REVISTA DE NEGÓCIOS
Inovação e Estratégia em Organizações

MIMETIC ISOMORPHISM AS COMPETITIVE STRATEGY IN THE DIMENSION STONE SECTOR

Antonio Carlos Guidi
Doutor em Administração
Universidade Metodista de Piracicaba – UNIMEP
E-mail: antoniocarlos.guidi@gmail.com

Nadia Kassouf Pizzinatto
Doutora em Administração
Universidade Metodista de Piracicaba – UNIMEP
E-mail: nkp@nadiamarketing.com.br

Andrea Kassouf Pizzinatto
Doutora em Administração
Universidade Metodista de Piracicaba – UNIMEP
E-mail: adkpizzi@gmail.com

Thel Augusto Monteiro
Doutor em Administração
Pontifícia Universidade Católica de Campinas - PUC
E-mail: thel.monteiro@puc-campinas.edu.br

Maria Imaculada de Lima Montebello
Doutora em Agronomia
Universidade Metodista de Piracicaba – UNIMEP
E-mail: milmonte50@gmail.com

Submissão: 06/10/2022. Aceite: 25/07/2023.

ISSN 1980-4431 | *Double blind review*

Abstract

This article investigates the existence of mimetic isomorphism (MI) in companies in the dimension stone sector (DSS). The southeast of the country was taken as a base since it currently contains the highest level of technological organizational development in the sector. Thus, the overall objective of this study is to analyze which factors in the southeast region favor the practice of MI in the DSS. The study uses distinct models of statistical analysis, such as exploratory factor analysis, and Confirmatory Analysis, thus seeking to legitimize the results of organizational research. The mechanisms underlying the presence of isomorphism served as a starting point to analyze organizational behavior in this period of increasing technological advancement in the sector. It was so, detected as a guiding factor to obtain industrial investment. The research implications are restricted to the regionalization of information sources, a fact which, may be relevant for other regions of the country, since the southeast region accommodates the largest processing center for this field of economic activity. Future research should concentrate on other regions, for a comparative analysis of the results obtained, since this will enable us to outline an isomorphic behavior profile in socio-economic terms and on a national level.

Keywords: Mimetic isomorphism. Dimension stone sector. Organizational behavior. Strategy.

1. Introduction

Unquestionably, research and scientific development have played a role in the contemporary economy. The practice of mimetic isomorphism (MI) has shown a stronger presence in specific geographical regions and, therefore, generated significant, local, economic multiplying effects. Therefore, this approach favors the support of services and the development of a high level of industrial growth.

The research in institutional theory has examined the cause of isomorphism, that is, the factors that lead organizations to adopt similar strategies, processes, and consequently similar structures (Deepehouse, 1996; DiMaggio & Powell, 1983; Mezias, 1990; Palmer, Jennings & Zhou, 1993; Tolbert & Zucker, 1983). That said, isomorphism has also allowed manifestation of consequences that require further examination (Jepperson, 1991; Zucker, 1987). Thus, one of the main consequences of institutional isomorphism, according to institutional theory, is the acceptance of organizational behavior in the external environment (DiMaggio & Powell, 1983; Guidi, Morgan, Imaculada & Correa, 2017).

Several researchers have identified various organizational characteristics that are susceptible to isomorphism. Initially, the concerns were related to practices and structures (Tolbert & Zucker, 1983). Subsequently, the concerns centered on similar strategies of other organizations in the industry, that is, on mimetic isomorphism (Haunscbild, 1993; Haveman, 1993). Legitimacy similarly can be conceptualized meaning convenience and/or normativity (Aldrich & Fiol, 1994, Suchman. 1995).

In these terms, for Canello (2022), Logan, Rachael, and Kyle (1997), Love and Stephen (1999) and Miner and Pamela (1995), emerging economies located in specific regions promote the development of knowledge in these industrial spaces. The factors that favor the agglomeration of industries with similar activities are driven by the link to natural resources and the need to interact effectively with other participants in this productive chain.

Following this line of reasoning, various authors have studied the factors which benefit the development of industrial regions that benefit from technological and economic expansion. Among these, Fujita and Thisse (2000), Mills and Pamela (1995) have studied the standard of industrial clusters regionally. On the other hand, Frobel, Heinrichs and Kreye (1980) Gertler (1995), Herzog, Schlottman and Johnson (1986) and Martin and Widgren (1996) considered the advantage of these concentrations due to the reduction in transport costs, distribution channels and marketing.

Along these lines, Weber (1978), Maring and Widgrem (1996), Crane (1972), Mowery, Oxley, and Silverman (1996) and Appold (2005) highlight that knowledge flows through what they define as invisible faculties, or even strategic alliances. However, recent studies highlight that a growing number of organizations are using projects that aim to achieve their strategic goals and operational objectives as their organizing principles (Eisenhardt, 1989; Cattani, Ferriani, Frederiksen & Täube, 2011; Lechler & Dvir, 2010; Whittington, Pettigrew, Peck, Fenton & Conyon,1999).

According to Fernández, García and Orellana (2016) isomorphism is a central principle of sociological institutional theories and empirical studies that follow this projection consider organizational cultural standards. Therefore, in organizational configurations, MI is understood as a growing homogenization, to avoid what they consider to be dimorphism; in other words, this organizational behavior should be analyzed through distinct analytical lenses.

In other words, to explain what Miterev, Engwall and Jerbrant (2017, p.10) labelled the "surprising homogenization" of organizations, a theoretical base from data on the organizational field was constructed. Thus, according to DiMaggio and Powell (1983, p.148), "why there is such startling homogeneity of organizational forms and practices; and we seek to explain homogeneity, not variation" and, therefore, "the organizations which, together, form a recognized area of institutional life" are highlighted as "main suppliers, consumers of products and resources, regulatory agencies and other organizations that produce similar services or products". Having said this, they highlight that "Much of modern organizational theory posits a diverse and differentiated world of organizations and seeks to explain variation among organizations in structure and behavior" (v.148).

The isomorphic processes that lead to homogeneity have evolved over time. Therefore, this study postulates that mimetic isomorphism could be particularly relevant for organizational projects. This being said, the following research problem arises: **Which factors at an organizational level favor the practice of mimetic isomorphism** i**n the dimension stone sector in the southeast region of Brazil?**

Thus, the overall objective of this study is to analyze which factors in the southeast region favor the practice of mimetic isomorphism in the dimension stone sector.

Following this line of research, this study aims to fill the gap in literature exposed by Fernández, García and Orellana (2016) on the presence of isomorphism. Therefore, the systematic examination of this convergence in literature has been favorable due to various factors, such as theoretical and socio-political reasons.

This research is justified due to the peculiarities of the organizational field under study, which has been characterized by the high centralization of the supply of resources, uncertainties, and lenient professionalization, which for DiMaggio and Powell (1983) are characteristics susceptible to the presence of the practice of mimetic isomorphism.

The relevance of this topic occurs on account of the organizational context revealing that organizations temporarily imitate each other but with little or no focus on effectiveness. The contribution of this study aims to challenge rationality, to provide an explanation for collaborators incorporated into the organizational context, and to accentuate the links between the main organizational agents and their business processes.

The article is structured as follows: following the introduction, the second section discusses aspects of the theoretical framework of the study, and specifically begins by discussing the concept of mimetic isomorphism at organizations, based on organizational theory. The third section describes the methodological procedures in detail, and the fourth section presents the empirical analyses of the study data. The fifth section closes the debate on the theoretical implications, and those of this study.

2. Theoretical Framework

According to Haveman (1993) and DiMaggio and Powell (1983), mimetic isomorphism is a process through which organizations alter their management system over time, with a view to becoming more like other organizations in their region, achieved through an imitation process. Thus, they seek to provide efficient responses to uncertainty, and the reduction of operational costs, with the objective of replacing institutional roles with technical ones (Kung, Cegielski & Kung, 2015; Dufour, Teller & Luu, 2014; DiMaggio & Powell, 2005).

Since enough different social actors have proceeded in a specific way, this specific field of action becomes recognized as correct or institutionalized and, from then on, other social actors follow this course of action (March & Olsen, 1989). More specifically, for March (1981, p.221), it may be conducted by a type of social constructivism, classified as a "compulsory action." Therefore, for Haveman (1993) it is enough that a typical social actor adopts a course of action, (e.g., small companies in a wide range of industries in a new market segment), for other, similar social actors to imitate them (e.g., other small companies enter this new market segment) as guaranteed decision-making within the domains of small companies (Hofstede, 2001). In general management studies, literature on organizational structure aims to understand the previous organizational configurations and the consequences in management, interdependent of the organizational level (Van de Ven, Ganco & Hinings, 2013).

The purpose of the conceptual paper for understanding the impact of corporate social responsibility centers on the relational sources of institutional pressures (Dahlsrud, 2008), that is, they voluntarily integrate ethical and environmental concerns into their business operations. Institutional social behavior is, thereby, driven to isomorphism, that is, companies begin adopting new rules and or designs because of the outcome. Consequently, they become similar in management aspects.

Therefore, Dahlsrud (2008) and Roszkowska-Mendes and Aluchna (2017) identify five dimensions of Corporate Social Responsibility: a) economic; b) social; c) environmental; d) voluntariness; and e) stakeholders.

Various authors have carried out investigations into the factors in which mimetic isomorphism occurs. Leavitt (1965) presented four characteristics: the task, technology, structure, and people. Pascale and Athos (1981) and Peters and Waterman (1982) presented another proposal through the 7S model*:* structure, strategy, systems, style, skills, staff, and subordinates. These were key dimensions for company objectives to be successfully achieved. Along the same line of thinking, Galbraith (1977; 2014) presents a model that includes strategy, structure, processes, people, and compensation as the main elements for organizational structure. Thus, various studies have conceptualized the relevance of micro and small companies in the economy. Some common factors have been highlighted with regards to the failure of these companies, such as: cost management, business know-how and capital.

Consequently, the adoption of strategic cost management promotes a positive impact in relation to the performance of this group of organizations which, to some extent, routinely imitate the best practices observed in large companies. However, the results are frequently limited on account of certain peculiarities, such as: intellectual capital, size, market position, product range, and culture, among others. On the other hand, each company should be aware of their peculiarities and position themselves in distinct regional contexts. Therefore, for Dos-Santos, Dorow and Beuren (2016), Bao and Gong (2017), Maziriri and Mapuranga (2017), each company should seek a course that is adapted to their context.

A crucial pre-condition for this behavioral imitation process is that some organizations and their managers are seen as more successful with their management process than others. Evidence of a mimetic change comes from a wide range of studies that examine a broad range of organizational results, in other words, dissemination of the change in a multidivisional, corporate form, the diffusion of diversification strategies, and the adoption of matrix management programs. Mimetic organizational change has been frequently observed, based on an epidemic for others (Miterev,

Engwall & Jerbrant, 2017). Along these lines, the presence of two dimensions is noted at organizations (Table 1).

Table 1. The theoretical dimensions of organizations.

Technical Dimension	**Institutional Dimension**
The technical environment is characterized by an exchange of goods and services.	The institutional environment conducts the establishment and dissemination of standards of practice required to achieve organizational legitimacy.
Obs: Thus, organizations submitted to pressures from technical and institutional environments are evaluated, respectively, for efficiency and suitability to social requirements.	

Source: Machado-da-Silva, Fonseca and Fernandes (1999).

The concept that best defines the homogenization process of organizational behavior is isomorphism; in other words, a process that has extensive characteristics and relevant sources of information to understand the way that the organizations share specific organizational behavior (Guidi; Morgan; Imaculada & Correa, 2017; Smith, Couchman & Beran, 2014; Dimaggio & Powell, 1983).

Specifically, DiMaggio and Powell (1983) proposed an analytical typology of isomorphic mechanisms: coercive, mimetic, and normative (Table 2). The specific focus of this study concentrates on mimetic mechanisms, which are typically related to any aspect of the organizational behavior imitation process, usually encouraged by environmental uncertainty. The strategy of imitation under uncertainty enables the organizations to locate an apparently viable solution at a reduced cost. One of the factors that may contribute towards isomorphism is the limited number of valid models. Therefore, the diffusion of organizational models may take place via staff turnover, client demands, consultancy firm activities and industrial associations (Miterev, Engwall & Jerbrant, 2017).

Table 2. Isomorphic mechanisms within a project-based organization.

Affected Temporary Organization Design (TOD) Dimensions					
Isomorphic Mechanisms	**Specific Mechanisms**	**Structure**	**Strategy**	**Process**	**People**
Coercive	Prescriptive guidelines and frameworks	+	+	+	+
	Project management assurance system and internal audits	+		+	
	Steering group members` expectations	+	+	+	
Mimetic	Post-closure and lessons learned reports	+		+	
	Sharing approaches within formal communities of practice			+	
	Informal networking within unofficial groups/coalitions of managers	+	+	+	+
Normative	Influence of professional associations	+		+	
	Influence of popular management models and wider societal norms			+	
	Influence of industry-specific norms			+	
	Similarity of the managers (due to HRM practices)				+

Source: Miterev, Engwall & Jerbrant (2017, p.19).

3. Methodological Procedure

This study highlighted the use of hypothetico-deductive logic (Gil, 2008), and a positivist, descriptive and quantitative approach. The target population for this study was members of staff at small and medium-sized companies who work in cost management at businesses that carry out dimension stone (DS) extraction and processing activities and are located in the southeast region of Brazil.

The data description was presented in the form of absolute frequency, percentage, minimum and maximum values, and the median (Table 3). The questionnaire`s reliability was verified through the internal consistency of each item or indicator from Cronbach`s alpha test (Cronbach, 1951).

Table 3. Characterization of the research sample.

Characteristics	**Company`s Economic Activity**						
		Wholesale Sector		Extraction		Total	
		Number	%	Number	%	Number	%
Company Classification*	EPP	62	58%	43	77%	105	65%
	ME	26	25%	7	13%	33	20%
	EMP	18	17%	6	11%	24	15%
****Time that company has been active in the market (years)**	Up to 5	24	37%	0	0%	24	22%
	6 to 10	19	29%	11	24%	30	27%
	11 to 15.	15	23%	15	33%	30	27%
	16 to 20	18	28%	10	22%	28	25%
	More than 20	32	49%	20	44%	52	47%
Number of direct employees	Up to 19	79	73%	37	66%	116	71%
	20 to 99	29	27%	19	34%	48	29%
		108		**56**		**164**	

* Small Company = EPP [Companies with an annual turnover of between BRL 360,000.01 and BRL 3,600,000.00]
Micro-company = ME [Companies with an annual turnover equal to or less than BRL 360,000.00].
Medium-Sized Company = EMP [Companies with an annual turnover of between BRL 3,600,000.01 and BRL].
** Chi-squared significant association test

3.1 Participants

The stratified sample for this study was defined as non-probabilistic and by convenience (Gil, 2008; Creswell, 2010) and was made up of collaborators at small and micro-companies located in the southeast region of Brazil, since this region demonstrates the highest flow of companies that operate in this economic segment. The sample included a total of 164 responses that were considered valid. One hundred and eight (108) respondents were related to companies that carry out economic activities defined as DS processing and 56 respondents were related to companies that carry out economic activities defined as DS extraction. The data was collected during the period 1st June to 5th December 2016.

3.2 Instrument

To investigate cost management (CM) practices at micro and small companies in the dimension stone sector (DSS), we opted to use primary data, and the data collection method selected was a structured questionnaire. This was made up of a standard set of questions containing limited responses to several previously determined, mutually exclusive possibilities (HAIR et al., 2005). The questionnaire had three main parts: a) three questions about the profile of the collaborator who works in this area; b) three questions on the company profile, and c) thirty-one questions selected following adaptation of the research conducted by Callado and Pinho (2014) and based on the theoretical framework. The questions were all closed, easy to apply and analyze, and accompanied by essential instructions (Hair et al., 2005).

3.3 Procedure and Data Analysis

The perception variables were measured based on the 5-ordinal point Likert scale (Creswell, 2010). Since the sample had been drawn from the population, the error was introduced in the process for the difference between the sample and the population, and summarized statistically (Hair et al., 2005).

Exploratory factor analysis (EFA) was carried out to reduce the dimensionality of the questionnaire in the form of factors or constructs. The main component method for categorical data with Varimax rotation and Kaiser normalization was used for this. The appropriateness of the FA sample was conducted with the Kaiser-Meyer-Olkin measure (Kaiser, 1970), and Bartlett`s test of sphericity (Bartlett, 1950) was used for data adequacy. After conducting the FA, scores were allocated to the retained factors.

To confirm the causal relation structure found by the EFA, structural equation modelling (SEM) was performed, which is also called confirmatory factor analysis. The parameter estimation was carried out using the maximum likelihood method through the mean and intercept. The measurement model was evaluated by composite reliability (CR) and the average variance extracted (AVE).

The initial model was presented by the path diagram, where the squares are the variables observed and the circles the latent or dependent variables. Model adequacy was presented by the chi-squared test, the adjustment quality by the standardized adjustment index (SAI), relative adjustment index (RAI), parsimony ratio (PRATIO) and root mean square error of approximation (RMSEA).
The alpha level of significance used in all the analyses was 5%. IBM SPSS Statistics software version 24 and the Analysis of Moment Structures (AMOS) graph module were used to perform the data analysis.

4. Presentation and Analysis of Results

The final sample (n=164) was made up of respondents of both sexes, with 83.50% being male and 16.50% female, demonstrating a high male presence in this sector. With regards to the productivity level, the most productive age range varied between the ages of 26 and 55. The vast majority had an average income of between 7 and 10 minimum salaries, and they were all identified as regularly active collaborators in their specified roles. In relation to the level of education, 46% of the respondents had completed basic education, highlighting that the managers had a limited level of education.

The results indicate that there is a significant association ($p < 0.05$) with the nature of the economic activity, with the processing companies being newer in the market compared to those in extraction. Based on research data, and related to the characterization of the respondents, we can confirm that the cost managers in this economic activity have between 7 and 14 years` experience. On the other hand, and no less importantly, we highlight that in relation to the CM functions, the sample reveals the exercise of a cumulative function, with the role of sales and marketing at both

types of companies. Therefore, according to Holatova and Brezinova`s (2013) studies, this accumulation forces a reduction in managerial capacity.

CM practices demonstrate (agreement) that there is no economic association between these economic activities (EA), i.e. based on the research data, we can confirm that exercise of the economic activity occurs independent of economic practices. Therefore, it was noted that both the EAs follow the same practices when the same information sources were analyzed, and there is no significant difference ($p < 0.05$). Thus, we should highlight that the internal sources of the companies and personal contacts were the criteria most indicated in relation to decision-making in the cost management process. These findings corroborate those of Guidi, Morgan, Montebelo and Correa (2017).

The first evaluation was internal consistency between the responses obtained in the questionnaire and those given by the respondents (Corrar *et al.*, 2010), carried out using Cronbach`s alpha (Table 4). The consistency value was 0.89, which is considered substantial according to Landis and Koch (1977).

Table 4. Internal consistency.

Cronbach`s alpha	**Cronbach`s alpha based on standardized items**	**Nº of items**
0.888	0.891	31

Sampling adequacy and correlation are presented below. The value of the sampling adequacy measure was 0.86, a result that for Corrar *et al.* (2007) is an indication of a good degree of data explanation from the factors, and the data is not correlated $p < 0.001$ (Bartlett) which makes the use of FA possible (Table 5).

Table 5. KMO and Bartlett`s Tests.

Kaiser-Meyer-Olkin measure of sampling adequacy		**0.860**
Bartlett`s test of sphericity	Approximate chi-squared	1863.334
	gl	55
	P value	**< 0.001**

According to Marôco (2010), communality values below 0.50 should not be considered. The values listed in Table 6 represent the percentage of explanation that a variable obtained on the factor by FA. All of the communalities were higher than 0.50, which indicates a good power of explanation.

Table 6. Communalities.

	Initial	**Extraction**
In relation to the company, please indicate below the practices related to cost management used: make a calculation to establish the sale price:	1.000	0.834
In relation to the company, please indicate below the practices related to cost management used: make a calculation to analyze the unit costs of products to be sold:	1.000	0.856
In relation to the company, please indicate below the practices related to cost management used: make a calculation to analyze the margin of fiscal contribution:	1.000	0.762
In relation to the company, please indicate below the practices related to cost management used: calculate the profit margin when establishing the sales price:	1.000	0.754

In relation to the company, please indicate below the practices related to cost management used: carry out a monthly or six-monthly breakdown of accountancy, fiscal and budgetary information?	1.000	0.836
In relation to the company, please indicate below the practices related to the cost management used: carry out a monthly cash flow analysis?	1.000	0.828
In relation to the company, please indicate below the practices related to the cost management used: make a monthly record of operational costs?	1.000	0.825
Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: improvement in collecting information on costs?	1.000	0.948
Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: improvement in storing information on costs?	1.000	0.955
Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: preparing the company for competitiveness followed by a search for new markets?	1.000	0.938
Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: internally ensure the sharing of experiences about costs in other company departments?	1.000	0.726
Extraction method: Principal Component Analysis		

Source: IMB SPSS statistics software, version 24.

According to Marôco (2010), the minimum value of the variance total explained should be 50.0%, and this was one of the criteria to select the number of factors to be retained and also for eigenvalues higher than 1. Therefore, from the criteria observed, three factors were retained, where these were able to explain 84.206% of the total variability of the data observed; in other words, the accumulated percentage of the variance explained by the factors responds for 84.206% (Table 7).

The internal consistency of each factor was considered acceptable ($\alpha < 0.80$). Consequently, the factors were grouped together and presented in the order of the highest factor loading (component); in other words, those which contributed most are listed first, with the percentage of variance explained for each factor.

Table 7. Factors, factor loading, cronbach`s alpha, self-value and % of total variance.

Factor	Description	Components	Cronbach`s Alpha	Self-value	% of variance
P37	Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: improvement in collecting information on costs?	0.973	0.96	4.719	42.896
P38	Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: improvement in storing information on costs?	0.977			
P40	Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: preparing the company for competitiveness followed by a search for new markets?	0.969			
P41	Within the company`s current growth strategy, as a cost manager, what importance do you attribute to the following actions: internally ensure the sharing of experiences about costs in other company departments?	0.846			

P12	In relation to the company, please indicate below the practices related to cost management used: make a calculation to establish the sale price:	0.893	0.91	3.519	31.987
P13	In relation to the company, please indicate below the practices related to cost management used: make a calculation to analyze the unit costs of products to be sold:	0.906			
P14	In relation to the company, please indicate below the practices related to cost management used: make a calculation to analyze the margin of fiscal contribution:	0.710			
P15	In relation to the company, please indicate below the practices related to cost management used: calculate the profit margin when establishing the sales price:	0.750			
P17	In relation to the company, please indicate below the practices related to cost management used: carry out a monthly or six-monthly breakdown of accountancy, fiscal and budgetary information?	0.825	0.88	1.026	9.323
P18	In relation to the company, please indicate below the practices related to cost management used: carry out a monthly cash flow analysis?	0.814			
P20	In relation to the company, please indicate below the practices related to cost management used: make a monthly record of operational costs?	0.895			
Total		-	-	-	84.206

* Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser standardization
Source: IBM SPSS Statistics software, version 24.

Therefore, with the objective of analyzing which circumstances in the southeast region promote the practice of mimetic isomorphism in the dimension stone sector, we identified through EFA that the variables of a greater prominence in order are those which form Factor 1 (P37, P38, P40, and P41). In time, it was highlighted that this information should be shared in daily experiences with other company departments. Therefore, it corresponds to a need to connect the internal and external environments.

Thus, (F1), the information management factor (IMF) made up of the variables P37, P38, P40 and P41 was responsible for 42.896% of the variance explained. Therefore, it corresponds to the perception of the company`s growth strategy, the need for improvements in the collection and storage of information on cost management, improvements in competitiveness and looking for new markets, and ensuring the internal sharing of cost management experiences. Therefore, these were the most sensitive elements noted internally in the companies.

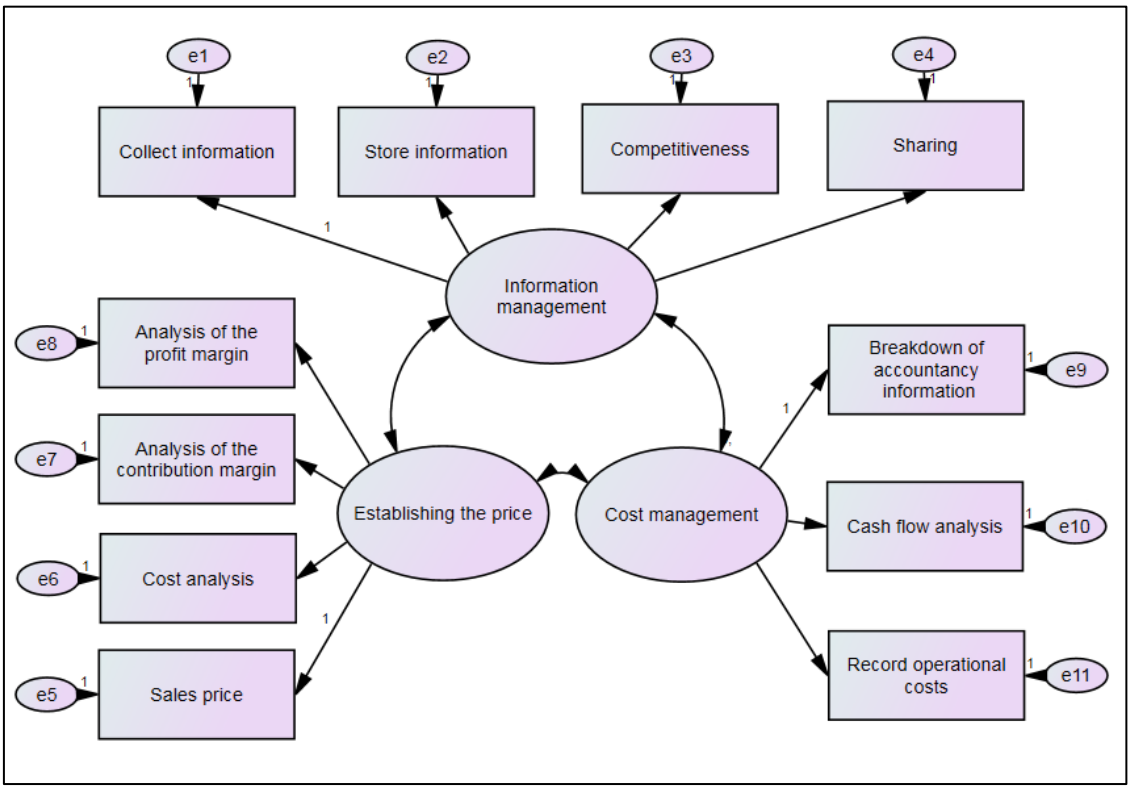
(F2) the price formation factor (PFF) made up of the variables P12, P13, P14 and P15, was responsible for 31.987% of the variance explained. Thus, it corresponds to the perception of cost management related practices and, therefore, the calculation to establish the sales price and the respective unit cost analysis, and the calculation to identify the fiscal contribution and profit margins when establishing the sales price were the main elements explained by the FFP.

Continuing, (F3) the cost management factor (CMF) made up of the variables P17, P18 and P20 was responsible for 9.323% of the variance explained. Thus, it also corresponds to cost management related practices and, therefore, corresponds to the variables related to the monthly or six-monthly breakdown of accountancy, fiscal and budgetary information, the company`s monthly cash flow analysis and records of operational costs. These were the most essential CMF elements.

Continuing with the analysis, Figure 1 presents a path diagram of the information management latent variable, which has the collection and storage of information, competitiveness and sharing as the variable indicators observed. The price formation variable has the following variable indicators observed: sales price, cost analysis, contribution margin and profit margin analyses, and the cost

management latent variable has the breakdown of accounting information, cash flow analysis and record of operational costs variables observed as the indicators.

Figure 1. Path diagram of the relation of the role played by the manager for information pertinent to cost management and organizational development.



Source: Prepared by the author, based on AMOS software, version 23.

The relation of latent variables (factors) with the indicators was conducted by composite reliability (CR) and the average variance extracted (AVE). The composite reliability evaluates if the sample contains biases and if the responses are reliable. According to Hair Jr. *et al.* (2014) the ideal values are: CR > 0.7. The value was above 0.7 in all the relations of factors with their respective indicators and, therefore, can be considered satisfactory.

The extracted variance analysis is the percentage of correlation of the indicator variables with their factors and, according to Fornell & Larcker (1981), the values considered satisfactory are those with AVE > 0.5. The value was above 0.5 in all three models and, therefore, these converge in a satisfactory result (Table 8).

Table 8. Composite Reliability and Average Variance Extracted.

	CR	AVE
Information management (4 indicators)	0.960	0.858
Establishing the price (4 indicators)	0.906	0.707
Cost management (3 indicators)	0.877	0.529
CR – Composite reliability; AVE – Average variance extracted		

The regression weight estimations (factor loading) are presented below. The indicator with the highest weight in the information management factor is the storage of information (1.006). For the

price establishment factor, the indicator of the highest weight is cost analysis (1.040) and the for the cost management factor, the indicator of the highest weight is cash flow analysis (1.016).

The critical ratio that evaluates the number of indicators that relate to the factors were all above 2.58 which, according to Reichelt (2007), are considered adequate. There was a significance in all of the regressions, indicating that the indicators are related to the factors (Table 9).

Table 9. Regression Weights.

		Factors	Estimate	Standard error	Critical ratio	p value
Collection of information	<---	Information management	1.000			
Storage of information	<---		1.006	0.017	59.852	**< 0.001**
Competitiveness	<---		0.965	0.027	35.286	**< 0.001**
Sharing	<---		0.761	0.054	14.215	**< 0.001**
Sales price	<---	Establishing the price	1.000			
Cost analysis	<---		1.040	0.076	13.661	**< 0.001**
Contribution margin analysis	<---		1.012	0.077	13.154	**< 0.001**
Profit margin analysis	<---		1.008	0.077	13.074	**< 0.001**
Breakdown of accountancy information	<---	Cost management	1.000			
Cash flow analysis	<---		1.016	0.071	14.217	**< 0.001**
Record of operational costs	<---		0.885	0.074	11.877	**< 0.001**

Source: prepared by the authors from the data collected.

The variance estimates were all significant, which indicates that all the critical ratios are above 2.58. Therefore, the variance estimates are satisfactory and significant, which indicates that there is no problem with standard errors (Table 10).

Table 10. Variance Estimates.

Factors	Estimate	Standard error	Critical ratio	p value
Information management	1.057	0.120	8.786	**<0.001**
Establishing the price	0.685	0.104	6.584	**<0.001**
Cost management	0.750	0.108	6.947	**<0.001**
e1	0,029	0.006	4.618	**< 0.001**
e2	0.016	0.006	2.769	**0.006**
e3	0.100	0.012	8.183	**< 0.001**
e4	0.473	0.053	8.928	**< 0.001**
e5	0.313	0.042	7.414	**< 0.001**
e6	0.258	0.038	6.782	**< 0.001**
e7	0.296	0.041	7.244	**< 0.001**
e8	0.302	0.041	7.305	**< 0.001**

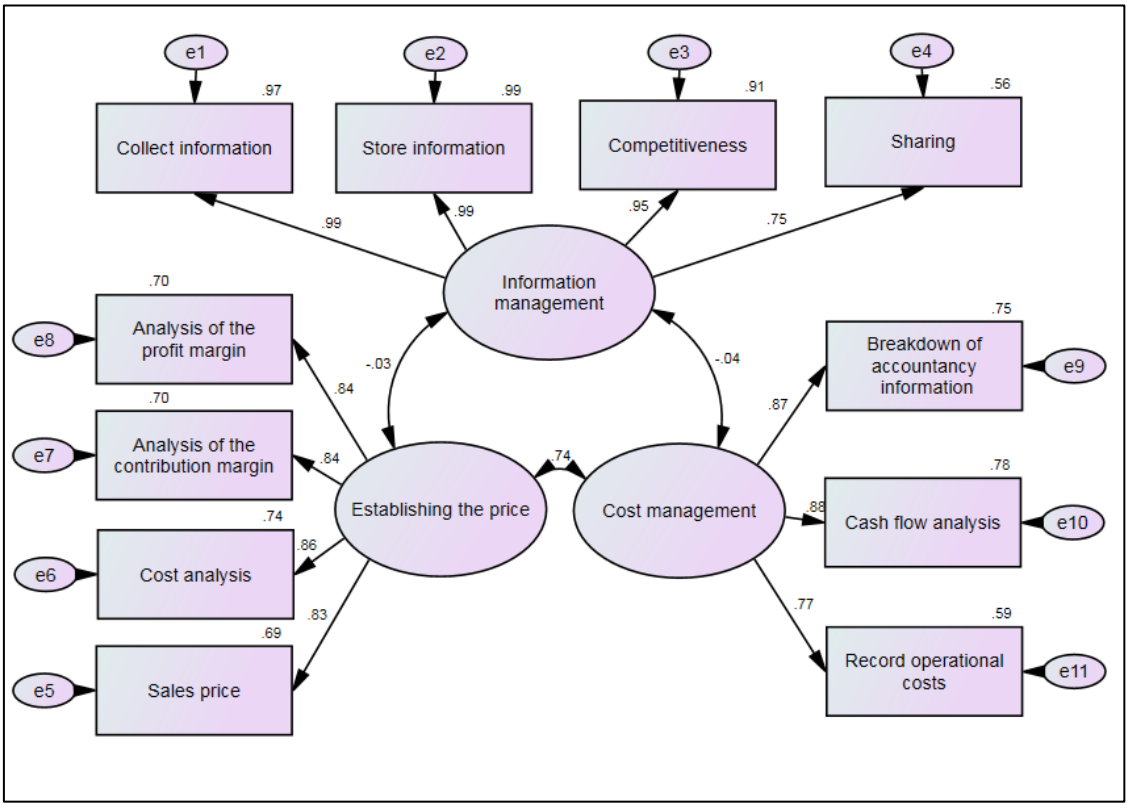
e9	0.248	0.042	5.840	< **0.001**
e10	0.223	0.041	5.384	< **0.001**
e11	0.412	0.053	7.824	< **0.001**

Note: AMOS software, version 23

The structured model, with its standardized loading, is presented in Figure 2. All of the standardized estimate values with their indicators were above 0.7, which suggests model adequacy, with the exception of the association of information management with the sharing indicator, where the beta coefficient was 0.56.

The relation between the price setting and cost management factors was acceptable, since it was above 0.7, but these two constructs obtained a low relation with the information management construct.

Figure 2. Structural equations model with its standardized estimates for the relation of the role performed by the manager for information pertinent to cost management and organizational development.



Source: Prepared by the author, based on AMOS software, version 23.

The structured model adequacy measures will now be presented. The chi-square test was 81.66, with p=0.001 which suggests that the data is not entirely adequate. However, the likelihood ratio test is very sensitive to the sample size, which leads to estimation problems. Therefore, to overcome this problem, other adjustment indexes were presented. Thus, from Iacobucci`s (2009) perspective, the minimum acceptable value is 1.94, not exceeding 3.0 and, therefore, the model is acceptable (1.99). The SAI was 0.96, which is above the minimum acceptable (0.90), indicating a good adjustment. The RAI was 0.93, which is above the minimum acceptable (0.90) indicating a good adjustment.

The PRATIO parsimony ratio, which was allowed in this way, with the lowest possible number of indicator variables, to be able to explain the latent variable without losing the capacity of

explanation; in other words, it refers to a test in which a reduced quantity of variables is verified, thus being able to achieve the same power of explanation of the dependent variable, the similarity of the R^2 linear regression coefficient. Consequently, it could be extended to a measure if the degree of model adjustment was above 0.6, which is the minimum value accepted, and may be considered a good adjustment. The RMSEA obtained the value of 0.07, which is considered acceptable, and the PCLOSE was significant. Therefore, the RMSEA value rejected the hypothesis that the value obtained is 0.05. Based on the indexes presented, the model may be considered well-adjusted by FA and ratified by SEM (Table 11).

Table 11. Model Adjustment Indexes.

	Adjustment measure	**p value**
χ^2	81.66	**0.001**
CMIN/DF	1.992	
SAI	0.958	
RAI	0.932	
PRATIO	0.621	
RMSEA	0.075	**0.045***
(*) PCLOSE		

Note: AMOS software, version 23.

5. Concluding Remarks

This research, of a quantitative nature, allowed factor analysis that promotes the practice of mimetic isomorphism by the DSS in the southeast region. Consequently, perceptions on the topic in question were translated into numbers. Furthermore, to achieve the overall objective, a questionnaire was used as a data collection instrument, which allowed us to attain these elements with relative speed.

It was noted that each company experiences a different reality. Therefore, the emergency and structural need of the organizational field requires a result in the activities of the various organizational groups and was noted in the DSS of the southeast region. Similarly, the homogenization of these organizations and the force exerted by new entrants forces them to follow the standard of the best practices used by the organizations considered leaders in the sector, for the production cost factor.

Thus, the exercise of cumulative activities demonstrates these organizations` reduced managerial capacity. Therefore, based on the research data, we observed that this is an isomorphic practice, in other words, a cultural characteristic of entrepreneurs in the sector. It is understood that a relevant contribution of this paper was to present the need for DSS managers in the southeast region to improve cost management.

Seen in these terms, the perception highlighted as a strong point in organizational management is concentrated on the information obtained from internal sources and sharing this information, and personal contact with direct competitors as major factors for organizational decision-making. Therefore, the need to improve information collection and storage was demonstrated from the research data.

It is also emphasized that little variation was noted, particularly in the level of organizational and behavioral homogeneity throughout the economic activities. Observations of organizational theories on the perception of change, ambiguity and restrictions which may possibly have been experienced in the DSS were noted with equilibrium and integrity.

The focuses and motivating forces associated to bureaucratization and homogenization in general were highlighted as valid and viable arguments in this sector. Nevertheless, understanding the relevance of the current socio-economic tendencies may never have been as necessary and immediate.

A gap noted was with regards to establishing the production costs and sales price. Evidence of this gap is highlighted in the CFA, due to the low relation between these constructs and the information management construct.

6. Implications and Further Research

The research implications are restricted to the regionalization of information sources, a fact which, however, may be relevant for other regions of the country, since the southeast region accommodates the largest processing center for this field of economic activity. However, future research should concentrate on other regions, for a comparative analysis of the results obtained, since this will enable us to outline an isomorphic behavior profile in socio-economic terms and on a national level.

7. References

Aldrich, H. E. & Fiol. C. M. (1994). Fools rush in? The institutional context of industry creation. Academy of Management Joumal, 19: 645-670.

Appold, S. (2005). Location patterns of US industrial research: mimetic isomorphism and the emergence of geographic charisma. *Regional studies*, *39*(1), 17-39.

Bao, H. X. H., & Gong, C. M. (2017). Reference-dependent analysis of capital structure and REIT performance. *Journal of Behavioral and Experimental Economics*, *69*, 38–49. https://doi.org/10.1016/j.socec.2017.05.008

Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of Statistical Psychology*, 3(2), 77-85.

Callado, A. A. C., & Pinho, M. A. B. (2014). Evidências de isomorfismo mimético sobre práticas de gestão de custos entre micro e pequenas empresas de diferentes setores de atividade. *Contabilidade Vista & Revista*, *25*(2), pp. 119-137.

Canello, J. (2022). Mimetic isomorphism, offshore outsourcing and backshoring decisions among micro and small enterprises. *Regional Studies*, *56*(5), 719-736.

Cattani, G., Ferriani, S., Frederiksen, L., & Täube, F. (2011). Project-based organizing and strategic management: A long-term research agenda on temporary organizational forms (Editorial). *Project-Based Organizing and Strategic Management*, *28*, xv–xxxix.

Corrar, L.J.; Paulo, E.; Dias Filho, J.M. (2007). Análise multivariada: para os cursos de administração, ciências contábeis e economia. São Paulo: *Atlas*, 542p.

Creswell, J. W. (2010). *Projeto de pesquisa: método qualitativo, quantitativo e misto*. Porto Alegre: Artmed.

Cronbach, J. L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, V. 16. No. 3, pp. 297-334.

Dahlsrud, A. (2008), "How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions", Corporate Social Resposibility and Environmental Management, Vol. 15, pp. 1–13.

Deephouse, D. L. (1996). Does isomorphism legitimate? *Academy of management journal*, *39*(4), 1024-1039.

Dimaggio, P. J., & Powell, W. W. (2005). A gaiola de ferro revisitada: isomorfismo institucional e racionalidade coletiva nos campos organizacionais. *Revista de Administração de Empresas*, *45*(2), pp. 74-89.

DiMaggio, Paul J. and Walter W. Powell. (1983). "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48:147-160.

Dos-Santos, V., Dorow, D. R., & Beuren, I. Ma. (2016). Práticas Gerenciais De Micro E Pequenas Empresas Management Practices of Micro and Small Companies Prácticas De Gestión De Micro Y Pequeñas Empresas. *Revista Ambiente Contábil* –, *8*(1), 153–186.

Dos-Santos, V., Dorow, D. R., & Beuren, I. Ma. (2016). Práticas Gerenciais De Micro E Pequenas Empresas Management Practices of Micro and Small Companies Prácticas De Gestión De Micro Y Pequeñas Empresas. *Revista Ambiente Contábil* –, *8*(1), 153–186.

Dufour, D., Teller, P., & Luu, P. (2014). A neo-institutionalist model of the diffusion of IFRS accounting standards. *Computational Economics*, *44*(1), 27-44.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532–550. doi. org/10.5465/AMR.1989.4308385.

Fernández, J. J., García, A., & Orellana, L. (2016). Recessions and Normative-Mimetic Isomorphism in Worldwide States Structures, 1970-2013.

Folker Frobel, Jurgen Heinrichs, and Otto Kreye. (1980). *The New International Division of Labor: Structural Unemployment in Industrialized Countries and Industrialization in Developing Countries.* Cambridge: Cambridge University Press.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research,18*(1), pp. 39-50. doi: 10.2307/3151312.

Fujita, Masahisa and Jacques-Francois Thisse. (2000). "The Formation of Economic Agglomerations: Old Problems and New Perspectives." Pages 3-73 in Jean-Marie Huriot and Jacques-Francois Thisse, eds., *Economics of Cities: Theoretical perspectives.* Cambridge: Cambridge University Press.

Galbraith, J. R. (1977). Organization design. Reading, MA: Addison-Wesley.

Galbraith, J. R. (2014). Designing organizations: Strategy, process and structure at the business unit and enterprise level (3rd ed.). San Francisco, CA: Jossey-Bass.

Gertler, Merc. (1995). "'Being There': Proximity, Organization, and Culture in the Development and Adoption of Advanced Manufacturing Technologies." Economic Geography 71: 1-26.

Gil, A. C. (2008). *Métodos e técnicas de pesquisa social* (6a ed.). São Paulo: Atlas.

Guidi, A. C., Morgan, L., Montebelo, M. I., & Corrêa, D. A. (2018). Cost management in micro and small companies in the mining sector. *Revista de Negócios*, *22*(2), 48-64.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM).* Sage Publications.

Hair, J. F., Jr., Babin, B., Money, A. H., & Samouel, P. (2005). *Fundamentos de métodos de pesquisa em administração.* Porto Alegre: Bookman.

Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology, 82*(5), pp. 929-964.

Haunschild, P. 1993. Interorganizationai imitation: The impact of interlocks on corporate acquisition activity. Administrative Science Quarterly, 38: 564-592.

Haveman, H. A. (1993). Follow the leader: mimetic isomorphism and entry into new markets. *Administrative Science Quarterly*, pp. 593-627.

Haveman, H. A. 1993. Follow the leader: Mimetic isomorphism and entry into new markets. Administrative Science Quarterly, 38: 593-627.

Hawley, R. (1968). Solid insulators in vacuum: a review. *Vacuum*, *18*(7), pp. 383-390.

Herzog jr., Henry W., Alan M. Schlottman and Donald Johnson. (1986). "High Technology Jobs and Worker Mobility." *Journal of Regional Science* 26:445-459.

Hofstede G. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. Thousand Oaks, CA: Sage.

Iacobucci, D. (2009). Everything you always wanted to know about SEM (structural equations modeling) but were afraid to ask. *Journal of Consumer Psychology*, *19*(4), 673-680.

Iacobucci, Dawn (2009). Structural Equations Modeling: Fit Indices, Sample Size, and Advanced Topics. *Journal of Consumer Psychology*.

Kaiser, H.F. (1970). A Second-generation little jiffy. *Psychometrika*, 35: 401-415.

Kung, L., Cegielski, C. G., & Kung, H. J. (2015). An integrated environmental perspective on software as a service adoption in manufacturing and retail firms. *Journal of Information Technology*, *30*(4), 352-363.

Leavitt, H. J. (1965). Applied organizational change in industry: Structural, technological, and humanistic approaches. In J. G. March (Ed.), Handbook of Organizations (pp. 1144–1170). Chicago, IL: Rand McNally.

Lechler, T. G., & Dvir, D. (2010). An alternative taxonomy of Project management structures: Linking Project management structures and Project success. *IEEE Transactions on Engineering Management*, *57*(2), 198–210. doi.org/10 .1109/TEM.2010.2044441

Logan, John R., Rachel Bridges Whaley, and Kyle Crowder. (1997). "The Character and Consequences of Growth Regimes: An Assessment of 20 Years of Research." *Urban Affairs Review* 32: 603-630.

Love, James H. and Stephen Roper. (1999). "The Determinants of Innovation: R&D, Technology Transfer and Networking Effects." *Review of Industrial Organization* 15: 43-64.

Machado-da-Silva, C. L., Fonseca, V. S., & Fernandes, B. H. R. (1999). Mudança e estratégia nas organizações: perspectivas cognitiva e institucional (p. 113). In M. M. F. Vieira & L. M. B. Oliveira (Orgs.), *Administração contemporânea: perspectivas estratégicas* (pp. 102-118). São Paulo: Atlas.

March J. G., Olsen J. P. (1989). *Rediscovering institutions: The organizational basis of politics*. New York: Free Press

March J. G. (1981). Decisions in organizations and theories of choice. In Van de Ven A. H.Joyce W. (Eds.), *Perspectives on organization design and behavior* (pp. 205–244). New York: Wiley Interscience.

Marôco, João (2010). Análise Estatística com o PASW Statistics (ex-SPSS). *Report Number*, Lisbon.

Martin, Philip and Jonas Widgren. (1996). "International Migration: A Global Challenge." *Population Bulletin* 51 (1): 1-40.

Maziriri, E. T., & Mapuranga, M. (2017). The Impact of Management Accounting Practices (Maps) on the Business Performance of Small and Medium Enterprises within the Gauteng Province of South Africa, *7*(2), 12–25.

Mezias, S. J. 1990. An institutional model of organizational reporting practice: Financial reporting at the Fortune 200. Administrative Science Quarterly, 35: 431-457.

Miner, Anne S. and Pamela R. Haunschild. (1995). "Population Level Learning." *Research in Organizational Behavior* 17:115-166.

Miterev, M., Engwall, M., & Jerbrant, A. (2017). Mechanisms of isomorphism in project-based organizations. *Project Management Journal*, *48*(5), 9-24.

Mowery, David C., Joanne E. Oxley, and Brian S. Silverman. (1996). "Strategic Alliances and Interfirm Knowledge Transfer." *Strategic Management Journal* 17 (Winter Special Issue: Knowledge and the Firm) 77-91.

Palmer, D. P., Jennings, D., & Zhou, X. 1993. Late adoption of the multidivisional form by large U.S. corporations: Institutional, political, and economic activity. Administrative Science Quarterly, 38: 100-131.

Pascale, R. T., & Athos, A. G. (1981). The art of Japanese management. New York, NY: Simon & Schuster

Peters, T. J., & Waterman, R. H. (1982). In search of excellence: Lessons from America's best-run companies. New York, NY: Harper and Row.

Reichelt, Valesca Persch (2007). Valor Percebido do Cliente: Um Estudo sobre o Relacionamento entre as Instituições de Ensino Superior e seus Alunos. *Tese: Doutorado em Administração.* Orientador: Prof. Dr. Marcos Henrique Nogueira Cobra. São Paulo: FGV-EAESP.

Roszkowska-Menkes, M., & Aluchna, M. (2017). Institutional isomorphism and corporate social responsibility: towards a conceptual model. *Journal of Positive Management*, *8*(2), 3-16.

Smith, J. D., Couchman, J. J., & Beran, M. J. (2014). A tale of two comparative psychologies: Reply to commentaries.

Suchman, M. C. 1995. Managing legitimacy: Strategic and institutional approaches. Academy of Management Review, 20: 571-610.

Tolbert, P. S., & Zucker, L. G. 1983. Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880-1935. Administrative Science Quarterly, 28: 22-39.

Van de Ven, A. H., Ganco, M., & Hinings, C. R. (2013). Returning to the frontier of contingency theory of organizational and institutional designs. The Academy of Management Annals, 7(1), 393–440. doi.org/10.1080/19416520.2013.774981

Weber, Max. (1978). *Economy and Society*. Berkeley: University of California Press.

Whittington, R., Pettigrew, A., Peck, S., Fenton, E., & Conyon, M. (1999). Change and complementarities in the new competitive landscape: A European panel study, 1992–1996. *Organization Science*, *10*(5), 583–600.