

Relational Quality and Patient Loyalty in Private Hospitals: An Application in the Cameroonian Context

LAMBETH Yacinthe Junior¹, Emmanuel Eric ESSAMA NANGA²

¹(LAREGA/ENSET, University of Douala, Cameroon. yacinthe2318@gmail.com)

²(LAREGA/ENSET, University of Douala, Cameroon. nangaaz@yahoo.fr)

Abstract: A lot research on perceived quality, the quality of the relationship, has been going on in the hospital sector for years (Andaleeb, 2001; Akter et al, 2008; Nefzi, 2007). The inclusion of patients' opinions in the evaluation of relational quality and the relationship between the patient and the health facility still remains an ambiguity, due to the existence of dependency-independency relationship between the patients of the health facility. The objective of this research is to analyse the contribution of the dimensions (Satisfaction and Trust) of relational quality on patient loyalty in the private hospitals. Based on the theories of service marketing, and through a questionnaire survey on a sample of 170 patients, the result obtained allowed us to observe that when patient feel satisfied with the health facility they attend, they are increasingly loyal and can recommend it to others. This result confirms those of Boyer and Nefzi, 2007.

Key Words: Confidence, Loyalty, Relational Quality, Satisfaction.

I. INTRODUCTION

The current society in which we live is characterized by the development of services. Indeed, the intensification of competition leads companies to look for effective ways of differentiation (Nefzi, 2007). One of these avenues is to take an increasing interest in the quality of the relationship. It is now considered as a lever on which the company builds its competitiveness. It is a necessary variable for the creation of any long-term relationship of loyalty and cooperation between the company and its customers. However, the success of any company is largely determined by its ability to build quality relationships with its customers. For the competition is no longer about technology and the quality of the material, but about the real usefulness for the user (Nefzi, 2007). Relational quality then becomes one of the dominant models of competition.

In a context of increasing competition between health care institutions, Robillard (2007) proposes the implementation of a real marketing project within these health care institutions. Andreani et al, (2006) add the need for a marketing approach to services with a personalization that would take into account patients' expectations.

Marketing studies on loyalty have distinguished that loyalty is a favorable attitude, an attachment on the part of consumers to continuously select the offer proposed by the company (Najjar et al, 2011), Parasuramen and Grewal (2000) show that product quality, service quality and price level influence consumer loyalty. In the same vein Rust and Zahorik (1993) in a study conducted in the banking sector showed that loyalty depends largely on service quality and product quality. In addition, a large number of previous research studies developed in the field of relationship marketing have attempted to show that relational quality represents an essential vector for understanding customer loyalty (Lin and Din, 2009; Varki and Brodi, 2003). According to the literature, most of these results have been demonstrated in the B2B environment in the service sector. However, in the health service domain, particularly in the Cameroonian context, the results are not yet clear. The finding is that patients' perceptions of health services are still ignored by health service providers (Andaleeb, 2001; Akter et al, 2008). In fact, in developing countries, the least affluent patients are obliged to seek care locally, and their opinions remain underestimated and neglected, whereas the most affluent patients seek care in other countries foreigners. Akter et al, (2008) in their work on the perception of health services in developing countries show that patients are generally dissatisfied with the performance of health service providers. In the case of Cameroon, in public health facilities, patients abound not because of the quality of the relationship but because of the lower costs that are often applied in these facilities. However, these patients are not always loyal to the

institution in question; for those who are, it is very often by affinity (relatives, friends, acquaintances, etc.). On the other hand, in the EHP, despite the high cost of care, patients remain loyal to these institutions. In a recent census conducted by MINSANTE (2015), it was clearly established that 7% of patients are loyal to a public health facility, whereas slightly more than 15% are loyal to an EHP. In view of this observation and in light of theoretical studies that place relational quality as an essential vector of loyalty, it is appropriate to analyze the effect of this on loyalty in the Cameroonian context. It is in this perspective that the main question that emerges from this observation is the following: **What is the contribution of relational quality on patient loyalty in private hospitals in Cameroon?**

This research work is motivated by the ambition to establish and maintain the relationship on the basis of a mutual exchange and satisfaction of the promises made. This research work will be structured in two parts.

In the first part, we have mobilized the literature to build a framework for analyzing the link between relational quality through its dimensions (satisfaction and trust) and loyalty; in the second part, on the other hand, it will be a question of evaluating the contribution of relational quality through its aforementioned dimensions to the loyalty of patients. For this purpose, we have chosen a quantitative approach based on a questionnaire survey and will then present the results obtained and the contributions of the research.

II. The Theoretical Framework Of Relationship Quality and Loyalty

In the literature, marketing theories define relationship marketing as the attraction, maintenance and enhancement of relationships in multi-service organizations (Berry, 1983), relationship marketing is about the attraction, development and retention of relationships developed with customers (Berry and Parasuraman, 1991). Sheth et al, (1994) understands it as the explanation and management of the ongoing business collaboration relationship between supplier and customer. Although there does not seem to be a consensus on the definition of relationship marketing, there is agreement on the elements to be included.

1.1. RELATIONAL QUALITY: A MULTIDIMENSIONAL CONCEPT

Several researchers have studied the concept of "relational quality", which represents "an overall judgment of the relationship's ability to satisfy the consumer's needs" (Hennig-Thurau and Klee, 1997), quoted by (Boyer and Nefzi, 2007). This concept can be conceived as a multidimensional construct composed of all the key factors that reflect the global nature of the relationship between the company or brand and the consumer.

On the conceptual level, theoretical developments on this concept have seen a lack of definitions of these different dimensions. Indeed, some authors such as Woo and Ennew (2004) have shown that the definition of relational quality depends on the dimensions that make it up. Moreover, relational quality is composed of several interrelated dimensions that vary in nature and number depending on the context of study (Najjar et al, 2011) as shown in Table(1). Despite the lack of a general consensus regarding the conceptualization of relational quality, the majority of recent research considers relational satisfaction and trust as the main components of relationship quality (Gabriano and Johnson, 1999; Hennig-Thurau et al. 2002).

Table 1. Dimensions of relational quality

Authors	Dimensions of relational quality	Sector
Crosby, Evans and Cowles (1990)	Satisfaction, confidence	The services
Johnson <i>et alii</i> (1993)	Satisfaction, cooperation and relationship stability	Distribution
Kumar, Scheer and Steenkamp (1995)	Conflict, trust, commitment, willingness to invest in the relationship, expectations of continuity	Automotive distribution
Dorsch, Swanson and Kelley (1998)	Trust, satisfaction, commitment, opportunism, customer orientation, ethical profile	Seller-buyer relationship in services
Smith (1998)	Satisfaction, trust, commitment	Business to Business
Garbarino and Johnson (1999)	Overall satisfaction, trust, commitment	The services
Naudé and Buttle (2000)	Confidence, satisfaction, coordination, power,	Business to Business

	profit	
Mimouni and Volle (2003)	Relational satisfaction, trust, commitment	Air transport
Roberts, Varki and Brodie (2003)	Integrity, caring, commitment, conflict, satisfaction	Industrial service
Walter <i>et alii</i> (2003)	Satisfaction, trust, commitment	(B to B) industrial
Ulaga and Eggert (2006)	Satisfaction, trust, commitment	Business to Business
Rauyruen and Miller (2007)	Quality of services, trust, commitment, satisfaction	B to B in services
Choo, Jung and Chung (2009)	Satisfaction, confidence	Distribution
Liu, Zeng and Su (2009)	Satisfaction, trust, commitment	Business to Consumer
Moliner (2009)	Satisfaction, trust, commitment	The services
Qin, Zhao and Yi (2009)	Satisfaction, trust, commitment	Customer service
Chen, Hung and Tseng (2010)	Satisfaction, trust, commitment	organisational (B to B) Inter
Chung and Chin (2010)	Satisfaction, trust, commitment	e-commerce
Vesel and Zabkar (2010)	Satisfaction, trust, emotional commitment, calculated commitment	Distribution

Source : Najjar et al, 2011 « contribution de la qualité relationnelle à la fidélité des consommateurs et au choix du point de vente »

- **Satisfaction as a component of relational quality** For a little more than a quarter of a century, satisfaction has become one of the major themes in the study of consumer behavior, and companies have realized that it is a key variable in customer behavior. And since the first research in the field of satisfaction, different types of satisfaction have been defined in the literature.

For ISO 9000, satisfaction can be defined as "the customer's opinion of how well a transaction meets their needs and expectations."

According to Kotler and Dubois, "customer satisfaction is the judgment of customers regarding experience resulting from a comparison between their expectations of the product and the expectations of the product and its perceived performance."

According to Megivern et al. (1992), define satisfaction as a "degree of congruence between the patient's expectations of desired care and services, and his or her perception of. The quality of the Service actually provided" cited by (Hanane and Naima, 2016). Stamps (1984), cited by (Kessas and Zakia, 2010) goes further by defining "Patient satisfaction as a subjective perception that reflects the personal preferences and expectations of patients".

In the context of health care, satisfaction is inseparable from the quality approach of which it is one of the indicators. According to the WHO, quality of care is defined as "the fact guaranteeing each patient the range of diagnostic and therapeutic procedures that the best health outcome according to the current state of medical science, at the best cost for the same cost for the same result with the least iatrogenic risk and for the greatest satisfaction in terms of satisfaction in terms of procedures, results and human contacts within the health care system". (C. Jeannot et al, 2010).

Pascoe (1983) defined patient satisfaction as a set of reactions to health care that reflect the patient's personal experience of that service.

Satisfaction Model some research in the area of satisfaction has identified a number of antecedents of this concept (Hanane & Naima, 2016), such as expectations, perceived performance, dis confirmation of expectations, quality, attributions, fairness, and affective reactions.

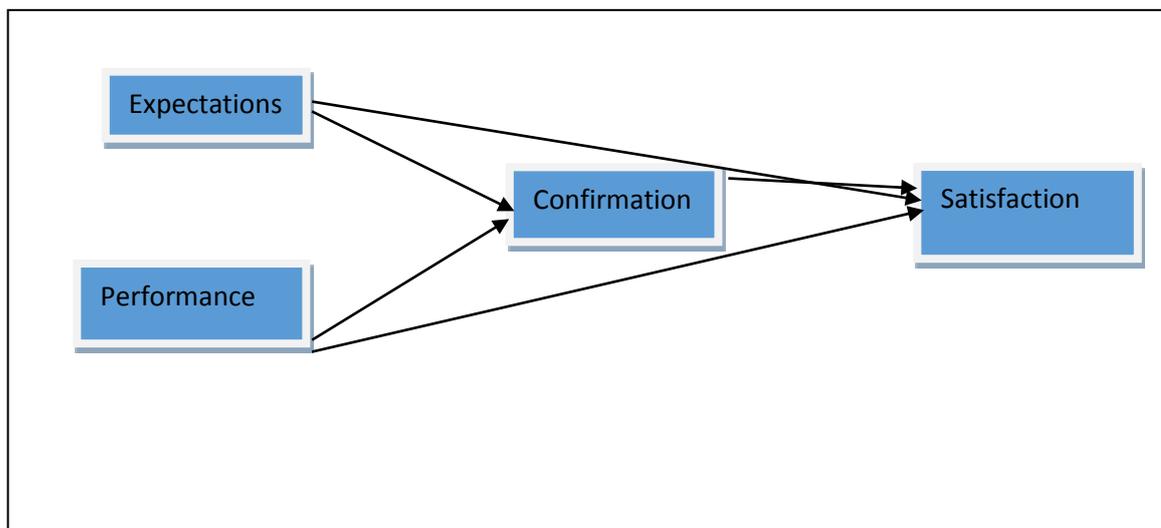
The resulting model of satisfaction thus describes the formation of satisfaction as a comparative process including four main constructs namely:

- The judgment made about the performance of the product/service during the consumption experience we could also talk about perceived quality;

- The expectations formed by the consumer prior to the purchase and consumption of the product/service concerned; this could also be called expected quality;
- The comparison between the performance and the expectations will give rise to the disconfirmation which can be positive (case where the performance is higher than the expectations), neutral (case of equality; one could then speak about confirmation), or negative (case where the performance is lower than the reference standard of the consumers);
- Disconfirmation will generate the global evaluation of the consumption experience, i.e. satisfaction. For the basic model, disconfirmation is a mediating variable through which the influence of performance and expectations on satisfaction passes.

Tests of this model have shown that, at least in some cases, there can be direct relationships between performance and/or expectations and satisfaction. As shown in figure (1) above

Figure1 : Satisfaction model



▪ **Source :** Yves EVRARD ; (1993) ; « *la satisfaction des consommateurs : état de recherche* » ; revue française du marketing ; ADETEM édition ; n 144-145 ; p, 58.

Relational satisfaction has generally been presented as an emotional state that arises from the positive or negative non-confirmation of initial expectations during the possession or consumption experience (Oliver, 1980). Nevertheless, recent research has shown that this transactional, cognitive conception, based on a single standard of comparison (initial expectations), is far from sufficient to identify the process of satisfaction formation. Indeed, most current research opts for a dual conception considering satisfaction as the result of two parallel processes, one cognitive and the other affective (N'Goala, 2000). Beyond this distinction between the cognitive and affective aspects, the literature presents another divergence in the definition of satisfaction. In fact, researchers have defined this concept from two distinct perspectives: a transactional perspective and a relational perspective.

The transactional approach presents satisfaction as a posterior state resulting from the confirmation or denial of initial expectations on the occasion of a specific transaction. Nevertheless, this one-off evaluation seems insufficient to judge the satisfaction experienced by the individual during his or her experiences with the brand or company.

The relational approach describes satisfaction as "an abstract and cumulative construct that reveals the total (cumulative) experience of consuming a product or service" (Garbarino and Johnson, 1999). In this way, the evolution towards relational marketing requires that the object of satisfaction or dissatisfaction no longer be the instantaneous transaction but rather the whole of past consumption experiences.

- Trust: a dimension of relational quality

For Rempel et al, (1985) trust has three dimensions, because it implies the possibility of predicting the future behavior of the partner according to the consistency and stability of his previous behaviors, that of being able to

count on his partner according to his qualities (honesty, frankness...) and to have faith in his partner, i.e. without the trust being based on tangible elements linked to a past experience.

We thus note two elements for the study of the relations between the consumer and the brand which emerge from the work of these authors, namely:

- The importance of past experience with the brand as an antecedent of trust;
- And that of "faith" in the brand when introducing new products for which there is no possible past experience.

However, "trust is often considered as a central mediating variable explaining decision-making behavior" (Nefzi and Boyer, 2007). Nevertheless, this concept has often been examined from the perspective of the relationships between firms and their suppliers or distributors. In the field of consumer behavior, the concept of trust has been studied since the late 1960s by Howard and Sheth (1969). However, explanatory models of consumer behavior were not integrated until later. Moreover, marketing research has long been content to consider commercial exchanges from a purely transactional perspective, thus neglecting any relational orientation in consumer behavior. However, current research on relational behavior shows the importance of the concept of trust as a means of facilitating exchanges and enabling the creation of lasting relationships between partners. Having said this, it seems important to note that so far, there is no general definition of trust that is applicable to all domains. Despite its great theoretical potential, the conceptual status of trust remains ambiguous and the plethora of research has led to a great diversity of definitions. The study of the marketing literature allows us to analyze two currents regarding the conceptualization of trust:

- **Trust is a belief:** trust is understood here as being a psychological state upstream of the intention to behave that translates into a presumption, an expectation or, finally, a belief in the exchange partner (Gurviez and Korchia, 2002). In this perspective, Swan and Nolan (1985) cited by (Boyer and Nefzi, 2007) state that trust represents "a belief by the individual that he or she can rely on what is or has been promised by another individual.
- **Confidence is a behavior:** confidence is presented as an action, we speak here of a confident behavior or confident behavior or a will or an intention to behave behavior. According to Mayer et al (1995), quoted by (Boyer and Nefzi, 2007) it is "the willingness of one party to be in a vulnerable position with respect to the actions of another party, a willingness based on the hope that the other will take a particular action that is important to him" and that he will not seek to take advantage of his position of superiority.

Trust from a relational perspective, most of the current research (Gurviez and Korchia, 2002), puts forward trust as a mediating variable in a model that includes all the components of the relationship with the brand. In this framework, trust will be defined as "the assumption by the consumer that the brand, as a personified entity, is committed to predictable action in line with his or her expectations and to maintaining this orientation over time with goodwill" (Gurviez and Korchia, 2002). It is also conceptualized as "a psychological variable that reflects a set of accumulated presumptions about the credibility, integrity, and benevolence that the consumer attributes to the brand" (Gurviez and Korchia, 2002).

According to André (2007), trust can take various forms (07) in the case of hospital services (distrust of managers, professional trust, distrust of new products, a priori trust, global trust, circumstantial trust and confirmed trust). The following table highlights the different disciplinary understandings of the concept of trust.

Table 2: Different disciplinary conceptions of the concept of trust

Discipline/Theories	Concept of trust	Authors
Economic theory	Opportunism or trust	Williamson (1975, 1993)
Transaction cost theory	Information asymmetry, divergence of interest and incompleteness of contracts	Jensen and Meckling (1976), Sirdeshmukh, Shingh and Sabol (2002)
Game theory	Cooperation or non-cooperation	Neumann and Morgenstren (1944), Schmidt (2001)
Sociology	Social embedding: social, mutual trust	Granovetter (1985)
Management	Learning: alliances and cooperation	Barney and Hansen (1994), Koenig (1999), Mendez (2001)
Psychology	Propensity to trust: feelings/personal characteristics	Rotter (1967, 1971, 1980)

Social psychology	Attribution of certain traits or motivation to the partner	Butler (1986), Rempel et al, (1985), Rempel and Holmes (2001)
Marketing theory	Relational approach	Sirieux and Dubois (1999), Aurier and N'goala (2001), Gurviez and Korchia (2002)

Source: Benmiled "Trust in Marketing", 2012

1.2. LOYALTY: A CONCEPT CHARACTERIZED BY ITS COMPLEXITY

The concept of loyalty has been studied extensively since the 1970s in the commercial sector, but it is practically non-existent in the hospital sector. From an organizational point of view, loyalty is a complex concept whose definition is still debated in marketing. In this context, Jacoby and Chesnut (1978) have listed more than 300 definitions of this concept. However, loyalty in the marketing literature is approached according to its two dimensions: behavioral and attitudinal.

This traditional approach to loyalty dates back to 1923 with the work of Copeland, even though the term "loyalty" was not used at the time.

According to Tucker (1964), "we should not consider what the customer thinks, or even how his central nervous system functions. For his behavior is the very expression of his loyalty", this paradigm of loyalty is expressed by consumption behaviors: repeated purchases. In other words, it is the regular purchase of the same brand that is retained without taking into account the cognitive processes underlying this behavior (Nefzi and Ghachem, 2011).

The attitudinal or cognitivist approach of loyalty starting from the limit that loyalty can only be expressed by a simple purchase behavior, researchers have investigated another dimension of loyalty namely "**the attitude**". From then on, researchers admitted that true loyalty is motivated by an internal predisposition called "attitude" in customers (Day, 1969; Jacoby, 1971; Jacoby and Kyner, 1973). However, Jacoby and Kyner (1973) proposed one of the first definitions of loyalty that marked this movement: "**loyalty is a biased (because non-random) behavioral response expressed in time by a decision entity considering one or more brands taken as a whole, according to a decision process**". From this definition it follows six (06) conditions to confirm the existence of a loyalty (Ayoubi, 2016) namely:

- 1) Loyalty is a behavioral response:** loyalty is translated into an act of purchase. It is a repeated purchase in the behavioral approach or a repeat purchase in the relational approach. The notion of multi-loyalty implies that a repeat purchase can be made from different suppliers. However, this first condition remains necessary but not sufficient to express brand loyalty. For example, a customer who has a preference for brand A even though he has never bought it cannot be considered as loyal to it according to this definition. This leads us to the conclusion that the act of purchase is a necessary but not sufficient condition to express loyalty.
- 2) It is not random: either biased or stochastic.** The customer must choose the brand among several alternatives to speak of loyalty. For example, an oligopoly situation in a market or the presence of a single supplier (e.g. a single bank branch in the city) does not prove that there is real loyalty to this brand.
- 3) It is expressed in time:** This is the notion of duration. Some researchers agree that a minimum of three consecutive purchases is required to express loyalty (Tucker, 1964 and Stafford, 1966). Others speak of the purchase of a loyalty product (Crié and Benavent, 2001). Loyalty should not be limited to a specific period. It must express a commitment to the brand, which is why the concept of loyalty is associated with that of commitment. This notion is measured, in the bank, by the holding of a loyalty product (equivalent to a package, a retirement savings or a mortgage).
- 4) The loyal customer has a preference for a brand in a competitive environment:** The customer is led to make a choice among several alternatives. Through a cognitive or affective process or both, the final decision expresses a preference for a particular brand. The customer can, moreover, express several preferences at the same time, this is the notion of multi-fidelity (Cunningham, 1961 and Jacoby, 1971).
- 5) There is a decision-making unit:** either a decision-maker or a group of decision-makers, whether it is an individual, a family (the case of Business to Customer) or a company (the case of Business to Business).
- 6) It follows a cognitive process that ultimately leads to a response:** brand loyalty is the result of an evaluation that results in a decision.

In the case of hospital services, talking about repeat purchases is inappropriate, since the consumer is obliged to frequent these establishments, hence the need for relational loyalty.

Relational loyalty in the relational current, loyalty takes precedence over this transactional logic, it is not considered as the result of a relationship of dependence, we clearly enter a "desired relationship". The customer-brand relationship is part of the long term (Ayoubi, 2016), in this relational approach of loyalty it is a question of studying relational behavior, favorable intentions towards the brand or service provider (word of mouth, complaints, preferences and future intentions, etc.). Relational loyalty must therefore be manifested by a true cooperative relationship over the long term. The consumer is no longer a simple buyer of the product, but rather a true partner with whom it is possible to cooperate and who will accept to make sacrifices in the short term (Boyer and Nefzi, 2007).

1.3. RELATIONAL QUALITY: A TRUE LOYALTY DRIVER

In terms of marketing literature, most research has shown the importance of relational quality in determining consumer loyalty to a brand or company.

- **Satisfaction and Loyalty**

Anderson and Sullivan, (1993) in their work show the very important place that the link between consumer satisfaction and loyalty has. Other authors have also shown that consumer satisfaction is a condition for loyalty (Oliver, 1980; Anderson and Alii, 1994; Bolton and Drew, 1994). In this framework, (Howard and Sheth, 1984) emphasize that in the learning of purchasing behavior and in the formation of habits, satisfaction is a key variable. However, this variable, considered obvious in the managerial literature, is currently debated in the academic literature (Lachaud, 2003). Certainly, relationships can be easily established between satisfaction and loyalty intention (Ngobo and Gharsallah, 2004) or between satisfaction and attitude (Frisou, 2005), but the link between satisfaction and actual loyalty behavior is much less obvious.

These analyses lead us to formulate the following hypothesis: **(H1): When patients feel satisfied with the health facility they attend, they are increasingly loyal.**

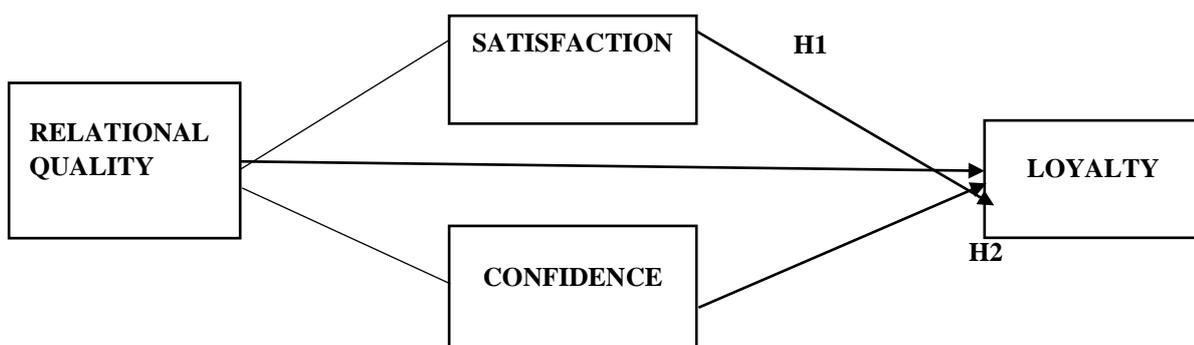
- **Trust and Loyalty**

Trust is a concept that has been the subject of much research in the marketing field over the years. For (Dwyer and Lagace, 1986) trust often leads to cooperative behavior and a tendency to solve problems, similarly (Morgan and Hunt, 1994) believe that trust exists when one party relies on the loyalty and integrity of the other and it is manifested by a mutual belief of the parties that each will work in the best interest of both parties. However, a consumer who is confident in a compromise will try to do everything possible to find a solution with his or her partner. This leads us to state a second hypothesis:

(H2): When patients have confidence in the health facility with which they interact, they are increasingly loyal.

To better understand the relationship between the dimensions (Satisfaction and Trust) of relational quality and loyalty, or better yet the role that the components (Satisfaction and Trust) of relational quality play in patient loyalty, this conceptual framework will be materialized in a diagram.

Figure 2: Conceptual model



III. Empirical Framework Of The Contribution

2.1. METHODOLOGICAL ELEMENTS

The characteristics of the sample and the choice and justification of the survey tools will be discussed in turn.

Characteristic of the sample the object of our study being the analysis of relational quality on the loyalty of patients in EHP, this study was conducted between the month of September and October 2018. Our sample was constructed from a parent population to identify the characteristics of the opinions of the respondents. For this purpose, it is made up of one hundred and seventy (170) individuals/patients attending the EHP in the city of Yaoundé. However, only the data from 152 of the 170 patients interviewed can be used.

Choice and justification of survey tools In order to validate our conceptual model, we conducted a face-to-face survey at the exit of certain health facilities in the city of Yaoundé. This survey method is appropriate because it allows us to obtain accurate information, since it ensures the best response rates (Lambin and Moerloose, 2008). Questionnaires provide information on the quality of relationships and on patient loyalty. This non-probability sampling technique is convenient in that it facilitates the search, selection and interviewing of those directly involved (Najjar et alii, 2011).

The implementation of the different constructs was based on the use of measurement scales tested in the marketing literature. To this end, the measurement scales of Dimitriadis (2006), Chen and Quester (2006); Dixon and alii (2005) were used to measure satisfaction, trust and loyalty. Each of the measurement indicators was rated from 1 (Strongly Agree) to 5 (Strongly Disagree). It is composed of twenty-six (26) questions, the majority of which are closed questions, and is grouped into three (03) sections, the first of which deals with perceived quality, the second with the dimensions of relational quality, and finally the last section addresses the aspect of patient loyalty.

All the data collected were introduced in the software CSPRO 6.3, then the analysis of these data will be done from the logical regression model.

Table 3: Synthesis of methodological choices

Choice	Option chosen	Justifications
Epistemology	Research rooted in a positivist current	Measurement of phenomena with reliable instruments (measurement scales, questionnaire)
Type of methodology	An exploratory approach in a quantitative study.	In order to better understand the contribution of relational quality through its components (Satisfaction and Trust) on patient loyalty.
Mode of reasoning	Use of a deductive-hypothesis approach	Based on the assumptions
Data collection technique	Questionnaire survey	Allowed the collection of data from a large number of individuals, and the improvement of knowledge.
Data processing and analysis	Use of CSPRO 6.3 and STATA software	These software packages are suitable tools for thematic analysis.
Research field	Private sector health facilities in Cameroon	Meeting, discussion with patients who attend these health facilities

Source: The authors

2.2. RESULTS AND DISCUSSION

We will present the observation and measurement tools for the different variables on the one hand, and on the other hand, we will present the different relationships that link the dimensions of relational quality and patient loyalty.

- **Observation and Participation Criteria :**

Patients' motivations for remaining loyal to a private hospital facility is an unobservable variable $\{ (Fid) \}$ (Fid) \wedge^*). The problem that needs to be addressed is that of determining the determinants of patient fidelity, including the contribution of relational quality (RQ). To account for this specification, the procedure of

Heckman and Robb (Op.cit) is commonly adopted. And this motivation is determined by a selection equation conditioning the associated gain and depending on the relational quality. The loyalty function associated with the RQ is given by:

$$Fid_i = \begin{cases} 1 & \text{si } Fid_i^* = \alpha_1(QR) + \delta_i Z_i + \epsilon_i > 0 \text{ (in case of presence of the QR)} \\ 0 & \text{si } Fid_i^* \leq 0 \text{ (sinon)} \end{cases}$$

$$\epsilon_i \rightarrow \mathcal{N}(0, \sigma^2) \tag{1}$$

Zi represents the set of characteristics specific to each employee.

δi The coefficients of the regression and εi the identically and independently distributed error term.

- The fidelity equation and estimation technique: Logit model

The probability (P) associated with the observation or not of the event (relational quality) is a dichotomous variable equivalent to 1 in case of adoption and 0 otherwise. This probability is also dependent on the individual characteristics Z. Thus, the associated logistic function is:

$$P(Fidel = 1/QR, z) = \frac{Exp(\alpha_1(QR) + Z' \beta)}{1 + \sum_{i=1}^n Exp(\alpha_1(QR) + Z' \beta)}$$

With e the basic logarithm function (2.781) and Zi the vector of explanatory variables which can be presented as:

$$Z_i = \delta_0 + \sum_{i=1}^n \delta_i X_i + \epsilon_i$$

However, in order to facilitate the interpretation of the results, we choose a reference "state" (non-participation) that takes the modality 0, and thus a positive (respectively negative) sign means that the corresponding explanatory variable increases (decreases) the probability of the associated modality relative to the reference modality.

The transformation of this function into equation (3) is presented as follows:

$$P(Fid_i = 1/(QR), Z_i) = P(\alpha_1(QR) + \delta_i Z_i + \epsilon_i > 0) \tag{3}$$

$$= P(\epsilon_i > -(\alpha_1(QR) + \delta_i Z_i)) \tag{4}$$

By normalizing the residuals to ensure robust results, we obtain the following function:

$$Prob(Fidel_i = 1) = prob(\epsilon_i > -(\alpha_1(QR) + Z_i \delta_i)) = prob(\epsilon_i < (QR) + Z_i \delta_i) \tag{5}$$

The logarithmic function (l) is obtained from the linearization technique proposed by Zellner Lee (1965) is as follows:

$$= \sum [Fidel_i \ln \Phi((QR) + Z_i \delta_i) + (1 - Fidel_i) \ln(1 - \Phi((QR) + Z_i \delta_i))] \tag{6}$$

Where [δ] i captures the average effect of explanatory variables (Zi) on the adoption decision. The estimation of equation (6) is approximated by the maximum likelihood technique. With Φ (.) the standard normal distribution function and σ the variance of the error term.

- Contribution of satisfaction to patient loyalty in private hospitals

We will analyze here the different results concerning the influence that satisfaction has on the loyalty of the patients of the EHP on the basis of the surveys conducted. However, given the lack of empirical consensus on the loyalty items to be retained, we deemed it necessary to evaluate this influence on each loyalty item. The tables below highlight this relationship:

Table 4: Analysis of satisfaction with the recommendation

Logic regression		number of obs=152			
		Wald chi 2(7)=37.20		Prob> chi2 = 0.0000	
Logpseudolikelihood=-26.212575		pseudo R2= 0.4552			
Recommandation	Coeff	Std. Err	Z	P> z	[95% Conf. Interval]
Imp sur acc per	4.171684	3.693809	1.61	0.107	[0.7355575- 23.65953]
Plat techniq	1.070321	0.7024993	0.10	0.918	[0.2956869- 3.874321]
Rel avec le per	0.1849867	0.1483656	-2.10	0.035**	[0.0384103- 0.8909087]
Serv rendu	0.3253805	0.2132106	-1.71	0.0807*	[0.09008- 1.175316]
préférence	0.0526679	0.0523567	-2.96	0.003**	[0.0075054- 0.3695891]
sexe	0.8417527	0.606172	-0.24	0.811	[0.2052145- 3.452717]
revenu	2.202965	1.186713	1.47	0.143	[0.766434- 6.331995]
cons	1774.965	4332.789	3.06	0.002**	[14.83743- 212334.5]

NB: the symbols ***, **, * are the significance thresholds of the variables at 1%, 5% and 10% respectively

Source: The authors from STATA.13

Table 4 shows that the model is globally significant at the 5% threshold; indeed, the **Prob> chi2 =0.0** is less than 5%. That said, there is at least one explanatory variable that would significantly influence this dimension of loyalty. It appears that all our explanatory variables positively influence loyalty. However, only 4 of these variables are significant. Impressions of the reception of the staff, the technical platform, gender and income improved patient loyalty, although this improvement was not significant. On the other hand, the relationship with the staff, the service rendered and the preference are significant and positive at the 5% threshold. In particular, the quality of services rendered improved patient loyalty by 32%. Similarly, our results show that the preference of the EHP has a positive (0.0526679) and significant (0.003) impact on loyalty at the 5% threshold. Finally, satisfaction through the quality of relations with the staff significantly improves patient loyalty at the 5% threshold, all other things being equal: a patient satisfied with the staff's performance will tend to return to seek care in the same EHP.

If one day a discussion leads me to speak about EHPs in general, I will speak favorably about my EHP

Table 5: Word-of-Mouth Satisfaction Analysis

Logic regression		number of obs=152			
		Wald chi 2(7)=24.99		Prob> chi2 = 0.0008	
Logpseudolikelihood=- 46.606001		pseudo R2= 0.3430			
Bouche à oreille	Coeff	Std. Err	Z	P> z	[95% Conf. Interval]
Impr acc per	2.047053	2.192623	0.67	0.504	[0.02508399- 16.70557]
Plat techniq	1.028689	0.6082059	0.05	0.962	[0.3228619- 3.277568]
Rel avec le per	0.2315706	0.1640367	-2.07	0.039**	[0.577725- 0.9282083]
Serv rendu	0.7456446	0.4796558	-0.46	0.648	[0.2113361- 2.630813]
préférence	0.0342149	0.0321542	-3.59	0.000**	[0.0054235- 0.2158491]
sexe	0.8666412	0.4861516	-0.26	0.799	[0.2886349- 2.6022136]

revenu	1.555112	0.8192668	0.84	0.402	[0.5537712- 4.3671]
cons	643.9781	1408.589	2.96	0.003**	[8.851517- 46851.61]

Source : The authors

Table 5 shows that the model is globally significant at the 5% level; indeed, the **Prob> chi = 0.0008** is less than 5%. That said, there is at least one variable that would significantly influence this dimension of loyalty. However, only 3 of these variables are significant. However, the impression of the reception of the staff, the technical platform, the services rendered, the gender and the income improve the loyalty of the patients, although this improvement is not significant. On the other hand, the relationship with the staff and the preference for the EHP were significant and positive, all else being equal, at the 5% threshold. In particular, the preference for the EHP improved patient loyalty by 3.42%. Finally, our results show that the quality of relations with the staff significantly improves loyalty at the 5% threshold. This result is in line with the work of Boyer and Nefzi (2007).

The H1 hypothesis cannot be rejected: **When patients feel satisfied with the health facility they attend, they are increasingly loyal.** These results are in line with several marketing researches asserting the presence or existence of a positive relationship between these two concepts (M. Khouilid, A. Echaoui and L. S. Yousfi, 2016; Boyer and Nefzi, 2008), this result also confirms those of Nefzi (2007: 2011) asserting a positive relationship between satisfaction and word of mouth. Although there is no consensus in the marketing literature about the nature of the relationship between satisfaction and loyalty, nevertheless in the health services domain, it could be that satisfied patients are likely to recommend and speak positively about the health facility or health care personnel they attend. These results are consistent with a large trend in the literature indicating a positive relationship between these concepts (Bolton & Drew, 1991).

- **Contribution of trust to patient loyalty in private hospitals.**

We will discuss here the various results on the effect of trust on loyalty, while considering the lack of empirical consensus on the loyalty items to be retained. We will then limit ourselves here to the influence of trust on preference.

Table 6: Analysis of the influence of trust on patient loyalty

Logitregression		number of obs=152			
		Wald chi 2(7)=17.42			
		Prob> chi2 = 0.0149			
Logpseudolikelihood=-89.488825		pseudo R2= 0.0932			
Préférence	Coeff	Std. Err	z	P> z	[95% Conf. Interval]
Imp sur acc per	3.007736	2.095672	1.58	0.114	[0.767637- 11.78483]
Plat techniq	1.094405	0.4456465	0.22	0.825	[0.4926801- 2.431034]
Rel avec le per	0.5076998	0.2480737	-1.39	0.165	[0.1948456- 1.322889]
Serv rendu	0.9098792	0.3634639	-0.24	0.813	[0.4158718- 1.99071]
préférence	0.1309502	0.0910841	-2.92	0.003**	[0.0334998- 0.5118823]
sexe	0.61229518	0.2264501	-1.32	0.185	[0.297137- 1.264433]
revenu	0.9330117	0.2596412	-0.25	0.803	[0.5407696- 1.609763]
cons	20.0395	24.3157	2.47	0.013**	[1.858013- 216.135]

Source : the authors

Table 6 presents the results of the influence of trust through the promises made by the staff on patient loyalty. It shows that the model is globally significant at the 5% threshold; given that the **Prob> chi2 = 0.0022** is lower than 5%. Indeed there is at least one variable that significantly improves patient loyalty. However, only one variable improved patient loyalty in a positive and significant way, all other things being equal. The others, on the other hand, were the impression of the reception of the staff, the technical platform, the quality of the relationship with the staff, the services rendered, the gender and the income, all of which improved patient loyalty, even if this improvement was not significant. However, the preference towards the EHP and the promises made by the staff are significant and positive at the 5% threshold, all other things being equal; indeed, the preference has a significant (**0.007**) and positive impact on patient loyalty. Similarly, the variable trust through the promises made by the staff has a significant influence (**0.019**) at the 5% level, all other things being equal, on patient loyalty. The hypothesis **H2: When patients have confidence in the health facility they attend, they are more and more loyal**, can not be rejected, this result is in the same direction as those of Najjar et al (2011); Boyer and Nefzi, (2007) for whom trust has a positive impact on loyalty. Overall, there is a link between the dimensions of relational quality (Satisfaction and Trust) and loyalty, in fact although all the components of relational quality retained in this study have a positive influence on loyalty, it is important to specify that they make it possible to justify the net effect of relational quality on the loyalty of patients in private hospitals in Cameroon.

2.3. RESEARCH CONTRIBUTIONS

The scientific implications of our research work are at two levels. Theoretical implications and managerial implications.

On the theoretical level, this research work has a double contribution. On the one hand, it continues the work already done by other researchers in service marketing on the theme of consumer judgment. On the other hand, it enriches this theoretical framework to take into account the specificity of the service relationship in the health sector. given the very limited amount of research on the role of relational quality on patient loyalty in Africa in general and in the Cameroonian context in particular, we would like to make a contribution to this lack by analyzing this role in this research work through its dimensions (satisfaction and trust) on patient loyalty in the EHP of the city of Yaoundé. Indeed, previous research on relational quality has proposed very little approach on the effect it has on patient loyalty in the health services field. While research such as that of Najjar et al, (2011) has studied the impact of relational quality on customer choice of outlet, the fact remains that this concept is less addressed in the context of hospital services. The conceptual model thus developed has enabled us to better understand the mechanisms of loyalty in Hospitals.

We have endeavored to propose an analysis framework that is as reliable as possible and that allows for the integration of the different components of relational quality, notably satisfaction and trust in the process of building patient loyalty in private hospitals in Cameroon. Noting the complexity of the definition of the concepts of relational quality and loyalty, we have placed our research in line with work in service marketing.

As a managerial implication of our research, we can now affirm that our study brings to each manager of health care facilities a new way of conceiving the management of the relationship through relational marketing based on the satisfaction of the patients, but also on the trust that they may have towards the brand or the nursing staff. On the other hand, marketing as a discipline regularly looks for ways to optimize customer-provider relationships. In view of our results, this research will focus on improving the adequacy of practices with expectations and integrating the patients' point of view.

IV. Conclusion

Through this research work, we have tried to revisit the link between relationship quality and patient loyalty in the health sector in Cameroon, It was a question of giving an answer to our research question which was to know **what is the contribution of the relational quality on the loyalty of the patients of the private hospitals in Cameroon?** To this end, we had to review the notion of relational quality through two of its fundamental components: Satisfaction and Trust. The analysis of loyalty based on the literature review allowed us to emphasize its different phases (Oliver, 1999), namely: cognitive loyalty and affective loyalty. The objective of this research work is therefore to analyze the link between each component of relational quality (satisfaction and trust) and patient loyalty, in order to confirm our conceptual model. The results of the survey allowed us to validate the initial hypotheses and subsequently to validate our conceptual model, so we can say that there is a clear link between relational quality and loyalty. Indeed, we have been able to show throughout this work that a feeling of satisfaction due to a quality service rendered has an impact on the word of mouth of

the patients in the private hospital establishments, in the same way a better satisfaction would lead from the patients to a recommendation towards a private hospital establishment.

Despite the interesting implications that have emerged from this research, it is important to recognize its limitations and the need for further study. First, we do not claim that the sample chosen here is exhaustive. Indeed, the sample chosen in our study was limited to the city of Yaoundé. This action can be corrected in future research by using a larger sample covering all social strata. It will also be useful for future research to use all dimensions of relational quality to explain patient loyalty in the EHP, because in this research only the dimensions of satisfaction and trust in relational quality were used.

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