



## Innovation in Health: the Perspective of Decision Makers in the Portuguese Context

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## **Abstract:**

Innovation is described from a change perspective, it refers to what an organization offers in terms of product or service innovation, as well as how it manages the offer of process innovation. The characteristics of the manager, the creative environment and leadership influence the increase in organizational innovation. The objective of this investigation is to investigate the perception of the main Portuguese political decision-makers regarding innovation. We chose to interview those responsible between 2005 and 2018, by SPMS and the Ministry of Health, allowing different perspectives on the main decisions that affect the phenomenon under study. There are several factors that influence innovation in the public sector, from direct elections, which aim to promote creativity and consequent innovation to improve public policies; international agreements, laws and regulations; the development of ICT. Although it is clear that innovation leads to greater performance, this is often not recognized, as many entities do not reveal their results, thus not being a measurable and transparent component. Interviewees suggest new policies for disclosing results from health units, and incentives for results with a greater focus on research and development in health.

*Key Words:* Healthcare Organizations; Innovation; Process; Result; Understanding

## **Introduction:**

It is following Schumpeter's reflections (1911, 1934) that innovation is assumed to be frequently described from a perspective of change, that is, it refers to what an organization offers in terms of innovation of a product or service, as well as the way in which it manages the offer of process innovation (Francis and Bessant, 2005). According to these latter authors, the challenge faced by innovation management is normally related to the adoption of behaviors on the one hand, and technology transfer on the other. However, it is clear that the innovation of an organization's business model underlies the way in which a product or service may have an impact at the organizational level, resulting, on the one hand, in new challenges and opportunities, and, on the other hand, in the abandonment of old practices.

It can then be said that the concept of innovation encompasses a wide variety of phenomena, including, among many others: (1) practices such as the adoption of new technological solutions or work processes, (2) the launch of new products, (3) competition in new markets, (4) the

establishment of new agreements with customers or suppliers, (5) the discovery of a new source of raw materials, (6) a new production process, a new way of providing after-sales service, and (7) a new modus operandi for customer relations, etc. (Cunha et al., 2007).

The manager's characteristics influence innovation. They also indicate that the creative environment and leadership influence the increase in organizational innovation. Developing new technologies, identifying new partnerships, creating an environment focused on innovation and managing risks are also priority aspects for innovation. Promoting brainstorming and technological development as well as promoting financing are practices capable of sustaining innovation (Gomes & Machado, 2018).

### **Materials and Methods:**

The present study was based on a qualitative approach based on the interpretative paradigm. For this reason, and in order to ensure that the individuals who participated in this study had experience at the level of a particular phenomenon, had relevant experience and knowledge, it was chosen to interview those responsible during the period from 2005 to 2018 for the SPMS and the Portuguese Ministry of Health. The majority of the sample was male (n=4). All these professionals share a common context, the Portuguese National Health Service, having performed management and administration functions. Given that they performed functions at different times, they allowed a perspective on the main decisions that affect the phenomenon under study.

Representatives of the Portuguese Government who held decision-making responsibilities were therefore interviewed in order to understand the phenomenon of innovation adoption and consequent improvement in terms of the organizational performance of health institutions.

The objective of this research is to ascertain the perception of the main Portuguese policy makers in relation to innovation, namely: (1) The factors that influence innovation activities and their respective homogeneity in organizations;

(2) The main opponents and restrictions regarding the implementation of the innovation;

(3) Relationship between innovation and organizational performance;

(4) Financing for innovation.

## **Results:**

According to those interviewed, true innovation translates into results through its impact on demographics, the economy, employment and well-being. In the health sector, it is essential whether in terms of technology, processes or methodologies. Innovation transforms, streamlines and restructures processes, having a strong influence on results (Gomes et al, 2011). At the same time, the interviewees identified the facilitating agents for the respective introduction, namely the technology producers and the authorities themselves. However, in addition to the producers and evaluators, who are the national authorities, it is also the media and patient associations that systematically demand and pressure for the implementation of new innovations. No less important are biomedical knowledge, organizational knowledge, quantified knowledge, statistical information, metrics, as well as the assessment of the work being carried out as well as the economic or socioeconomic context. Thus, the trilogy Teaching, Training and Research should constitute the basic element for facilitating the introduction of innovation). In Peter Drucker's view, the main facilitating agents for the introduction of innovation involve the occurrence of unpredictable phenomena, changes in the industry and markets, demographic changes and changes in individuals' perceptions of certain phenomena (Drucker, 1985).

Regarding the factors that influence innovation activities, they mention that they involve the need for treatment, diagnosis, and improvement of quality of life, allowing citizens greater well-being, people with a broader concept of health corresponding not only to the absence of disease.

However, it is worth highlighting that given the great territorial discrepancy that generates profound social inequalities, it is difficult to affirm the existence of equity and homogeneity in the process of introducing innovation at an organizational level. It depends firstly on public policies, secondly on leaders and thirdly on the environment, according to the agents interviewed.

When it comes to Innovation vs Performance, it is clear to participants that true innovation leads to greater performance. They also argue that major disruptions in the success of clinical history are due to innovation, whether more recent, such as in diagnostic methods, pharmacology, surgical techniques, or older, such as drinking water networks, sewage systems, etc. Therefore, it makes no sense to incorporate innovation without ensuring a positive impact on results.

In this sense, organizational cooperation is necessary, avoiding silos and providing synergies (Bukowitz, & Williams, 2002). Innovation in non-clinical management processes and methods is

also fundamental in complex organizations, as in the largest national hospitals, organizational innovation itself is decisive (Bergh et al., 2011). In terms of performance and/or results, it is important to note that improvements in outcomes are often not recognized, because many entities do not reveal their results.

User participation in innovation activities enhances new activities. Users are making their needs known, and technology producers are trying to respond. Being able to motivate employees to innovate – and to communicate the results of innovation (positive or negative) – is always a plus.

However, it is important to note that if innovation is a success story, there may be false innovations and there may also be poor execution of innovation. Therefore, you need to insist, train, be resilient, and never give up.

The interviewees' view is congruent, arguing that the main opponents to the adoption of innovation are all those who fear losing power, resources, money or influence, those who fear instability, including being dismissed or forced to move to another sector. Gomes and Machado (2018) reiterate that factors such as insufficient resources, laws and regulations, economic crises, alternation in the level of implemented policies, strikes, and social barriers make it difficult to promote and apply innovative practices in the public sector.

Added to this situation are inadequate incentives, lack of leadership, inadequate decision-making, loss of motivation that converge with ineffective management of innovative processes, and more catalysts for barriers to innovation emerge. This entire situation, combined with resistance or lack of specific support (internal barrier) stimulated by organizational instability, makes this sector a context where innovation has difficulty thriving (Cinar et al., 2019).

The main constraints regarding the implementation of innovation according to Portuguese policy makers are related to financial restrictions. Entropic and weak results-oriented organization and management models. Its financing and proof of its effective usefulness in terms of health gains. Additionally, lack of resources on one side, lack of communication, lack of freedom, lack of knowledge.

In the same line of thought, Paredes et al. (2014) that the resistance of human resources, organizational culture, strategy and policies and the company's relationship network can be factors that hinder organizational innovation.

The authors argue that it will make no sense to implement organizational innovation measures if they do not result in improvements in organizational performance.

### **Financing for innovation:**

However, financing was listed by those interviewed as an indispensable factor for innovation.

Financing innovation emerges as an important challenge for the growth and consequent economic development of an organization (Brierley, 2001).

Hospitals, in turn, constitute a central component in the health system due to the financial resources allocated to them, which correspond to around half of the state budget of European countries (Simões, 2009). According to the author, they have been the target of special attention in health policies, both in terms of investment in research and in the adoption of innovative management models.

In most situations, financing for innovation is cited as an important challenge for the growth and consequent economic development of an organization (Brown et al., 2009).

The high cost involved in acquiring indispensable resources and the lack of expertise are some of the obstacles that low-technology companies face in transmitting change. The perception of innovation financing from the perspective of those interviewed in this study indicates that it should be directed towards health gains, that is, if the results obtained in health legitimize it. Funding is always insufficient, or rather, funding always follows needs.

On the other hand, it was mentioned that the financing of the health system must ensure sustainability in the medium and long term, taking into account the global perspective of acquiring health gains. Professionals are motivated by the introduction of cutting-edge technology, which can lead to health gains and a higher level of differentiation. However, it is not legitimate for price to be an indifferent component and for Governments to behave as “Price Takers” as a rule. Innovation is also valued by managers, especially if the positive impact on the overall performance of organizations is noticeable.

It should be a priority for the State to invest in technology assessment, creating institutions that distinguish innovation that is worth financing. Innovation often becomes attractive, however, not everything that is new is better or represents an advantage over previous alternatives. A prior assessment of cost-benefit and cost-effectiveness relationships can mitigate this situation.

## **Innovative Policies from the Perspective of Portuguese Policymakers:**

According to the interviewees, innovative policies are needed to improve the performance of Portuguese hospitals. Therefore, they should be on the agendas of the Boards of Directors and services. New policies for selecting administrations, disclosing the results of health units, and incentives for results. Similar findings were pointed out by Kenneth (2018).

Research and development in health represents an area with high potential for added value not only in terms of health gains but also in the value generated in economic and social terms, intersectoral, interinstitutional and multidisciplinary collaboration. However, an ex-ante and ex-post assessment and a multi-year professional planned negotiation by the acquirers are not essential in order to avoid a total asymmetry of negotiation know-how. International scientific exchange, international organizations, journals and congresses are driving forces for the implementation of innovation.

The financing of innovation, in the context of health systems, must be based on fiscal solidarity and subsidiarity as a principle of social organization, monitoring the use and effectiveness of technologies, reconciling clinical vulnerability with therapeutic adequacy and the ability to “pay”.

On the other hand, training is important, as is support for projects that are beneficial to the institution. In terms of training, professionals need to be trained on what is relevant, disruptive and essential innovation. Innovation can be transmitted as well as the analysis of success stories. Recognition is the most positive way to motivate professionals, continuous training of managers and careful evaluation of performance with consequences, Value Based Healthcare strategies, creating a context of competition for results based on innovation management models.

It is important to encourage continuous improvement in innovation, both from a technological point of view and from the point of view of practices and methods, and this is a culture that is created. There should be room in program contracts for innovation, which requires greater proactivity on the part of Boards of Directors.

## **Conclusion:**

There are several factors that influence innovation in the public sector, from holding direct elections, at fixed intervals in a democratic manner, which aim to promote creativity and consequent innovation to improve public policies; popular opinion; international agreements,

laws and regulations; the development of Information and Communication Technologies (Gomes & Machado, 2018).

Factors such as demographics (population growth, migration and economic crises), support from senior management and leaders, human resource training, teamwork and knowledge sharing are added (Gomes & Machado, 2018).

The value perceived by citizens results from improved quality of life, improved access and increased confidence in the health system and its ability to solve users' specific problems.

In this context, the trend involves global and sectoral strategies, a sustained organizational culture and professional motivation. Improving citizens' quality of life is inseparable from access to innovative therapies, which is why a rigorous and efficient strategy is needed when it comes to assessing health technologies.

Despite the importance listed by the interviewees regarding the adoption of innovation in health institutions, there remains heterogeneity in the process of introducing innovation. They also identified restrictions relating to the implementation of innovation, essentially financial restrictions. On the other hand, resistance from human resources, organizational culture, strategy and policies can compromise the adoption of innovation in healthcare institutions.

Even though it is clear to policymakers that true innovation leads to higher performance, this is often not recognized as many entities do not disclose their results - thus not being a measurable and transparent component.

They suggest new policies for selecting administrations, for disseminating results from health units, and incentives for results with a greater focus on Research and development in health, since these represent an area with a high potential for added value.

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