

Article

The Prevention of Corruption as an Unavoidable Way to Ensure Healthcare System Sustainability

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Abstract: Corruption has found very fertile ground in the health sector. Many studies demonstrate the negative relationship between sustainability and corruption. However, relatively little is known at this time about how to prevent corruption in healthcare organizations (HCOs), and thus to recover the important sustainability of the entire healthcare system. After noticing this gap in the literature, the authors' aim in undertaking this study was twofold: first, to analyze the current state of knowledge about how Italian HCOs adopt corruption prevention plans in compliance with the National Plan issued by the National Anti-Corruption Authority; second, to identify some clusters of HCOs which represent different adoption patterns of corruption prevention interventions and to classify these HCOs. For these purposes, the authors studied 68 HCOs along 13 dimensions that characterized the corruption prevention plans. The empirical results showed that the HCOs were not fully compliant with the anti-corruption legislation. At the same time, the authors identified three clusters of HCOs with different patterns of anti-corruption prevention interventions. The clusters that adopted some specific interventions seemed to be more sustainable than others.

Keywords: healthcare sustainability; anti-corruption; healthcare organizations; corruption prevention plan; healthcare management; compliance

1. Introduction

The financial crisis in Italy—as well as in other many countries—had a heavy impact on the healthcare system. About one third of the regional governments, who are responsible for delivering essential levels of care, faced important financial deficits, and 10 out of 21 regional health systems were forced to adopt a formal regional recovery plan [1]. The National Health Pact presented the need to reduce public spending and improve efficiency. In addition, there was a dramatic increase in difficulties accessing and demanding medical care, and an increase in regional heterogeneity [2]. According to a survey conducted in 2018 by Cittadinanzattiva, the most important Italian consumers' association regarding health issues, 31% of the persons interviewed declared having some problems accessing healthcare services and encountering an increasing regional heterogeneity. For example, 100% of the citizens in northern regions access chemotherapy and radiotherapy services within one month, whereas this percentage decreases to 86% in southern regions and 84% in central regions. According to Eurostat (2016), 55% of Italian families declared some difficulty in using healthcare services. Health spending per capita has only now returned to pre-crisis levels (source: OECD Health Statistics, 2018) [3]. However, it is below the Organisation for Economic Co-operation and Development (OECD) average, considering both the per capita spending, which equals \$3.542 (OECD average of \$4.069), and the percentage as share of gross domestic product (GDP), which equals 8.9% (OECD average of 9%). As stated by Aquino et al. [4], “in the Italian healthcare system, the need to control expenses and to ensure sustainability has led to the introduction of an economic logic in management. This has been

interpreted mainly in terms of cutting expenses instead of improving efficiency, reducing waste, etc., and so has often ended up by reducing the level of service offered". One way to improve efficiency and reduce waste without reducing the level of service is the prevention of corruption, especially if one considers that corruption and fraud against the public administration in Italy are embedded in the economic system [5]. According to Transparency International's rankings for a corruption perception index, Italy was ranked 54th (60th in 2016, 61st in 2015) out of the 180 countries observed. In Annex 1 to the European Union (EU) Anti-Corruption Report of February 2014, the European Commission said the following: "however, despite considerable efforts by the Court of Audit, law enforcement bodies, prosecution services and the judiciary, corruption remains a serious challenge in Italy". According to the president of the Court of Audit in the health sector: "numerous investigations have ascertained the diffusion of corruption and fraud at every level of the health system". In November 2012, as a first reaction to this critical situation, the Italian Parliament issued the Anti-Corruption Law No. 190. It requires that all public administrations adopt a system to prevent corruption, and in particular, according to articles (1.9) and (1.10) of the law, they must have: "(art. 1.9) a corruption prevention plan that must identify the activities which pose a high risk of corruption and provide the mechanisms necessary to prevent the risk of corruption in the above mentioned activities; (art. 1.10) a person responsible for the prevention of corruption (corruption prevention officer) who must assess the suitability of the corruption prevention plan and oversee both its implementation and operation and the effectiveness of the control procedures and processes".

Based upon the preceding points, the authors' aim in undertaking this study was twofold. First, they evaluated the current state of the anti-corruption law application in public healthcare organizations. Second, they attempted to evaluate if the application of the law—that implied the planning of several anti-corruption interventions—could lead to the identification of some HCO clusters which represented different adoption patterns of corruption prevention interventions and a classification of the HCOs. As stated by Fineberg [6] (p. 1026), "To achieve a successful and sustainable health system, we must be able and willing to try many different things". The authors believed that—especially in Italy—an unavoidable way to achieve this sustainability was to implement an effective strategy to prevent corruption in the health system. According to their results, HCOs are currently not implementing a corruption prevention plan compliant with the legislation. At the same time, they found HCOs that had a good level of compliance with the anti-corruption law and its interventions, and they classified them in specific clusters that showed a better economic sustainability.

2. Background

2.1. Sustainability in the Healthcare System

Sustainability is seen as crucial in a healthcare system, especially after the economic crisis that put a strain on public budgets and weakened the health systems [7,8]. Health sustainability is a very complex subject, as stated by Fischer [9] (p. 1): "there is no consensus with regard to either the definition of the term or the factors that characterize a sustainable healthcare system", as well as by Muzyka et al. [10]: "not everyone means the same thing when they speak about sustainable health care". Some studies [11,12] defined a three-pillar model as a balance of the needs of patients (social pillar), economic concerns (economic pillar), and environmental costs (ecological pillar). Prada [13] suggested a more integrated approach including intergenerational justice, quality of life, and social cohesion. Faezipour and Ferreira [14] distinguished six categories of healthcare sustainability: patient, quality, provider, resource, finances, and environmental energy. In their study concerning the Australian healthcare system, Coiera and Hoenga [15] identified the following factors as specific challenges to its sustainability:

- (a) new technology and treatments that increase the cost and the demand for technology but also the risk for inappropriate interventions;
- (b) the growing expenditures related to the increasing needs of elderly people;

- (c) significant shortages in health workforce;
- (d) quality and safety challenges.

Stefan et al. [16] found a model of sustainable competitiveness in healthcare that can be determined by the following seven variables: quality of health services, performance improvement, medical technologies, human resources management, substantiation methods of medical decision, prevention strategies, and increased quality of life. Marimuthu and Paulose [17] found an expanded sustainability framework that identifies four categories: environmental-oriented (waste management, handling of chemical substances, recycling, green technologies, etc.), customer-oriented (patient care and satisfaction, reduced medical bill, etc.), employee-oriented (job satisfaction, healthy working environment, etc.), and community-oriented (reduced healthcare pollution, rural area, resource conservation, etc.). Pencheon [18] stated the following challenges for the environmental, social, and financial sustainability of the NHS (national health system): energy use, commissioning, models of care, procurement, travel and transportation, waste, built environment, workforce, leadership and governance, community resilience, and partnerships and networks. Fischer [9] proposed a conceptual framework with five relevant dimensions: long-term strategic perspective and innovativeness, disease prevention and health promotion, quality, institutionalization of environmental concerns, and institutional accountability and individual responsibility. Saviano et al. [19] stated a balanced triple target of efficiency, effectiveness, and sustainability of the healthcare system. Momete [20] suggested a sustainable healthcare model based on the following four components, each having two factors: supply of medical care and access to medical care based on medical doctors and out-of-pocket expenditure for the medical act; providers of health based on available hospital beds and health expenditure; personal health based on life expectancy at birth and fertility rate; and disease control based on the incidence of tuberculosis and the infant mortality rate. Fineberg [6] identified three key attributes of a sustainable health system: affordability for patients, families, employers and government; acceptability to all key constituents; and adaptability to new diseases, changing demographics, scientific discoveries, and new technologies.

As can be seen from this review, the sustainability of a healthcare system is a very complex issue. It depends on many variables and can be analyzed under different points of view. One of the most cited dimensions is the economic one that is also related to growing expenditures, that is, the dimension directly impacted by corruption and by the effectiveness (or lack thereof) of an anti-corruption system. Moreover, as discussed in the following paragraph, corruption has a deeper impact on the healthcare system, because it also influences institutional accountability, acceptability and legitimacy toward all the stakeholders and the community. Under this perspective, corruption can damage not only the economic pillar, but also the social pillar. It can damage the patients as well as the providers and the workforce, the innovation as well as the supply of and the access to medical care. Under a long-term perspective, corruption is pervasive and its negative effects damage the quality of the institutions and therefore the well-being of the entire population.

2.2. Corruption and Sustainability in the Healthcare System

Corruption has found very fertile ground in the health sector. In the European Commission's Eurobarometer of 2017, the healthcare sector was the one most cited as vulnerable to acts of bribery. In the Updated Study on corruption in the health sector (2017), the European Commission stated: "The health sector is one of the areas that is particularly vulnerable to corruption, but relatively little is known about this subject". It identified six typologies of corruption: bribery in medical service delivery; procurement corruption; improper marketing relations; misuse of (high) level positions; undue reimbursement claims; and fraud and embezzlement of medicines and medical devices. In the Global Corruption Report (2006) [21], Transparency International identifies three factors as corruption determinants in the health sector:

- (a) the information gap between physicians and patients, and between suppliers (medical devices and drug producers) and buyers (public healthcare organizations and agencies);
- (b) the complexity of the health system that makes it difficult to analyze information, identify responsibilities and roles, promote transparency, implement risk prevention and control systems;
- (c) the uncertainty of the market related to the difficulty to foresee the diffusion of illness, the cost and effectiveness of the cures, and the consequent allocation of resources.

These factors tend to damage health sector sustainability in all the components or pillars. Some scholars found a positive relation between corruption and worse health outcome [22–25]. Hanf and colleagues [26], Factor [27], and Mauro [28] found a positive relation between corruption and child deaths, as well as between corruption and lower levels of health expenditures and poorer health outcomes, such as access to services, immunization rates, patients' satisfaction, and waiting times [29,30]. Other scholars found a relation between corruption and a lower economic performance and sustainability [31–33]. Corruption reduces investment [34–37], and it leads to lower productivity [38] and lower economic growth [39]. As stated by Fischer [9], "healthcare systems are publicly funded, it is crucial to make clear where the money goes to and who is responsible for what and to what extent in order to gain public acceptance". Improving the quality of institutions can be a good way to improve public acceptance and the sustainability and accountability of the system. It has been proved that good institutions having a high level of transparency and rule of law and low levels of corruption are more sustainable [40,41]. Good institutions lead to higher investment and help to avoid unlawful and distortionary allocation of resources and to reduce uncertainty. Égert [42] found that regulation and institutions affect productivity in OECD countries. Dort et al. [43] showed that investments increase economic growth only in those countries where institutions are of good quality. Berggren et al. [44] found a positive correlation between institutional quality and economic growth in 35 European countries. It seems that the basic pillar of a good institution is anti-corruption and its prevention strategy [45].

From this literature review, it becomes clear that the sustainability of a healthcare system, for all of its analysis dimensions, requires the element of an effective anti-corruption strategy. Some scholars found a direct and positive relation between the prevention and control of corruption and environmental performance [46,47]. Other scholars identified some strategies to reduce corruption [48–52], from developing specific skills to address corruption to increasing transparency and accountability, and establishing an anti-corruption agency. Lio [53] estimated a positive relation between the control of corruption and a longer life expectancy and a lower infant mortality rate [54]. In the healthcare sector, Mackey et al. [55] states the problem as follows: "current anti-corruption tools and interventions are still limited, and there is an absence of key actors committed to preventing corruption from occurring in health systems". Based on the preceding points, the authors' aim was to identify and study these strategies and interventions implemented in the Italian experience.

3. Methods

3.1. Data Collection and Selection

As previously mentioned, the first aim was to analyze the current state of the adoption of the anti-corruption law and of its interventions in Italian healthcare organizations. An analysis was conducted on 68 healthcare organizations (HCOs), out of the total number of HCOs estimated at approximately 190 units. For the remaining 122 organizations, it was not possible to conduct the analysis because the corruption prevention plan was not available on their website (38 organizations) and/or there was an ongoing institutional change (due to regional health sector reforms) that made the analysis of the prevention plan not significant. For example, in several Italian regions, there are important processes underway of merging between two or more healthcare organizations to create bigger structures, with a different allocation of competencies between the regional and local levels. Since the anti-corruption law required that corruption prevention plans be published on the HCO's

website, information for this study was obtained by analyzing the websites and downloading the plans. Despite the fact that this was a duty, it was interesting to note that 38 HCOs did not publish this document. Since 2015, the National Anti-Corruption Authority has dedicated a special section of the Annual Anti-Corruption Plan to the health sector. The following 13 interventions were selected from that section which, according to the Authority, should characterize the HCOs' corruption prevention plans: stakeholders' involvement, role of the corruption prevention officer, risk assessment, risk monitoring, internal context, external context, waiting lists, accreditation and contracts, drug purchasing, procedures and activities after a death in hospital, procurement, appointments, and staff rotation. An analysis followed of the state of these variables as described within the prevention plans for the years 2015–2017 (the National Anti-Corruption Authority requires a three-year planning). Initially, to the authors tried using a scale ranging from 0 to 3, where the values 0 = intervention not present, 1 = intervention present but with a weak description, 2 = intervention with a sufficient description, and 3 = intervention with a very detailed description. However, they realized clearly that this classification was not applicable, since they could distinguish the HCOs using a simpler scale, with the values 0 = intervention not present within the plan and 1 = intervention present and well described. This choice was related to the first research result, described more fully in the next section, that was quite striking: several of the plans did not fully comply with the indications made by the National Anti-Corruption Authority, despite the law being issued in 2012 and the Authority's enforcement starting in 2014.

3.2. Cluster Analysis

To achieve the second aim, a cluster analysis was applied to bring out groups of hospitals with similar patterns with respect to corruption issues. As a matter of fact, the challenging problem in cluster analysis is the detection of the correct number of groups, and with this in mind, the authors employed a two-step approach based on hierarchical clustering and a k-means algorithm. The former, based on an agglomerative path (bottom-up) allowed the authors to visualize and then to hypothesize a reasonable cluster solution by inspecting the dendrogram. Then, to get an optimal grouping, the k-means algorithm was run several times according to the plausible number of groups as detected by hierarchical clustering. The first step, that is hierarchical clustering, was applied to the dissimilarity matrix based on Euclidian distance and by means of the Ward linkage approach. Such a method minimizes the variance of the different groups with the aim of finding compact, spherical clusters. The criterion for fusion is to obtain the smallest possible increase in the error sum of squares. The elbow-criterion was also used as empirical criteria that can suggest reasonable numbers of clusters according to the number of observations and the increase of homogeneity of the groups themselves. Once the reasonable number of groups has been detected, and to obtain a final coherent and stable assignment of the observations to the groups, a k-means algorithm was run 20 times, in order to change continuously the starting seed and to avoid a bias due to the initial setting. As a result of the combined approach explained above, the optimal number of groups detected was three, with cluster 1 made up of 23 observations, cluster 2 of 31 observations and cluster 3 of 14 observations. Once the groups were detected, it was crucial to assign a clear interpretation to each cluster. The interpretation was based on the distribution of the variables employed in the cluster analysis; ideally each group should be related to only some variables or to specific quantiles of the available variables. Thus, it was necessary to explore the main position indices of each variable within each cluster, that is, the minimum, the first quartile (Q1), the median, the mean, the third quartile (Q3) and the maximum. After inspecting these measures, it was possible to read and interpret the latent content carried out by each discovered group and what constituted the difference among the groups.

4. Results and Discussion

4.1. Current State of Anti-Corruption Plans

The first aim was to evaluate the current state of the anti-corruption law, by analyzing the 13 variables identified as crucial by the National Anti-Corruption Authority. To classify the 68 HCOs, the 0 and 1 values were summed for each of the 13 interventions or characteristics obtained from the prevention plan analysis. The first result is shown in Table 1.

Table 1. Number of anti-corruption interventions described in the prevention plans by number of healthcare organizations (HCOs).

Number of Anti-Corruption Interventions Described in the Prevention Plans	Number of HCOs
1	1
2	1
3	0
4	0
5	4
6	3
7	5
8	10
9	7
10	10
11	10
12	9
13	8

Despite the National Anti-Corruption Authority's indications, only eight HCOs adopted a prevention plan fully compliant with those indications. A number of HCOs adopted a prevention plan which was quite well described, even if it did not include all 13 interventions. A certain number of HCOs implemented a plan which operated with few interventions: about one fourth of the analyzed HCOs planned to work on only half of the corruption prevention interventions indicated by the Authority. In addition, two HCOs adopted a plan with one intervention and with two interventions, respectively.

4.2. Anti-Corruption Interventions

After the analysis of the single interventions, the following results were obtained, as shown in Table 2.

Table 2. Anti-corruption interventions described in the prevention plan by number of HCOs.

Anti-Corruption Intervention	Number of HCOs
corruption prevention officer's role	61
risk assessment	61
risk monitoring	57
staff rotation	57
internal context	55
waiting lists	54
external context	53
procurement	51
appointments	45
activities after a death	40
drug purchasing	39
stakeholders' involvement	38
accreditation and contracts	30

None of the interventions was considered by all 68 HCOs. The analysis led to the following more detailed representation:

- the most cited intervention was the corruption prevention officer's role. The prevention officer is the person responsible for the corruption prevention plan and who controls its implementation, and its effectiveness. The prevention officer's role is related to the respect of the principles of autonomy and independence that must characterize this job, as well as specific competencies in terms of risk analysis and the design of countermeasures. It is therefore not surprising that it was the most common intervention cited in the observed plans;
- risk assessment (61 HCOs) and risk monitoring (57 HCOs) are other crucial characteristics in corruption prevention plans. For example, there are controls for procedures relating to the selection and progression of staff with regard to the regular running of competitions and their relative commissions, as well as tendering procedures which concern the award of works, services, and supplies. Each HCO must analyze for each activity the probable risk and the possible consequences and impacts, as well as identify specific risk prevention measures;
- another measure that is of great importance in corruption prevention is staff rotation (57 HCOs), especially for staff that handle procurement and recruitment procedures. To avoid corruption and opportunism related to relationship habits with third parties, it is often necessary to periodically rotate staff to other jobs and tasks;
- at the same time, the HCO must demonstrate that it is going beyond formal compliance. Thus, the process of customizing the plan becomes important and, in particular, with respect to the external context (53 HCOs), as well as the internal context (55 HCOs), since each organization has its peculiarities in terms of risk, organizational aspects, procedures, and so on;
- waiting lists is a common risk area in the health sector (54 HCOs). A criminal mechanism occurs when someone is asking for money to skip ahead in the waiting list or inviting the ill to go to private clinics where the doctor has some interests. To prevent this risk, the National Anti-Corruption Authority suggested the implementation of transparent waiting lists that had to be frequently updated, as well as specific controls;
- concerning procurement (51 HCOs), problems arise both during selection procedures and during the execution of the contract. In fact, violations of the normal selection procedures often occur through different illegitimate situations, such as abuse of the non-transferability of a product or service, accelerated procedures, the extension of expired agreements, conflicts of interest. Criticisms were also encountered about the avoidance of controls on what was being provided and how. To prevent this risk, the National Anti-Corruption Authority suggested the implementation of centralized procurement processes, the online publication of procurement data, as well as a specific attention given to risk analysis and to the definition of specific countermeasures;
- measures to prevent corruption in appointments were planned by 45 HCOs. Appointments of managers and department heads are made with a wide degree of discretionary power. General managers are appointed by the regional council, and the administrative and health officials are appointed by the general manager and are invited based directly on trust. The department heads are selected by a commission appointed by the general manager. These processes are often very discretionary, without an indication of restrictive requirements, qualifications and experience that the candidates must possess. The main appointments are often made on the back of political choices. Specific countermeasures to this risk of corruption can be the definition of objective requirements for the candidates, the definition of compulsory qualifications, the transparency of the entire selection and appointment process, and the definition of a maximum number of assignments that a director can undertake in the same region;
- measures to prevent corruption in after-death activities are planned in 40 HCOs. In Italy, the majority of deaths occur in the hospital, and the mortuary administration is awarded on contract. Misconduct often occurs, as directing relatives of a particular company for the funeral

arrangements, requesting gifts or money for activities already included in the contract, etc. The Anti-Corruption Authority indicates some interventions in this case, for example, specific guidelines for the company that manages the mortuary and its employees, the rotation of the companies, specific controls to avoid conflict of interests between the company that manages the mortuary and the company that manages the funeral arrangements;

- measures to prevent corruption in the drug supply chain are planned in 39 HCOs. In drug research and the development phase, companies could bribe doctors and researchers to falsify information or to obtain the permits needed to carry out these activities. There can be collusion agreements between drug companies and politicians to adopt laws regulating drugs, such as between the companies and the doctors and pharmacists to force prescriptions on their patients for given drugs. For this area of risk, the Authority indicates measures related to the procurement processes and also specific measures based on ICTs (information and communication technologies) to improve the traceability of the entire drug supply chain and the precise association between drugs and medical devices and the patient. Other interventions tend to avoid conflict of interests;
- the involvement of stakeholders is an important measure to increase the legitimacy and the accountability of the HCO (30 HCOs). The Authority suggests an improvement in the capacity of the HCOs to communicate to their stakeholders through the online publication of data and transparent procedures;
- accreditation and contracts is an area and a measure of prevention that is less used (planned by 30 HCOs), even if in Italy approximately 25% of health expenditures goes to accredited private care facilities. In this area, there can be illicit behaviors to obtain accreditation or agreements with a particular clinic to the detriment of others, or to avoid controls and checks of accreditation requirements. For this area of risk, the Authority suggests the implementation of specific guidelines to reduce or eliminate the discretionary power of officers, ensure the rotation of the staff who conduct the inspections, and ensure the continuous monitoring of private hospitals' performances.

These results confirmed the hypothesis stated by Mackey et al. [55] and the several indications made in the Transparency International and the EU Anti-Corruption Reports. There is room for much improvement in anti-corruption strategies and interventions in the health sector. Specifically, these can be developed according to an organizational approach for implementing the several interventions, as discussed above. This is typical in the context of managerial and organizational studies. At the same time, this approach may not be enough to change the current state, as demonstrated by this paper's research. As suggested by the guest editors of this special issue, a "transformational change in the management of healthcare" is needed, where the basic element is the effective prevention of a corruption system for the healthcare system, "inspired by and to sustainability".

4.3. Patterns of Adoption of Corruption Prevention Interventions

With respect to the second aim, three clusters of HCOs, which represented different adoption patterns of corruption prevention interventions, were identified and classified (see Table 3).

Table 3. Cluster analysis results reporting for each group the six position indices: minimum, first quartile, median, average, third quartile, and maximum. Grey shadow cells report the most relevant variables for a given cluster.

Cluster	Measure	Stakeh. Involv.	Role of Officer	Risk Monit.	Extern. Context	Intern. Context	Risk Assess.	Wait. List	Accred.	Drug Purch.	Activ. After Death	Procurement	Appointments	Staff Rotat.	TOTAL	ROI
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00	-22.67
1	Q1	0	1	1	1	1	0.5	0	0	0	0	0	0	0	6.00	4.1
1	Median	1	1	1	1	1	1	0	0	0	0	1	0	1	8.00	6.87
1	Average	0.52	0.87	0.83	0.83	0.87	0.74	0.39	0.22	0.09	0.13	0.52	0.43	0.70	7.13	3.99
1	Q3	1	1	1	1	1	1	1	0	0	0	1	1	1	8.50	8.67
1	Max	1	1	1	1	1	1	1	1	1	1	1	1	1	10.00	14.1
3	Min	0	0	0	0	0	0	1	0	0	0	0	0	0	2.00	4.34
3	Q1	0	0.25	0	0	0	1	1	0	0	1	0	1	1	8.00	6.83
3	Median	0	1	1	0	0	1	1	1	1	1	1	1	1	8.50	9.53
3	Average	0.29	0.71	0.57	0.21	0.29	0.93	1.00	0.57	0.64	0.86	0.64	0.79	0.79	8.29	8.81
3	Q3	0.75	1	1	0	0.75	1	1	1	1	1	1	1	1	9.75	10.5
3	Max	1	1	1	1	1	1	1	1	1	1	1	1	1	11.00	12.65
2	Min	0	1	0	1	1	1	1	0	0	0	0	0	0	10.00	-0.78
2	Q1	0	1	1	1	1	1	1	0	1	1	1	1	1	11.00	6.12
2	Median	1	1	1	1	1	1	1	1	1	1	1	1	1	12.00	7.87
2	Average	0.71	1.00	0.97	1.00	1.00	1.00	1.00	0.55	0.90	0.81	0.97	0.77	0.97	11.65	7.47
2	Q3	1	1	1	1	1	1	1	1	1	1	1	1	1	12.50	10.03
2	Max	1	1	1	1	1	1	1	1	1	1	1	1	1	13.00	17.84

4.3.1. The “Legislation Dissenters with Tick-Box Compliance”

The first cluster was made up of 23 HCOs, referred to as “legislation dissenters with tick-box compliance”. In this cluster, the HCOs’ corruption prevention plan had the lower average value (7.13) of anti-corruption interventions. Many of the anti-corruption interventions were not planned; in addition, the most frequent interventions were those that seemed to respond to a tick-box culture of compliance rather than to the effective implementation of an anti-corruption strategy. In fact, with respect to the other two clusters, the most frequent interventions were stakeholders’ involvement (0.83), the analysis of the external context (0.83), and that of the internal context (0.87). As discussed above, these measures were only those that demonstrated the willingness to go beyond formal compliance, but with the requisite that the other measures be planned; however, this is not the case with these HCOs. Consequently, this cluster seemed to respond to a need for formal compliance rather than to an effective process of customizing the corruption prevention plan. Finally, the HCOs belonging to this cluster had a worse economic performance with respect to the others, with a return on investments (ROI) equal to 3.98%.

4.3.2. The “Legislation Adherents”

The second cluster was made up of 31 HCOs, referred to as “legislation adherents”. In this cluster, HCOs adhered strongly to the provisions of the legislation; in fact, they all had anti-corruption interventions with the highest frequencies, with an average value of 11.65. The HCOs belonging to this cluster seemed to have a better economic performance with respect to the previous one, with an ROI equal to 7.47%.

4.3.3. The “Legislation Dissenters with Selective Compliance”

The third cluster was made up of 14 HCOs, referred to as “legislation dissenters with selective compliance”. Similar to the first cluster, these HCOs had a medium-low average value (8.29) of anti-corruption interventions; the difference was that they focused not on the interventions referred to as “tick-box compliance”, but on the anti-corruption interventions that concerned the core processes of an HCO, for example, waiting list (1), risk assessment (0.93), drug purchasing (0.64), and activities after a death. In hospital (0.86) and appointments (0.79) and similar types of focus are associated with better economic performances, since the HCOs belonging to this cluster had the highest ROI, equal to 8.81%.

These findings depicted three clusters that differed meaningfully on the different degrees of compliance to the anti-corruption law, characterized by different degrees of planning of anti-corruption interventions. It was known that economic performance depended on several variables, but in accordance with the research aim, the attention was given to anti-corruption measures. The HCOs that invested in anti-corruption interventions, or focused their interventions on specific anti-corruption measures related to some core processes, belonged to clusters with a higher economic performance. In light of these results, the prevention of corruption seems to be an unavoidable and convenient way to ensure healthcare system sustainability. These results confirmed the hypothesis stated by the literature as discussed above [40–54], that is, that the prevention of corruption leads to a better economic performance and to a greater sustainability of an HCO, and therefore to the sustainability of the entire health system.

The study had some limits. First, only one year was observed as the sample period. The analysis can therefore not be extended to produce an analysis of the phenomenon’s evolution. A generalization to other years cannot be made, and a bias cannot be avoided because of the choice of a specific year. Second, the analysis was limited to Italy, and therefore a generalization of the results to other countries cannot be made. Third, an analysis was made of how HCOs planned the anti-corruption interventions, but no analysis was made to see if these interventions were actually being implemented. Concerning future research, the authors believe that scholars should analyze how the planning of

anti-corruption measures can be effectively implemented, in addition to developing a cross-country and longitudinal analysis.

5. Conclusions

Sustainability is a very complex issue, especially in the field of healthcare where the multidimensionality of the sector makes the sustainability concept even more difficult to analyze. The authors therefore agree with Fineberg and his suggestion to explore “different ways to achieve a successful and sustainable health system”. In this article, the authors tried to show that anti-corruption systems in Italy, and not only in Italy, are an obligatory means to ensure sustainability, because of the high level of corruption that characterizes the public administration and the healthcare sector. Furthermore, corruption is—without any doubt—one of the main enemies of the healthcare system’s sustainability. Corruption reduces financial resources, but it can also act as a socioeconomic-cognitive factor that reduces trust in the healthcare system. As observed by Quan-Hoang et al. [56], a decrease in trust in healthcare quality can lead to an important negative impact on the likelihood of consumers’ spending on health and preventive medicine. This occurs without even considering the damage caused by corruption to the perceived value of research and to the funding for basic research studies [57]. In spite of these assumptions, the majority of the HCOs observed demonstrated a certain attention given to the law in their anti-corruption plans, which were not fully compliant with the National Anti-Corruption Authority’s regulations. The authors also identified different patterns of anti-corruption interventions that could be represented in three different clusters of HCOs. The HCO clusters that invested in specific anti-corruption interventions seemed to have a better economic performance than the others. Therefore, the current state seems to lead to a lost crucial opportunity for the recovery of a greater sustainability of the entire health system. The authors hope is that, through their study and others in this field, it will become increasingly clear that in order to develop a sustainable healthcare system, the prevention of corruption is one of the most effective ways to achieve that goal.

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