HEALTH SECTOR IN BRAZIL: AN ANALYSIS OF COINCIDENCE IN ECONOMIC CONCENTRATION OPERATIONS

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ABSTRACT

The Brazilian health system involves the performance of both the public and private sectors, resulting in a series of phenomena that result from the relations between companies and the State. This research aims to analyze the actions of influence strategy that are necessary and sufficient for the unrestricted approval of acts of economic concentration submitted to CADE by hospitals and health plans. The analysis was carried out through documentary research in processes available on CADE's website and data from the Transparency Portal and the Superior Electoral Court. 87 acts of economic concentration were examined between 2014 and 2019. Using the R program for coincidence analysis (CNA), it was found that the absence of an Economic Group or the presence of Experience with an Act of Economic Concentration or the Occupation of Public Office are necessary and sufficient factors for approval without restrictions. From this research, it is clear that the commodification of health, favored by the unrestricted approval of these operations, threatens the proposal of a health system based on the principles of universality, equity and integrality. This can lead to greater inequality of access and concentration of power in the sector, with economic groups creating increasingly narrow and polarized beneficiary portfolios.

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INTRODUCTION

Worldwide and in Brazil, the performance of operations of acts of economic concentration is a strategic activity. It consists of complex operations, which cause important impacts and changes in the structure of the organizations involved, as well as in the routine of their employees and in the sector in which they work. In general, such operations aim to consolidate competitive advantages, strengthen market leadership and improve the economic and financial performance of companies (Fasolin *et al*., 2014).

In 2018, mergers and acquisitions announcements, involving acquisitions of control, mergers and sales of minority stakes, totaled R$177.2 billion, an increase of 28% compared to 2017, which registered R$138.4 billion (Anbima, 2019). The use of acts of economic concentration as a strategy for action by organizations usually results from the potential creation or maintenance of shareholder wealth, through the appreciation of shares in the market (Camargos; Barbosa, 2005).

In Brazil, there is a growing movement of economic concentration operations in the health sector. In eight years (2009 to 2017), an average of 11 operations performed by supplementary health operators and/or hospitals were recorded, which were analyzed by the Administrative Council for Economic Defense (CADE). All were approved, with 85% approved without any type of restrictions. In 10 years (from 2008 to April 2018), there was a 32% reduction in the number of operators operating in the country (Oliveira *et al*., 2021), evidence that points to the concentration of the supplementary health sector.

From a business point of view, the performance of acts of economic concentration tends to enhance its activities; On the other hand, the increase in these operations tends to have negative effects such as reduced competition, increased social inequalities and weakened regulation and inspection mechanisms. It can result in increased prices for consumers, weakening of small and medium-sized companies, creating spaces for abusive practices that are harmful to society, such as consumer exploitation, restriction of access to goods and services, and anticompetitive practices that directly impact the country's sustainable growth. According to the provisions of article 170 of the FC/88, free enterprise is the foundation of the economic order, and competition is one of its informing principles (Buchain, 2014).

The health sector in Brazil is characterized by the joint action of the public and the private, a mixed system for the provision and financing of health goods and services. The incorporation of market mechanisms in the health system in Brazil occurred in a context of

political transformations. Passively, government agencies allowed the commodification of health, opening gaps for the growth of a private market, totally unregulated. In Brazil, private health care began in the 1940s, and its regulation in fact began only through Laws No. 9,656 of 1988 and No. 9,961 of 2000, when the ANS was established.

The provision of health services by public and private institutions generates a series of phenomena arising from the relationships that are established between companies and the State (Ferreira, 2018). In view of the complex actions arising from this association, this research proposes the application of the concept of the strategy of influence in order to allow an explanatory analysis of the strategic phenomena arising from this relationship. The strategy of influence is understood as an action that can be practiced by the agents involved in a given phenomenon. The practices of influence strategy verified in this research include electoral campaign contributions, occupation of public office and contracts between private companies and the State. These actions occur in the various relationships that are established between companies and the State in order to influence the decision-making process, in different spheres of the State, to achieve gains in competitive advantages.

In this context, this study aims to analyze the influence strategy actions that are necessary and sufficient for the unrestricted approval of acts of economic concentration submitted to CADE by hospitals and health plans.

METHODOLOGY

A documentary research was carried out on the volumes of cases of economic concentration operations carried out by hospitals and health plans available on CADE's website and on information and data collected on the Transparency Portal and the Superior Electoral Court (TSE).

Data collection and descriptive statistical analysis were carried out considering six factors of analysis: Merger approved without restrictions by CADE; Experience with acts of economic concentration; Participation in an economic group; Electoral donation; Contract with the public service; and Occupation of public office.

To define the actions (Chart 01), a survey was carried out based on Ferreira's work of the actions that could be investigated based on the object of study. For the formation of the influence strategy, it is necessary to map the actions, observe their connections and consequential relationships.   (2018)   (Ferreira, 2018)

Frame 1 - Classification and stock code

Stock classification	Code	Source
Merger approved without restrictions by CADE	ASR	Administrative Council for Economic Defense - CADE
Experience with acts of economic concentration	EAC	Administrative Council for Economic Defense - CADE
Participation in an economic group	GE	Administrative Council for Economic Defense - CADE
Electoral donation	FROM	Superior Electoral Court - TSE
Occupation of public office	OCP	Transparency Portal
Contract with the public service	CP	Transparency Portal

Source: Prepared by the authors based on Ferreira. (2018)

Acquisition of a company or acts of economic concentration occurs when a company carries out an act of economic concentration that was submitted to CADE's appreciation. Several motivators can be described for companies to carry out acts of economic concentration, including obtaining rapid growth, neutralizing competitors and enabling economies of scale. When analyzed by CADE, the act of economic concentration may be approved without restrictions, approved with restrictions or disapproved, when it results in the elimination of competition in a significant part of the relevant market, which may create or reinforce a dominant position, or which may result in the domination of the relevant market of goods or services (CADE, 2016). (Areeda , Kaplow , Edlin , 2004; Forgioni , 2013; Nusdeo , 2002)

As for the experience with economic concentration acts, it is the number of economic concentration acts in which the companies participated in the period studied. It is understood that companies that have experience with carrying out economic concentration operations tend to accumulate competitive advantages over those that do not, in addition to allowing a closer relationship with state agents, thus, these companies can be favored to the detriment of others. The survey of mergers approved without restrictions by CADE was carried out through the analysis of documents in the proceedings submitted to CADE. (Smelser ; Swedberg , 2010)

Participation in an economic group considered companies that participated in the acts of economic concentration and are part of economic groups. From the perspective of the New Economic Sociology, economic groups can be understood as clusters, in which companies seek to mobilize resources to improve their performance in the market. (Swedberg , 2003)

The Electoral Donation comprises the financing of political parties and candidates during the electoral period. Companies direct their electoral contributions according to

strategic objectives, and financing can be one of the ways to start a relationship between companies and the state.   (Ferreira, 2018)

The occupation of public office, when any agent is appointed or electively assumes a public position, presumes the importance in the decision-making process of public, elective, career or appointment positions. Contract with the public service comprises when the company has formal contracts with a state institution.   (Ferreira, 2018)

The survey of the lawsuits was carried out through an analysis of the acts of economic concentration submitted to CADE that involved hospitals and health plans, searches on the TSE website and the transparency portal.

The data and information collected from the document analysis were organized in electronic spreadsheets and analyzed using the R® software. A coincidence analysis (CNA) was performed using the R program, *cna, frscore and cnaOpt packages*.

Unlike the more standardized methods of data analysis, which mainly quantify the sizes of the effects, the ANC belongs to a family of methods designed with the objective of grouping causal influencing factors conjunctively (in complex packages) and disjunctively (in alternative paths). This method is based on the theory of regularity of causality and stands out as the only one of its category capable of identifying causal structures with multiple outcomes (effects), as is the case of common cause structures or causal chains. (Baumgartner;   Ambühl   , 2020)

The CNA searches in a database for all the necessary and sufficient conditions for a result that can be inferred as its cause in that context, for this the method uses an exact algorithm. It uses Boolean logic through a formal proprietary algorithm executed in an open source package R® to identify causal models in a coincidence list. The algorithm operates in two steps. First, it looks for the minimally sufficient and minimally necessary conditions to instantiate a specific result, testing factor values alone or combined jointly by the operator "and" and "or", respectively. The second part of the search strategy involves finding the minimum conditions necessary to achieve the desired result.   (Baumgartner; Thiem, 2017) (Baumgartner;   Ambühl   , 2020)

To interpret the analysis, it is necessary to measure the measures of consistency and coverage. Consistency represents the degree to which a particular outcome behaves in a relationship of sufficiency or corresponding need (or a complete solution formula). It is responsible for ensuring the reliability and replicability of causal modeling results, representing the degree to which empirical evidence is consistent with the theoretical

relationship of sets. Coverage, on the other hand, demonstrates the degree to which a sufficiency or necessity relation (or an integer solution formula) can explain the behavior of the corresponding outcome and seeks to consider all possible causes that are significant, indicating the empirical relevance or importance of conditions.   (Baumgartner; Falk, 2023)

RESULTS AND DISCUSSIONS

When surveying and organizing data regarding acts of economic concentration, 87 transactions were identified, with an average of 14 acts per year (period from 2014 to 2019). It was found that most of the transactions carried out were approved by CADE without restrictions, representing 95% (83) of the cases. Only 3% (03) of the operations were approved with restrictions, while a single operation was canceled.

As for the survey of electoral contributions made by companies that participated in the acts of economic concentration, the amount of electoral donations reached the sum of R$ 81.3 million. "Amil Assistência Médica Internacional S.A" made the largest volume of contributions, registering a sum of R$ 33.0 million, equivalent to 40.54% of the total raised. This may indicate its relevance in the health insurance sector in the country, as pointed out in studies by (Mattos *et al.*, 2022).

By checking the public contracts, it was identified that the companies that participated in the operations totaled more than 1 billion reais in contracts with the Brazilian State between the years 2014 and 2019. In this period, 2014 had the highest volume of capital contracted, totaling R$371.8 million, and 2016, the lowest value, with R$138.4 million. Between 2017 and 2019, there was little variation in the values.

A survey of the people involved in the mergers was carried out. In the notification forms to CADE, there is a mandatory field for the identification of the contacts of the companies involved in the transactions. The survey was carried out by compiling this information. From the survey, 246 people indicated in the operations were identified. A check was carried out on the Transparency Portal to identify those who had an employment relationship with the State. It was observed that 19 people held public office, being 7.72% of the total number of people identified, but they participated in several acts of economic concentration. Of the 87 operations studied, in 35 (40.22%) of them the activities of people who had ties to the State were identified. The people identified represented 26

companies, and there were cases in which the same person was a representative of more than one company. (CGU, 2023)

To apply Coincidence Analysis (CNA), it is necessary to assemble a configurational database or list of coincidences. The list of matches is made up of "factors" that are placed in the columns, and the "cases" or "units of observation" are the rows. The coincidence is an observed configuration, which is actually presented in the configurational database. Factors are represented by letters, where a capital letter represents the value [1] for a given binary variable. So [A] is read as: variable "A" is present, uppercase. A lowercase letter represents the value [0] for a given binary variable. So [a] is read as: variable "a" is missing, lowercase . In this research, the factors are strategy actions, as shown in Chart 02. (Ambuehl *et al.* , 2022)

Frame 2 - Description of the Factors Used for Configurational Analysis

Code	Factors	Description
ASR	Merger approved without restrictions by CADE	ASR = 1, merger approved without restrictions by CADE ASR or asr = 0, merger approved with some restriction by CADE
EAC	Experience with acts of economic concentration	EAC = 1, companies involved in mergers participated in 03 or more transactions in the period studied. EAC or EAC = 0, companies involved in the mergers participated in 02 or fewer transactions in the period studied.
GE	Participation in an economic group	GE = 1, companies involved in the merger are part of an economic group. GE or ge = 0, companies involved in the merger are not part of an economic group.
FROM	Electoral donation	DE = 1, companies involved in the mergers made electoral donations in the period studied. DE or DE = 0, companies involved in the mergers did not make electoral donations in the period studied.
CP	Contract with the public service	CP = 1, companies involved in the mergers have contracts with the State in the period studied. CP or cp = 0, companies involved in the mergers do not have contracts with the State in the period studied.
OCP	Occupation of public office	OCP = 1, people involved in the mergers have ties with the State during the period studied. OCP or OCP = 0, persons involved in the mergers have no link with the State in the period studied.

Source: Prepared by the authors (2024)

From the CNA analysis, we have a Boolean equation that uses some basic operators, the main ones being: (Ambuehl *et al.* , 2022)

- Logical "AND" [E], represented by the asterisk symbol [*] (multiplication), means the Boolean product (conjunction operation in the logic of propositions);

- Logical "OR" [OR], represented by the addition symbol [+] (addition), constitutes the Boolean sum (disjunction operation in proposition logic);
- Logical-implicative, which forms the connection between the conditions and the result: the double arrow symbol [↔] means "IF and only IF", "necessary and sufficient for" or "sufficient and necessary for", represents Boolean equality (equivalence operation in proposition logic), is used to express the link (usually causal) between a set of conditions, on the one hand, and the result that one tries to "explain", on the other.

In this research, a list of coincidences with factors of the Sharp Bivalued type was developed, so that the causal implicative dependencies of the results of interest could be sought with a minimum of ambiguity   (Baumgartner; Thiem, 2017) . As usual in comparative configurational methods, the original data was recoded into binary values. Thus, binary values of [0] and [1] were used, in which [1] represents the presence of a certain factor and [0] is its absence, so that the causal implicative dependencies of the results of interest could be sought with a minimum of ambiguity   (Freitas   *et al.*   , 2020) (Ambuehl   *et al.*   , 2022) (Baumgartner; Thiem, 2017).

86 cases were raised, acts of economic concentration carried out by hospitals and health plans in the period from 2014 to 2019. Based on the organization and transformation of the data, the list of coincidence presented in Appendix A is obtained. To perform the analysis, the R program, cna, *frscore* and *cnaOpt packages were used*.

By using the "*configTable*" function, you have a configuration table, an integrated representation of the input data, which lists all possible configurations. It groups in the same row cases that have the same configuration, and each row represents a configuration, in which it is possible to have several cases with the same configuration. Table 1 shows the configuration table of the coincidence list under analysis.   (Ambuehl *et al.* , 2022)

As shown in Table 1, 18 possible configurations were identified in the coincidence list. Configuration number 1 had the highest frequency of cases (29), and in this configuration, all the factors studied are present. Configuration number 2 with the second highest frequency, with a total of 22 observations, is characterized by the absence of the OCP (Occupation ôf Public Office) factor. Eight configurations, from numbers 11 to 18, were identified in just one operation.

Table 1 - Settings Table

Configuration Number	ASR	GE	EAC	FROM	CP	OCP	Number of observations
1	1	1	1	1	1	1	29
2	1	1	1	1	1	0	22
3	1	1	0	1	1	0	6
4	1	0	0	1	1	0	5
5	1	0	0	0	1	0	4
6	1	0	1	1	1	0	3
7	1	1	1	0	1	0	3
8	0	1	0	1	1	0	2
9	1	0	0	1	0	1	2
10	1	0	1	1	1	1	2
11	1	1	0	1	0	1	1
12	1	1	0	0	0	0	1
13	0	1	1	1	1	0	1
14	1	0	0	0	0	0	1
15	1	0	1	0	1	0	1
16	1	1	0	0	1	0	1
17	1	1	1	0	1	1	1
18	1	0	0	1	0	0	1
Total cases							**86**

Source: Prepared by the authors (2024).

When performing the ANC analysis[4], eight causal models were found, as shown in Table 2. In the first model (Model 1), there is the presence of a factor on the left side, "EAC", in capital letters, which represents the presence of experience with acts of economic concentration. The expression reads as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, the companies involved in the operation have experience with operations of economic concentration. Due to the ANC algorithm, it is guaranteed that the left side presented in this expression represents a minimally necessary disjunction of conjunctions minimally sufficient for ASR (i.e. in the levels of consistency and coverage obtained) and that, therefore, this disjunction can be interpreted as the cause of this result in the context of this study. That is, none of the categorical values that form the left-hand side can be eliminated without the disjunction as a whole ceasing to be necessary and sufficient for the right-hand side, for the database, and for the levels of consistency and coverage that were considered for the analysis. Thus, Model 1 expresses that the occurrence of experience with operations of economic concentration (left side) is necessary and sufficient for the unrestricted approval (right side) in a sample operation. (Baumgartner; Ambühl , 2020) (Baumgartner; Ambühl , 2020)

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[4] The code used for the analysis is available for access through the link: https://github.com/luanalmo/Analise_CNA/blob/main/Analise_CNA_Tese

Table 2 - Causal Models

Model	Boolean Expression	Consistency	Cover
1	EAC↔ASR	0,984	0,735
2	ge+EAC↔ASR	0,987	0,892
3	cp+ge+EAC↔ASR	0,987	0,916
4	de+ge+EAC↔ASR	0,987	0,916
5	cp+EAC↔ASR	0,985	0,807
6	de+EAC↔ASR	0,986	0,819
7	ge+EAC+OCP↔ASR	0,987	0,904
8	de+ge+eac+OCP↔ASR	0,968	0,735

Caption:
. Capital letter: value of the variable equal to 1, indicating the presence of the property represented by it;
. Lowercase letter: value of the variable equal to 0, indicating the absence of the property represented by it;
. +: Boolean operator of disjunction, representing the logical "or";
. ↔ : double conditional Boolean operator, representing the logical-implicative "if, and only if".
Source: Prepared by the authors (2024).

As shown in Table 2, in the database under analysis, in a study of Model 1, the expression showed consistency of 98%, that is, in 98% of the cases, the left side (EAC – experience with acts of economic concentration) is sufficient for the occurrence of the right side (ASR – act of concentration approved without restrictions by CADE), and coverage of 73% of the cases of ASR is explained by Model 1.

As for the second model (Model 2), the presence of two factors on the left side can be verified: "ge", in lowercase letters, which represents the absence of participation in an economic group; and "EAC", in capital letters, which represents the presence of experience with acts of economic concentration. Thus, the expression can be read as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is the absence of participation in an economic group OR if the companies involved in the operation have experience with economic concentration operations. Thus, Model 2 expresses that the absence of participation in economic groups OR the occurrence of experience with economic concentration operations (left side) are necessary and sufficient for unrestricted approval (right side) in a sample operation. As shown in Table 2, considering the database under analysis, in Model 2, the expression showed consistency of 98%, i.e., in 98% of the cases, the left side (ge + EAC) is sufficient for the occurrence of the right side (RSA) and coverage of 89%, which means that 89% of the cases of RSA are explained by Model 2.

In the third model (Model 3), there are three factors on the left side: "cp", in lowercase letters that represents the absence of a public contract; "ge", in lowercase letters that constitutes the absence of an economic group; and "EAC", in capital letters, which represents the presence of experience with acts of economic concentration. Therefore, the

expression can be read as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is the absence of a public contract OR there is an absence of participation in an economic group OR if the companies involved in the operation have experience with economic concentration operations. Thus, Model 3 states that the absence of a public contract OR the absence of participation in economic groups OR the occurrence of experience with economic concentration operations (left side) are necessary and sufficient for unrestricted approval (right side) in a sample operation. In Model 3, the expression showed consistency of 98%, i.e., in 98% of the cases, the left side (cp + ge + EAC) is sufficient for the occurrence of the right side (RSA), and, when verifying the coverage, it is found that 91% of the cases of RSA are explained by Model 3.

The fourth model (Model 4) presented three factors on the left side: "de", in lowercase letters, which represents the absence of electoral contributions; "ge", in lowercase letters that encompasses the absence of an economic group; and "EAC", in capital letters, which represents the presence of experience with acts of economic concentration. Therefore, it is possible to read the expression as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is an absence of electoral contribution OR there is an absence of participation in an economic group OR if the companies involved in the operation have experience with economic concentration operations. Thus, from this model (Model 4), considering the sample studied, it is clear that the absence of electoral contribution OR the absence of participation in economic groups OR the occurrence of experience with economic concentration operations (left side) are necessary and sufficient for approval without restrictions (right side). Regarding the indicators for evaluating the expression, when evaluating consistency, it was found that, in 98% of the cases, the left side (de + ge + EAC) is sufficient for the occurrence of the right side (RSA), and, when checking the coverage, it was found that 91% of the cases of RSA are explained by Model 4.

As for the fifth model (Model 5), the presence of two factors on the left side can be verified: "cp", in lowercase letters, represents the absence of a public contract; and "EAC", in capital letters, represents the presence of experience with acts of economic concentration. Thus, the expression can be read as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without

restrictions if, and only if, there is the absence of a public contract OR if the companies involved in the operation have experience with economic concentration operations. Thus, Model 5 states that the absence of a public contract OR the occurrence of experience with economic concentration operations (left side) are necessary and sufficient for unrestricted approval (right side) in a sample operation. Considering the database under analysis, in Model 5, the expression showed consistency of 98%, i.e., in 98% of the cases, the left side (cp + EAC) is sufficient for the occurrence of the right side (ASR) and coverage of 80%, which means that 80% of the cases of RSA are explained by Model 5.

In the sixth model (Model 6), there are two factors on the left side: "de", in lowercase letters, which represents the absence of electoral donations; and "EAC", in capital letters, which constitutes the presence of experience with acts of economic concentration. Therefore, the expression can be read as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is the absence of electoral donation OR if the companies involved in the operation have experience with operations of economic concentration. Therefore, Model 6 expresses that the absence of electoral donation OR the occurrence of experience with operations of economic concentration (left side) are necessary and sufficient for the approval without restrictions (right side) in a sample operation. In Model 6, the expression showed consistency of 98%, thus, in 98% of the cases, the left side (de + EAC) is sufficient for the occurrence of the right side (RSA), and, when checking the coverage, it is found that 81% of the cases of RSA are explained by Model 6.

The seventh model (Model 7) presented three factors on the left side: "ge", in lowercase letters, which represents the absence of an economic group; "EAC", in capital letters, which constitutes the presence of experience with acts of economic concentration; and "OCP", in capital letters, which represents the presence of occupying public office. Therefore, the expression can be read as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is the absence of an economic group OR if the companies involved in the operation have experience with operations of economic concentration OR if the presence of public office occurs. Thus, from this model (Model 7), considering the sample studied, it is clear that the absence of an economic group OR the occurrence of experience with economic concentration operations OR the occurrence of occupation of public office (left side) are necessary and sufficient for approval without restrictions (right side).

Regarding the indicators for evaluating the expression, when evaluating consistency, it was found that, in 98% of the cases, the left side (ge + EAC + OCP) is sufficient for the occurrence of the right side (RSA), and, when verifying coverage, it was found that 90% of the cases of RSA are explained by Model 7.

Finally, there is the eighth model (Model 8) which is formed by four factors on the left side: "de", in lowercase letters, which represents the absence of electoral donations; "ge", in lowercase letters, which represents the absence of an economic group; "eac", in lowercase letters, which covers the absence of experience with acts of economic concentration; and "OCP", in capital letters, which represents the presence of occupying public office. Therefore, it is possible to read the expression as follows: in relation to the sample and the set of variables of this research, an act of economic concentration is approved without restrictions if, and only if, there is an absence of electoral data OR there is an absence of participation in an economic group OR if the companies involved in the operation do not have experience with operations of economic concentration OR the presence of public office occurs. Thus, Model 8 states that the absence of electoral donations OR the absence of participation in economic groups OR the absence of experience with economic concentration operations (left side) OR the presence of public office are necessary and sufficient for unrestricted approval (right side) in a sample operation. In Model 8, the expression showed consistency of 96%, i.e., in 96% of the cases, the left side (de + ge + EAC + OCP) is sufficient for the occurrence of the right side (RSA), and, when verifying the coverage, it is found that 73% of the cases of RSA are explained by Model 8.

Table 2 shows that the factor with the highest frequency in the models was the "EAC", in capital letters, which indicates the presence of experience with acts of economic concentration. She appeared in 7 of the eight models, and in model 8, she appeared in lowercase, indicating the absence of experience. The "ge" factor, which indicates the absence of an economic group, also showed considerable frequency, being present in five models.

When observing the factors that indicate presence, there is "EAC", referring to the occurrence of experience with an act of economic concentration, and "OCP" indicating the presence of occupying a public office.

In the light of concepts and theories used for this research and observing the consistency and coverage indicators, it is clear that model 7 (ge+EAC+OCP↔ASR) comes

closest to an explanation for the "ASR" factor, Approval Without Restrictions. In this case, it is verified that the absence of an Economic Group OR the presence of Experience with an Economic Concentration Act OR the presence of a Public Office Occupation are necessary and sufficient for the approval without restrictions in an operation of the sample. Assuming this model, it is clear that participation in an economic group (ge) is not relevant to the point of influencing the unrestricted approval of acts of economic concentration (ASR). On the other hand, the experience with acts of economic concentration (EAC) and the occupation of public office (OCP) are relevant for the unrestricted approval of acts of economic concentration (ASR), considering the sample surveyed.

This survey corroborates the concepts proposed by the New Economic Sociology, which assumes that laws are not neutral and some players can be favored to the detriment of others (Smelser ; Swedberg , 2010) . Companies that have experience with acts of economic concentration tend to accumulate advantages such as knowledge of the processes and greater strengthening of their relations with the state agents that make the decisions. As for the factor that indicates the presence of public office by people who represent the companies that carried out merger operations, it is noted that people who represent the companies may have access to privileged information and ties that can favor the process of approval of the operations without restrictions, taking into account the data studied in this research.

FINAL CONSIDERATIONS

This study was developed with the objective of analyzing the influence strategy actions that are necessary and sufficient for the unrestricted approval of acts of economic concentration submitted to CADE by hospitals and health plans. In search of answers, in the light of the perspective of the Strategy and the New Economic Sociology, a documentary research was carried out in the volumes of processes of economic concentration operations carried out by hospitals and health plans available on CADE's website and in information and data made available on the Transparency Portal and the Superior Electoral Court. Data collection was carried out considering six analysis factors: Merger approved without restrictions by CADE; Experience with acts of economic concentration; Participation in an economic group; Electoral donation; Contract with the public service and Occupation of public office.

By performing the coincidence analysis to verify the influence actions that are necessary and sufficient for the unrestricted approval of the acts of economic concentration, based on the concepts and theories proposed in this study, it is clear that the model that showed the best result was the "ge+EAC+OCP↔ASR", in which the absence of an Economic Group OR the presence of Experience with an Economic Concentration Act OR the presence of Occupation of Public Office are necessary and sufficient for unrestricted approval in a sample operation. Thus, it is clear that the thesis of this research was confirmed, in which it was verified that influence actions such as the performance of operations (Experience with Economic Concentration Act) and the Occupation of Public Office, adopted by hospitals and health plans, are necessary and sufficient for the approval without restrictions of acts of economic concentration that were submitted to CADE's analysis. for the operations of the sample studied.

A health system that at the same time established that "health is everyone's right and the duty of the State..." (BRASIL, 1988) allowed private companies to operate in an unregulated manner for several years and favored their growth and consolidation. It is seen that the proposal of a health system with the principles of universality, equity and integrality may be under the threat of commodification, in which economic groups have been consolidating, and one of the mechanisms used are acts of economic concentration, favored by a policy of approval of operations without any type of restriction. Companies that accumulate experience with these operations tend to obtain competitive advantages in the market and greater proximity to public decision-makers, in addition to having access to privileged information with close people who hold public positions.

The search for the seizure of market power in the health sector by economic groups is latent. The non-imposition of limits on these groups that have been formed and organized faster and faster will affect health policies, since the population's unequal access to services and increased polarization will form increasingly larger and more select portfolios of beneficiaries, diverting to the public health system those who do not have the income to contribute to supplementary health or, Even those unhealthy beneficiaries that prevent good financial results for the shareholders of these large corporations.

The strengthening of private companies in the health sector can generate impacts on costs, care and technological standards, with potential repercussions on inequalities in access and distribution of resources. This research reinforces, for example, as well as other studies (Menezes, 2019; Bahia *et al*., 2022; Mattos et al., 2022; Scheffer; Souza,

2022; Sestelo; Tavares; Silva, 2022), that the commodification of the health system can generate technical, political, and care transformations in which economic and financial logic will hardly be compatible with collective needs and rights.

This research was limited to the analysis of mergers carried out by hospitals and health plans that were submitted to CADE's appreciation, so lower value transactions were not verified. The survey was carried out based on the public version of the documents made available by CADE, so information classified as confidential could not be verified. Operations in the sectors of medicines, supply of equipment and technology of the health industrial complex were not analyzed. Electoral contributions were limited to those that were officially declared to the TSE.

On this occasion, it is emphasized that future research may be conducted in the proposal to verify impacts on the price and quality of services offered by companies that are the object of an act of economic concentration.

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APPENDIX A - Coincidence List for CNA Analysis

Mergers	ASR	GE	EAC	FROM	CP	OCP
08700.000397/2019-72	1	1	1	1	1	0
08700.000687/2019-16	1	1	1	1	1	1
08700.000768/2019-16	1	1	1	1	1	0
08700.001939/2019-24	1	1	1	1	1	1
08700.002346/2019-85	0	1	0	1	1	0
08700.002566/2019-17	1	1	0	1	1	0
08700.002810/2019-33	1	1	1	1	1	0
08700.003245/2019-21	1	1	1	1	1	1
08700.000771/2018-59	1	1	0	1	0	1
08700.000864/2018-83	1	0	0	1	1	0
08700.001287/2018-47	1	1	1	1	1	1
08700.001321/2018-83	1	1	1	1	1	0
08700.001838/2018-72	1	1	1	1	1	0
08700.002952/2018-10	1	1	1	1	1	1
08700.003266/2018-66	1	1	1	1	1	1
08700.003430/2018-35	1	0	0	1	0	1
08700.003500/2019-36	1	1	1	1	1	1
08700.004052/2019-98	1	1	1	1	1	1
08700.004079/2019-81	1	1	1	1	1	0
08700.004185/2019-64	1	1	1	1	1	1
08700.004265/2019-10	1	1	1	1	1	0
08700.004302/2019-90	1	1	1	1	1	1
08700.004631/2019-31	1	1	1	1	1	0
08700.004757/2019-13	1	0	0	1	1	0
08700.004955/2019-79	1	1	1	1	1	0
08700.004979/2019-28	1	0	0	0	1	0
08700.003678/2018-04	1	0	1	1	1	1
08700.003775/2018-99	1	0	1	1	1	0
08700.004030/2018-47	1	1	1	0	1	0
08700.004038/2018-11	1	1	1	1	1	1
08700.004374/2018-56	1	1	1	1	1	0
08700.005371/2018-30	1	0	0	0	1	0
08700.005409/2019-55	1	1	1	1	1	1
08700.005470/2019-01	1	1	1	1	1	0
08700.005661/2019-64	1	1	1	1	1	1
08700.005395/2018-99	1	1	0	0	0	0
08700.005509/2018-09	1	1	1	1	1	1
08700.005704/2018-21	1	1	0	1	1	0
08700.005705/2018-75	0	1	1	1	1	0
08700.005885/2018-95	1	0	0	0	1	0
08700.006115/2018-60	1	1	1	1	1	0
08700.006185/2018-18	1	1	1	0	1	0
08700.006071/2019-59	1	1	1	1	1	1
08700.006207/2019-21	1	1	0	1	1	0
08700.006819/2018-32	1	0	0	1	1	0
08700.007235/2018-84	1	1	1	1	1	1
08700.007276/2018-71	1	1	1	1	1	0
08700.002372/2014-07	0	1	0	1	1	0
08700.000181/2014-00	1	1	1	1	1	1
08700.001329/2014-16	1	0	0	0	1	0
08700.002568/2014-93	1	0	1	1	1	0
08700.004443/2014-06	1	0	0	1	1	0
08700.010625/2014-08	1	1	1	1	1	1
08700.011555/2014-05	1	1	1	1	1	1
08700.003676/2015-64	1	1	1	1	1	1
08700.001601/2015-49	1	1	1	1	1	1

08700.002317/2015-90	1	0	1	1	1	0
08700.003123/2015-10	1	1	1	1	1	1
08700.003337/2015-88	1	1	1	1	1	1
08700.005963/2015-17	1	0	0	1	1	0
08700.008189/2015-98	1	1	1	1	1	0
08700.010373/2015-06	1	1	1	1	1	1
08700.011192/2015-99	1	1	0	1	1	0
08700.012624/2015-89	1	1	1	1	1	0
08700.012652/2015-04	1	1	1	0	1	0
08700.011951/2015-13	1	0	1	1	1	1
08700.008541/2015-95	1	0	0	0	0	0
08700.005620/2016-25	1	0	1	0	1	0
08700.000266/2016-42	1	1	1	1	1	1
08700.000430/2016-11	1	1	0	1	1	0
08700.003459/2016-55	1	1	1	1	1	0
08700.006574/2016-81	1	1	1	1	1	0
08700.007004/2016-17	1	1	1	1	1	1
08700.007555/2016-72	1	1	1	1	1	1
08700.007556/2016-17	1	1	1	1	1	1
08700.008061/2016-13	1	1	1	1	1	0
08700.005455/2017-92	1	1	1	1	1	0
08700.004084/2017-21	1	1	1	1	1	1
08700.001221/2017-76	1	1	1	1	1	0
08700.005859/2017-86	1	1	0	0	1	0
08700.002013/2017-94	1	1	1	0	1	1
08700.008007/2017-41	1	1	1	1	1	0
08700.004255/2017-12	1	0	0	1	0	0
08700.003803/2017-97	1	1	0	1	1	0
08700.002450/2017-16	1	1	1	1	1	0
08700.002164/2017-42	1	0	0	1	0	1

Source: Survey data.