AN ANALYSIS OF THE SEPARATION OF PROPERTY AND MANAGEMENT IN BRAZILIAN CREDIT UNIONS[1]

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Abstract

According to the OCB (2012), there were 1,370 credit unions and 5.1 million members in Brazil in 2011. This is approximately 3% of the population of Brazil, with a participation of only 1.7% of the national financial system's total assets (BACEN, 2012). This market share is small compared to other countries. The Central Bank of Brazil regulates the operations of credit unions and incentivizes best business practices for the system in order to maintain efficiency in these organizations. The Central Bank also indicates a separation between management and property and professionalization in credit unions as necessary practices. This study aims to analyze how the main practices of corporative governance in Brazilian credit unions correlate with the variables that characterize the size and financial scale of the cooperatives and, in particular, the division between the property and management variable. Therefore, data were used from the Central Bank's Good Corporative Governance Practices project (*Boas Práticas de Governança Corporativa do Banco Central*) BACEN (2009).Because of the large number of variables, a multivariate factorial statistical analysis was performed as a function of the principal components. After the extraction of 3 factors, the results showed that the separation between property and management was negatively correlated with the governance variables that were characteristic of traditional management in cooperatives but positively correlated with the other variables that represented the best practices indicated for governance. However, the results did not correlate with economic or financial size, which emphasized a new research question: is the division between property and management important for the efficiency of Brazilian credit unions or do they behave as social organizations, requiring a different logic of corporate governance?

Key words: Corporate governance; Brazilian credit unions; separation between property and management.

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1. INTRODUCTION

According to Hansmann (1996), the owners of a firm are individuals who divide two forms of formal rights: the right to control the firm and the right to appropriate its profits and residual rights.

The separation between property and management indicates the necessity for formulating contracts to delimit responsibilities, avoid opportunism, and decrease the limited rationality of the parties, along with the transition costs to prepare and fulfill these contracts.

Because contracts are incomplete and because it is impossible to prepare a contract that prevents all the possibilities of future occurrences, maintains an alignment of the interests of the parties, and reduces agency conflicts, corporate governance structures are necessary to coordinate and monitor these activities.

Corporative governance practices in credit unions largely derive from rules established by entities, such as the Accounting Plan of National Financial System Institutions (Plano Contábil das Instituições do Sistema Financeiro Nacional - COSIF),and the resolutions contained in manuals by BACEN, which institute resolutions, including accounting regulations and standardization, the facilitation of fiscalization, and qualification of executives and management for businesses.

Building a system of solid controls that sustain the stability and continuity of individual activities is necessary to ensure effective governance in financial institutions. In turn, these controls result in the systemic stability of the National Financial System (VENTURA, 2009).

Therefore, some aspects of corporative governance in credit unions are important, including the professionalization of management and division between property and management of the organization. Concerned with these matters, the Central Bank of Brazil has found it necessary to adopt these and other best practices. However, these rules will likely increase governance costs. Therefore, small cooperatives with limited resources could have efficiency problems.

Given this background, the following research question is raised in this study: if the adoption of these practices is recommended by the Central Bank, particularly the division between property and management, is there a correlation with other

characteristics of governance practices and other practices that characterize the financial size and scale of the cooperative?

The objective of this study is to analyze the correlations that exist between corporative governance practices in credit unions and their economic and social size. This study describes the theory of property law, agency, and transaction costs in cooperatives. Data are then used from the Corporative Governance of the Central Bank (BACEN 2009), and variables are selected that indicate economic and social size, monitoring, and governance in cooperatives; these variables are then used to design multivariate analysis and factorial principal component analysis. Finally, some considerations and conclusions are presented.

2. THEORETICAL BACKGROUND

2.1 The separation of the property right of control

The owners of a firm are individuals who divide two forms of formal rights: the right to control the firm and the right to appropriate its profits and residual rights. In theory, the right to control and the right to residual profits can be separated and exercised by different sets of individuals. In practice, these rights are generally exercised jointly because if the individual who retains control does not have any right over the residual rights, he will show little interest in using his control to maximize the organization's earnings (HANSMANN, 1996).

As Hart and Moore (1998) assert in their theory of property rights, in addition to retaining the residual rights, the owners also have the right to make decisions regarding the firm's assets that were not specified in contracts in an *ex ante* form of hiring. This occurs because contract completeness is impossible as a function of the hiring costs.

In a cooperative, the associate members are the owners and managers of the organization, where as its members are the parties who have the right to the residuals and results.

Organizations develop with the opening of capital and control is spread to a large number of shareholders and the tendency of a division of the functions that

were previously attributed to property. Therefore, control is recognized as something independent from property (BERLE; MEANS, 1987). The separation among functions is common in organizations with a large number of professional partnerships and in non-profit entities such as cooperatives (FAMA; JENSEN, 1983).

Berle and Means (1987) assert that the agents who exert control over the organization may not have property rights over the generated residual; namely, they may not be owners. Therefore, the problem that emerges can be characterized as one of the relationship between agent and principal (agency dilemma) with the necessity to design contracts or develop efficient structures that monitor and motivate the agents (managers) to act in a manner aligned with the interests of the principal (owner).

There is a necessity to distinguish between cooperative and private organizations with regard to the exercise of control. According to Berle and Means, control is exercised by the group retaining the majority of council votes in private companies; however, this does not occur in cooperatives. With the majority group defined in companies, the transaction costs will rapidly decline because this group will have the right to select the agents to whom it will delegate control.

However, for Hansmann (1996) and Zylbersztain (1994), the management process of cooperatives does not separate property from control because the leaders are generally associated according to the legislation. In other words, the associate is both an owner and a client of one organization.

Furthermore, the cooperative is considered to be an organization in which property is attributed to its group of associates (ZYLBERSZTAIN, 1994).Therefore, decisions are made based on the principle that one man equals one vote, which is independent of the participation of the member in the cooperative's capital. The member's right regarding the residual will depend on the transactions performed with the cooperative during that period, but the member's vote will be independent of that value. Therefore, intensely involved cooperative members, who also run risks related to the cooperative's performance, may have the same influence on the decision-making process as a member who is a casual participant in the cooperative's business (HANSMANN, 1996).

However, if this separation between property and control in the cooperative did not occur, a large number of individuals would not be able to effectively combine their capital in a single organization without some of them losing control. Therefore, it is not possible for all members to exercise the principal elements of control, and the transfer of control to a few responsible members may generate conflicts of agency. The created situation may affect cooperative performance (BERLE; MEANS, 1987).

In this context of diffused property, as is the case in cooperatives, several contracted agents possess a residual right of control and many problems of corporate governance originate because several owners want to exercise control in a different manner because of divergences in interests (BECHT et al, 2005). Therefore, decision-making in a collective manner becomes unviable, and a portion of the decision-making power and control of the organization's assets is delegated to the managers, generating a separation of property and control.

Without this separation, the residual owners have little protection against the opportunistic actions of decision-making agents, which decreases the unrestricted value of the residual claims.

This moment of separation of property and control represents the substitution of Adam Smith's invisible hand for the invisible hand of the hierarchy of a large company. This new model requires a managerial hierarchy (MCGRRAW; CHANDLER, 1998) and necessitates contracts that delimit responsibilities, avoid opportunism, and decrease the limited rationality of the parties and transaction costs of preparing and fulfilling these contracts.

2.2 The contractual vision of the firm and transaction cost economics

The above-cited conflict in agency is an essential element of the so-called contractual vision of the firm developed by Coase (1937), Alchiam and Demsetz (1972), Fama and Jensen (1983), and others. Contracts become necessary from the moment transactions must be delimited to avoid the opportunistic behavior of the parties and because of existing limited rationality.

There are installation and implementation costs associated with governance structures and costs incurred by both parties to ensure that the other side effectively commits to the agreement.

The origin of corporative governance is associated with diffusion of the control of the North American company and growth of managers' power in relation to the investors. The separation between property and management (control) establishes the initial framework of the governance problems, as this involves questions of interest alignments between the parties (agent and principal), an imbalance in the access to information, risk propensity (asymmetry of information), and aspects that shape motivation that differentiate the objectives of the owners and managers (MCGRRAW; CHANDLER, 1998).

Therefore, all contracts are considered to be incomplete, as it is impossible to prepare a contract that predicts all possible future occurrences. Additionally, to maintain an alignment of the parties' interests and reduce agency conflicts, corporative governance structures are necessary to coordinate and monitor these activities. In cooperatives that are organizations with multiple principals, these agency costs are fundamentally important.

2.3 The definition and concepts of corporative governance

According to the Brazilian Institute of Corporative Governance (Instituto Brasileiro de Governança Corporativa- IBGC) (2009),corporative governance is the system by which organizations are directed, monitored, and incentivized and involve the relationships among owners.

According to Sheifer and Vishny (1997), corporative governance addresses the manners in which those who provide corporations with financial resources are assured that they will obtain a return on their investments. In the system, organizations are directed and controlled by norms and principles that concern the growth and diversification of companies, which requires professionalization, specialization, and a complexity in management.

Corporative governance occurs in response to records of wealth expropriation by the managers, which harms the owners. These records result from the agency problem of the managers who base their attitudes on the objective of maximizing their personal utility and not the shareholders' wealth, which is their initially contracted objective.

According to Silveira (2004), the large majority of studies assume that governance mechanisms are independent variables; namely, these mechanisms are exogenous variables that do not possess any relationship with the rest of the corporative governance mechanisms or other company characteristics. However, it is possible that some governance mechanisms, or the quality of corporative governance itself, are endogenous variables, namely, variables influenced by other governance mechanisms or corporative variables.

Among the endogenous aspects cited by Klapper and Love (2002), three aspects are prominent as determinants of corporative governance: the usefulness of corporative governance, the nature of the operations, and the company's size. It is expected that companies with greater opportunities for future growth will perceive greater utility in the adoption of best governance practices than companies without large expectations to capture future resources.

Relative to the nature of the operations, the expropriation of the minority shareholder's wealth is easier for some companies, such as companies with large amounts of intangible assets because their difficulty in measurement will have a greater ease of expropriation than companies with fixed assets.

The third aspect is related to the company's size, which influences corporative governance in two opposite manners according to Klapper and Love (2002). Larger companies may display greater problems in agency resulting from their free cash flow, thus leading to a necessity for best governance practices to compensate for this problem. In addition, larger companies generally have more resources at their disposal to implement the recommended governance practices.

However, smaller companies have a tendency to grow more and require external capital. Therefore, both small and large companies have incentives to adopt the best practices for corporative governance.

Among the endogenous aspects cited by Hilmmelberg et al.(1999), the agency and monitoring costs could be better in large companies and increase the necessity for a greater concentration in the property structure. However, large companies could use their economies of scale to monitor upper management, for example, using a rating agency, which would lead to a lower optimal level of property concentration.

In Brazil, discussions on governance are relatively new. The code of governance and the creation of IBGC began in the 1990s. In 2006, the OCB systematized regulations concerning cooperatives (BIALOSKORSKI NETO; DAVIS, 2010). The problems of agency in cooperatives, in addition to monitoring these cooperatives, in which the cooperative is characterized as an organization of multiple principals, is that agents generate costs, and these costs may be significant for small cooperatives.

2.4 The importance of credit unions in Brazil

Credit unions are financial institutions built in the form of a cooperative society, which offer financial services to the associate members, such as the granting of credit, receipt of deposits, and other specific operations and duties established in the current legislation (PINHEIRO, 2008).

A credit union performs nearly the identical financial operations allowed at a commercial bank. In addition to receiving demand deposits, credit unions perform active operations in the lending of credit in several modalities, which shows that they incur the identical risks in financial intermediation that generally occur with banks.

According to the OCB (2011), credit unions are cooperatives designed to promote savings and finance the requirements or ventures of the members; in particular, credit unions make rural and urban credit available. For the credit unions, the credit operations in Brazil have reached R$29.8 billion *reais*, and the number of cooperatives is 1,370.

Credit unions are one of the strongest types of financial institutions in countries such as France, the United States, Japan, Spain, Germany, and Canada, and according to Pinheiro (2008), credit unions are an important development

instrument in many countries. In Germany, credit unions have a total of approximately 15 million associates. In Holland, the cooperative bank Rabobank fulfills more than 90% of the rural financial demands. In the United States, there are more than 12,000 cooperative service units in the CUNA system (Credit Union National Association).

In the United States, agricultural cooperative banks correspond to more than one-third of the country's agricultural financing. According to data from the Statistics Agency of the European Union from 2000, 46% of all the credit institutions in Europe were credit unions with15% participation in financial intermediation (PINHEIRO, 2008).

According to Pinheiro, in some countries such as Ireland and Canada, credit unions efficiently occupy gaps left by the banking institutions in response to the worldwide phenomenon of concentration, which is a reflection of the strong rivalry in the financial sector. Therefore, the cooperatives manage to offer services that are more appropriate for local requirements.

This number of countries with large credit union sectors demonstrates the growth potential for credit unions in Brazil, a segment that remains extremely modest when compared to more developed countries.

In Brazil, credit unions have been present since the beginning of the 20th century, but credit unions began to reorganize after the 1988 constitution. In the 1990s, two banks were created: Bancoob, which belongs to 14 central credit unions, and Brasicredi, which allowed for a trajectory of growth of the credit union systems in Brazil.

The consolidation of this credit branch in Brazil occurred after the opening of cooperative banks during the 1990s, which also contributed to the evolution of the sector's organization and allowed for more comprehensive banking services for associates. However, even with this evolution, credit unions only cover approximately 3% of the Brazilian population and account for only 1.7% of the Brazilian Financial System. In addition, credit unions have had difficulties in increasing their market share in relation to the group of financial institutions and have grown minimally in

recent years when compared to the group of financial institutions (TRINDADE et al, 2010).

2.5 Corporate governance practices for credit unions in Brazil

In Brazil, corporative governance practices in financial institutions largely derive from the rules established by entities such as the Accounting Plan of National Financial System Institutions (COSIF) and the resolutions contained in the BACEN manuals. These institute regulations that pertain to accounting regulation and standardization to facilitate oversight of the training of executives and business management.

The guidelines adopted by the Central Bank exceed the simple relationship of the institution with external interested parties or the concern with financial statements, as the guidelines consider all aspects related to the management of the institution and specifically, to its internal control system.

To ensure the effective governance of financial institutions, it is necessary to build a system of solid internal controls that support the stability and continuity of the individual activities. Consequently, ensuring effective governance demands the systemic stability of the National Financial System (VENTURA, 2009).

In Brazil, according to Law 5,764/71, an associate cannot retain more than one-third of the capital. In other words, the associate who retains a greater participation in the capital does not receive a larger benefit in relation to others. This factor is a determinant of a greater concentration of capital but with the diffusion of participation, which is an environment that is conducive to the development of agency conflicts (PINTO et al, 2009).

However, as the cooperative members are both the agent and principal, their particular objectives lie with the efficiency of the cooperative, or rather, a relationship of contractual opportunism. The member (the principal) may have less information on the behavior of the manager (the agent) than the manager, which leads the principal to have an attitude aligned with his personal interests, even if the agents are contracted for the interests of the cooperative member. For this problem, a system of

incentives for the cooperative member could reduce this type of action and increase the efficiency of the cooperative (BIALOSKORSKI NETO, 2005).

There are inherent problems in the activity of the cooperative. One problem is the democracy principle, which is decision-making exercised in a general assembly and board meetings, which generates high transaction costs. In addition, because a single member represents one vote, agency costs are high. The proportional distribution of the surplus according to the operations also does not allow for the perception of the member as an investor generating transaction costs (BIALOSKORSKI NETO, BARROSO, REZENDE; 2010).

These are the characteristics of cooperative organizations and reflect the necessity for better corporative governance parameters to improve economic efficiency, incentivize the professionalization of the executive management entity, among other parameters.

Therefore, through studies and research and with the aim of improving the efficiency of the Brazilian credit unions, the Central Bank of Brazil diagnosed the governance characteristics of credit unions and defined a series of recommended good practices to thereby disseminate and incentivize the adoption of these practices by credit unions (VENTURA, 2009).

By disciplining the collective decision processes, good corporative governance practices provide greater clarity for the objectives and policy of the cooperative, which contributes to the promotion of efficient actions by the managers, the mobilization of the employees, and more confidence among the associates. Good governance is certainly founded on a good flow of information and the necessity to obtain quality information in a timely and accessible manner.

In addition, the spread of good governance practices can improve the whole business environment, as it contributes to decreasing the problems of information asymmetry and rights between the associates and managers.

However, when the regulated practices involve the professionalization of management, separation of property and management, and improvement of oversight by implementing actions, such as internal and external auditing, the best practices of the Fiscal Board, among others, may mean a new standard cost for the

cooperatives. This standard cost may be incompatible with cooperatives of small economic size but may be insignificant or imperceptible for large cooperatives.

Therefore, costs would be an important variable for the small cooperatives but not for the large ones. Therefore, it is expected that the large cooperatives will have adopted the best practices for governance, more intense monitoring, professionalization, and a separation of property and management. Because of the function of the costs of these practices, the smaller cooperatives are not expected to have a significant strength of professionalization and monitoring, or corporative governance structures that imply additional costs and a loss of short-term efficiency.

3. METHODOLOGY AND RESULTS

The present study is exploratory and descriptive. Exploratory studies are used when the objective is to analyze a studied topic or research problem, and descriptive studies are used to describe the properties and characteristics of a phenomenon (SAMPIERI et al., 2006).

In the present study, the database comprised of the credit unions that participated in the Good Corporative Governance Practices project in 2008 and was provided by the Central Bank of Brazil. The database consisted of 1,198 Brazilian credit unions and was used with the objective of analyzing whether the division between the property and management of an organization was correlated with other variables that characterized the size and financial scale of the cooperative and other characteristics of governance practices. A factorial analysis was performed using the *Statistical Package for the Social Sciences* (SPSS) version 17 software.

Variables were selected from all of the variables present in the BACEN database that could show the social size of the cooperative such as the number of cooperative members. The database also included variables that could show the financial size of the cooperative such as revenue, administrative expenses, surplus, and assets.

The practices that indicated oversight were selected to identify the set of needed corporate governance practices, such as the presence of internal auditing,

the obligation for the directors to be accountable, practices that demonstrated concern with the specialization of the Fiscal Board, and independence in the election of the Management Board and the Fiscal Board.

In regard to the governance practices that represented the relationship between the cooperative members and cooperative, the presence of a cooperative education and method of holding a general meeting by delegation variables were chosen. To gauge the separation between property and management, the selected variable showed whether one individual occupied the positions of the president of the cooperative and Management Board.

3.1 Analysis of the separation between property and management

A factorial analysis was performed according to the principal components because there was a large number of variables to analyze and thus correlations to interpret.

The factor loadings presented in Figure 1 show that after the extraction of 3 factors, the first factor added variables on economic size such as the number of associates, revenues, surpluses, administrative expenses, assets, and the presence of internal auditing. This was logical once these variables were expressed in correlation; namely, the greater the number of cooperatives, the larger the possible revenues, surpluses, expenses, and assets of the cooperatives. Therefore, if these cooperatives are larger organizations, there is a necessity for auditing and greater internal control.

The second factor was characterized by the correlation among the variables of cooperative education, the presence of electoral committees, training of the Fiscal Board, obligatory accountability by the directors, and possibly the absence of a functional separation of the cooperative president and management board. This factor showed correlations between the characteristics of the credit unions and traditional management; namely, there was no division between the property and management, and this was correlated with practices that were inherent to these institutions such as cooperative education, a Fiscal Board formed by associates who

required training and specialization, the necessity for supervision of the institution, and concern with accountability by the associates/directors.

The following variables comprised the third factor: permission for the associates to include specific guidelines in the meetings, prerequisites of technical training to be a candidate for the Fiscal Board, independent roles of the Fiscal Board and Management Board with an obvious separation of functions, the Ordinary General Assembly (OGA) occurred by a regime of delegates elected in previous assemblies, and the representation of the cooperative president and Management Board by different individuals.

This third factor showed correlations among the variables that represented a concern in the cooperative with its governance structure with professionalization and separation in the functions of the owner members and contracted directors. The necessity for prior preparation in becoming a candidate for the Fiscal Board and the independence in the election of this board should be noted. This factor may ensure better and more effective oversight in addition to the division between property and management.

Out of the set of selected variables, the oversight variables were grouped into different factors, partially as internal auditing in factor 1 and partially as training of the Fiscal Board and mandatory accountability by the directors in factor 2; factor 3 are not consisted of a set of variables that could have an autocorrelation by a single factor. This indicated that the practice of oversight is a variable that is correlated in several manners with other characteristics depending on its form.

Table 1–The factorial loadings of the 3 extracted factors in a multivariate analysis of the principal components with selected variables from the database on corporative governance in BACEN cooperatives in 2008.

Questions	Components		
	1	2	3
Number of associates	**0.807**	-0.036	0.044
Revenue value	**0.939**	0.035	-0.043
Surplus value	**0.686**	0.070	-0.062
Value of administrative expenses	**-0.894**	-0.039	0.053
Value of assets	**0.783**	0.094	-0.001
Existence of a specific internal auditing system	**0.391**	0.173	0.146
The cooperative promotes a cooperative education program	0.074	**0.563**	0.071

Existence of a formal and independent electoral committee to conduct election processes	0.007	**0.532**	0.024
The cooperative offers specific training for the members of the Fiscal Board	0.112	**0.641**	0.049
The executive directors formally account for their activities to the Management Board	0.074	**0.585**	0.124
The positions of director-president and president of the Management Board are occupied by one individual	0.032	**0.410**	**-0.430**
The existence of mechanisms that allow for cooperative members to include guidelines in assemblies	-0.072	0.336	**0.491**
The existence of pre-requisites in technical training to be on the Fiscal Board	0.073	0.221	**0.571**
Independent Fiscal Board and Management Board Positions	0.018	0.141	**0.496**
Ordinary General Assembly occurs through a representation scheme by delegates	-0.015	-0.242	**0.539**

It is notable that factor 1 represented the economic size of the cooperative, factor 2 represented the common participation practices in traditional cooperatives, and factor 3 grouped the practices most often indicated by the corporative governance codes of BACEN.

Subsequently, an analysis was performed considering each of the cooperatives according to their factorial load to perceive the degree of interaction among the factors and analyze the cooperative clusters.

When making an intersection of the factorial loads between factors 1 and 2, it is notable that there was a particular situation in each quadrant; for example, in quadrant 1, the cooperatives with a high factorial load for factor 1 were larger cooperatives, and those with a low factorial load for factor 2 were less intense traditional management practices.

The expected results from this intersection was that the cooperatives that had a greater load for factor 1 would have a smaller load for factor 2, or a smaller load of factor 1 and a greater load for factor 2. In other words, this would be the expected configuration because the traditional cooperatives without a separation between property and management (factor 2) would not display a large economic size or scale (factor 1). This could be noted whether there were concentrations of cooperatives in the red ellipse in graph 2.

This red area showed that the expectation was that an increase in factor 1 would represent a decrease in factor 2 with inverse proportionality. However, the two factors displayed a direct dispersion according to the data.

This result occurred because the majority of cooperatives displayed a smaller factorial load for factor 1 (a lower level of economic size and scale) associated with larger factorial loads for factor 2 (practices of participation in cooperatives with traditional governance). However, the presence of a greater factorial load of factor 1 did not imply a smaller factorial load for factor 2.

Therefore, it was observed that the traditional practices of corporative governances, in addition to the absence of a separation between management and property, such as the position of the director-president of the cooperative and Management Board being occupied by different individual, are more intensely associated with a smaller economic and social size of the cooperatives.

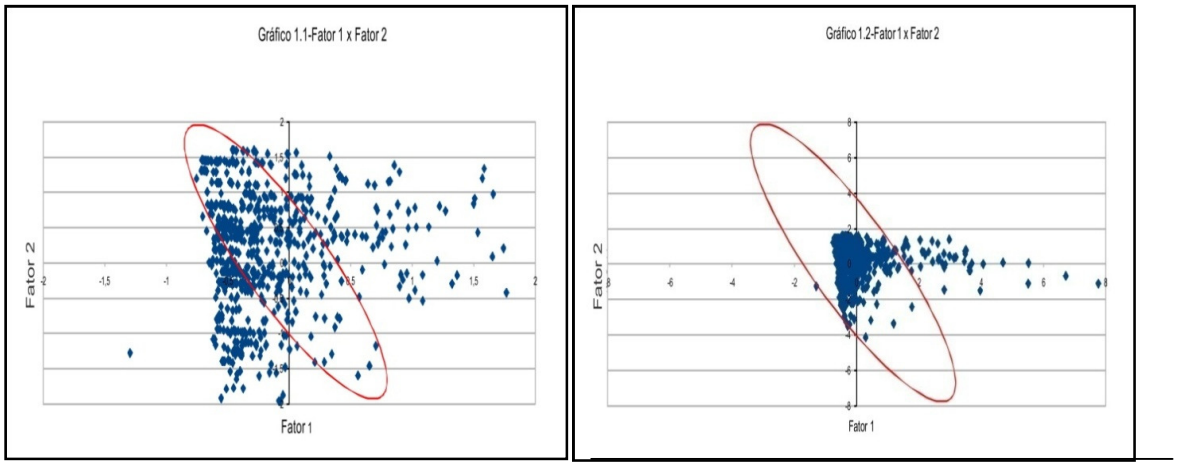
When making this intersection in the factorial loads between factors 1 and 2, it is notable that there was a particular situation in each quadrant. For example, quadrant 1 displayed a large number of cooperatives with a small factorial load for factor 1, which represented the cooperatives with small economic size, and an intersection with factor 2, which included a large number of cooperatives, indicated participation practices that were common to traditional cooperatives.

In quadrant 2 there were a few cooperatives with a large factorial load for factor 2; these were the large cooperatives, and they displayed a large factorial load for factor 2 with traditional management practices.

In quadrant 3, there were a few cooperatives with a large load for factor 1, which represented the economic size. Similarly, there were a few cooperatives with a small factorial load for factor 2, which represented traditional management practices.

Quadrant 4 represented a large concentration of cooperatives with a small factorial load for factors 1 and 2. This quadrant represented the cooperatives with small economic size and traditional management practices.

The above observations can be observed in graph 1, which represents the intersection between factors 1 and 2.



Graph 1. The distribution of the cooperatives according to their factorial loading, for factors 1 (socioeconomic size) and 2 (the traditional form of governance). Graph 1.1 has the total distribution at a larger scale without the outliers, and there is a view of the concentrated distribution in graph 1.2 at a smaller scale with outliers.

The following results were notable in the analysis of 2 cooperatives from this cluster with the smaller load intensities for factor 1 and greater intensities for factor 2, located in the upper extremity of the first quadrant of graph 1.

The first cooperative, with a low factorial load for factor 1,had a small number of associates(85);the revenues, administrative expenses, and surpluses had values of zero, the total assets were R$8,300, and there was an absence of internal auditing, which shows that the small factorial load for factor 1 represented the economic size and scale of the cooperative.

This cooperative displayed one of the largest factorial loadings for factor 2,and the following requirements were met: the presence of a cooperative education, an established electoral committee, training for the Fiscal Board members, accountability of the directors to the Management Board, and the director-president of the cooperative was also the president of the Management Board.

The second cooperative analyzed from this cluster also displayed a small factorial load for factor 1 and one of the largest factorial loads for factor 2, thus displaying results similar to those from the previous analysis. For factor 1, the number of associates was 920, the revenue, surpluses, and administrative costs had values of zero, there was an absence of internal auditing, and a total asset value of

R$1,324,651,which showed the small factorial load in relation to the economic size and scale.

In regard to factor 2, which referred to traditional cooperative practices without the separation of property and management, the results showed that the cooperative performs cooperative education, there was a formalized electoral committee, the Fiscal Board received training, the directors were accountable to the Management Board for their activities, and the director-president of the cooperative was also the director of the Management Board, which showed that there was no separation between property and management.

The following results were noted in the analysis of2 cooperatives from another cluster, one with larger loads for factor 1 and smaller loads for factor 2, located in the lower and extreme section of the third quadrant.

The initial cooperative had 3,948 associates, R$4,660,024 in revenue,R$1,460,069 in surpluses, R$682,111 in administrative expenses, R$22,651,005 in assets, and no internal auditing. Although this last characteristic was a component of factor 1, for the economic size and scale of this cooperative, the cooperative displayed a large factorial load, as it was notable according to the values shown above.

In regard to factor 2, traditional cooperative practices without the separation of property and management, the results met the following specifications: training of the Fiscal Board members and the director-president and president of the Management Board were conducted by one individual. However, the cooperative did not display cooperative education, although it had an electoral committee and the directors were accountable to the Management Board. This result was explained by a low factorial load for factor 2, and this cooperative was located as one of the last points of the cluster in the third quadrant of graph 1.

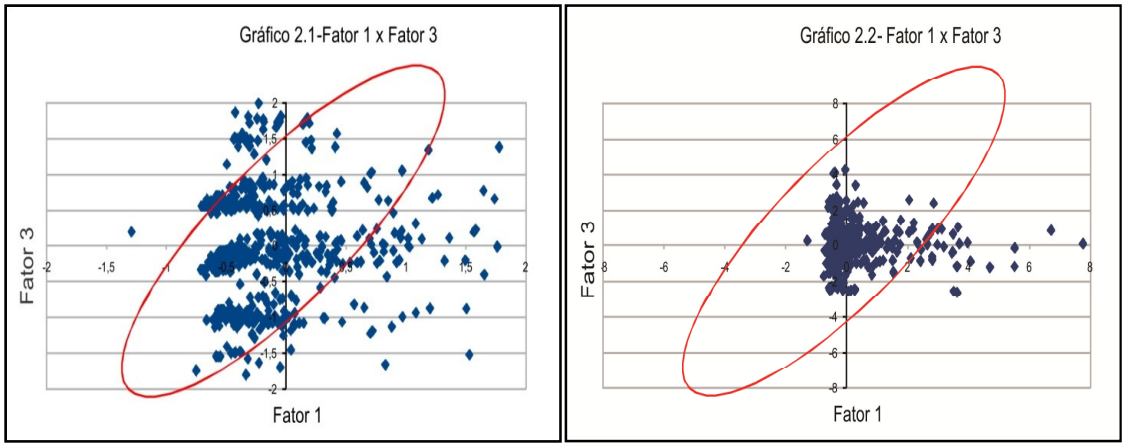
The second cooperative had15,559 associates, R$731,108 in revenue, R$71,011 in surplus value, R$613,618 in administrative expenses, R$2,892,652 in assets, and no internal auditing as shown in the previous cooperative.

In regard to the traditional practices of cooperatives without separation between property and management, the results were also identical to those from the

previous cooperative with no cooperative education, electoral board, or accountability of the directors to the Management Board. However, this cooperative possessed training for the Fiscal Board Members, and the director-president and president of the Management Council was one individual. These results are consistent because the cooperative was located in the lower section of the third quadrant, in which the factorial load of the economic size and scale was large and the load of traditional cooperative practices was small.

Therefore, through this analysis, it was possible to confirm the validity of the model in which a lower level of economic size and scale was associated with participation practices in cooperatives with traditional governance for the loads of factors 1 (economic and social size of the cooperative)and 3 (the greater intensity of the correlation with the practice indicated by corporative governance).It could be seen from the results that there was no dependence between economic size and scale and the presence of best practices for corporative governance, as a function of the dispersed distribution of the cooperatives, without the formation of distinct clusters.

However, the expected results from the intersection of factors 1 and 3 were that the cooperatives with larger factorial loads for factor 1 would have a larger factorial load for factor 3 or that the smaller loads for factor 1 would also have smaller loads for factor 3, which would show that the corporative governance practices affected economic size and scale. This result would occur if there was a concentration of cooperatives within the area of the red ellipse shown in graph 2.



Graph 2. The distribution of the cooperatives according to their factorial load for factor 1 (the socioeconomic size) and factor 3(the presence of indicated governance practices). The total distribution is shown in graph 2.1 at a larger scale without outliers, and there is a view of the concentrated distribution in graph 2.2 at a smaller scale with outliers.

The following results were noted in the analysis of2 cooperatives with the largest intensities of factorial loads for factors 1 and 3, which were located in the cluster in the second quadrant of the upper section of graph 2.

The first cooperative had 1,815 associates, R$6,231,528 in revenue, R$483,143 in surplus, R$1,904,851 in administrative expenses, R$31,772,139 in assets, and internal auditing.

The following results of the cooperative were noted in regard to factor 3: permission for prior inclusion of the guidelines by the associates in the assemblies, prerequisites for participation in the Fiscal Board, and ballots for the Management Board and Fiscal Board that were independent in the elections, which shows a large factorial load for factor 3. However, an assembly was not performed by delegates and the director-president was also a Management Board member for the organization.

Nevertheless, these results are consistent because the cooperative was located in the upper section of the second quadrant of graph 2, in which the factorial load of the economic size and scale was high, as was the factorial load for the indicated governance practices.

The following results were identified for the second analyzed cooperative in the intersection of factors 1 and 3 with their largest factorial loads: 2,970 associates, R$5,460,902 in revenue, R$1,000,831 in surplus, R$1,923,218 in administrative expenses, R$28,318,810 in assets, and internal auditing.

The results in regard to the adopted governance practices are identical to those from the previous cooperative; namely, this cooperative also included permission for prior inclusion of the guidelines on behalf of the associates in the assemblies, prerequisites for participation in the Fiscal Board, ballots for the Management Board and Fiscal Board that were independent in the elections, no assembly by the delegates, and a director-president that was also a Management Board member for the organization.

The following results could be noted in the analysis of two cooperatives with the lowest factorial load intensities for factor 1 and smallest load for factor 3.

The first cooperative had a value for factor 1, which related to the economic size and scale of the following data: 109 cooperative members, R$210,073 in revenue, R$4,613 in surplus, R$111,634 in expenses, R$886,351 in assets, and no internal auditing. Because of the low values, it was notable that this cooperative was located in the lower extreme of the fourth quadrant with a small factorial load of factors 1 and 3.

In regard to the indicated corporative governance factors, this cooperative only had the requirement of prerequisites to be a Fiscal Board member. This cooperative did not implement other practices, and this explained the small factorial load for this factor, which was located in the extreme lower end of the cluster in the fourth quadrant of graph 2.

The second cooperative had 512 cooperative members, R$1,697,599 in revenue, R$220,756 in surplus, R$891,468 in administrative expenses, and no internal auditing, which indicated similar results to those of the previous cooperative.

The results were also identical to the previous cooperative in regard to the indicated governance practices, in which the only requirement was prerequisites to be a Fiscal Board member. These results confirm the data observed in the factorial analysis performed in the study.

Therefore, these results corroborate the issue that there is no dependence between economic size and scale and the presence of best practices for corporative governance.

3.2 A qualitative analysis of the sample's Brazilian credit unions

In a total analysis of 1,195 Brazilian credit unions in the study, 29.62% possessed a contracted director-president. The remaining 70.38% possessed an elected director-president. The director-president was simultaneously the president of the Management Board in a total of 998 cooperatives (94.28%).

The following results were observed when qualitative analysis of the quartile data was performed. The first quartile represented the 25% largest cooperatives in asset values. In regard to the matter of the management of the cooperative by a contracted director (executive), 38% of the cooperatives had a contracted director-president, whereas 62% held an election for the position.

Additionally in the first quartile, in 97.52% of the 283 total cooperatives, the director-president was the president of the Management Board.

In regard to the second and third quartiles and whether the director-president was elected or contracted, the total number of cooperatives analyzed was 593. Therefore, 27.84% contracted their directors and 72.16% elected them. In a total of 496 cooperatives, 93.34% of the organizations had one individual as the director-president and president of the Management Board.

The final quartile represented the smallest 25% of assets among the cooperatives. In a total of 302 cooperatives, 24.5% contracted the director-president and 75.5% performed an election. In a total of 215 cooperatives, 91.16% of the organizations had one individual as the director-president and president of the Management Board.

It was notable that in the upper quartile, the portion of the cooperatives that represented the greatest amount of assets possessed a contracted director-president (29.62%),which indicated no separation between property and management, and the director-president and president of the Management Board was one individual(94.28%). This result confirmed the observed result that the level of economic size and scale was not associated with practices of separation between property and management, which was a characteristic of traditional cooperatives.

If it can be assumed that the size of a cooperative is the result of its growth process and that this economic process occurs as a function of its efficiency, it can be asked whether efficiency is correlated with size and not with the type of governance.

Hilmmelberg et al. (1999) observed that the agency and oversight costs would tend to be greater in large companies because of the oversight costs and information asymmetry. However, this does not occur with credit unions, as shown by the data in

graph 2 and the qualitative discussions of the sample, as there was no perceivable relationship between the economic scale and size and separation between property and management.

Therefore, traditional forms of governance coexist with other forms without a result, and the surpluses, numbers of associates, administrative expenses, or assets are determinants of this coexistence. Consequently, there were a large number of cooperatives that were managed in a traditional manner without the division between property and management, and other cooperatives previously had a more advanced level of governance and professionalization. Because these practices also imply governance costs, as with professionalization, oversight, etc., there was no evidence that the smallest cooperatives did not have these practices, which indicated that new analyses should be performed.

Because the set of the best corporative governance practices was not significantly correlated with the factor that represents scale and greater economic size, this result emphasized a new research question for credit unions because it cannot be claimed that there is a directly proportional correlation, as was initially expected.

Klapper and Love (2002) indicate that there is an influence of corporative governance in two opposing forms. The larger companies may display larger problems of agency resulting from free cash flow, which generates the necessity for best governance practices to compensate for this problem. In addition, the largest companies in general have more resources at their disposal to implement the recommended governance practices.

Simultaneously, the smaller cooperatives would have new practices for governance, professionalization, and oversight, which is a problem for costs.

4. CONCLUSIONS

It is possible to conclude from the analysis of the separation between property and management that this variable was negatively correlated with the governance variables that are characteristic of traditional management. In other words, the

Brazilian credit unions that have one individual as the director-president and president of the Management Board also have a greater correlation of cooperative education, the existence of an electoral committee, the necessity for fiscal board members to receive training, and for the directors to be accountable for their activities. The variable that showed whether the same individual was the president of the cooperative and the Management Board was selected to gauge the separation between property and management.

However, this variable of separation between property and management behaved positively with the other variables that represented the best governance practices. In other words, the Brazilian credit unions that had different individuals in the position of director-president and president of the Management Board were more likely to include guidelines from the associates in the General Assemblies. To be elected to the Fiscal Board, prerequisites in the field were necessary. The Fiscal Board and Management Board ballots were independent, and the Ordinary General Assemblies occurred through a delegate system.

The questions that indicated oversight were selected to identify the set of corporative governance practices, such as the presence of internal auditing, the obligation for the directors to be accountable, practices that demonstrated concern with the specialization of the Fiscal Board, and independence in the election of the Management Board and Fiscal Board. In regard to the governance practices that represented the relationship between cooperative members and the cooperative, variables such as the presence of cooperative education and the methods of holding the general assembly by delegation were selected.

Finally, the variable of the separation between property and management did not correlate with the economic and financial size of the cooperative, which showed that there was no relationship between these variables and the practices indicated by BACEN for corporative governance. Both large and small Brazilian credit unions may or may not have these practices. For this analysis, the variables were selected that could show the social size of the cooperative, such as the number of cooperative members, as well as the financial size of the cooperative, such as revenues, administrative costs, surpluses, and assets.

However, we can conclude that in Brazil there are two groups of credit unions, those which combine several indicated governance practices in a correlated manner, and those with traditional management practices that are correlated with the current governance practices that are characteristic of traditional cooperative organizations. Nonetheless, neither of the two groups is associated with social and/or economic size or even the efficiency parameters, such as the results or presence of surpluses.

This analysis generates a new research question: is the division between property and management important for the efficiency of Brazilian credit union business or do these credit unions have a different governance logic as social organizations that is also efficient?

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