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Risk, risk management between healthcare and economy.

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Abstract.
The aim of the paper is to talk about the risk management system especially today in pandemic time. The authors would like to analyze the issue of risk management in an economic and healthcare context. taking into account that there are strong relationships between society and health such as the question of social responsibility and organization, social responsibility and social impact and social responsibility and competitiveness. The correlation between economy and health is highlighted in the healthcare sector, where the risk profile is in fact considered complex and extremely dynamic.

Keywords: CSR; Healthcare sector; Risk Management, economy and healthcare.

1. Introduction

The health sector is a major determinant of national GDP (Cardinaels & Soderstrom,2013). The growing importance of health is a fact, always, but particularly now that we are in a particular situation, that is, in a world where the pandemic has disrupted the world and led to an unprecedented economic crisis. The Covid-19 pandemic had devastating effects on economic activity in 2020. It is unclear how long they will persist. Forecasts from the private sector and public agencies, such as the International Monetary Fund, predict a return to growth this year, 2021. The IMF's indication is for global growth of 5.2 percent in 2021, erasing the effects of a 4.4 percent decline in 2020. For the USA, on the other hand, it is indicated by many specialist journals that after a decline of 3.5 percent in 2020, GDP will grow by 4 percent in 2021 and probably by 3 percent in 2022, thus raising incomes well above the pre-Covid level; the forecasts for the other major economies follow a similar trend. In this case the growing importance of health not least in the light of the Covid-19 epidemic, has led countries to place it at the top of the political agenda (Galizzi & Miraldo, 2011). This is demonstrated by the inclusion of "health"

in the UN Sustainable Development Goals (Kruk, Pate & Mullan, 2017). In particular, SDG 3 "Ensure healthy lives and promote well-being for all at all ages" has been widely debated in the literature (Seidman, 2017; Budhathoki et al., 2017). Also linked to health are SDG 2 "End hunger, achieve food security and improve nutrition and promote sustainable agriculture"(target2.2), SDG 6 "Ensure availability and sustainable management of water and sanitation for all" (target 1 and 2), SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all" (target 1), SDG 11 "Make cities and human settlements inclusive, safe, resilient and sustainable" (target6), SDG 13 "Take urgent action to combat climate change and its impacts"(target1), SDG 16 "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels"(target1) and SDG 17 "Strengthen the means of implementation and revitalize the global partnership for sustainable development" (target19) (WHO, 2019). Not only the UN (Macassa, 2021), but also consumers themselves demand socially and ethically responsible behaviour in the field of healthcare (Dixit, 2017). This has led healthcare companies to adopt socially responsible practices (and so corporate social responsibility) in their operations (Uyar et al., 2021).

In the literature, CSR has been widely discussed (Singh, 2016; Hąbek & Wolniak, 2016; Arru & Ruggieri, 2016; Amelio, 2016; Gazzola & Mella, 2017; Saka, Noda & Jimichi, 2018; Dyck et al., 2019) in relation to the private sector (Castelló & Lozano, 2009) and less so in relation to the healthcare sector (Uyar et al., 2021), despite the strong relationship between health and society (Jamali, Hallal & Abdallah, 2010). Sustainability is indeed becoming increasingly important in the healthcare industry, mainly due to the impetus of the SDGs (Saviano et al., 2019) and the Covid-19(Ranjbari et al., 2021).

CSR has turned into a "type of license to operate" for all sectors (Story & Price, 2006; Middlemiss, 2002). According to Davis (1973) CSR refers to "the firm's consideration of, and response to, issues beyond the narrow economic, technical, and legal requirements to the firm […] to accomplish social benefits along with the traditional economic gains which the firm seeks". It is related to the commitment of business organizations to "contribute to sustainable development, stakeholder issues/concerns and improvement of social conditions (Jamali at al., 2008). The link between CSR and the SDGs is therefore evident.

As previously stated, in the healthcare sector, CSR plays an important role due to the relationship between healthcare and society (Russo, 2016): the healthcare company provides services to the society (Abela, 2001) in return for a mandate from the society to take care of patient-subjects. The health sector is however particular and different compared to the other economic sectors as the characteristics of the "patient" are different from those of the "client". This is why a healthcare company cannot use methods and strategies deriving from other sectors.

The healthcare sector CSR literature may well be divided into three groups (see Russo, 2016)," based on the relationship between society and health:

- social responsibility and organization;
- social responsibility and social impact;
- social responsibility and competitiveness".

The first group originates from Spencer et al. (1999) opinion for which organization is the key link concerning the economic-financial, social and human dimension: "a healthcare organization […] is […] a provider organization with an administrative structure consisting of a board of directors, management personnel and professionals, and which supplies […] services to individual patients and groups of patients".

CSR is as well a instrument to generate profit and to develop useful advantages (it is the third group). In this sense, CSR could be considered as a share responsibility to use resources effectively to deliver better health , an instrument to promote a more reasonable (Galvin, 2010), efficient and accessible healthcare sector. In relation to these aspects, more and more institutions operating in the healthcare sector adopt CSR activities in their work programs (Lubis, 2018). In particular, CSR activities influence the hospital reputation among stakeholders and, consequently, the hospital value (Susanto, 2009; Inleh, Bartlett, &May, 2011; Doda, 2015). Lubis (2018) considered the CSR should a strategic tool.

The second group derives from the Drucker (1989) thought "their first social responsibility is to do their job because it emerges that they must be responsible for their impact, acting as a member of a community"!. To manage impacts and thus the risk of negative impacts on society and the environment, healthcare companies use risk management tools (Liu, 2019; Card& Klein, 2016). The healthcare sector is inherently characterized by risks, in the sense of both health and non-health risks. In literature, risk and risk management topic (RM) in the healthcare sector followed "the same evolutionary CSR path" (Gazzola, Amelio and Figus, 2020).

In the literature, CSR and RM, have been highly analyzed McGuire et al., 1988; Feldman et al., 1997; Orlitzky & Benjamin, 2001; Husted, 2005; Godfrey et al., 2009; Oikonomou et al., 2012; Salama et al., 2011) and authors are unanimous in highlighting a positive correlation between CSR activity and risk in the company. Consequently, if the implementation of CSR actions (and the adoption of a corporate philosophy oriented towards the adoption of socially responsible behavior) leads to a reduction in overall corporate risks, CSR and sustainability are even more important in high-risk sectors, of which the health sector is a part.

The aim of the paper is in fact to explain how a double relationship between CSR and RM exists. The first link classifies the CSR as an RM tool. At the same time, the RM can be considered a tool to demonstrate the social responsibility of the institution (or as a tool to prove that an institution is socially responsible).

2. Healthcare risk management

The healthcare sector can safely be studied as a system comprising institutions, people and resources intended for the production of health actions (WHO, 2000). Health care environments have become increasingly complex and risky over the years, both because of the use of progressively more sophisticated technologies and because the average life span has lengthened, leading to an ageing population and therefore an increased demand for health care services. The Covid-19 pandemic has further increased the complexity, also from an organizational and managerial point of view. As consequence, new management theories had to be adopted in the healthcare sector (Bridges, 2006).

All aspects of life and health are constantly subject to risks, all the more so in organizations and institutions whose aim is to protect the health and lives of individuals.

Different definitions of risk exist in the literature (Yoe, 2016; Allen &Derr, 2015). According to Jo & Na (2012) business risk is "a risk inherent in a firm's operations as a result of external or internal factors that can affect a firm's profitability".

We are in front of two forms of risk: 1) systematic risk (that is affects most corporate assets and that it is usually called "market risk") and 2) unsystematic risk (affects by a limited number of assets, called "firm-specific unique risk"), (see Ross, 2011).

The IRM (Institute of Risk Management) claims that risk is a combination of the probability of an event and its consequences that can be positive and negative. According to Bertini we can have: conceivable risks (such as those arising from known situations in the life of the business system); risks that cannot be hypothesized (such as those related to lesser-known business situations that can be estimated only partially); risks not conceivable (linked to situations of absolute abnormality, and for this reason they cannot be linked in terms of cause and effect) (Bertini, 1969).

A comprehensive definition can be derived from the Society for Risk Analysis (SRA, 2018): "*future activity [interpreted in a wide sense to also cover, for example, natural phenomena], for example the operation of a system, and define risk in relation to the consequences (effects, implications) of this activity with respect to something that humans value. The consequences are often seen in relation to some reference values (planned values, objectives, etc.), and the focus is often on negative, undesirable consequences. There is always at least one outcome that is considered as negative or undesirable*".

In this case it is clear that "*every economic-social system must adopt risk management systems: there is no sustainable social-economic development if the institutions do not assume the risks deriving from their activity and manage them. The RM in particular is defined as the set of coordinated activities, useful for guiding and controlling an organization with reference to the risk*" ("Risk managament –Principles and guidelines, ISO 31000").

As previously stated, the healthcare sector has particularities that distinguish it from other sectors, which is why risk management becomes a strategic activity essential for the survival of the hospital. Health risk is even more specific and complex. The

main part of the risk profile of the healthcare companies is constituted by the clinical risk dimension (Cagliano, Grimaldi, & Rafele, 2011), specified as the possibility that an adverse event (illness, injury, death or related event) may occur in a person or population (Riehle et al. 2013), attributable, even if involuntarily, to medical treatment lend him during a hospitalization time and able to cause a prolongation of the period of hospitalization, a worsening of conditions of health or loss of life. At the base of every adverse event it is always possible to identify one or more errors, committed by individual operators or by the organizational system. Medical error has a double meaning: it is execution error if a planned action is not completed as expected; it is planning error if the wrong plan is used to achieve an objective (Kohn & Corrigan, 1999). As Liu (2019) states, these errors could be "*be related to professional practice, health care products, procedures, and systems, including prescribing, order communication, product labeling, packaging, and nomenclature; compounding, dispensing, distribution, administration, education, monitoring, and use*". Partially different is the adverse event; it results in prolonged hospitalization, disability or death, but it is caused by healthcare management and not by the patient's illness (Rafter et al., 2015). What is relevant is that many adverse events can be predicted and managed, with a view to containing potential increased costs for the healthcare facility.

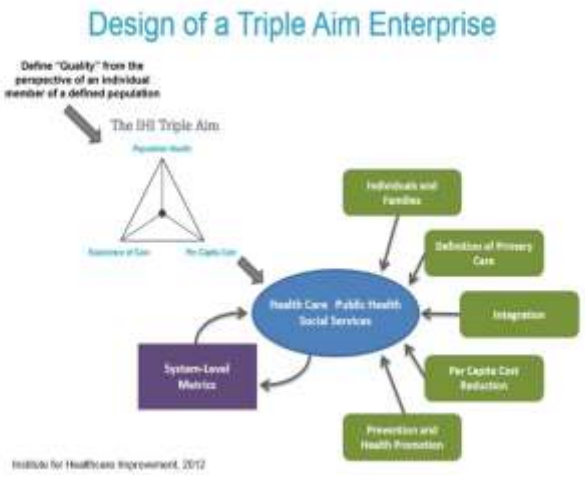
In general RM comprises all those activities, tools and methods that a company can use in the management of its business in order to control all those (preventable) risks that could compromise the achievement of the company's mission. RM in the healthcare sector is the set of activities by which the health facility seeks to identify risk situations that may occur and then take action to prevent or address those risks. According to Walshe and Dineen (1998) it is "*an approach to improving quality in healthcare which places special emphasis on identifying circumstances which put patients at risk of harm, and then acting to prevent or control those risks. The aim is to both improve safety and quality of care for patients and to reduce the costs of such risks for health care providers*" a strong link therefore emerges between risk analysis and quality improvement, in which the main techniques that can be used are (Liu, 2019):

- barrier analysis,
- failure mode and effects analysis (FMEA),
- hazard and operability (HAZOP),
- human error analysis,
- probabilistic risk assessment (PRA)
- root cause analysis (RCA),
- Six Sigma, hazard analysis and critical control points (HACCP),
- systematic human error reduction and prediction approach (SHERPA),
- total quality management (TQM),
- Toyota production system (TPS),

According to the theory of latent failures (Reason, 2002), the risk is transformed into an adverse event by a chain of events or errors, where the person responsible for the error is only the last link in the chain. Barriers are used to prevent this situation. RM and CSR activities are among them. To decrease healthcare risks,

different tools can be used: from insurance coverage to the most modern managerial tools, techniques and methodologies involving training and several CSR activities.
The set of risks to which an organization is subject (risk profile) depends on the corporate mission and the environment (internal and external) in which the organization operates (Kohn & Corrigan, 1999). In the healthcare sector, the risk profile is complex and extremely dynamic. The mission is to protect the health of patients (a highly risky activity), the external environment refers to the socio-cultural and epidemiological characteristics of the population, while the internal environment depends on the characteristics of the operators, the facilities available, the internal control system used and the internal culture. The description of the risk profile is an operation that cannot be generalized and must be based on assessments conducted in the specific company context, integrating all possible information. A key role is played by staff and health professionals.
Health personnel and health professionals, through risk identification, initiate a risk awareness process in health services and the environment (Alam, 2016). Thus it is essential to outline a model of human resources management according to the principles and evidence of economic sustainability, corporate social responsibility (CSR) and the safety of operators and patients. In October 2007, the Institute for Healthcare Improvement (IHI) launched the Triple Aim initiative (Fig. 1), designed to help health care organizations improve their population's health care experience (including quality, access, and reliability) (McCarthy &Klein, 2010; Berwick, Nolan & Whittington, 2008). "Triple aim" model of the Institute for Healthcare Improvement enhances the use of the services and resources of local communities (all those available, from the districts, to the voluntary associations, to the schools) with a real strategy centered on the social-health integration, aiming at the same time for savings and security. In this context it will be necessary to work through community projects with clearly defined objectives and indicators. By fostering the capacity for integration and to work in cooperation and sharing of resources between hospital, basic medicine, social services, school, industry, etc. It is fundamental in this context place side by side a Risk Management Office in order to provide consultation and support on how to prevent quality issues and how to manage situations when quality concerns arise.

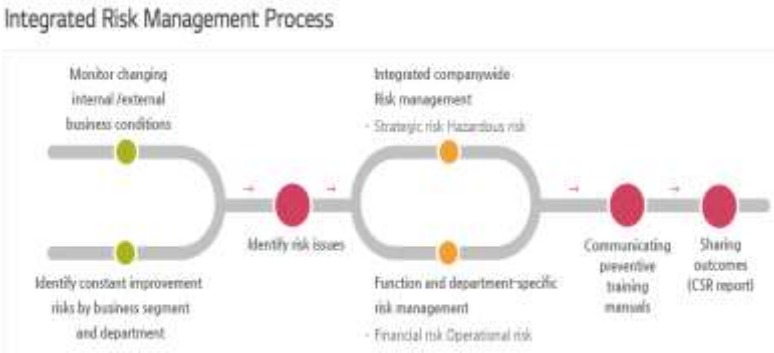
Fig. 1. Design of TripleAim Enterprise in Health care



. *Source: Institute for Healthcare Improvement 2012. http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx*

There must be an integration of CSR and sustainability activities into the language of risk management, as some companies have already done (figure 2).

Fig. 2. Integrated Risk Management Process.



Source: LG H&H SR Report 2018. http://www.lghnh.com/global/manage/management/risk.jsp

To reduce errors, it is necessary to adopt risk management systems, but risk management systems in the broad sense, as in fact the tool of CSR activities in the present study is considered.

3. Healthcare and economy

As we have seen the issue of risk management has become central, highlighting its importance today in times of the Covid-19 pandemic, health, healthcare and economy are intertwined in a situation of deep crisis and where Governments practically all over the world arrange the gradual normalization of production activity. According to official estimates, the closure of most of the economy has generated an unprecedented cumulative loss of GDP and each working day of quarantine has had a global cost with a great negative impact on millions of workers around the world, none excluded.

We know that normalization of non-essential activities will occur gradually in four phases based on strict adherence to health protocols. This is fundamental given that the pandemic has not yet been controlled and hospital capacity has been exceeded. Only the vaccine has been able to exclude the risk of epidemics, especially in the informal sectors of the economy, and it is clear that the cost of any new quarantine is an enormous risk in both economic and social terms (García Goñi, 2006). To minimize these risks, even and especially in the future perspective, it is necessary to rethink the usual way in which the state, businesses and workers interact. We can also say that the process of globalized recovery that has already begun in part will be in a process of constant evaluation and gradually more acts will be added, leaving at the end those that gather more capacity of people. It is essential that this process be carried out in as orderly a manner as possible, avoiding chaos and lack of control. What then becomes central if not the balance between health and economics: adaptation to the new health normality and also considering management risks (García Goñi, 2006). Adaptation to a new reality is essential where compliance with the new health norms will play a key role in any economic activity, and that will change the type of relationship that exists between the state, business and workers. This new reality will affect the entire economy across the board, from large manière to micro and small enterprises and their production chains. It is important that we translate these regulations technically with a sense of proportionality, on the one hand, and that the business community does not see them as exceeding labor costs by implementing the necessary changes, without seeking shortcuts, on the other. The main responsibility will fall on the companies themselves, which are the ones that know best the particularities of their production chain. This will enable them to better manage the health risks they face.

It is necessary to ensure that these standards are properly met, and health authorities and local governments will need to be strengthened to take on this responsibility. The great challenge facing authorities will be to supervise informal activities that employ nearly the majority of the economically active population and contribute a large share of GDP. Similarly, additional provisions will have to be made for the modes of transportation used by hundreds of thousands of workers, most by informal means. It can be expected that, out of necessity, many businesses and

informal workers will defy the authorities and choose to resume their activities after this long quarantine period. The great challenge facing the authorities will therefore be to control informal activities.

Adding to the delicate balance between health and the economy will be the need to impose order and avoid gatherings that get in the way of the authorities' supervisory work. Without falling into excesses that could lead to greater social upheaval, law enforcement agencies will have to ensure compliance with social isolation measures, which will undoubtedly persist with variations in the coming months, and check that informal activities do not jeopardize the containment of the pandemic.

Returning to the fight against the coronavirus and its serious economic consequences, there is no precedent and no previous legislation that presents a safe course to follow. The truth is that this situation forces us to rethink the way we integrate economic and social agents. Graduality and flexibility in revising decisions along the way will allow for a reactivation that should not be abruptly interrupted in the future. The country must adapt so that Covid-19 and economy coexist for the long term. To this end, and in the shortest term, a new understanding is needed that generates greater trust between the public and private sectors, enabling them to resume a healthy economy and citizenship in the most orderly manner possible.

4. Conclusion

We addressed the issue of healthcare and risk management and how it is all part of a globalized economic system. The pandemic has highlighted this theme. Curiously enough, the sermon that is brought back to us by the economy and the health issue has found a subject of discussion not only among professionals but also among public managers and in fact also involves politics.

Today, a good part of the innovations in health policy mentioned above have been developed from local experiences that have then spread. In fact, the realization of some innovations to which health economics has contributed remains confined to the reserves of enthusiasts, especially not having passed into the territory of the mere declaration of intentions or their administrative embodiment that is the promulgation of rules.

The discovery of variations often appears arbitrary in medical practice as a contribution to the formulation of very relevant questions: first, how to finance and without "dualization" of society. We mean those technological and organizational innovations whose impact on social welfare is greater than its cost and, secondly, in relation to how to reduce interventions of low marginal value, non-existent or negative, and how to stimulate beneficial interventions that are not pro-duced.

In conclusion, we can only say that health economics really does play a relevant role and this has been in the extension of the use of "risk adjustment systems", from patient classification systems to hospital product definition, to new adjustment strategies for "capital financing".

Lastly, although more predictable, but no less important, there are contributions to be made to the development and application of performance indicators for healthcare professionals, measures of efficiency and tools for guiding the daily management of organizations, such as program contracts, command charts or quality improvement programs. Incentive research, then, concerns the incorporation of patient preferences into clinical decisions, in fact new organizational forms or evidence-based medicine that have had little impact in a reality more interested in control. Important in the end and know what you spend and know what you need it for, in the end this rule always remains valid.

It seems clear that in this context, risk management as a process of analysis of processes and practices in place, identification of risk factors and implementation of procedures to address these risks is now a central policy for the development of each country, the pandemic has confirmed. Risk management in health care can actually help make the difference between life and death, which enhances its importance and role. In some respects, risk management in health care is therefore currently and potentially more relevant than in any other area. Indeed, in health care, risks can vary and can always be present, anywhere and in any place, think for example of faulty equipment and other hazards, such as medical negligence and procedures. Managing these and other risks is therefore substantial in healthcare to keep people safe and to keep costs down. The theme remains the same, and we reiterate the importance of this, once risk management strategies are in place, hospitals, nursing facilities, the overall health care system, both short- and long-term, as well as other health care organizations can minimize the risk of loss, a system that often goes beyond the eco-nomic issue.

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