



**THE INFLUENCE OF SENIOR EXECUTIVES' STRATEGIC CHOICES ON COMPANIES LISTED IN ECONOMATICA'S
CYCLICAL FUNDS SCREENING SECTOR**

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ABSTRACT

Organizational decisions are made by executives or management teams who are responsible for the strategic choice of the organization, and these decisions can therefore affect performance. Regarding Upper Echelon Theory, it also verifies, based on the studies performed, the influence of the characteristics of the management team on organizational performance. Still, it presents the hypotheses of the research assumed in this study. This research aimed to verify the influence of the demographic characteristics of senior executives on the indebtedness of companies listed in the cyclical fund screening sector of Economatica in 2018. Several studies have analyzed the relationship between executive characteristics and structure. Accordingly, the scope of this research was to verify the influence of the observable characteristics of top executives on the indebtedness of companies listed in the cyclical fund screening sector of Economatica. Through the results it was observed that the potentially strategic resources of the companies are their leaders. Thus, strategic leadership has developed into a significant succession of statistically relevant strategic management research results with corporate indebtedness.

Keywords: *Organizational Decisions; Corporate Indebtedness; Economatica*

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INTRODUCTION

The roots of Upper Echelon Theory (UET) lie in Enterprise Behavior Theory (Cyert & March, 1963), and suggests that managerial choices are not always rational, but are largely influenced by the natural limitations of human beings. Behavioral factors can influence the strategic choices made by the management team, which in turn determine company performance (Krause, 2017).

In this understanding, interest in steering teams began with the seminal study by Cyert and March (1963) and was amplified in the 1970s by Child (1974). Thus, in his results Child (1974) demonstrated that corporate competitiveness goes beyond human beings in that it also depends on external factors, that is, beyond the management control factor. Later, under the lens of the Resource-Based View Theory (VBR), 1980s, studies viewed the management team as a strategic corporate resource (Wernerfelt, 1984). This is because it is difficult for competing companies to imitate directors (human resources) and therefore often the management team becomes the basis for a solid competitive advantage (Boeker 1997).

In their seminal work on Upper Echelon Theory (UET), Hambrick and Mason (1984) stated that the cognitions, values, and perceptions of top executives influence the process of strategy choice and, consequently, the company's performance. In this sense, there are several empirical studies on UET, especially those that have analyzed the correlation between executive characteristics and corporate capital structure (Auh & Menguc, 2005), the correlation between strategic choices and their leaders (Bunderson, 2003), the relationship between innovation and top teams (Homberg & Bui, 2013), the contribution of management teams to value creation for organizations (Papadakis & Barwise, 2002).

In general, the literature conceives UET as a strategic theory and as one of the VBR subfields (Wangrow et al., 2015). Thus, the assumptions and perspectives of UET is that strategic decisions and

consequently organizational outcomes are influenced by observable and cognitive characteristics of managers (Hambrick & Mason, 1984).

In this sense, corporate strategies such as financing decisions are developed by executives whose values and whose cognitive basis can greatly influence this strategy (Nielsen, 2010). Under these circumstances, managers with less tenure in the company, for example, may not have legitimacy in the eyes of some internal or external stakeholders (Miller, 1993) and are more likely to take risks to prove themselves competent (Carney et al. al., 2011). Thus, they may be more willing to risk and within the debt to take on debt even if their financing is expensive. In contrast, managers with longer tenure may have a risk aversion approach because there is less pressure to prove themselves competent. They can emphasize stability (Bunderson & Sutcliffe, 2002) and avoid taking risks in strategic actions (Carpenter, 2002). This is because they may be more experienced in recognizing the risks of bankruptcy associated with higher leverage. Thus, they tend to choose a more conservative capital structure that involves less financial risk. Given the above and in order to integrate UET with the capital structure of the companies, this study seeks to verify the existence of the influence of observable characteristics, age, level of education and time in the position of the management team on the indebtedness of the companies listed in cyclical sector of Economatica's Funds Screening. Therefore, the scope focuses on verifying the influence of the observable characteristics, time in office, age and level of education of the management team on the indebtedness of 87 companies listed on Economatica's Funding Screening, based on data from the fiscal year 2018. Because of these problems, this study is justified by the importance of understanding how the observable characteristics of the corporate management team influence their capital structure (composition of funding sources). This is because capital structure is

one of the most complex areas in financial decision making, because of its interrelationship with other financial decision variables (Carpenter, 2002). Moreover, if the interest is to understand why the organization acts and performs certain actions, the characteristics of the top executives that make up the Upper Echelon Theory echelons should be considered (Hambrick, 2007).

THEORETICAL FRAMEWORK AND HYPOTHESES

This section presents the view of several authors with respect to the Upper Echelon Theory, and also verifies based on the studies performed the influence of the observable characteristics of the management team on the capital structure of companies. It also presents the research hypotheses assumed for this study.

Upper Echelon Theory Echelon Theory (UET)

The Upper Echelon Theory (UET), Originally introduced by Hambrick and Mason (1984), it is a behavioral information processing model, based on two central and interconnected ideas. First, executives act on their personalized interpretations of the strategic situations they face, and second, these interpretations are a function of executives' experiences, values, and personalities (Hambrick & Mason, 1984). Upper Echelon Theory (UET) is the concept of limited rationality (Cyert & March, 1963). It is premised that managers are confronted with much more information than they can face, much of it is ambiguous and complex, and will reflect on their experiences, preferences and other biases (Cyert & March, 1963). Regarding these aspects March and Simon (1958), Cyert and March (1963) state that the view that organizational choices are a function of human bias and preferences was stimulated by Carnegie school theorists, who argued that Organizational decision makers are narrowly rational and engage in

personalized selective perception of their task contexts to be elaborated.

Hambrick and Mason (1984) extended this emphasis to human factors in strategy with UET, arguing that executives introduce their cognitive bases and personal values into their decisions. In their opinion, limited rationality, multiple and conflicting goals, ill-defined options, and different levels of aspiration and, in turn, actions or inactions are all derived from the beliefs, knowledge, assumptions, and values that decision makers lead to administrative structure.

This behavioral viewpoint of decision-making is especially relevant for management team managers, who face considerable complexity and ambiguity in their tasks. This is because leaders are usually confronted with a vast amount of information that requires significant attention (Mintzberg, 1973) and decide on appropriate responses to important stimuli by discarding less relevant information (Weick, 1979) according to the interpretation of the situation, the application of their beliefs, knowledge, assumptions and values (March & Simon, 1958; Finkelstein & Hambrick, 1990). Drawing on these interpretations and also from a range of sociological and psychological studies, Hambrick and Mason (1984) argued that observable attributes shape managers' values and beliefs and can be viewed as valid approaches to underlying cognitive skills, values, and knowledge. These attributes substantially affect management decision making and behavior, as well as company performance (Hambrick & Mason, 1984). Thus, the observable characteristics of managers can be used as proxies for the more complex psychological dimensions of their personalities. For a better view of UET relations, Figure 1 presents an overview of the Upper Echelon Theory.

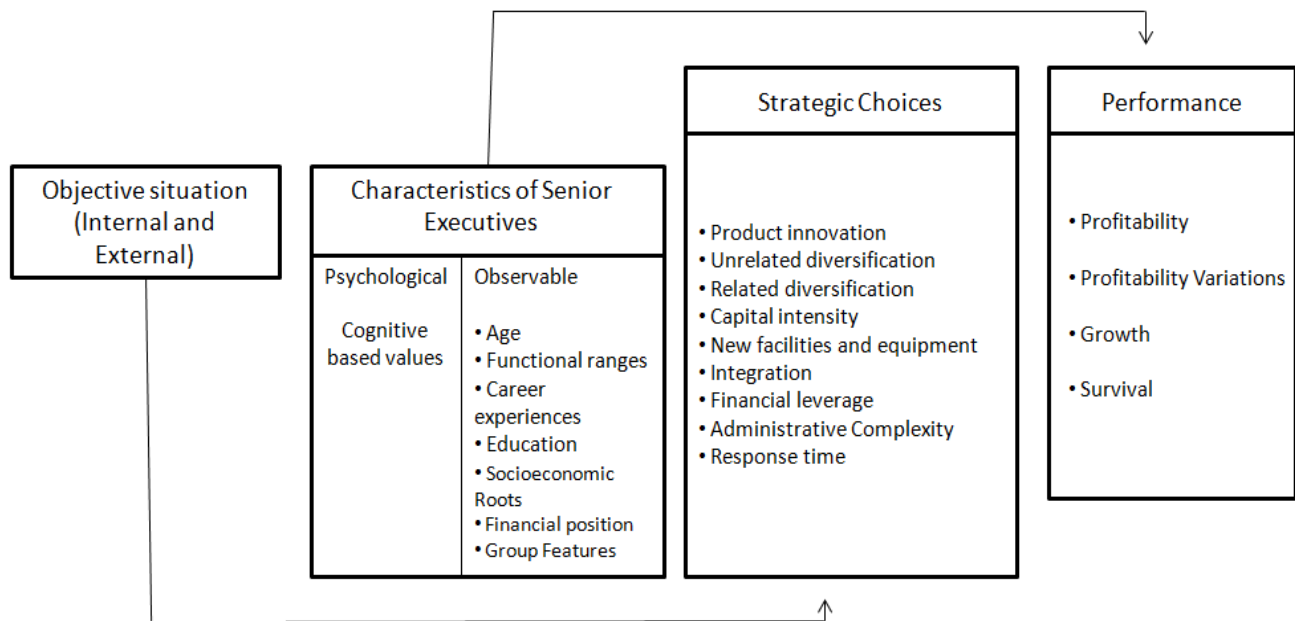


Figure 1: Upper Echelon Theory
Source: Krause (2017)

Finally, it is emphasized that UET shows that the cognitive characteristics, values and perceptions of executives influence decision making and, consequently, corporate performance. In addition, three main advantages of its study can be highlighted: (i) it can offer substantially greater power to predict organizational results; (ii) may serve as a basis for the selection and development of top-level executives; (iii) can be used for strategy with the development of the predictive capacity of competitive movements (Hambrick & Mason, 1984).

Capital structure

Given certain simplifying assumptions, Modigliani and Miller (1958) propose that the capital structure does not impact the value of the company. This famous proposition of "irrelevance" of capital structure generated enormous controversy at the time. Applying the assumption that there are no taxes, Miller (1993) take the tax deductibility of interest payments into account and propose that the value of the company increases with financial leverage. If a company has its high leverage, an increase in its debt may increase the risk of insolvency, which lenders are subject to. As a result,

new loans may have their rates increased, and the risk associated with financial hardship will affect shareholders (Barkema & Shvyrkov, 2007). Debt financing costs could outweigh the benefits of interest payments (Hambrick & Quigley, 2012). These costs may arise from the costs of financial insolvency. As financial leverage increases, so does the likelihood that a company will fail to meet its debt obligations. If the company goes bankrupt, it is very likely to have to declare and have to pay some associated costs such as legal and administrative expenses (Aguinis et al., 2011).

In addition, debt financing costs may come from agency costs (Jensen & Meckling, 1976). Debt holders generally require protection by resorting to monitoring and liaison mechanisms if shareholders tend to expropriate their wealth (Jensen & Meckling, 1976). Thus, regarding the debt monitoring hypothesis (Michel & Hambrick, 1992), and Crossland & Hambrick (2007); suggest that greater leverage may serve as a bonding device against managerial criteria, because debt reduces the amount of free cash flow available to managers and pressures to make them work harder, consume less privilege and make better decisions

(Geletkanycz & Hambrick, 1997). Therefore, increasing leverage may reduce total debt agency costs (Wiersema & Bantel, 1992). Given these circumstances, researchers are encouraged to investigate whether there is an optimal capital structure due to the potential benefits and costs of debt financing. However, empirical results still remain inconclusive (Bunderson & Sutcliffe, 2002). For example, the Capital Structure Trade-off Theory states that firms lend to the extent that the tax benefit from an extra dollar in debt is exactly equal to the cost that comes from increasing the probability of financial insolvency (Crossland & Hambrick, 2007). This understanding therefore implies that there is an optimal capital structure that balances the benefits and costs of debt financing. However, Papadakis & Barwise (2002) in the Pecking Order Theory argue that there is no fully defined optimal debt level for a company. Due to information asymmetry and signaling problems associated with external sources of funding, companies prefer internal ones (eg retained earnings) for external financing and debt capital if retained earnings are not sufficient to fund projects. A company's corporate strategies, such as financing decisions, are developed by executives whose values and whose cognitive basis can greatly influence that strategy (Aguinis et al., 2011). Under these circumstances, managers with less tenure in the company may lack legitimacy in the eyes of some internal or external stakeholders (Miller, 1993) and thus are more likely to take risks to prove themselves as competent (Bunderson, 2003). As such, they may be more willing to assume debt expenses even though their financing is considerably costly. On the other hand, managers with longer tenure tend to have a risk aversion approach because there is less pressure to prove effective. They can emphasize stability (Finkelstein & Hambrick, 1988) and avoid taking risks in strategic actions (Finkelstein & Hambrick, 1990). In addition, they may be more experienced in recognizing the risks of bankruptcy associated with higher leverage. Thus, they tend to choose a more conservative capital structure that involves less

financial risk. That said, the following hypothesis is proposed:

H1: Time in the position of senior managers has a negative relationship with the indebtedness (capital of third parties) of companies. In the same vein, the age of managers can affect their attitude to risk. Younger managers tend to be more inclined to pursue risky strategies while older managers tend to be more conservative (Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984). This finding can be explained by three main reasons: (i) younger managers may be better able to learn and integrate information in decision making and may have more confidence in decision making (Taylor, 1975); (ii) as younger managers have recently received educational training, they have more technological knowledge compared to older ones (Bantel & Jackson, 1989); (iii) younger managers may be able to take risks because their concerns about financial and career security are more relegated to the future (Boeker 1997; Vroom & Pahl 1971). Older leaders with a risk aversion propensity and financial and career security concerns tend to prioritize a more conservative capital structure while younger ones may be more willing to use more debt. Thus, the following hypothesis is conjectured:

H2: The age of managers is positively related to the indebtedness (capital of third parties) of companies. Higher levels of educational background are associated with higher cognitive ability (Nielsen, 2010) and may induce better ability to tolerate ambiguity (Wiersema & Bantel, 1992), capture new ideas (Barkema & Shvyrkov, 2007), learn new behaviors and generate and implement creative solutions to complicated problems (Auh & Menguc, 2005). That said, managers with higher education can be very confident in their investment decisions and do not need as much financial slack as those with lower education. More specifically, higher educated managers would be less likely to opt for a conservative capital structure for investment financing. Thus, the following hypothesis is presented:

H3: The level of formation of a management team is negatively associated with the predominantly conservative capital structure. It is noteworthy that a conservative manager in relation to the capital structure refers to those who are averse to risking obtaining capital from third parties.

METHODOLOGY

This research is classified as descriptive as to objectives, documentary as to procedures and quantitative as to approach the problem (Wangrow et al., 2015). Descriptive researches are those that seek to bring greater evidence about the relationships between variables and phenomena, presenting characteristics and details that are not often discussed in exploratory research (Carney et al., 2011) because it aimed to verify the existence of the influence of observable characteristics of the phenomenon. management team in the capital structure of companies, represented by an economic-financial indicator. Documentary studies are those in which raw or raw public or private primary or secondary data are used (Krause, 2017) and thus, data collection was performed through secondary sources from the financial statements and Economática Funds Screening forms. The quantitative classification is due to the application

of statistical procedures, in this case, the ordinary least squares multiple linear regression (OLS). The study population is comprised of 89 companies in the cyclical sector listed on Economática's Funding Screening. Of these, 23 did not provide information about the management team, finishing in a sample of 64 companies. Data were collected from September 1 to September 30, 2019 for the annual financial year 2018. The cyclical sector was chosen because it is composed of companies that are sensitive to economic cycles such as clothing, leisure, hotels and restaurants and, therefore, they depend on a management team with relevant training. In addition, access to information from these organizations is facilitated due to its availability and publication in the Economática Funds Screening.

In this sense, it is noteworthy that the data related to the financial statements, corporate indebtedness, were collected through the Economática® software. Data related to the characteristics of the executives (UET) were obtained by company by company, in the field financial reports that have as reference forms item and, subitem assembly and administration. That said, Table 1 showed the companies in the sample.

Table 1: Sample Companies

Empresas			
Atacadão S.A.	Sul América Investimentos S.A.	Lojas Hering S.A.	GW Asset Management S.A.
Arezzo Ind. e Com. S.A.	Estácio Part. S.A.	Lojas Marisa S.A.	BNY Mellon S.A.
B2W Digital	Gaec Educação S.A.	Lojas Renner S.A.	Necton Investimentos S.A.
NCF Participações S.A.	Multiplus S.A.	Magazine Luiza S.A.	Ambev S.A.
Saber Serviços Educacionais S.A.	Nadir Figueiredo Ind. e Com S.A.	T4F Entretenimento S.A.	Suzano S.A.
Brasmotor S.A.	Hypermarcas S.A.	Maori S.A.	BRF S.A.
Engie Brasil Energia S/A	Via Varejo S.A.	Smiles S.A.	Rumo S.A.
Eletrobrás S.A.	Somos Educação S.A.	Tec Toy S.A.	Santander BR
Ultrapar Participações	Vulcabras/Azaléia S.A.	Gaec Educação S.A.	Gol Transportes S.A.

S.A			
Ipiranga Produtos de Petróleo S.A.	IGB Eletrônica S/A	Pettenati S.A. Ind. Têxtil	OSX Brasil S.A.
Claro Telecom Participações S.A.	International Meal Comp. Alimentação S.A.	Unidas S.A.	Biosev S.A.
Gerdau S.A.	Karsten S.A.	Banco Alfa de Investimento S.A.	PDG Realt S.A.
Duratex S.A.	Kroton Educacional S.A.	Saraiva S.A. Livreiros Editores	Vale S.A.
CVC Brasil Oper. e Ag. de viagens S.A.	Localiza Rent a Car S.A.	BRB Distribuidora de Títulos S.A.	Telebras Telecomunicações S.A.
Whirlpool S.A.	Lojas Americanas S.A.	Carrefour BR	MMX Miner S.A.
Dufry AG	Ser Educacional S.A.	Minerva S.A.	Tecnisa S.A.

Source: Economatica Funds Screening (2018)

For data processing, the R software was used. First, the correlation procedure was performed between the dependent variable (Third Party Capital Participation - PCT) and the independent variables (age, education and time in office,), and

subsequently, the multiple regression between these variables in order to verify the relationship between them. The variables used were shown in Table 2.

Table 2: Model Variables

Variável		Forma de cálculo
X1	Age	Natural Average Age Logarithm
X2	Formation	Categorization = 0: does not have, 1: Graduation, 2: Specialization and / or MBA, 3: Master.
X3	Job time	Natural logarithm of average years of office
PCT	Shareholding of third parties	Total Liabilities / Shareholders' Equity%

Source: Economatica Funds Screening (2018)

Highlighting the variables, the proposed regression model can be presented as follows:

$$END = \delta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu$$

In detail, δ is the function constant, β_1 , β_2 and β_3 are the estimated regression coefficients, μ is the regression error factor and X_1 ; X_2 and X_3 are the

model independent variables highlighted according to Table 2.

RESULTS AND DISCUSSION OF DATA

Table 3 presented the descriptive statistics of the database with the sample of 64 companies and 247 respective directors / managers.

Table 3: General characteristics of the sample (64 companies)

Item	Variables	Frequency	
		Average	Standard deviation
General	Age	50,34	8,62
	Job time	6,37	7,84
Formation		Relative Frequency	Frequency (%)
	Without graduation	2	0,81
	Graduation	96	37,65
	Specialization and MBA	104	42,11
	Master's degree	45	18,22
Total	Companies	64	
	Directors	247	

Source: prepared by the author (2019)

To assess the relationship between corporate performance and age, training, and time in the management team executives, data normality testing, outlier verification, and Pearson correlation were first performed. When verifying the outliers, it was necessary to exclude twelve companies as they had high debt values, either negatively or positively. Thus, the number of observations became 64 companies. Subsequently, the descriptive analysis of the variables related to the data of the 64 companies was performed and it was observed that the average of the managers showed no change, remaining in the 50 years with a standard deviation of 9 years. Regarding the variable time in office, the average of the managers is 6 years and in relation to the capital composition it was found that 52.26%

are from third parties. This shows that the companies analyzed have, on average, approximately 48% of equity to maintain their activities.

Table 4 presented Pearson's linear correlation matrix, which describes the degree of association between the variables. Variables are correlated when change in one of them is associated with changes in another variable (Wangrow et al., 2015).

Its coefficient ranges from -1 to +1, that is, when there is an increase in one variable, the other also increases (positive correlation) or when one variable increases, the other decreases (negative correlation). Thus the coefficient demonstrates the degree of association between the variables.

Table 4: Pearson Correlation

Variáveis	Log(Age)	Formation	Log(Job Time)	Indebtedness
Log (Age)	1	-	-	-
Formation	-0,1744	1	-	-
Log (Job Time)	0,6742*	-0,1298	1	-
PCT	-0,2746	0,1466	-0,3867*	1

Where: *p < 0,01

Source: Research Data (2018)

The results indicated by Pearson correlation allow inferring that the variables Log (Time in Office), Log (Age) and PCT were statistically significant. When comparing the first two (Log (Time in Office) and Log (Age)) there was a moderate and statistically significant positive correlation ($\rho = -0.6742$ and p -value <0.01). This result means that the higher the average age of the management team, the greater the time spent in office. Among the PCT and Log (Time in Office) variables, there was a statistically significant mean negative correlation ($\rho = -0.3867$ and p -value <0.01); allowing the inference that the

more time in office managers have less the strategic tendency to risk risking more capital from third parties.

After verifying the relationships between the study variables, a multiple linear regression was applied, which allows us to analyze the nature of the association between the variables and make probable predictions of the dependent variable (Krause, 2017). Thus, Table 5 presents the results of three multiple regression models that were tested in order to verify which model would provide better explanations for the variables.

Table 5: Multiple linear regression models

Regression					
Model 1		R2	R2 adjusted	F	P- value
		0,159	0,1029	2,836	0,04861**
	Coefficients	(β)	Standard Error	T	P- value
	Intercept	112.191	409.964	0.274	0.7856
	Log(Job Time)	-46.679	23.530	-1.984	0.0534***
	Log(Age)	-5.831	108.344	-0.054	0.9573
	Formation	18.908	27.009	0.700	0.0875
Model 2		R2	R2 adjusted	F	P- value
		0.159	0.1224	4.347	0.01865*
	Coefficients	(β)	Standard Error	T	P- value
	Intercept	90.35	57.88	1.561	0.12537
	Log(Tempo no cargo)	-47.52	17.33	-2.742	0.00867 *
	Formação	19.08	26.53	0.719	0.4756
Model 3		R2	R2 adjusted	F	P- value
		0.1495	0.1314	8.262	0.006063*
	Coefficients	(β)	Standard Error	T	P- value
	Intercept	126.26	29.13	4.335	0,0000764*
	Log(Tempo no cargo)	-49.14	17.10	-2.874	0.00606 *

Nota: * $p < 0,01$; ** $p < 0,05$; *** $p < 0,10$

Source: Research Data (2018)

From the estimated coefficients for the independent variables of the first model (composed by the three study variables) it can be observed that Log (time in office) and Training presented statistical significance at a level of 10% (p-value = 0.0534 and p-value = 0.0875, respectively). Thus, in the second model, the Log variable (age) was excluded as it was not significant and with this change the adjusted R2 value increased from 10.29% to 12.24%. Likewise, in the third model, the formation variable was excluded because it was not statistically significant and thus the adjusted R2 increased to 13.14%. That said, the model that best explains the change in capital structure, more specifically the participation of third capitals, is $PCT = 126.26 - 49.14 * \text{Log}$, ie, model 3.

From the above, it is possible to state that the time in the position of managers of the management team negatively affects the capital participation of third parties of companies. In this understanding, it appears that the first hypothesis that the time in the position of senior managers presents a negative relationship with corporate indebtedness is corroborated. This finding is in keeping with what the UET literature protects by conceiving that directors with more time in office avoid making risky decisions, that is, they are more likely to take risks (Papadakis & Barwise, 2002).

It is emphasized that while performing their duties, managers become well-informed about company resources and thus develop a cognitive framework about unique opportunities and which strategy to pursue (Wally & Baum, 1994). According to Upper Echelon Theory, managerial learning occurs during the early years in the company; then, after success and early learning, managers tend to choose psychologically comfortable strategies (Finkelstein & Hambrick, 1996). With each passing year, managers increasingly believe only in their worldview. A long period of time in the company's management position is associated with passive decision making that is resistant to changes in the organization's strategy, so competitive position can be compromised (Nielsen, 2010).

The second hypothesis, which argues that the age of managers is positively related to corporate debt (third party capital), was not statistically supported. Although the relationship found is not statistically significant, this finding allows the interpretation, based on model 1, that the age of managers is negatively associated with the variable debt (capital of third parties) of companies.

In order to verify if the level of formation of a management team is negatively related to the predominantly conservative capital structure, H3 was tested. The findings do not corroborate such hypothesis, since it did not present statistical significance and also because the Beta (β) found was positive in both models (1 and 2), allowing to infer that the managers' level of training positively affects conservative structure decisions of capital. However, the results obtained did not support the arguments of Crossland & Hambrick (2007).

Final considerations

A potentially strategic resource of the company is its leaders. Thus, strategic leadership has developed into a significant succession of strategic management research. Research in this area focuses on individuals (CEO - Chief Executive Officer), groups (teams of directors) or other governance bodies (Board of Directors). Thus, studies on the role of senior executives have been a topic of interest in the management literature (Wangrow et al., 2015).

Starting with the publication of Hambrick and Mason (1984), Upper Echelon Theory (UET) argues that top executives play a key role in choosing strategic decision, and consequently in organizational outcomes. To this end, some empirical studies on UET have analyzed the correlation between executive characteristics and corporate capital structure.

In this context, the scope of the present study was to verify the influence of the observable characteristics, age, level of education and time spent in the position of the management team on

the capital structure (participation of third party capital) of companies listed in the cyclical Screening sector. Economatica funds.

From the findings it can be inferred that the time in the position of the managers of the management team presents a statistically significant negative relationship with the indebtedness (participation of third party capital) of the companies. Thus, the permanence of a manager in office for a long period of time can make him / her averse to risks related to the company's indebtedness. This is because they only commit to deliberate strategy and ignore requests for change, which reveals the expectation that these executives would prefer to remain in the status quo. The lack of change is because with each additional year in office, the executive becomes more strongly committed to implementing his own paradigm in how the organization should be managed.

It is essential to emphasize that the present study has some limitations, such as the limited sample of the research. This is because in the first place, it focuses on a single sector with a relatively small number of companies, so it cannot be generalized to other sectors. Although data about executives is available on Economatica's No Screening funds website and ensures reliability, some information does not converge with what is displayed on corporate website.

In addition, another limitation was the use only of directors that were listed on the No Screening website of Economatica funds. Different approaches have been used to decide which managers should be included in the definition of the management team, for example by asking the CEO of a company to identify the members of the management team (Aguinis et al., 2011) or even all of them. Managers above the vice president (Barkema & Shvyrkov, 2007). UET critics argue that there are many people in all organizations that affect results, and all of them are worthy of academic attention (Krause, 2017).

Finally, it is suggested that future studies verify the influence of observable characteristics of the management team, together with the board of directors, on the intensity of investments in research and development (R&D). Investigations about the influence of the observable characteristics of the management team on the choice of the company's capital budget are also suggested. In addition to observable characteristics, it is indicated to use the cognitive characteristics of executives, such as emotional instability, or neuroticism that reflects the tendency to be anxious, compulsive, defensive, or the pleasantness that represents the degree to which one demonstrates personal involvement, a preference for cooperation, and trust and acceptance of others.

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