



## **PUBLIC HOSPITALS MANAGEMENT SYSTEM: A CASE STUDY OF HOSPITALS IN DOUALA-CAMEROON**

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### **Abstract**

*The health system in Cameroon is essentially articulated around the public sector, at an affordable price for the people but often with a poor-quality service, and an essentially informal private sector, often with a better-quality service but at a high price. Also, as in most countries, Cameroon's health system is subject to many ills, including hospital management. Public authorities have undertaken several reforms and they have precisely drawn up a 2020-2030 health development strategy. The objective of this study is to perceive the possible effects of government actions to improve health care in public hospitals in the city of Douala. For this, a survey was conducted on 750 users who attended 26 hospitals in the city of Douala. Study used the multinomial probit model with random effects to determine the users' assessment of hospital management. The results obtained mainly show that the administrative reforms carried out have facilitated the motivation of medical personnel, which in turn has considerably improved the quality of care for users. However, bad practices still remain, especially bribes that grant privileges to certain patients.*

*Keywords: Hospital Management, Assessment, Multinomial random effect model, Public hospitals, Cameroon*



## INTRODUCTION

Hospital is one of the so-called multi-purpose and multi-agent organizations. It is a complex structure that must respond to various functions: care, teaching, research, prevention, and health education. It is one of the major components of a state's health system, and its importance for the people's well-being and development no longer needs to be demonstrated. Being aware of this, public authorities have made the improvement of the health system a concern. In addition, States are faced with a population that is living longer and longer, which generates an ever-increasing demand for health care. However, the budgetary resources allocated to the health sector have not increased proportionally and make these resources still insufficient. This budgetary under-allocation, which has effects on the quality of service and the performance of the health system, could be explained by budgetary constraints and the need to also allocate resources to other sectors of the economy (Ezziadi & Gharrafi, 2019).

Public authorities in Cameroon, in collaboration with technical and financial partners, have embarked on an almost permanent reform process of the health system. Following the Alma Ata conference in 1978, Cameroon had ratified the Health Development Charter for Africa, but it was not crowned with success because the objective "Health for All by the Year 2000" was not achieved. Cameroon associated itself with a certain number of initiatives subsequently taken in Africa, with the conferences of Lusaka (1985), Harare (1987), and especially that of Bamako (1987), which laid the foundations for cost recovery. In addition, a Primary Health Care Reorientation policy was adopted in 1992, aimed at restructuring the national health system from the health district. It was followed by a National Health Development Plan (PNDS). In addition, as part of the National Development Strategy (SND30), the government recently adopted a sector strategy for the health sector for the 2020-2030 period. It is divided into various axes, one of which is devoted to strengthening the health system; and its objective is "to increase the institutional capacities of health structures for sustainable and equitable people's access to quality health care and services."

All these initiatives aim to eliminate the four main problems facing the health system, namely: the poor quality of the technical platform, the quality of the medical staff, the quality of the care provided, and the management of health facilities. Health system in Cameroon is indeed subject to many ills. This could mainly explain the creation of a training in health administration at the National School of Administration and Magistracy (ENAM). Hospital management has also been the focus of many studies that have tried to analyze it through agency and stakeholder theories. However, to our knowledge, there is no recent work addressing this issue in Cameroon. The aim of this work is therefore to fill this gap. The main

objective of the research is to study the perception of current actors of hospital management and identify the deciding factors of good hospital management in Cameroon.

The rest of this article is structured in four points. The first provides a synthesis of the empirical literature on the subject. The second part of the document presents the data as well as the methodology used for the analyses, while the third part presents and discusses the results. The last section is devoted to the conclusion.

## LITERATURE REVIEW

Two main theories have been developed by authors to study the management of the hospital system. They are: agency theory and stakeholder theory.

Agency theory is concerned with the development of bilateral contracts intended to solve many coordination problems arising between one individual (the principal) and another (the agent), in the market or in the organization. The agency theory's assumption is that any contractual relationship is an agency relationship. It is based on the two main forms of information asymmetries, namely hidden behavior also called moral hazard or moral risk and hidden information called anti-selection or adverse selection highlighted by AKERLOF (2003). This theory has fostered the emergence of a realistic neoliberal theory of hospital management to replace the original neoclassical approaches that obscure information asymmetries and structural problems (Béjean, 1999; Domin, 2015). Domin (2014), for his part, asserts that the interactions between internal and external actors of the hospital can be considered as agency relations. He specifies that the relationship between the supervision and the hospital is an agency relationship with anti-selection (or adverse selection) and moral hazard (or moral risk), which leads to difficulties for the principal (supervision) in decision-making and in controlling the actual activities of the agent (hospital). Similarly, the relationship between the director (principal) and the medical staff (agent) is considered an agency relationship, except that this relationship is often "parasitized" by uncertainty, information asymmetry, and opportunistic behavior agents seeking to maximize their utility to increase the budgets allocated to their services, although contract theories are based on opportunism in these situations of information asymmetries. Akerlof (1982) considers that the employment contract also has a dimension of reciprocity; indeed, the employee provides a service in exchange for money, but in practice, the employee often produces greater effort than required standards, he makes a "partial donation" to the company. The agency theory also proposes an analysis of methods to reduce these agency costs by defining efficient *ex-ante* contracts. The purpose of the contract is to specify the rights of each agent within the firm, the performance criteria on which each agent is judged and the remuneration they can claim (Fama and Jensen, 1983). However, there are limits to mobilizing

agency theory in the hospital environment because it has a cost. According to Jensen and Meckling (1976), there are three categories of agency costs: monitoring and incentive costs incurred by the principal to control and direct the behavior of the agent; the obligation costs borne by the agent; and the residual loss resulting from the deviation between the actions carried out by the agent and the objective expected by the principal due to the differences of interest. This loss is borne by the management (principal), which often finds itself obliged to double its supervision and motivation efforts to maximize its well-being, which massively increases the financial cost of the contractual relationship. Also, on the organizational level, the agency theory reduces the firm to simple inter-individual relationships (a knot of contracts) and it rejects any idea that firms are based on a hierarchical principle which represents the basis of any hospital structure. Béjean (1999) best sums up the rise of stakeholder theory to the detriment of this theory. According to him, the use of agency theory did not allow the determination of optimal contracts at the hospital, because of the complexity of its relationships, the overabundance of information asymmetry problems, and opportunistic behaviors that weigh on the overall functioning of the health system.

The stakeholder theory initiated by Jensen and Meckling (1976), introduced a new approach to corporate management, namely, a new way of formulating and dealing with management issues (Charreaux and Wirtz, 2006), considering that all the interests of those concerned must be taken into account. Freeman (1984) considers that taking stakeholders into account creates an organizational type value: it is the partnership value. In this context, the partnership value is the criterion of efficiency, which leads to promoting the partnership between the actors of the organization.

The studies of Donaldson and Preston (1995) which proposed a comparison of the *Shareholder* and *Stakeholder* models in their applicability, are proof of a scientific dispute that has long animated supporters of the *Shareholder Theory* and those of the *Stakeholder Theory*. If we consider the work on corporate management, a first indication is possible, that of a supposed better adequacy of the “*Stakeholder*” model to the public organization compared to the “*Shareholder*” on two areas. First, the *Shareholder Theory* is based on a financial logic of maximizing the shareholder’s profit, an actor at the center of the system; thus, it does not lend itself to public organization where logic is the guarantee of the general interest. This presupposes, not the maximization of an individual interest but the protection of the collective interest. In this context, the application of the *Stakeholder Theory* seems more appropriate. Secondly, the nature of the structure and its mission of taking care of patients are fundamental elements that exclude the maximization of shareholder profit, when one is identified, which is not always obvious for public organizations. By taking into account all the stakeholders, the

Stakeholder model also seems to be able to be articulated around the hospital issue of ensuring consistency between the activities of the various professional bodies present in the organization. While Mordelet (2006) admits that the *Shareholder Theory* is useful in the analysis of the medical relationship as an agency relationship, and examples of adverse selection, he nevertheless notes the primacy of the *Stakeholder Theory*, within the framework of the analysis of hospital management. Indeed, if the partnership approach remains a contractual approach, this contract does not suppose, beforehand, the exchange of the capacities of parties to the contract (labor force against financial force), but above all, the pooling of each one's capacities to better produce. Finally, Damak-Ayadi and Pesqueux (2005) also address this convergence by reestablishing it on the interactions between the three sides of the stakeholder theory. They establish three types of interaction: parallelism (rejection of any interaction), symbiosis (strong interaction without fusion) and integration (fusion of one into the other). Beyond the theoretical debates that oppose them, the three sides are broken down according to their operationality for the company's strategy, in terms of managerial or ethical contribution depending on the predominant side. The use of the partnership approach in the context of this study is therefore mainly linked to its adaptability to public organizations and to the interest it has in collaboration, partnership, and alliance, as management tools. The notion of value attached to it arises from these sets of actors. The integration of users in hospital management, then in the health system management has been affirmed in a certain logic of collaboration.

## METHODOLOGY

### Data Presentation

The data for this study come from the survey of patients in hospitals in the city of Douala. These surveys were carried out in November and December 2021. In order to have a certain representativeness, the patients of at least each of the health areas of the city of Douala were interviewed. The various hospitals are in the districts of Cité des Palmiers, Ndogpassi, Bependa, Bonamoussadi, Bonassama, Deïdo, Logbaba, Sariboum, Bonabéri, Makepe, and Laquintinie hospital. In total, patients come from 26 health facilities.

### Variables Presentation

The different variables being categorical, they were transformed into instrumental variables. The main variables of this study are:

- The **Satisfaction** variable which is our variable of interest. It designates the satisfaction of the hospital services' user. It represents the explained variable of the econometric model which

makes it possible to measure the level of satisfaction of users who attended public hospital in 2021. It has five modalities: Strongly disagree; Disagree; Undecided; Agree; and Strongly Agree.

- The **Hospital\_Choice** which designates the fact that a medical care user returns to hospital and will always choose the same hospital under previous satisfactions constraint or by preference.
- The **Reception** variable represents the fact that the user is generally satisfied with the services or with his stay at the hospital.
- The **Staff\_Politeness** variable represents the hospital staff being polite and kind, welcoming and very helpful.
- The **Complaint\_Consideration** variable designates the requests and complaints of patients that are taken into consideration within the hospital attended.
- The **Listening\_Patients** variable measures whether the medical staff listens to patients.
- The **Patient-caregiver\_Relation** variable measures the fact that the relationship between the patients and the medical staff is good or bad in the hospital attended.
- The **Quality\_care** variable makes it possible to measure whether the user finds medical care to be of good quality or not.
- The **Hospital\_Procedure\_Price** variable represents the user's awareness of the information on procedures and prices provided by the staff of the hospital attended.
- The **Waiting time** variable captures whether the waiting time at the hospital is not long.
- The **Hospital\_Cleanliness** variable indicates whether the user finds the hospital (rooms, waiting rooms, corridors, toilets, etc.) very clean.
- The **Hospital\_Cost** variable makes it possible to measure whether the users' hospitalization is less costly in the hospitals attended.
- The **Hospital\_Medication\_Cost** variable designates the fact that medications are less expensive in the hospitals attended by users.
- The **Frequency\_Hospital** variable designates the assessment of the frequency of users attending the hospitals.
- The **Bribe** variable represents the users' privileges with the medical staff. It makes it possible to measure whether certain patients continue to give bribes (ransom) to be privileged in the hospitals attended.
- The **Hospital\_reason** variable captures the degree of reason for which patients choose the attended hospital for treatment.

## Distribution of interview guides and questionnaires

The type of interview we have favored here is the semi-structured interview; here, it allows hospital actors to direct the conversation towards their centers of interest, in order to better reflect their current actions' stakes and challenges in the hospital. It was also about distributing a questionnaire to users in order to capture their satisfaction. Thus, we chose to develop:

*An interview guide intended to the administrative staff* made up of 04 parts:

Part 1: Mechanisms and adoption processes of hospital management in Douala.

Part 2: Douala Hospitals users' expectations facing the new dynamics of hospital management.

Part 3: The dynamics of user services' appropriation by medico-social staff.

Part 4: Improving the quality of services intended for users.

Then, the qualitative approach allowed us to develop two questionnaires organized as follows:

*The questionnaire handed to the medical staff* is articulated around several axes:

Axe 1: Identifying the interviewee

Axe 2: Hospital hierarchy and user services' appropriation by medico-social staff.

Axe 3: Improving the quality of services intended for users.

*The questionnaire handed to the users* is articulated around 03 axes:

Axe 1: Identifying the interviewee

Axe 2: User's satisfaction of hospital services

Axe 3: Need for proximity with the medical staff.

## Analytical Method

In order to capture the determinants of good hospital governance, taking into account the effects of the heterogeneity of the hospitals visited, we will use a multinomial model. Generally speaking, a multinomial model is a model in which the dependent variable "y<sub>i</sub>" takes a number *m* of modalities that are supposed to be mutually exclusive and whose sum of the probabilities is 1. Suppose a sample consists of *N* indexed individuals *i*, with *i* = 1, ..., *n*. These individuals are assumed to choose between *m* subscripted modalities *k*, with *k* = 1, ..., *m*. Thus, the probability that an individual *i* chooses the modality *k* is a function of his characteristics such that:

$$Prob[y_i = k] = F[X_i\beta] \quad \forall i = 1, \dots, n ; \forall k = 1, \dots, m \quad (1)$$

Where  $Prob[y_i = k]$  is the probability that individual *i* chooses modality *k*. *F*(.) is the distribution function, assumed to differ across individuals (*i*) but also across modalities (*k*). *X<sub>i</sub>* is the characteristics matrix of the individual; and *β* represents the vector of the model parameters.

To determine the probability of users' satisfaction from the sample, we will therefore use an ordered multinomial model with random effects (probit) in panel data (hospitals) by the following level equation:

$$\text{Prob}[Y_i = j | X_i] = \Phi(\beta' X_i) ; j = \{1, 2, 3, 4, 5\} \tag{2}$$

With:  $\Phi(\cdot)$  designates the normal distribution function and  $\beta' = (\beta_0, \beta_1, \beta_2, \beta_3, \dots)$  is a vector of parameters to be estimated, the index «  $i$  » designates the attended hospital.  $Y_i$  represents the matrix composed of the dependent variable which is user satisfaction.

$$y_i = \begin{cases} 1, & \text{if the user strongly disagrees with the quality of hospital management } i \\ 1, & \text{if the user disagrees with the quality of hospital management } i \\ 1, & \text{if the user is undecided with the quality of hospital management } i \\ 1, & \text{if the user agrees with the quality of hospital management } i \\ 1, & \text{if the user strongly agrees with the quality of hospital management } i \end{cases} \tag{3}$$

On its explicit form, the equation is written:

$$\text{Pr ob}[Satisfaction_i = j] = \Phi\left(\beta_0 Choix\_hospital_i + \beta_1 Acceuil_i + \sum_{i=2}^{14} \beta_i Autre_i\right) \tag{4}$$

## RESULTS

### Results Presentation

The primary concern in this section consists, on the one hand, in synthesizing the main descriptive statistics and on the other hand, carrying out the econometric analysis. As part of this work, we used the results of data collection from patients. In addition, we observed all the variables for all the individuals interviewed. As for the reception, the assessment is rather good on the part of the users, moreover, corruption still seems to be a reality since some people think that bribes still exist.

Table 1: Descriptive statistics

Variables	Average	Standard deviation	Observations' Number
Reception	3.52	1.194	750
Hospital_Choice	3.41	1.186	750
Complaints_Consideration	3.38	1.085	750
Hospital_Cost	2.93	1.292	750
Hospital_Medication_Cost	2.77	1.259	750
Listening_Patients	3.68	0.992	750
Frequency_Hospital	1.99	0.706	750
Hospital_Reason	2.65	1.315	750
Staff_Politeness	3.48	1.074	750



Bribe	3.36	0.988	750
Hospital_Procedure_Price	3.36	1.243	750
Hospital_Cleanliness	3.78	1.038	750
Quality_Care	3.72	0.985	750
Patients-Caregiver_Relation	3.57	0.976	750
Satisfaction	3.45	1.186	750
Waiting time	2.89	1.335	750

Table 1...

The table below presents the reliability consistency indicator. The Cronbach's Alpha indicator for our sample is 0.513. This index is relatively poor in terms of significance but not unacceptable. If a composite is formed from the sample variables, then 51.3% of the variance in the participants' composite hospital management score (or scale) is attributable to the internal consistency of the questionnaire. In other words, 51.3% of this variance would be real and true, it will not be attributable to unknown factors and due to the fact that these variables (or these questions) indeed measure the objective aimed at, the concept that one wants to measure here is the concept of good hospital management. In addition, the standardized Alpha Cronbach coefficient which is 78.5%, validates our questions that were measured in different scales. This seems to reflect an acceptable reliability of the internal consistency between our items.

Table 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha based on normalized elements	Number of elements
.513	.785	25

On the other hand, the analysis of the panel data generating process for the random effects ordered choice model is estimated by the log-likelihood function introduced by Butler and Moffitt [1982] and the Gauss-Hermite quadrature method in agreement with the structure of the random effects model. Moreover, it should be recalled that in a multinomial model, the coefficients of the model not being relevant for the analysis, we will present the marginal effects.

Table 3: Results of the ordered Probit's estimates with random effects

Variable	Coefficients (Marginal effects)	Standard deviation
Equation 1: eq1		
Hospital_Choice	0.440***	(0.058)
Reception	0.448***	(0.055)
Hospital_Reason	0.086**	(0.035)
Bribe	-0.085*	(0.047)
Complaints_Consideration	0.114*	(0.060)
Listening_Patients	0.201***	(0.066)

Patients-Caregiver_Relation	-0.122***	(0.067)
Quality_Care	0.305***	(0.059)
Hospital_Procedure_Price	0.126***	(0.044)
Staff_Politeness	-0.007	(0.062)
Waiting time	0.016	(0.041)
Hospital_Cleanliness	0.030	(0.050)
Hospital_Medication_Cost	-0.038	(0.050)
Frequency_Hospital	0.060	(0.064)
Hospital_Cost	-0.018	(0.050)
Equation 2: cut1		
Constant 1	3.258***	(0.386)
Equation 3: cut2		
Constant 2	4.275***	(0.397)
Equation 4: cut3		
Constant 3	5.059***	(0.407)
Equation 5: cut4		
Constant 4	7.417***	(0.440)
Equation 6: rho		
Constant 6	0.027	(0.026)
Quadrature Gauss Hermit	12	
Observations' Number	750	
Hospitals' Number	(26)	
Log-likelihood	-682.758	
Prob(LR)	0.000***	
$\chi^2_{(15)}$	701.440***	
Correct prediction	80.90 %	
Pseudo-R2 (McFadden)	62.5 %	
Variance (B:Between, W:Within, T:Total)		
B explained (%B exp/T Total)		0.6265(29.27%)
W explained (%W exp/T Total)		0.4866(22.73%)
B non-explained (%B non-exp/T Total)		0.0277(01.29%)
W non-explained (%W non-exp/T Total)		1(46.71%)

Significance Levels: \*\*\* (1%) ; \*\* (5%) ; \* (10%)

The analysis of the in-sample explicit model estimation table yields the parameter estimates. The estimated thresholds  $c$  (cut1, cut2, cut3 and cut4) are equal respectively to 3.258, 4.275, 5.059, then 7.417 and a rho coefficient ( $\rho$ ) which is 0.027. The reported likelihood ratio test shows that there is enough variability between hospitals to favor a random-effects ordered Probit regression over a standard ordered probit regression at the 1% threshold (Prob(LR) = 0.000 < 1 %). We find that the predictive qualities of this model are satisfactory because the error rate is quite low for user satisfaction levels 1 to 5, since the correct prediction rate for user satisfaction is 80.9 %. Furthermore, the Gauss-Hermite quadrature indicates that the set of approximations to the results of the coefficient estimates does not significantly differ

and therefore, does not affect the results of the 12-integration-point Random Effects Ordered Probit estimation. We found a rho ( $\rho$ ) with a non-significant coefficient at the 10 % threshold. Therefore, there is no heterogeneity between the hospitals in our sample. In other words, the quality of hospitals' management observed admits homogeneity. In addition, we performed a Wald test at  $w = (0.027)^2 / (0.026)^2 = 1.078 < 3.84$  for a critical level of 95%, for this purpose we therefore accept the nullity of  $\rho = 0$ . Consequently, there is no significant effect of heterogeneity between the hospitals of the sample. So, there is no correlation between user satisfaction for the same hospital, but there is a correlation across the hospitals in the sample. The apprehension of the quality of hospital management is uniform in all hospitals.

Finally, in order to better understand the factors influencing patient satisfaction from the hospitals in our sample, we also analyze the variance on the random-effects probit model of user satisfaction in a context of the quality of hospital management. This analysis consists of intra-individual and inter-individual components of the observable and unobservable components of the variance of individual user satisfaction. So, this decomposition aims to study the stability of management quality in the hospitals of our sample, from one series to another, by analyzing intra- and inter-individual variability. With, the intra-individual variance<sup>1</sup> (the intra-individual contribution of the latent variable of user satisfaction by those of the explanatory variables) and the inter-individual variance which presents the inter-individual contribution of the latent variable of user satisfaction explained by that of the explanatory variables.

Therefore, we start by calculating the linear estimated value of the latent variable for each

observation in the sample:  $\hat{Y}_{ik}^* = \hat{\beta}' X_{ik}$ . Then, we calculate the average of its estimated values

$\hat{Y}_i^*$  for each hospital  $i$  and we generate a new variable  $\hat{Y}_{ik}^d = \hat{Y}_{ik}^* - \hat{Y}_i^*$ . The new variable  $\hat{Y}_{ik}^d$  is thus a measure of intra-individual homogeneity for a hospital  $i$  in the sample. A last step

consists in calculating the variances of  $\hat{Y}_i^*$  and  $\hat{Y}_{ik}^d$ ; we obtain:  $var(\hat{Y}_i^*) = 0.6265$  it is the inter-

individual explained variance;  $var(\hat{Y}_{ik}^d) = 0.4866$  it is the intra-individual explained variance;

$var(u_i) = \sigma_u^2 = 0.0277$  it is the interindividual unexplained variance;  $var(v_{ik}) = 1$  it is the

unexplained variance of the within-individual component. The total variance is then equal to:

$$var(\hat{Y}_{ik}^*) = var(\hat{Y}_i^*) + var(\hat{Y}_{ik}^d) + var(u_i) + var(v_{ik}) = 0.6265 + 0.4866 + 0.0277 + 1 = 2.1408$$

<sup>1</sup> The inter-individual variance (between) represents the individual dimension and the intra-individual variance (within) represents the time dimension.

We explained 52% of the total variance and we found that it is mainly due to an inter-individual difference (i.e., by the importance of the individual dimension). Thus, the probability of patient satisfaction with hospitals is mainly due to the inter-individual difference. Hence, the stability of responses to the quality of hospital management from one satisfaction to another. And, as the individual dimension of the sample (26 hospitals) is that relating to the stability of responses to the qualities of management in hospitals from one user satisfaction to another, we can say that an important component of the variability of hospital management is due to the variability of user satisfaction through the quality of service and treatment of patients in different hospitals. Our results rather suggest that our determinants are important for the management of the hospital crisis both in user satisfaction and in the qualities of hospital management.

## **DISCUSSING THE RESULTS**

The comparison of the results analyzed here with the theoretical framework formulated by Mitchell et al. (1997), (see theoretical framework combining agency and stakeholder theory) is also combined with the different understandings of stakeholder power in the hospital setting, namely those of Etzoni (1998) and Harrison and St John (1998) to characterize the types of users according to their power. All this with the aim of understanding their participation as useful stakeholders in improving the quality of care within hospitals.

From our analysis of the data, the general trend brings out the following salient points: All respondents are unanimous in recognizing the progress of the system through improvements in the provision of health care and services related to the implementation of the new governance. The programs retained in the new hospital management are globally relevant. Their national implementation and the results were deemed satisfactory by almost all of our respondents; however, the sustainability of these achievements remains weakened by the verticality of the implementation of the said programs. Hospital management processes applied to hospitals in Douala lead the medical and health staff to greater efficiency in the delivery of services to users. This emerged both from interviews with hospital managers and from the quantitative results of questionnaires submitted to medical staff and users. The mechanisms for adopting hospital management and the subsequent organizational transformations in Douala hospitals include both managerial openness, consideration of all stakeholders, boards of directors' effectiveness, hospitals' accountability, the responsibility of staff to the user, patients' inalienable rights, etc. The growing emancipation of users and the adoption of new quality standards in the health sector contribute to the improvement of services in hospitals in Douala.

As a result, the impact of hierarchical control on improving the quality of services to users in hospitals in Douala is well established.

These shortcomings in terms of hospital management relate to aspects as varied as: cumbersome financial procedures, particularly the procurement process, which hinders the implementation of several scheduled activities. The funding's weakness was noted. Not only were the available funds not used effectively and efficiently, but their mobilization remained a constant concern, particularly because of the administrative burden and delays in disbursement. This generates an increase in the costs of care, as the patients deplore. The deficit, both quantitative and qualitative, in human resources remains a major concern and even a threat to the success of the implementation of the new governance, the current efforts to upgrade the workforce remain largely below the needs.

## CONCLUSION

This research questioned hospital management's effects on the delivery of care to hospitals' users in Douala. The first step was to review the different theories analyzing hospital management. To do this, we conducted a survey of patients in some hospitals in the city of Douala. We then used a multinomial random effects model to explain the users' assessment of the quality of health services in health facilities. At the end of this work, we can make the following recommendations: (i) improve the working conditions of staff in health facilities, particularly the grant of bonuses related to the quality of services to hospitals' users in the city of Douala; (ii) prioritize human resources by improving their training and remuneration and set up a system of complementarity and continuity of care (internal and external referrals); (iii) promote and improve the availability and management of essential drugs (including generics), reagents, and devices; (iv) pursue actions to develop the local pharmaceutical industry; (v) make the procedures for using assigned revenue more flexible; (vi) build the capacities of health system actors at all levels and create the conditions enabling them to truly perform their responsibilities within the framework of multi-actor approaches; (vii) accelerate reforms in terms of the quality of health services and care through the production of healthcare norms, standards, and protocols and accelerate the establishment of alternative health financing mechanisms with the full participation of clients.

Finally, the limitations of this research are methodological. This is due to the small size of the sample and the failure to take into account at least one hospital in each of the health areas of the city of Douala. Furthermore, private hospitals were not surveyed, which could lead to further studies.

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