

Construction of a multidimensional performance model based on the perceptions of hospital stakeholders

Construction d'un modèle de performance multidimensionnel basé sur les perceptions des acteurs hospitaliers

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Abstract

Moroccan University Hospital Centers are facing pressures and constraints caused by a constantly changing, complex and turbulent environment. In this context, the vision of the UHCs has evolved towards new concepts of modernization of their internal management. Hence the importance of evaluating their performance if they want to offer quality services to patients in a cost-effective manner.

Furthermore, hospitals are characterized by an organizational duality that often puts the vision of care providers and managers in competition. Managing its performance is therefore a very complex process.

The objective of this article is to design a performance model based on research-intervention as a strategy for accessing the field by adopting a transformative approach combining observation, documentary study and semi-structured interviews with the various hospital stakeholders in order to identify their multiple perceptions of performance. The interviews were carried out through interview guides aimed at internal hospital stakeholders (26 actors interviewed) as well as external stakeholders (10 actors interviewed) having an influence on the performance of the university hospital in order to define a model reconciling the culture of care and the managerial culture.

The model constructed shows that hospital performance is a multidimensional construct that is close to two theoretical performance models, namely the BSC and the WHO PATH model. The combination of the two models allowed for a reconciliation between the visions of the different professional categories of hospitals and brought out a performance model that reconciles the care and managerial visions.

This study will provide a practical solution for the hospital manager to pilot the performance of the organization and monitor the execution of strategic projects. It will also add value to the scientific literature on the adaptability of the tool to public hospitals.

Keywords : Perception, Performance hospitalière, Modèle multidimensionnel, Conciliation

JEL Classification: I10, P17

Paper type: Empirical research

Résumé

Les Centres hospitalo-universitaires marocains font face à des pressions et contraintes causées par un environnement en constante évolution, complexe et turbulent. Dans ce cadre, la vision des CHUs a évolué vers de nouveaux concepts de modernisation de leur gestion interne. D'où l'importance de l'évaluation de leur performance s'ils veulent offrir aux patients des services de qualité et un bon rapport coût-efficacité.

Par ailleurs, l'hôpital est caractérisé par une dualité organisationnelle mettant souvent en concurrence la vision des prestataires de soins et celle des gestionnaires. Le pilotage de sa performance est par conséquent une démarche des plus complexes.

L'objectif de cet article est de concevoir un modèle de performance en se basant sur la recherche-intervention comme stratégie d'accès au terrain en adoptant une visée transformative combinant l'observation, l'étude documentaire et des entretiens semi-directifs auprès des différentes parties prenantes de l'hôpital afin d'identifier leurs perceptions multiples de la performance. Les entretiens ont été réalisés à travers des guides d'entretiens destinés aux parties prenantes internes de l'hôpital (26 acteurs interviewés) ainsi qu'aux parties prenantes externes (10 acteurs interviewés) et ayant une influence sur la performance du CHU afin de définir un modèle conciliant entre la culture de soins et la culture managériale.

Le modèle construit montre que la performance hospitalière est un construit multidimensionnel qui se rapproche de 2 modèles de performances théoriques à savoir la BSC et le modèle PATH de l'OMS, la combinaison des deux modèles a permis une conciliation entre les visions des différentes catégories professionnelles des hôpitaux et a fait ressortir un modèle de performance conciliateur entre vision soignante et vision gestionnaire.

Cette étude apportera une solution pratique au gestionnaire hospitalier pour piloter la performance de l'organisation et suivre l'exécution des projets stratégiques. Aussi, elle apportera une valeur ajoutée à la littérature scientifique sur l'adaptabilité de l'outil à l'hôpital public.

Mots clés : Perception, Performance hospitalière, Modèle multidimensionnel, Conciliation

Classification JEL : I10, P17

Type de l'article : Recherche appliquée

Introduction

Public hospitals suffer from several dysfunctions related to user dissatisfaction, the heavy expenses of their evolving activity, the shortage of personnel, or problems related to governance. All these shortcomings have perverse effects on their performance.

In order to control and reduce its effects, a succession of organizational and structural reforms has been put in place by the supervisory authorities. These reforms are accompanied by instrumental support and management and decision-making tools, including hospital performance evaluation tools.

These tools attempt to plan and measure hospital performance for the purposes of internal steering of institutions, intra-departmental competition, and also to improve the quality of the service provided to users.

In the same vein, a number of indicators have been developed to measure performance. Nevertheless, no model integrating the different dimensions of hospital performance is currently standardized. Thus, apart from the elements that are purely linked to the statistics on the activity of the institution, no financial or social indicator is included in the performance tool that is currently used.

Furthermore, the points of view and visions of the hospital actors do not converge, or are trapped into the conflict between managerial logic and caregiving logic. Subsequently, this makes it essential to carry out a study prior to the implementation of a performance management system that reconciles these two logics when modelling.

The University Hospital Center Mohamed VI Oujda as the object of study has not escaped this wave of dysfunctions that the sector is experiencing. For example, the acute shortage of financial and human resources, the lack of respect for the health care system, the long waiting times, patient dissatisfaction, and the like.

Evaluating performance in this institution will afford the possibility to set up regulatory actions, since the evaluation is based on monitoring results. Therefore, a continuous improvement of the various services offered can be envisaged, with the purpose to provide the patient with the best care, at the lowest cost and with minimal iatrogenic risk.

The concept of performance aforementioned, which is raising interest from the various stakeholders, both within and outside hospitals, appears to be a major challenge for health care institutions, and deserves to be considered in order to broaden the evaluation and measurement criteria; the aim being to devise a consensus model for evaluating hospital performance.

In this sense, various theoretical models have been developed, such as the Donabedian model (1988), which proposes four levels of evaluation linked to the quality of care, or the Sicotte model (1998), which integrates four dimensions into its performance evaluation model, namely social legitimacy, the adequacy of resources, the quality of internal processes and the quality of human relations.

These theories emphasize the fact that hospital performance is multifaceted and that there is no consensus on its meaning or on the criteria for its evaluation among stakeholders (Nobre, 1999). It is in this perspective that we wish to build a performance assessment model that allows the majority of staff and external stakeholders to be brought together around shared strategic objectives, through a participatory and collaborative methodology.

In other words, the objective of our article is to bring together all the visions of the UHC stakeholders, whether strategic or operational, in a complicated and complex context, in order to facilitate the appropriation of the tool constructed and possibly prevent the risks of resistance. The first part will be devoted to a literature review that mobilizes both the concept of hospital performance evaluation by defining its various models, while focusing in particular on the theory of stakeholders to assess the performance of the UHC. In the "Methodology" section, we will present the research-intervention approach and the experimental device through

interviews with the various hospital stakeholders. Finally, we will present the results that revolve around the mode of performance evaluation within the UHC and we will propose a strategic model of hospital performance based on existing performance models such as the WHO PATH and Kaplan and Norton's BSC.

1. Conceptual framework

1.1 Concept of hospital performance

In a context that is pushing for a better control of health expenditures and improved efficiency, performance has been summoned for action within public hospitals. At the same time, a consumerist movement is impelling citizens to become increasingly demanding (Guisset et Al, 2018). We note, moreover, that the challenges faced by hospital actors (managers and physicians) are multiple and sometimes contradictory. Indeed, one of the main concerns of the supervisory ministry is to ensure the financial balance of the organization, to guarantee a quality and well-distributed care offer on the territory without any form of discrimination, while caregivers are particularly concerned about the quality of care provided for the benefit of patients, the latter will be sensitive to the care performed but also to the relations with patients. (Nia, Omari, 2019).

Guisset, Sicotte, Leclercq, D'Hoore, (2018) attempted to define hospital performance through areas of consensus and areas of divergence, through a survey of strategic actors in French-speaking Belgian hospitals. The results of their survey revealed that hospital performance is something complex and that its perception differs among actors. The survey also revealed that the respondents use indicators which are considered relevant such as: social recognition, listening to the needs of the population, socio-economic responsibility, satisfaction, internal cohesion, coordination, efficiency and quality.

As for the World Health Organization, it proposes the following definition of hospital performance: "Performance is defined as the achievement of a desired outcome, desired goals. A high-performance hospital should be based on professional competence in line with current knowledge, available resources and technologies, efficient use of resources, minimization of patient risk, patient satisfaction and health outcomes.

In the health care setting, a high-performing hospital should also consider responsiveness to community needs and demands, integration of services into the overall delivery system, and commitment to health promotion. A high-performing hospital should be evaluated on the basis of the availability of hospital services for all patients regardless of physical, cultural, social, demographic and economic barriers." (WHO, 2003, p.8)

This definition, put forward by the WHO, places the indicator of patient satisfaction and health results, the availability of hospital services, while keeping an eye on costs, at the center of the hospital's priorities. Thus, a hospital is considered efficient when it is able to respond effectively to the health needs of citizens, in an equitable manner across the country, to guarantee a quality care offer, thanks to an optimal care of users, and to ensure that economic and organizational efficiency is continuously improved. This definition is in line with that of the various supervisory bodies, which considers that hospital performance is the result of a combination of three elements: socio-economic effectiveness, efficiency, and quality of service. (Le Pogam et al. 2009)

For Kervasdoué (2004) "hospital performance is to treat all patients, with the greatest sense of humanity, at the best price, by offering them the best quality of care, taking into account current medical knowledge".

It should also be noted that the meaning that is given to performance is closely linked to the design of the organization chosen, and consequently a variety of designs generates a variety of performance models (Cameron, Whetten, 1983). With this in mind, Marty and Merlin (2007)

defend the idea that performance in the hospital environment depends largely on its conception by the various stakeholders, namely, the caregivers, the patients, the supervisory authority and the community. Performance is therefore defined according to the representation of each stakeholder. We are talking here about the notion of "perceived performance".

1.2 Models for measuring hospital performance

Based on the main criterion for assessing performance, the literature review provides two main types of model: one-dimensional models and multidimensional models.

1.2.1 One-dimensional models of hospital performance

In the one-dimensional category, the literature contains various models for assessing the performance of organizations, which are classified into four generic types, as explained in the table below.

Table 1: One-dimensional models of performance

Models	Features	Indicators
Rational goal models (Price, 1972)	These models are based on an analysis of the organization's results in terms of economic efficiency	-the main criterion is productive efficiency measured by quantitative indicators (full time practitioners, number of beds) and outputs (number of days performed,)
Resource models (Moisdon and Tonneau; Grant, 1991; Barney, 1995)	These models are based on an analysis of the structure of the organization by postulating that the higher the resources, the higher the probability of good performance.	(Gross operating margin, gross return on operating capital) and indicators of attractiveness and notoriety (market performance, geographical origin of patients, socio-professional category of patients).
Models of human relationships Bettignes and bennis (1975)	These models are based on research in the sociology of organizations and in particular on the satisfaction of the organization's stakeholders as a dimension of the organization's performance	Indicators representing the social climate of the organization and seeking to reflect the satisfaction of each stakeholder (strike rates, absenteeism, staff turnover, work accidents,)
Internal process models(Pascal,2000;Diridollou,1998;Allison,1997)	These models are based on a search for rationalization of production and decision-making processes, rationalization that should lead to improved performance	Assessment of internal coordination professionals: the degree of information, control and monitoring of activities within the organization

Source: by Authors

The Moroccan hospital system is in a permanent search to legitimize its activity. Such legitimacy will always be in question, as long as it is not associated with the challenge of performance. The pursuit of excellence by focusing on a single dimension could jeopardize the sustainability of the organization, hence the emergence of multidimensional models or integrating models that encompass several dimensions.

1.2.2 Multidimensional models of hospital performance

The design of a multidimensional model of hospital performance is based on the perceptions of all the stakeholders who have a direct or indirect relationship with the hospital environment. Indeed, the atypical character of the hospital makes the evaluation of its performance complicated and has given rise to a reflection about a model that can combine operational and strategic indicators. In this sense, we cite Donabedian's (1988) integrative model of performance, which identifies two components of quality of care and notes that quality criteria can be classified according to three axes: structure, process and results. According to Donabedian (1988), performance must be assessed first of all in an individual way with the care delivered by the health professional, and then in a collective way with the involvement of the entire health care and organizational team.

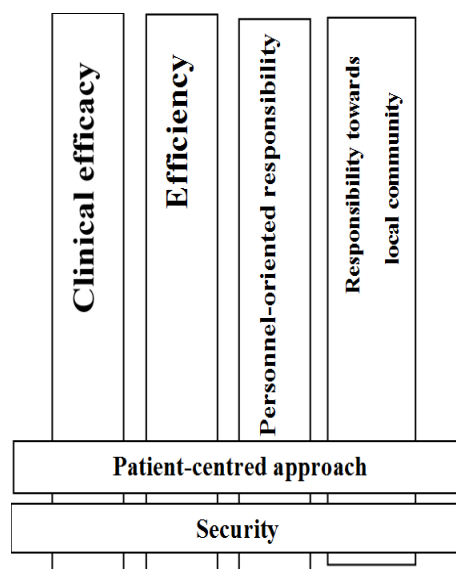
In this vein, we mention the EGIPSS model designed by Sicotte et al (1998), which is inspired by the theory of social action and proposes four dimensions of performance measurement, namely: goal attainment (effectiveness, efficiency, etc.), adaptation (capacity to acquire resources, capacity to attract patients, etc.), production and maintenance of values, and organizational climate (quality of care, internal consensus on fundamental values, etc.). This model remains limited from an operational point of view, although it has the advantage of bringing together the different models that are qualified as unidimensional.

In addition, we may add the work of Dussault (2011), which focuses on 5 dimensions of hospital performance, namely: workforce coverage, productivity, technicality, acceptability and organizational stability.

The BSC is a performance assessment model that can integrate different levels and different actors. Based on a strategic approach, this model provides operational tools to evaluate performance such as the dashboard or BSC developed by Kaplan and Norton (2007). The latter allows for the elaboration of an organization's vision and strategy on the basis of four perspectives: internal processes, organizational learning, customer satisfaction axis, and financial results axis.

Finally, we should mention the multidimensional performance model presented by the WHO known as PATH (Performance Assessment Tool for quality improvement in Hospitals). This model presents a highly developed internal vision of hospital performance (through five dimensions presented in figure 1 below) and an external concern through its last dimension, which is responsibility towards the local population.

Figure1: hospital performance Path model-WHO



Source: Path Model of performance by World health organization

By referring to these models, each health organization should therefore evaluate its performance on the basis of multidimensional criteria. However, the adoption of a particular model cannot be entirely successful unless the various hospital stakeholders take ownership of the whole process of designing and implementing this performance. It is therefore necessary to study the perceptions and expectations of all the stakeholders so that the performance model to be implemented is operational and offers an assurance of sustainability over time.

1.3 Stakeholder theory at UHC

1.3.1 Origins and definitions of the stakeholder concept

According to Freeman (1984, p. 31), the term "stakeholder" was created to indicate that other parties have a stake in the organization. The TPP thus seeks to replace the traditional view of the company, known as "Stockholder Theory", which assumes that managers have a fiduciary duty to act exclusively in the interests of their shareholders. From the 1930s onwards, firms should balance the competing interests of different participants in order to maintain their necessary cooperation. Indeed, Hummels (1998, p. 1406) recognizes four stakeholders: customers, employees, the community and shareholders.

As part of the research on strategic management, Rhenman describes the company as a social and technical system in which the different stakeholders play a determining role.

In this sense, let us retain the most widely used definition, which is the one proposed by Freeman (1984, p. 46), and which Carroll and Buchholtz (2000, p. 66) in particular take up: "A stakeholder is an individual or group of individuals who can affect or be affected by the achievement of organizational objectives. In this view, stakeholders include suppliers, customers, employees, investors, the community, etc.

1.3.2 Stakeholder Typologies

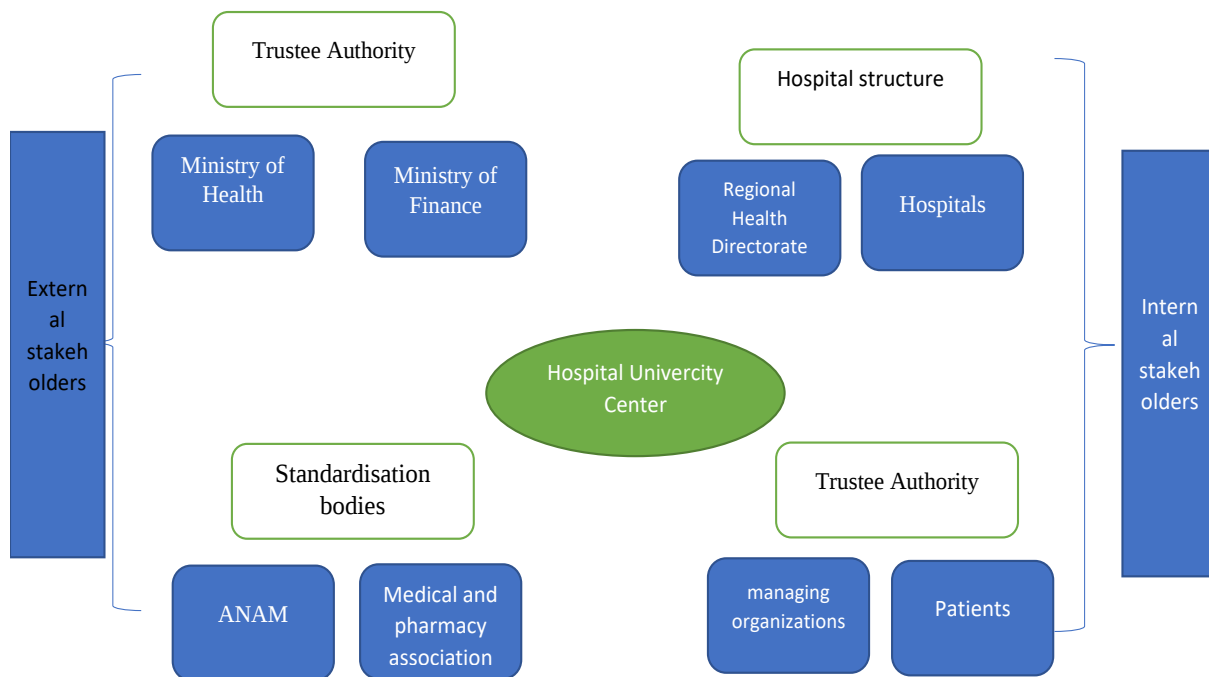
Carroll and Näsi (1997) distinguish between internal stakeholders: owners, managers, employees, and external stakeholders: competitors, consumers, governments, pressure groups, the media, the community and the natural environment. Carroll and Buchholtz, 2000; Gibson, 2000; Weiss, 1994; Clarkson, 1995 distinguish between primary stakeholders: those who have a contractual and formal relationship with the company: owners, employees, suppliers and customers and secondary stakeholders such as the media, consumers, pressure groups, governments, competitors, the public and society. They can have potential influence (in the case of boycotts or whistle-blowing campaigns, for example) and can quickly emerge as actors capable of influencing the company's performance.

However, Frooman (1999) criticizes the classical view that only managers have a contractual relationship with other CPs. He considers that there is a reciprocal interdependence between all the stakeholders. Thus, the Stakeholder Theory must be placed in a context of multilateral relations. Similarly, the relationships between the organization and its stakeholders may evolve very quickly, so a dynamic aspect must be introduced into the identification of stakeholders (Frooman, 1999; Kochan and Rubinstein, 2000, p. 369).

Stakeholder identification is essential to the study of performance because it represents the goals of internal and external actors. Based on the categorization of stakeholders provided by the Chabault model (2011), the latter distinguishes between stakeholders who are internal to the collective action, actors with a direct relationship with the care of patients, and external stakeholders who influence this care without participating in it.

Based on the above developments, and in close relation to the purpose of this article, it is important to highlight the stakeholders in relation to a university hospital (see figure 2)

Figure 2: The various intra- and extra-stakeholders of a university hospital center (Inspired by the Chabault Model, 2011)



Source: by Authors

The University Hospital Center, whose missions are health care delivery, training, research and public health, is a third-level structure composed of several hospitals. Its performance criteria are determined by two external stakeholders, namely the supervisory authorities and the standard-setters, and two internal stakeholders, namely the territorial structures and the various actors in the health territory.

The supervisory authorities, the primary stakeholders in the Moroccan health system, are composed primarily of the Ministry of Health and Social Protection, which represents the government. Their mission is to develop and implement public health policy.

Secondly, there is the Ministry of Finance, which oversees budgetary management by allocating the necessary budget to the UHC, and reconciles the allocated budget with the organization's expenses.

As far as the external standardizers of the UHC are concerned, they are composed of two actors: the National Health Insurance Agency (ANAM), whose role is to ensure the technical supervision of the basic compulsory health insurance, and the Medical Association, which provides doctors with deontological clarification, legal advice, helps them during their integration and assists them in the various administrative steps or in case of difficulties.

As for the territorial structures, composed of the regional health directorates, their role is to implement the national health policy at the regional level.

The fourth category of stakeholders is represented by the management bodies (CNSS, CNOPS, FAR, etc.), which oversee and regulate the health insurance system and manage the resources of the Medical Assistance Plan.

Finally, the group of the population represented by the citizens who are the beneficiaries of all the medical assistance, and are also considered as a source of income for the different medical centers, notably the CHUs.

2. Research methodology

2.1 Presentation of the field of intervention and the land access strategy

Our scope of intervention is a Moroccan public hospital, the "CHU Mohammed VI Oujda". It is a public institution with legal personality and financial autonomy, at the level of this institution dwells a multitude of actors with multidisciplinary profiles: medical staff, nursing staff, health technicians and administrative and technical staff where the objectives diverge.

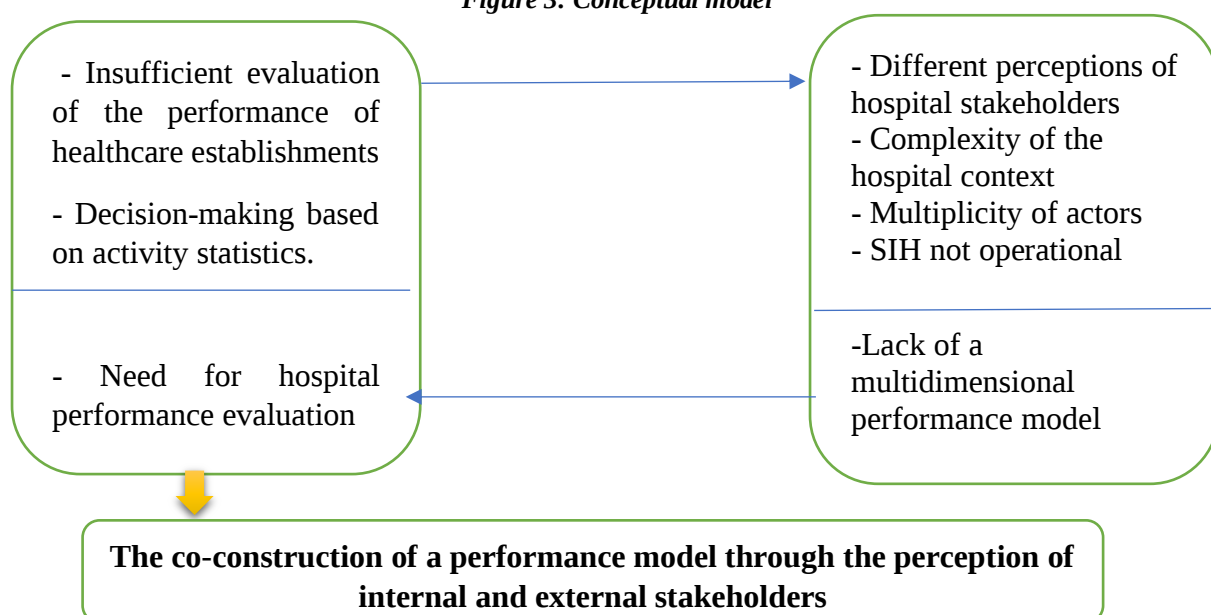
At present, the Oujda University Hospital is in a phase of growth and transformation into an interregional center. The evaluation of its performance has become an increasing priority. This calls for managers to question the organization of the health care provision, and the managerial and management practices. Hence, the interest is raised as to designing a performance evaluation model to achieve its strategic objectives and better make future decisions.

It should be noted that the main mission of the CHU Oujda is the provision of medical care to patients, health research in general, university and post-graduate clinical teaching and the achievement of public health objectives. This institution is composed of a general direction and four following hospital trainings: The Hospital of Specialties; The Hospital of Mother and Child; The Hospital of Mental Health and Psychiatric Diseases; The Center of Oncology Hassan II.

For a better understanding of reality, action research, granting the presence of the researcher on the premises of his object of observation, proved to be the most relevant way. Access to the field was relatively easy, especially since one of the co-authors of this paper is a practitioner-researcher at the University Hospital Center.

It should be remembered that the objective of intervention research is to encourage the researcher to maintain an interactive relationship with the field of choice, in order to experience the situation and confront its problems while involving the field actors in the research (Perez, 2008). Research-action is therefore presented as a species of the Evidence-Based Management paradigm that aims to produce theoretical knowledge based on rigorous observation of the facts in order to contribute to change (Cappelletti et al. 2018). For the researchers involved in the study, the confrontation has indeed allowed us to fully understand the research object and to contribute to its transformation through a process of co-creation of knowledge alongside the actors of the two services.

Figure 3: Conceptual model



Source: by Authors

2.2 Data Collection Techniques

With regard to data collection methods, we chose a qualitative study based on the following tools: participant observation, documentary analysis and the classic interview technique through semi-structured interviews. We used participant observation, which is useful since this is a complex research field. For the documentary analysis, we based ourselves on several hospital organization documents such as the strategic documents of the Ministry of Health, the PEH of the CHU and the action plans.

Following this first exploratory phase, we interviewed the internal and external stakeholders of the UHC in order to collect their perception of the performance model best suited to their vision.

With regard to the development of the interview guide, we prepared two interview guides, one devoted to internal stakeholders and which includes questions relating to the model currently in place and their vision of the performance evaluation model best suited to the UHC, while the second interview guide allows for the collection of dimensions and indicators that external stakeholders would like to know annually about the Mohammed VI Oujda UHC.

It should be noted that each interview lasted approximately 1 hour, with a total average duration of 26 hours. For the selection of our sample, we mapped the research field in order to end up with the list of key persons having a direct link with our research problem and which is presented as follows

Table 2: Internal stakeholders of the UHC Mohamed VI Oujda

Staff category	Profile	Code	Experience	Number	Number of hours spent
Administrative staff	General director	Adm1	10 ys	1	1H
	Management control	Adm2	9ys	1	1H
	Hospital Care and Allied Health Department	Adm3	21ys	1	30 min
	Secretary General	Adm4	5ys	1	1H
	Division of Health Organization and Professional Affair	Adm5	22ys	1	1H
	Human Resources and Continuing Education Division	Adm6	9 ys	1	30 min
	Revenue and Collection Department	Adm7	15ys	1	30 min
	Quality departament	Adm8	18ys	1	1H
	Programming and Public Order Department	Adm9	8ys	1	30 min
Medical staff	Directors of hospitals	Adm10 Adm11 Adm12 Adm13	15ys 21ys 24ys 10ys	4	3H
	Pharmacists	Adm14 Adm15	13ys 5ys	2	1H
Nursing staff	Majors (Pharmacy, Medical help and Emergency Service (SAMU), Central Block, Oncology, Visceral, Cardiology, Resuscitation, Pneumology, Central Laboratory, Gynaecology, Psychiatry)	Adm16 Adm17 Adm18 Adm19 Adm20 Adm21 Adm22 Adm23 Adm24 Adm25 Adm26	9ys 9ys 9ys 15ys 11ys 9ys 9ys 10ys 5ys 9ys 5ys	11	5H
Total				26	16H

Source: by Authors

To complete the vision of the internal stakeholders of the university hospital center, it was essential to go through the perception of the external stakeholders who influence and participate in the work of the said center to conceptualize a multidimensional model adapted to all visions.

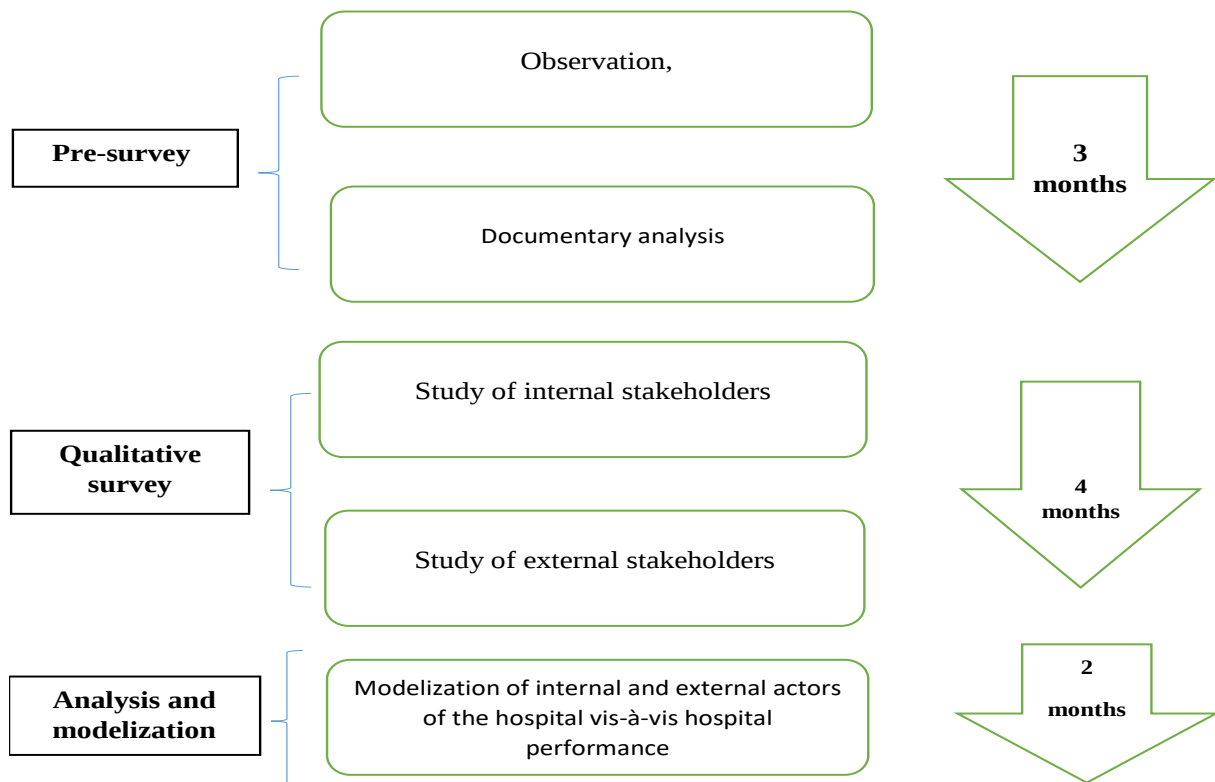
Table 3: external stakeholders of the UHC Mohammed VI Oujda

Interviewees	Code	Experience	Numbers	Number of hours spent
Representative of the Ministry of Economy and Finance on the Board of Directors	Ext 1 Ext2	16ys 8ys	2	2H
Managers at the level of the delegation of the Ministry of Health of the Eastern Region	Ext3 Ext4	17ys 9ys	2	2H
ANAM	Ext5	11ys	1	1H
Representative of the Council of Physicians on the Board of Directors	Ext6 Ext7	12ys 8ys	2	2H
Administrators - CNSS- CNOPS - FAR	Ext8 Ext9 Ext10	9ys 5ys 18ys	3	3H
Total			10	10H

Source: by Authors

In sum, the survey went through three stages and was disseminated over a period of nine months as represented in the following figure:

Figure 4: Research approach and timeline



Source: by Authors

2.3 Processing of data

The treatment of our problem solicits the methodology of the research-intervention. This approach of research-intervention is the position potentially the most favorable to the production of theoretical knowledge founded in management sciences. In addition, as a member of the general management of the CHU Oujda, we have the opportunity to rub shoulders with the personnel who works there in order to identify the data to be collected and better answer our research question. To guarantee more scientific results, we opted for the contradictory intersubjectivity, which results from the confrontation of several intersubjectivities (which can be contradictory) relating to the actors of different profiles and hierarchical levels, in order to find a meaning that can be shared. (Senhaji, Gallouj, Fikri, 2023)

Contrary to quantitative research, our objective is not to have the most representative sample because the verbatims are repeated and only produce information that has already been discovered before, so through a sample of thirty-six people who are considered the most significant in relation to our research question, we have reached the semantic saturation of information. It should be noted that this phase of semi-structured interviews allowed us to know the different positions and representations of the actors in relation to the hospital performance that is the subject of our study. With regard to the processing of the verbatims, we opted for a content analysis in order to understand their perceptions of performance and of the appropriate measurement model and indicators.

3. Results and analysis

The results obtained from the documentary study and observation show that the Mohammed VI Oujda University Hospital refers to the model established by the Ministry of Health for performance evaluation. It is based on indicators of care which are related to hospitalization and statistics of technical medical services (functional Lab-Radio-exploration and consultations), collected at the level of the hospitals under the authority of the University Hospital and which are reported to the General Management.

The data and indicators calculated are summarized in the table below.

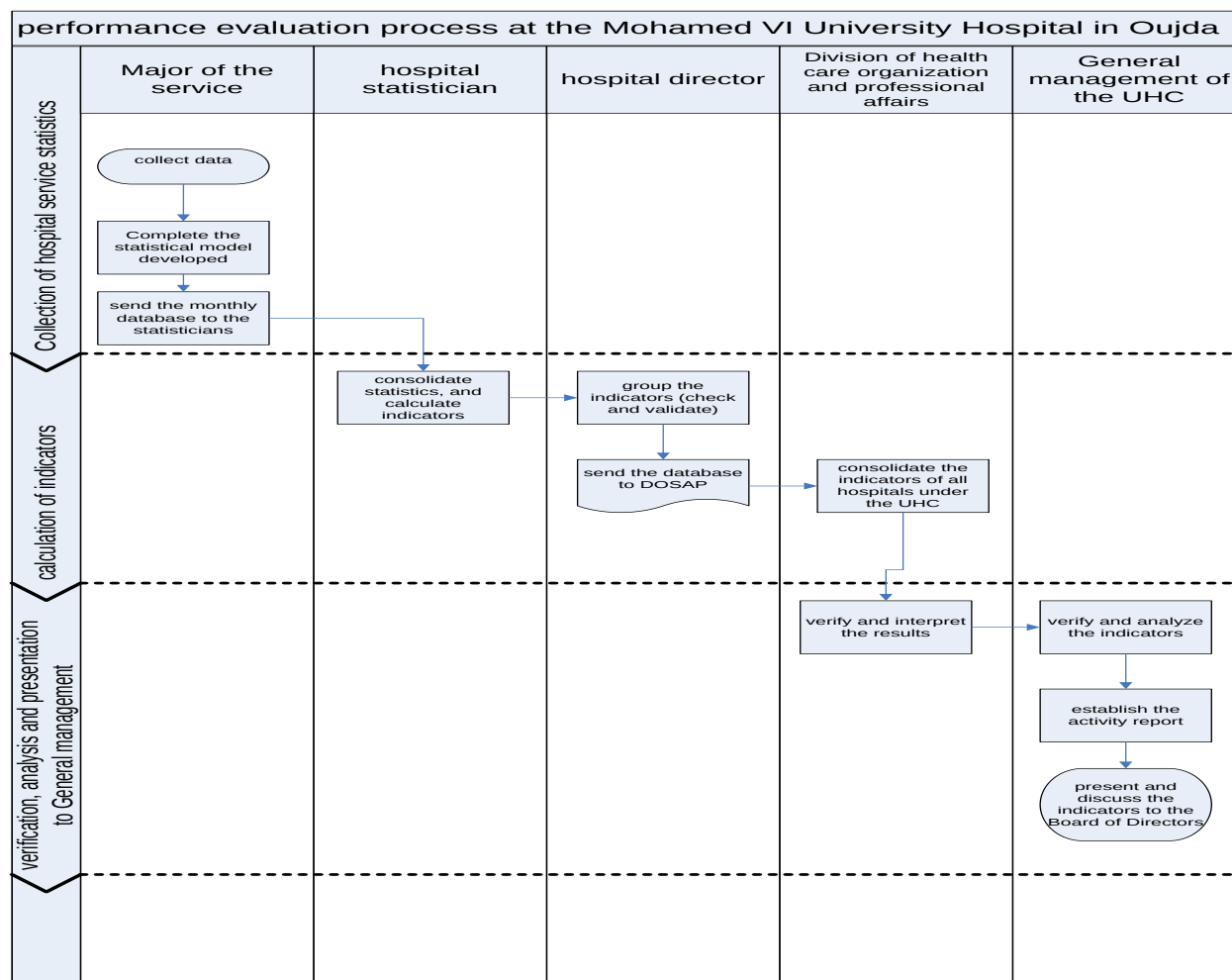
Table 4: The different data and performance indicators collected at the UHC level

Data collected at the level of hospital and medico-technical services	Indicators calculated at the level of the General Management
- Litter capacity - Admissions - Day hospital admissions - Inpatient days - Number of consultations - Number of medical acts - Medical procedures: number of surgeons, major procedures, minor procedures, emergency procedures, scheduled procedures, conventional hospitalization, day hospital - Surgical procedures: number of surgeons, major procedures, minor procedures, emergency procedures, scheduled procedures, conventional hospitalization, day hospital. - Therapeutic procedures: medical and surgical - Exploratory procedures - Activities of the poles of excellence - Radiological and laboratory procedures: inpatient and outpatient, Mortality.	- Average occupancy rate (AOR) - Average length of stay (ALOS) - Turnover rate (TROT) - Number of medical procedures - K.C and K.A of surgical procedures - Number of operations per surgeon - Number of radiology procedures: inpatient and outpatient - Number of biological procedures: inpatient and outpatient - Percentage change compared to the previous six months and the previous year for all data and indicators collected.

Source: internal document of the institution

Several actors are involved in the process of collecting indicators at the UHC, namely the departmental majors, statisticians, and hospital directors, the division of organization of care and professional affairs, and the general director of the center. "... *The hospital performance evaluation, which is done monthly, allows the strategic level to have a visibility on the activity of our service, as well as on the performance of the medical and paramedical staff.*" Adm18. The flow chart below shows the different stages in the collection of indicators.

Figure 5: Flow chart of the performance evaluation process at the Mohammed VI University Hospital-Oujda



Source: by Authors

In this respect, it should be noted that the statistics are drawn up and sent by the department heads by mail, and the calculation of the indicators is done manually, as the statistical module of the hospital information system that has been set up is not yet operational. "... *The evaluation of the performance within the University Hospital is a work that is done manually until today, but whose results are quite profitable, insofar as it allows us to make good decisions at the right time. I will give you an example: during the COVID 19 health crisis, these performance statistics sent by the services allowed us to have a good visibility on the evolution of the pandemic at the regional level and thus to take the best decisions likely to avoid any crisis at the regional level, and the challenge was well met.*" Adm5

The indicators are result-oriented and are calculated for statistical purposes at the level of the care units and used as decision-making tools for the hospital management. For better monitoring, the organization does not have a performance model that is instrumental to decision making, supports the monitoring of nursing care and evaluates resources, human and material structures, training and organization, and the interpretation of relationships between

results, costs and efficiencies, in order to ensure the path to overall performance. *"In fact, this performance matrix does not cover all of the center's missions and objectives; it is a matrix adapted to first and second level hospitals, but at the UHC our missions are broader. However, although this matrix is insufficient to say that it drives the overall performance of our institution, but it is a basis that we could develop progressively through the addition of other dimensions and indicators that assess the other missions and objectives of the UHC."*Adm2

The performance model represents a support that helps the service manager to steer his unit, i.e. to achieve the objectives set by the service and that are aligned with the objectives of the hospital's management, while ensuring the optimal functioning of his service. This performance model must contain indicators that faithfully reflect the reality of the organization. Knowing that a good indicator is a piece of information, generally quantified, chosen to report, at short intervals, on the execution of a mission.

"The first shortcoming that comes to mind for the moment is that this matrix has no added value on our daily work, normally the performance reports are means of communication between the head of department and his team, between the department and the general management, it is also a means of motivating the teams. These objectives have not yet been achieved through this matrix, which is now in place." Adm22

3.1 Proposal of a performance model adapted to the UHC

The first series of interviews with external stakeholders (10 interviewees) were distributed as follows two representatives of the Ministry of Health, two representatives of the Ministry of Economy and Finance, one representative of the ANAM, two representatives of the council of physicians, 3 representatives of the managing organizations, and a second series composed of 26 interviewees of the internal stakeholders divided between the professors of the council of physicians and 9 representatives of the general management of the UHC.

All these members were interviewed using a structured interview guide revolving around the perception of performance at the university hospital level, as based on the WHO PATH model and Kaplan and Norton's BSC model. The aim was to collect the priorities of each stakeholder with regard to the dimensions of the aforementioned adjoined model.

Indeed, all the members interviewed agree on the idea of a multidimensional conception of hospital performance and that the model to be put in place must integrate several dimensions. *"Hospitals are the most complex establishments to manage, so the evaluation of their performance should not be limited to a single dimension, because the activity of the hospital is certainly social but also economic, which makes the question of performance difficult for the managers of these establishments, Therefore, we assume that the performance of a university hospital depends not only on its profitability, but also on the satisfaction of its users, on the access to care and the availability of the necessary materials and consumables, but also on the scientific production, while adapting to the technological evolutions, in short, it is a performance that makes several dimensions interact."*Ext 3. The analysis of the verbatim notes highlights six dimensions of performance, namely Care activity, development, governance, human resources, and finance, leading to the patient axis.

Almost all of the stakeholders interviewed reveal that patient satisfaction through the provision of quality care must be at the center of performance at the UHC, with particular attention to the needs, expectations, communication, and dignity of patients.

While the rest, consider that performance must be measured by the production of care while ensuring the financial autonomy of the institution through increased revenue.

The qualification of personnel through better training, and the satisfaction of the said personnel with regard to working conditions is a salient point that was repeated in several verbatims.

Among the missions of the UHC, research and innovation, which implies that the production of research and studies reflect an essential indicator of the performance of a UHC.

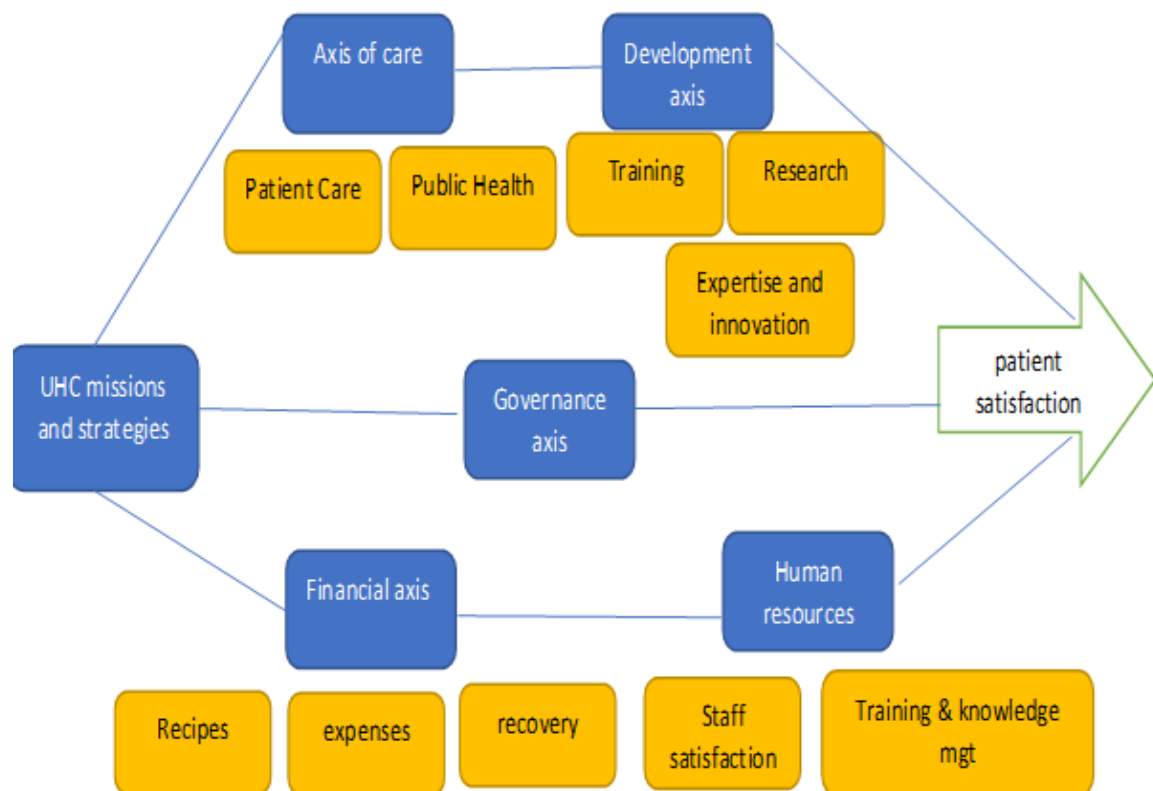
Moreover, the UHC has several stakeholders who directly or indirectly influence the operation of the institution, so ensuring a better relationship with the various stakeholders will automatically improve the performance of the center.

All of these elements led to the development of a model through the vision of the different stakeholders of the UHC on the most salient dimensions according to their perception, as well as the integration of the two models PATH and BSC.

The interviewees agreed that the "patient" dimension is the output of the UHC's performance (primary goal), *"Our mission is first and foremost a human mission, so good patient care is the priority of the hospital's performance. The care takes into account not only the healing process of the patient, but also psychological care to build confidence in patients to reduce their anxiety during their stay in the center."* Adm 1. while they kept 4 dimensions similar to Kaplan's balanced scorecard, i.e. the care axis, the development axis, the financial axis and the human resources axis.

The strategic interviewees of the center emphasize the importance of the governance axis which will lead the different other axes towards efficiency.

Figure 6: Strategic management model adapted to UHC



Source: by Authors

3.2 Discussion

As a professional bureaucracy, the hospital is characterized by the diversity of its actors (administrators, doctors, nurses and pharmacists, etc.), and the presence of two logics that are not always reconcilable. This diversity of actors between medical professionals and managers can lead to a divergence of views and perceptions about the type of performance to be managed. Thus, certain dimensions which are considered as relevant for one category of actors may be less so for another category. The organization's performance is therefore its ability to define

common priorities, to combine the different existing logics ~~present~~, to identify the appropriate balance, to make the actors work towards a shared vision of performance. (Markaoui, 2018)

This being said, the problem arises of operationalizing the model designed and its implementation at the level of the actors operating in the field, including those present at lower levels. This is the difficulty of moving from strategic vision to operational consolidation. However, the main factor in the study lies in the ability of the actors to appropriate the co-constructed performance management tool.

Moreover, the process of building a performance model has also revealed shortcomings concerning the information systems and the statistical module, which are inoperative.

Concerning the question about the usefulness of the model constructed, the interlocutors revealed that the evaluation of all the dimensions and indicators will give a global visibility on the functioning of the UHC, and this will allow better decision making by the internal and external stakeholders. On the other hand, the service majors have always asked for their position with regard to the model constructed, their position and their involvement in the production of the said results, each according to the particularity of their service.

Ipso-facto, in order to make the performance model operational and adapted to the users, we held two meetings to set up an approach for the construction of operational indicators based on the strategic model and adapted to each category of service.

To do this, we chose a pilot service by applying the following steps:

- Taking stock and getting to know the service through a dysfunctional diagnosis
- Establish the different objectives and missions of the service.
- Determine the measures and action plans to achieve these objectives.
- Determine the needs and dysfunctions of the service.

Concerning the means of implementation of the said performance model by the potential users of the said model have proposed the implementation of the tool at the level of the HIS Hosix, but with a consideration of the different anomalies of the HIS put in place and which could give erroneous results, or even not reflect reality (stagnant patients at the level of the HIS, deletion of virtual beds at the level of the HIS, etc.)

In addition, in another paper, we have studied the conditions for a better appropriation of the implementation of the performance model constructed (Senhaji, Fikri, 2023)

4. Conclusion

The evaluation of the strategic performance of the UHC is currently limited to the monitoring of a limited number of statistics at the level of the hospital services. However, the development of the hospital's activity and the sharing of a culture that is based on the appropriation of performance management tools remains dependent on the adoption of a performance model that combines dimensions and indicators of varied nature that take into account the perceptions and expectations of stakeholders.

In our article, we attempted to design a performance model that is adapted to the UHC by pooling the perceptions of the UHC's stakeholders and bringing them together with existing multidimensional models in the literature, namely Kaplan and Norton's BSC and the WHO's PATH. Furthermore, we have emphasized the fact that the operationalization of the said model cannot succeed without the involvement of the operational actors who are directly concerned by the context of the production of performance, in particular the doctors and the service majors. In other words, in professional bureaucracies such as hospitals, reconciling two visions, that of care and that of management such as in the present case, is essential to establish and perpetuate an efficient performance model.

At the strategic level, this model provides a vision of all aspects and axes of hospital performance, with the primary objective of better decision making. However, designing a

hospital performance model in a complex structure, characterized by the multiplicity of multidisciplinary profiles with divergent aspirations, is a very difficult project. Hence, we chose to conduct a qualitative study combining observation, documentary study and semi-directive interviews with the internal and external stakeholders of the U.S. Hospital Center.

Thus, the performance model is based on the evaluation of the quality of care, on governance, on the development of human resources but also on financial management with the aim of reconciling care culture and managerial culture.

Finally, the test of the project will be a perspective for a future work of effective implementation and evaluation of the effects that this could generate. For this, we recommend in order to succeed in the appropriation of the integrated performance model by the hospitals, to put in place all the conditions and determinants emerging and to accompany this change by a multidisciplinary team of actors dedicated to the monitoring of the project.

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