sample is made up of 100 respondents, Ooredoo company customers, who are located in the Tizi-Ouzou region. The users of 4G services are aged between 18 and 62 and they belong to different socio-economic categories. We have therefore chosen people who are able to provide us with relevant advice.

VII. Results and discussion:

The sample questioned is mainly composed of individuals aged 18 to 27 (69%). Thus, 71% of respondents are women and 29% of them are men.

Regarding the profession of the respondents, the results of our survey indicate that the majority of 4G consumers of "Ooredoo" are students with a frequency of 47%.

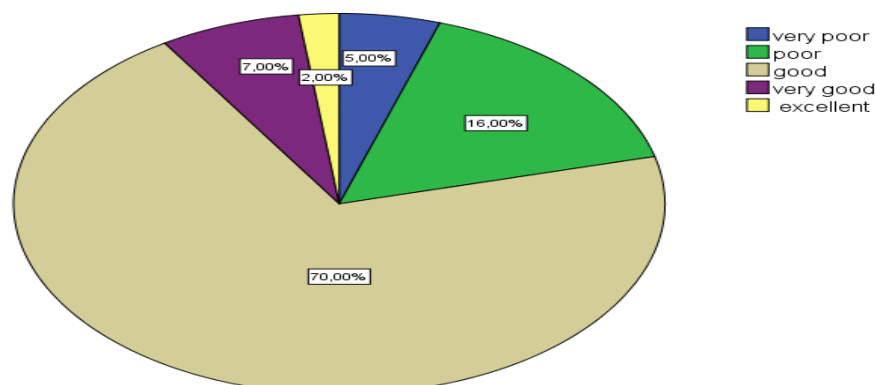
More than half of respondents use 4G outside their homes (57% in transport, 39% at university). And 78% take the one-month package.

Assessment of the quality level of 4G:

We mainly taken three dimensions of quality which seem relevant to us in our field of application and in the Algerian context, namely; the quality of the connection during watching videos and downloads, the quality of the network during telephone calls but also customer contact employee behavior. These dimensions seem to us to be those to which the people questioned would be most sensitive.

For this, the respondents were asked to rate the "overall service quality" and their satisfaction using a 5-point semantic differential scale. Scores could range from "very poor" to "excellent". For internet shutdown, it was measured using 4-point. Scores could range from "never" to "always".

Figure 1: Evaluation of Ooredoo's 4G connection quality when watching movies and videos



Source: Survey results after treatment with SPSS.

70% of respondents say that the quality of their connection while watching movies and videos is good. However, 16% of them consider it bad.

We also tried to assess the quality of the 4G service through the availability of the internet network. 72% of customers sometimes suffer from internet cuts and 17% of them encounter this problem often. The following figure, on the other hand, shows the results relating to the connection during downloads.

Figure 2. Internet shutdown during downloads



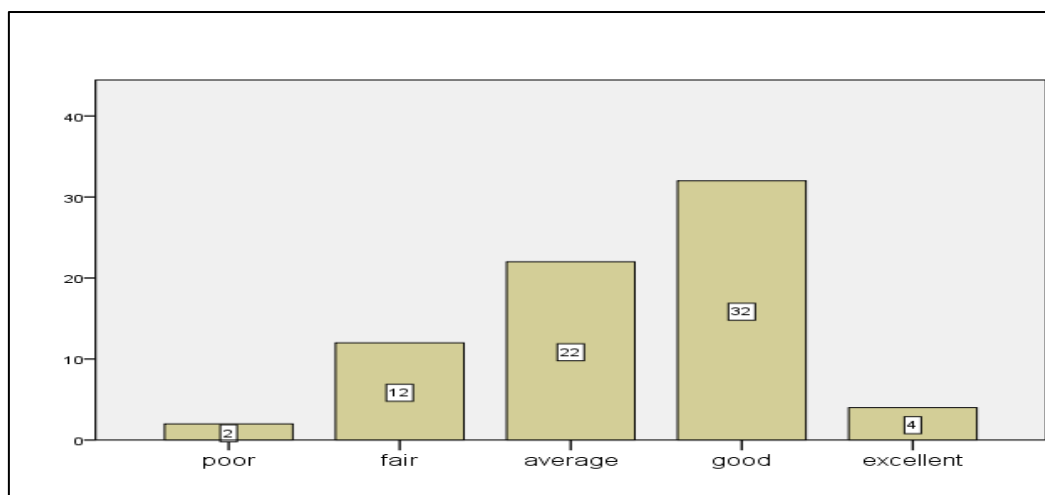
Source: Survey results after treatment with SPSS.

24% of the sample often encounter problems during downloads. This can increase the likelihood of churn for some customers by causing them to switch to a carrier with greater coverage or a stronger network.

The quality of reception:

The customer-staff relationship also plays a decisive role in the management of service quality and forms a major judgment criterion (Eiglier and Langeard, 1987).

Figure 3. Evaluation of the quality of reception reserved for 4G users

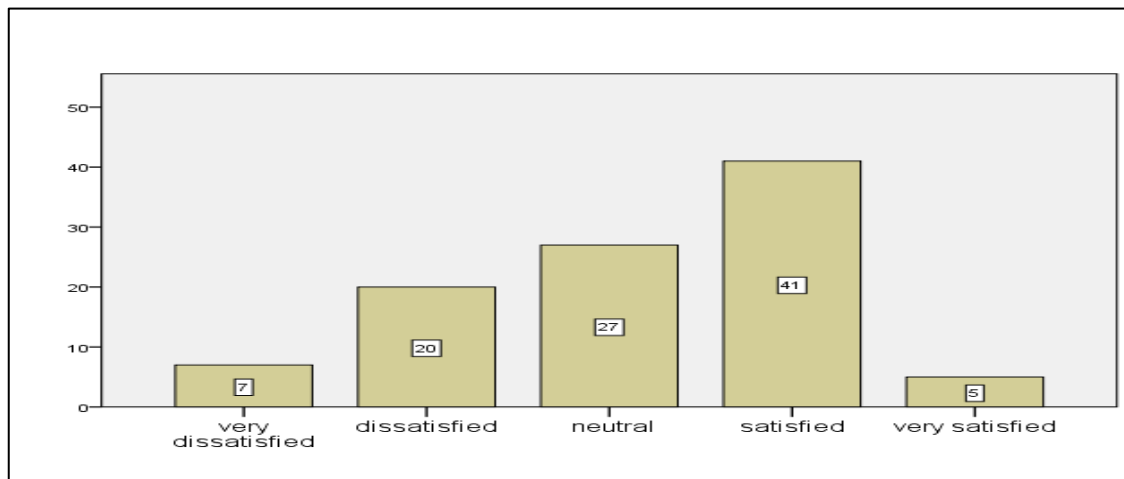


Source: Survey results after treatment with SPSS.

Concerning the quality of reception, only 72 respondents declared their answers, 32 of them find it good while 12 people consider it passable and two others indicate that the reception is bad.

However, the interaction between the contact staff and the customer can be experienced as an experience and not a simple transaction (Pine and Gilmore, 1998). From this perspective, the behavior of personnel in contact is not neutral but it is likely to be a source of differentiation vis-à-vis the competition.

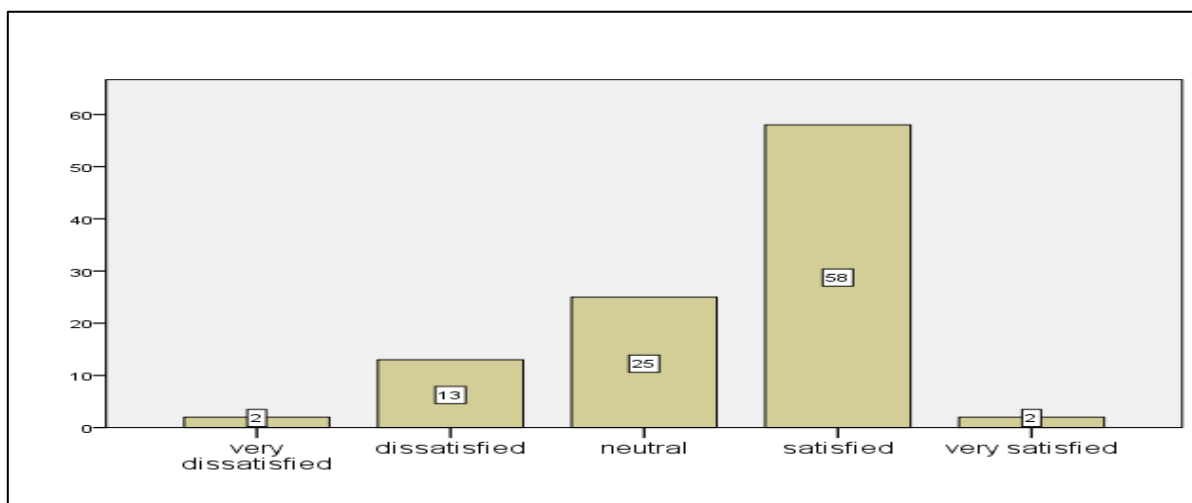
Figure 4. Satisfaction of respondents with the quality of the network during phone calls



Source: Survey results after treatment with SPSS.

Figure 4 shows that only 41% of customers are satisfied with the quality of telephone calls made by using 4G services, 20% of them are dissatisfied and 7% are even very dissatisfied.

Figure 5. The level of customer satisfaction while browsing social networks.



Source: Survey results after treatment with SPSS.

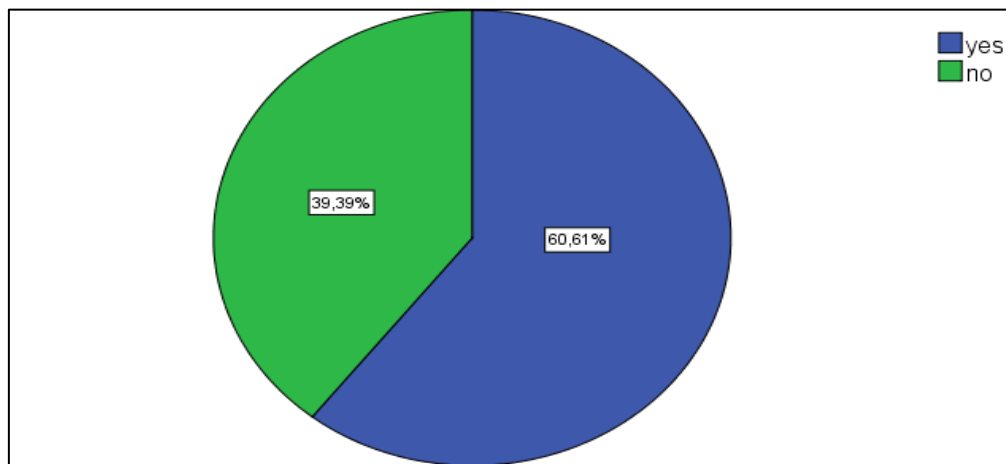
Figure 5 above shows that 58% of customers are satisfied with the quality of the connection while browsing social networks, 25% are neutral, 13% are dissatisfied and 2% very dissatisfied. These results show the failures of Ooredoo's 4G services in terms of the reliability of the Internet network.

The results of figures 4 and 5 make it possible to release the following observation: the dimension of performance (Cronin and Taylor, 1992) and reliability (Parasuraman, Zeithman and Berry, 1988) which are determinants of the quality of service are still lacking in the operator Ooredoo.

Use of the claims department:

When the customer is not satisfied, it may mean that the service provided by the operator is not efficient and does not meet his expectations. This dissatisfaction may result in the formulation of a complaint.

Figure No. 6. Use of the Ooredoo claims department



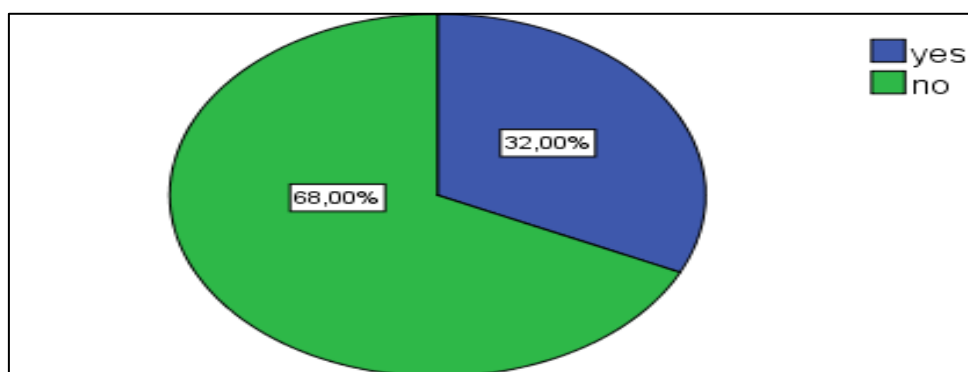
Source: Survey results after treatment with SPSS.

According to this graphic representation, we notice that 60% of 4G service consumers use the claims department to provide answers to their questions and try to solve the problems they encounter.

45% of the customers formulate their complaints by calling the company, while 20% of them prefer to go to the branch level and 3% use the operator's website.

These results show that despite the technological development of information and communication, the operator's website is far from being a tool which makes it possible to give more dynamics and interactivity in the relationship between a customer and one company (Dabholkar et al., 2000). The results in the figure below make it possible to assess the degree of loyalty of the respondents.

Figure 7. Results inherent in the intention of users to change operator



Source: survey results after treatment with SPSS.

We observe that 19 people in the sample have the idea of changing operator either because of poor coverage or because of pricing. On the other hand, the rest of the consumers prefer not to reveal the reasons which push them to change operator.

It would therefore be interesting for the operator Ooredoo to devote more efforts to listening to its customers using 4G services and taking their arguments into consideration, in order to reduce the attrition rate.

To measure the level of loyalty of respondents, we asked them to express their intention to change operator. To do this, we used the chi-square test. It allows us to verify the hypothesis of independence of the variables. We will use it in the context of our study to check whether there is a significant link between two nominal qualitative variables.

Table 1: changing operator and Poor Mobile Network Coverage

Chi-Square tests			
	Value	df	Asymp. Sg (2-sided)
Pearson Chi-square	49,846 ^a	1	,000
Continuity correction ^b	46,062	1	,000
Likelihood Ratio	54,015	1	,000
Linear-by-linear association	49,347	1	,000
N of valide cases	100		

Source: Survey results after treatment with SPSS.

The table above shows that there is a significant relationship between the two variables, namely the intention to change operator and poor coverage (internet network). Indeed, the chi-square test shows a degree of significance of 0.000. Thus, the value of cramer which is 0.706 indicates that the relationship between poor coverage (internet) and the intention of respondents to change operator is strong.

Table 2: Pricing and intention to change operator

Chi-Square tests			
	Value	df	Asymp. Sg (2-sided)
Pearson Chi-square	42,428 ^a	1	,000
Continuity correction ^b	38,943	1	,000
Likelihood Ratio	42,960	1	,000
Linear-by-linear association	42,004	1	,000
N of valide cases	100		

Source: Survey results after treatment with SPSS.

Table 2 shows that the intention to change operator is significantly correlate⁹d with the pricing applied by Ooredoo. Indeed, there is a significant association between these two variables because the value $p=0.000$ is less than 0.005. As for the value of cramer which amounts to 0.651, it indicates that the association between these two variables is more than average.

We find that the dissatisfaction of respondents with poor coverage or unsuitable pricing encourages them to switch to other operators. It is therefore important to review the pricing in order to retain the customer.

These results corroborate those of Décaudin and Lacoste (2000, cited by Ben Arous, 2015). These authors observe that dissatisfaction due to a bad shopping experience or inadequate service that does not meet customer expectations could affect the loyalty rate expected by the company.

Thus, it seems important to us that the operator offers special offers, especially for students, with good speed and reduced rates. There is no relationship between raising complaints and customer retention. Indeed, the chi-square test displays a value of 0.327. These results are interesting insofar as the formulation of complaints does not necessarily lead to the loss of customers, on the contrary, it is a judicious way for the company to listen to the customer and to treat him with benevolence, courtesy and respect.

The latter being one of the dimensions of trust which is an antecedent of the long-term consumer-business relationship. At the managerial level, the company could transmit strong signals to consumers concerning benevolence, in particular by offering truly innovative commercial offers (Gurviez and Korchia, 2020).

VII. Conclusion

This exploratory study shows that it is imperative for the telephone company to understand and identify the factors likely to impact the level of satisfaction of its customers with regard to the use of 4G services.

The results of our survey highlight the fact that perceptions relating to the quality of 4G service offered by the operator Ooredoo, measured in particular by the quality of the connection and communication during telephone calls as well as the reception that the staff in contact gives to the customer. These dimensions are fundamental factors in the creation of a lasting relationship between the operator and its customers.

Our contribution can be interesting by helping Ooredoo's managers to offer a better offer to customers to satisfy them and build loyalty, especially in a context where differentiation is essential to face competition.

As a result, Ooredoo should improve the determinants of the quality of its services in order to achieve a higher level of customer satisfaction, while taking into account their suggestions and complaints. Indeed, a higher level of service quality will generally lead to higher satisfaction, which results in customer loyalty, considered as a source of profit for the company.

Thus, our study raises certain problems, particularly those relating to poor coverage and sometimes to poor quality of telephone calls, which should be seriously resolved in order to meet user expectations. This would allow the operator to retain its customers and not expose them to the temptation of competitors' offers.

However, our study has a major limitation, namely the small sample size. It is desirable to extend this type of study to a larger sample in order to achieve more convincing results on the link between service quality and customer satisfaction or even customer loyalty.

References

1. Baruche, J.P. (1992). *la qualité de service dans les entreprises*. Paris : édition d'organisation.
2. Ben Arous, O (2015). *La gestion de la qualité du service client*. Mémoire. Trois-Rivières, Université du Québec à Trois-Rivières.
3. Carman J. M. (1990), Consumer perceptions of service quality: an assessment of SERVQUAL dimensions, *Journal of Retailing*, 33 - 55.
4. Chatelet, J-M. (1996). *méthodes productiques et qualité*. Paris : Ellipses.
5. Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a reexamination and extension. *Journal of marketing*, 56(3), 55-68.
6. Cronin, J.J., et Taylor, S.A. (1992). Measuring service quality: a reexamination and extension. *Journal of Marketing*. 56:3:55-68.
7. Czepiel, I. A, L. Rosenberg. et A Akerele. (1975). *Perspectives on Consumer Satisfaction: Proceedings of the 1974 National Conference, American Marketing Association Chicago*: American Marketing Association, 1975: pp. 119-123. Reprinted in Japan in YTV Report, no. 98 (May 1975): p. 64-69.
8. Dabholkar, P. A., Shepherd, C. D., & Thorpe, D. I. (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues through a Longitudinal Study. *Journal of Retailing*, 76, 139-173.
9. Eiglier, P., et Langeard, E. (1987). *Servuction - le marketing des services*. Ediscience.
10. Fornell C. (1992), A National Customer Satisfaction Barometer: the Swedish experience, *Journal of Marketing*, vol. 56, 6-21.
11. Gemme, M. (2004). Etude sur la satisfaction de la clientèle : le cas d'une pme de service Québécoise. Mémoire présenté à l'université du Québec à Trois-Rivières.
12. Grönroos, C. (1984), "A Service Quality Model and Its Marketing Implications," *European Journal of Marketing*, 18 (4), 36-44.
13. Gurviez, P, Korchia M. (2002). Proposition d'une échelle de mesure multidimensionnelle de la confiance dans la marque. *Recherches et Application en Marketing*, Vol. 17, n° 3, pp. 41-61
14. Hoq, M.Z. and Amin, M. (2009), "The role of customer satisfaction to enhance customer loyalty". *African Journal of Business Management*, 2(4), 139-154.
15. Horovitz, J. (1987). *la qualité de service à la conquête du client*. Paris : interédition.
16. Kaura, V. (2013), "Antecedents of customer satisfaction: a study of Indian public and private sector banks". *International Journal of Bank Marketing*, 31(3), 167-186.
17. Keaveney, S. & Parthasarathy, M. (2001). Predicting customer switching behavior in online services: an exploratory study of selected characteristics of continuers vs switchers. *Journal of the Academy of Marketing*, 29(4), 374-390.
18. Kim, M. K., Park, M. C., & Jeong, D. H. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications policy*, 28(2), 145-159.
19. Kotler, P. and Armstrong, G. (2018), *Principles of Marketing*, 17th edn., Pearson Education Limited.
20. Kotler P., et Dubois, B. (2000). « marketing management », Paris : édition, Publi-Union.
21. Kuo, Y.F., Wu, C.M., & Deng, W.J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in human behavior*, 25(4), 887-896.

22. Lai, F., Griffin, M., & Babin, B.J. (2009). How quality, value, image, and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research*, 62(10), 980-986.
23. Lam, S.Y., Shankar, V., Erramilli, K. & Murthy, B. (2004), "Customer value, satisfaction, loyalty, and switching costs: an illustration from a business-to-business service context". *Journal of the Academy of Marketing Science*, 32(3), 293-311.
24. Lam, S.Y., Shankar, V., Erramilli, K. & Turel, O., & Serenko, A. (2006). Satisfaction with mobile services in Canada: an empirical investigation. *Telecommunications Policy*, 30(5-6), 314-331.
25. Laurent Hermel et Gérard Louyat, « la qualité de service », édition Saint-Denis, 2005, p.82.
26. Lendrevie, J., Levy, J., et Lindon, D. (2009) « *Mercator, théorie et nouvelles pratiques du marketing* » 9 édition, Edition dalloz, Paris 2009, p859
27. Lendrevie, J., Lévy, J., et Lindon, D. (2005). *Mercator, théorie et pratique de marketing*. Paris : édition Dalloz.
28. Lim, H., Widdows, R., & Park, J. (2006). M-loyalty: winning strategies for mobile carriers. *Journal of consumer Marketing*, 23(4), 208-218.
29. Loudoyer, G. (2000). *la satisfaction ISO 9000, un moteur pour la qualité*. Paris: édition d'organisation.
30. McGraw-Hill, Paris.
31. Menvielle, W., Menvielle, L. & Mars, M.-C. (2008). La satisfaction des consommateurs à l'égard des PME de la restauration libre-service : une étude exploratoire. *Revue internationale P.M.E.*, 21(3-4), 145-183. <https://doi.org/10.7202/038038ar>
32. Mohsan, F., Nawa, N.M., Khan, S., Shaukat, Z. and Aslam, N. (2011), "Impact of customer satisfaction on customer loyalty and intentions to switch: evidence from banking sector of Pakistan". *International Journal of Business and Social Science*, 2(16), 265-268.
33. Nefzi, A., (2008). la relation entre la perception de la qualité et la fidélité relationnelle: le cas de la téléphonie mobile en Algérie.
34. Oliver, R. L. (1997). *Satisfaction: on a behavioral perspective on the consumer*. New York: McGraw-Hill.
35. Oliver, R.L. (1999). Whence consumer loyalty?. *the Journal of Marketing*, 33-44.
36. Parasuraman A., Zeithaml V.A. et Berry L.L., 1988, "SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, 64, 1, pp12-40.
37. Pine, B. J. et Gilmore, J. H. (1998), Welcome to the experience economy. *Harvard business review*, 76, pp.97-105.
38. Ramachandran, A., & Chidambaram, V. (2012). A review of customer satisfaction towards service quality of banking sector. *Periodica Polytechnica Social and Management Sciences*, 20(2), 71. doi:10.3311/pp.so.2012-2.02 10.3311/pp.so.2012-2.02
39. Seck, A.M. (2009). Qualité de service et satisfaction du client dans un contexte de distribution multicanal des services. Accès <http://archives.marketing-trends-congress.com> > S...
40. Selnes F. (1993), An examination of the effect of product performance on brand reputation, satisfaction and loyalty, *European Journal of Marketing*, 27, 9, 19 - 35.

41. Shin, D.H., & Kim, W.Y. (2008). Forecasting customer switching intention in mobile service: An exploratory study of predictive factors in mobile number portability. *Technological Forecasting and Social Technological Forecasting and Social Change*, 75(6), 854-874.
42. Sivadas, E., Baker-Prewitt, J.L. (2000). An Examination of the Relationship between Service Quality, Customer Satisfaction, and Store Loyalty. *Journal of Retail & Distribution Management*, 28(2), 73-82.
43. Sureshchandar, G.S., Rajendran, C. and Anantharaman, R.N. (2002), "The relationship between service quality and customer satisfaction – a factor specific approach", *Journal of Services Marketing*, Vol. 16 No. 4, pp. 363-379. <https://doi.org/10.1108/08876040210433248>
44. Sutherland, E. (2007). The regulation of the quality of service in mobile networks. *Info*, 9(6), 17-34.
45. Tremblay P. (2006), «Mesurer la satisfaction et les attentes des clients: Des modèles classiques aux modèles asymétriques». Centre d'expertise des grands organismes, septembre 2006.
46. Wang, Y., & Lo, H.P. (2002). Service quality, customer satisfaction and behavior intentions: Evidence from China's telecommunication industry. *info*, 4(6), 50-60.
47. Wang, Y. S., & Liao, Y. W. (2007). The conceptualization and measurement of m-commerce user satisfaction. *Computers in human behavior*, 23(1), 381-398.