

The informal role of marketing control systems

Informal role of
marketing
control

485

Paola Andrea Ortiz-Rendon
Institución Universitaria Colegio Mayor de Antioquia, Medellín, Colombia

Jose Luis Munuera-Aleman
*Departamento de Comercialización e Investigación de Mercados,
Universidad de Murcia, Murcia, Spain, and*

Luz Alexandra Montoya Restrepo
Universidad Nacional de Colombia, Medellín, Colombia

Received 2 December 2022
Revised 23 March 2023
22 May 2023
16 June 2023
26 July 2023
9 August 2023
25 August 2023
Accepted 11 September 2023

Abstract

Purpose – The implementation of control systems allows marketing managers to improve operational decisions and organizational results. This paper aims to identify the relationship between control combinations and organizational results and analyze the relationships between the variables attributed to the marketing managers and with marketing control combinations. Decisions involving marketing control combine formal and informal mechanisms and generate control systems that have a favorable relationship with organizational results.

Design/methodology/approach – The paper is based on 301 cross-sectional surveys among marketing managers. The classification procedure based on metric distance was implemented to identify the marketing control combinations. A hierarchical cluster analysis was carried out with perceptions about formal and informal control, to validate the control combination classifications. Finally, a discriminant analysis and ANOVA test were carried out for exploring factors associated with the managers. The data analysis was supported by IBM SPSS Statistics 24 software.

Findings – The authors found evidence that, when managers perceive high-control systems, the perception of non-financial and financial results is always better, but the presence of high-clan control also returns optimal results. In addition, the manager's satisfaction levels and work motivation are higher with high control systems than with other control systems.

Originality/value – This study contributes to the existing knowledge by providing a broader empirical basis to extend conceptual frameworks about marketing control combinations that emerge in practice.

Keywords Marketing control combinations, Organizational results, Professional control, Capability control

Paper type Research paper

1. Introduction

Because marketing productivity increases when managers use appropriate control systems and metrics, control is a fundamental activity in the marketing-related decision-making process that allows for the timely evaluation of the goals' scope (Verhoef and Leeflang, 2009). To design marketing control systems, organizations must establish the metrics that best measure the objectives of their marketing plan (Morgan *et al.*, 2021) and managers need skills to make short-term and long-term diagnoses (Edeling and Fischer, 2016). Traditionally,

© Paola Andrea Ortiz-Rendon, Jose Luis Munuera-Aleman and Luz Alexandra Montoya Restrepo. Published in *European Journal of Management and Business Economics*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licences/by/4.0/legalcode>

Since acceptance of this article, the following author(s) have updated their affiliation(s): Paola Andrea Ortiz-Rendon is at the Universidad Nacional de Colombia, Medellín, Colombia.



European Journal of Management
and Business Economics
Vol. 34 No. 4, 2025
pp. 485-505
Emerald Publishing Limited
e-ISSN: 2444-8494
p-ISSN: 2444-8451
DOI 10.1108/EJMBE-12-2022-0363

control has been analyzed in isolation, indicating the existence of a formal and informal typology (Malek *et al.*, 2018). Formal control is related to a professional's assessment of skills, capabilities and results, the aim being to avoid dysfunctional behavior (Jaworski and MacInnis, 1989), while informal control is related to professional and cultural aspects to foster teamwork and influence the scope of results.

To examine the relationships that may emerge among marketing control mechanisms that result from combining or substituting different control types (Conde *et al.*, 2021; Malek *et al.*, 2018; Moorman and Day, 2016) is still a latent need. Based on earlier studies, it has been estimated that, when it comes to marketing control decisions, combining formal and informal typologies can result in high, bureaucratic, clan and low levels of control (Cravens *et al.*, 2004). By contrast, another exploratory study identified five control categories, some of them related to pure control, such as informal control, others related to mechanisms such as result and activity control or associated with combinations of formal and informal typologies (Bedford and Malmi, 2015). Recent research, on the other hand, focuses more on the interactions of typologies of control to demonstrate how formal and informal control coexist at a practical level (Liang and Frösén, 2019; Zang *et al.*, 2020). These distinctions suggest that organizations need to recognize the variety of nuances resulting from the control combinations that emerge in decision-making, to align the efforts of their work teams and the empirically extracted configurations provide broader descriptions of how forms of control tend to combine and identify alternative control patterns not captured or explained by existing structures (Bedford and Malmi, 2015). Above all, compared to formal control, informal control is almost always led by employees and it is influenced more by external and cultural factors than by management (Krafft, 1999), which leads to the presence of different levels joined to formal mechanisms and the need to understand their main determinants.

To assess the productivity of the marketing process, it is also essential to analyze the relationships between marketing decisions and organizational results (Edeling and Fischer, 2016; Katsikeas *et al.*, 2016). From a marketing manager's perspective, Jaworski *et al.* (1993) determined that the size of organizations, the interdependence among work groups, the level of routine in their tasks and the evaluation of their activities all help predict the four alternatives of control combinations, although they found insufficient evidence to conclude that control combinations affect people's performance. By contrast, Cravens *et al.* (2004) indicate that, with a high-level control system, people tend to perform better. Furthermore, the implementation of bureaucratic control emerges as the most important factor, while in Jaworski *et al.* (1993), that is high level control, followed by clan control. As such, there appear to be differences between the control systems implemented by the marketing department compared to other areas of the organization. The studies have different results, making it necessary to continue exploring this topic. Additionally, the influence of marketing control decisions on organizational performance has been examined more than any other type from the perspective of employee performance, rather than other control aspects, like employee capabilities and skills and work environment, which also means that we have a limited understanding of the effect of other control types on business performance as capability and professional control.

There is limited empirical evidence involving the relationship that certain characteristics of marketing managers have regarding control decisions, despite the importance of evaluating how the presence, level of training, motivation and experience of a manager affect a company's performance (Moorman and Day, 2016). Our study contributes to existing knowledge by providing a broader empirical basis to extend conceptual frameworks about marketing control combinations that emerge in practice. In addition, it provides insight into the intensity levels of control combinations that improve marketing performance by exploring their relationship to non-financial results.

This paper looks at the relationship between perceptions of control combinations and non-financial and financial results. From the perspective of managers combining capability and professional control and based on the outline presented above, we also analyze the relationships among the variables attributed to marketing managers, including their marketing experience, work satisfaction and motivation about marketing control combinations.

To that end, the first section contains the theoretical framework and hypotheses to provide a theoretical basis. Next, the methodology of the metric distance procedure adapted from [Jaworski et al. \(1993\)](#) is used to classify previous and new control combinations, and the analysis of variance is implemented to explain the relationships among the variables. The third section highlights the coexistence of diverse control configurations and the role informal control plays in marketing control systems to influence non-financial and financial results. The paper closes with a discussion and the conclusions of the study.

2. Literature review

The way marketing decisions add value to organizations continues to be a matter of interest in academia and business alike. Proper planning of business decisions includes the implementation of control mechanisms to align the activities of professionals and increase productivity. Marketing control constitutes the axis by which management influences employees to achieve the expected results ([Jaworski et al., 1993](#)). Administrative, psychological and organizational theories support the relevance of formal and informal controls ([Flamholtz et al., 1985](#); [Henri, 2006](#)). Formal controls are written down and designed to ensure that people's behavior is aligned with organizational objectives ([Malek et al., 2018](#)), while informal controls focus on the personal criteria of marketers, the way their achievements are monitored and the adjustments they make to their behavior ([Jaworski, 1988](#)). Both formal and informal forms of control include various typologies. Formal control includes input, process (activity and capability) and results ([Challagalla and Shervani, 1997](#); [Jaworski, 1988](#)). Informal control includes self-control, professional – social – clan and cultural control ([Abernethy and Stoelwinder, 1995](#); [Malmi and Brown, 2008](#)). Controls are not used separately, but function as a system that involves different levels of formal and informal control ([Malek et al., 2018](#)), even the presence of informal control could be considered an environmental factor ([Merchant, 1988](#)). [Jaworski et al. \(1993\)](#) verified that, although formal controls are necessary, informal control mechanisms must be used simultaneously to ensure the cohesion of working groups. In line with that, it has been argued that organizations also need to implement informal controls to address people's dysfunctional behavior ([Schwepker and Good, 2004](#); [Ramaswami, 1996](#)), which refers to the intention of professionals to follow a control system that rewards them in the short-term and that neglects the impact of the company's long-term results. Moreover, people can selectively present information or false information, to smooth things over and appear to be more consistent over time ([Jaworski and MacInnis, 1989](#)), which affects the outcome of their performance in a way that benefits their personal objectives rather than those of the organization. Based on existing publications, the indicated control combinations are high, bureaucratic, clan and low ([Jaworski et al., 1993](#); [Cravens et al., 2004](#)).

High levels of control are associated with work teams whose first responsibility is to comply with organizational results and requires a work environment where group work predominates, framed by the organization's standards and values (high formal and informal control) (see [Figure 1](#)). Bureaucratic control is dominated by management and focuses on results, undermining the achievement of long-term objectives. For this reason, this control system inserts low levels of informal control to maintain a minimum criterion for evaluating the professionals' behavior (high formal, low informal). Clan control is associated with groups

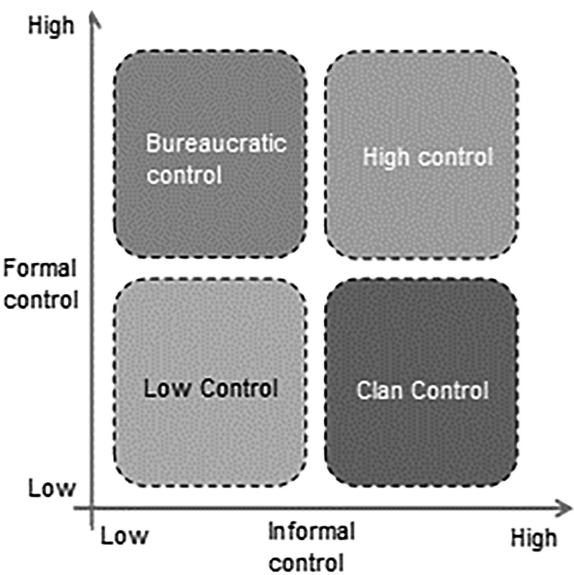


Figure 1.
Control combinations

Source(s): Jaworski *et al.* (1993)

of professionals who are familiar with the productivity of others and have significant levels of cooperation and commitment. These teams are responsible for the most demanding innovation processes, so the evaluation of results passes to a secondary level (low formal control, high informal control). Finally, low control is a potentially transitory system. As such, it is not seen as an alternative that adds value to a company.

From this conceptual perspective and following [Jaworski *et al.* \(1993\)](#), high control is associated with lower levels of ambiguity in the marketing manager's role. Compared to high control, bureaucratic control has been associated with higher levels of conflict between management and marketing professionals. In turn, the clan control system is characterized by lower levels of conflict between management and marketing professionals, similar to those found in high control. Finally, low control is associated with the poorest levels of job satisfaction and the highest levels of ambiguity in the marketing manager's role.

3. Hypothesis and conceptual model

It is assumed that certain factors associated with the manager in question affect and precede their decisions involving formal and informal control balance, as a fundamental part of their managerial activities. For example, their levels of job satisfaction and motivation to stay in the position affect the use of control systems that integrate more variables to monitor and achieve results. Satisfaction is defined as the degree to which expectations concerning salary, work environment, recognition, autonomy and communication are met ([Sánchez *et al.*, 2007](#)).

In turn, motivation is a factor that determines work performance and human productivity, since it brings together a set of forces that shape employee behavior to determine their direction, intensity and permanence at work ([Pinder, 2008](#), p. 11). According to these factors, it is expected that higher levels of manager satisfaction and motivation foster a conducive work environment and thus achieve the desired results, all of which suggest implementing informal control. Similarly, satisfied and motivated marketing managers will ensure that

marketing management is connected to organizational results and add greater value to their decisions, generating higher levels of recognition. This involves the use of capability control as a way to improve the skills perceived by professionals and strengthen the relationship with managers, and it is expected that the levels of motivation and focus on the task will increase by fostering a favorable organizational climate where professionals enjoy greater autonomy (Bergestuen *et al.*, 2022), identify with their professional group, are committed to developing and maintaining the value of their profession and are supported by other professionals, which fosters professional control (Evans *et al.*, 2007; Thompson *et al.*, 2022). Maintaining a balance between capability and professional control, leading to a high-level category control, will allow the manager to eliminate the incompatibilities created among marketers concerning the expected goals. As such, the following hypotheses can be proposed:

- H1. The marketing managers' high level of job satisfaction is related to more high control than any other marketing control combination.
- H2. The marketing managers' high level of work motivation is related to more high control than any other marketing control combination.

The marketing managers' experience can be explained by their current role and the accumulation of their practices. Their existing role is related to the years in their current, job which provides social resources like knowledge and contact with professionals who they currently manage and control (Homburg *et al.*, 2014). In addition, their experience is focused on action, routine and operational skills. The accumulated marketing and management practice is related to the total years of experience, defined as the level of work practice in marketing-management-related tasks (Homburg *et al.*, 2014). It is expected that the manager accumulates knowledge from different roles that allows him to interpret and differentiate the most relevant information in the decision-making process. In general, having years of experience increases the probability of being trained to make effective decisions that lead to better organizational results (Matemilola *et al.*, 2018). As such, it is expected that the more knowledge and expertise the marketing manager has acquired through training, leads to the permanent focus of the work team on identifying capability gaps, making it possible to adapt to the changing environment (e.g. consumers and competitors), as well as fostering a culture where marketing professionals recognize the importance of self-reinforcing their experience (Bande *et al.*, 2021; Malek *et al.*, 2018). As such, the more likely it is that the control systems being implemented integrate more formal and informal mechanisms in the management of work teams, allowing them to achieve the goals and at the same time expanding their expertise, leading to the following hypotheses:

- H3. More years of experience of the marketing manager in the current role is related to higher control than any other marketing control combination.
- H4. More years of experience of the marketing manager in marketing is related to higher control than any other marketing control combination.

To design marketing control systems, organizations must establish the metrics that best measure the marketing plan's objectives (Morgan *et al.*, 2021). By linking control mechanisms to non-financial metrics, managers will have a greater ability to make short-term and long-term diagnoses, and thus analyze cause and effect relationships that support better decision-making (Edeling and Fischer, 2016). From another perspective, market metrics are process-oriented and collect results from the organization's external environment. These metrics are more difficult to calculate since they are not derived from financial data, which means that marketing management must evaluate them more frequently, and implementing formal control mechanisms allows management to reach the desired non-financial results more easily. On the other hand, it has been shown that commercial teams who feel part of the

organization (which is related to informal cultural control) tend to achieve high levels of market orientation and general performance (Wieseke *et al.*, 2012). In addition, organizations with a high level of flexibility promote relationships between their employees and offer a greater flow of information in the organization (Malek *et al.*, 2021). This leads to using informal controls and integrating organizational performance indicators into their control systems. As such, it is to be expected that informal control mechanisms will have a positive influence on the organization's financial results. Therefore, knowing that the high control system corresponds to a combination of high levels of formal and informal control, it can be deduced that high control systems promote the achievement of organizational goals, so the following hypothesis is proposed:

H5. High control systems lead to better organizational results than any other marketing control combination.

Figure 2 shows the conceptual model supported by the theoretical framework.

4. Methodology

4.1 Sample and data collection

We used an online cross-sectional survey among 2,935 companies operating in Colombia. Our data come from marketing and budget decision-makers from SBUs in various economic sectors at the end of 2019. To ensure the validity of the content of the questionnaire, eight expert academic marketing and strategy researchers evaluated the instrument in terms of the supporting conceptual model to validate it from a theoretical and scientific perspective. Then, pilot tests were carried out among 20 marketing managers of companies from various economic sectors and of different sizes. These tests allowed us to validate the understanding of the questionnaire. The questionnaire was improved each time it was applied to a marketing manager, until the final version was obtained where there were No suggestions for changes. As a result of this sequential procedure, it was necessary to adjust questions that contained words perceived as ambiguous. The questionnaire was applied in person to test the duration, understanding and relevance of the questions according to the study's objective and led to adjustments to improve our understanding of the scale.

Potential participants were contacted via e-mail. Once they agreed to answer the questionnaire, a link was sent to the questionnaire. In addition, respondents were asked to fill in the questionnaire evaluating only the SBU they managed. It was explained that this SBU corresponds to a category of products or services with its own independent budget and clients, consumers and competitors. After following up with managers who expressed their interest in responding and sending out three rounds of reminder e-mails, 301 questionnaires were completed.

The non-response bias test (Armstrong and Overton, 1977) was used to compare early and late responses, and did not show any significant differences between the two groups (150/151)

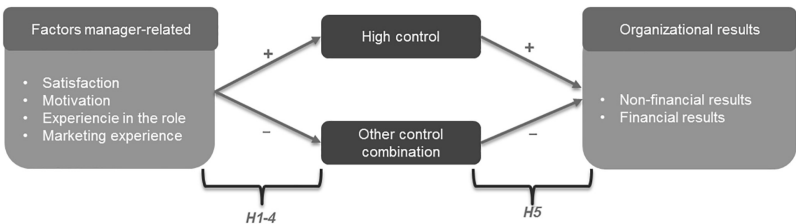


Figure 2.
Conceptual model

Source(s): Figure by authors

of formal control (p -value = 0.4), informal control (p -value = 0.53), non-financial results (p -values > 0.06), financial results (p -value = 0.29), which suggests that the non-response bias had no influence on the results.

According to the American Industry Classification System (NAICS), the following sectors stand out in the sample: manufacturing (36%), wholesale trade (10.6%), professional, scientific and technical services (9.6%), construction (8.3%) and health care and social assistance (6.6%). 43.8% of the business units have been in the market for more than 18 years, and that, in general, more than 70% of the business units have existed longer than seven years, which means that, within the business units in the sample, there is an appropriate balance when it comes to analyzing marketing decisions. With regard to the level of training of the participants, about 90% are professionals and 60% even have graduate degrees. On the other hand, more than 70% are marketing professionals with more than 6 years' experience.

4.2 Measurement of variables

- *Control mechanisms*

Perceptions of formal control mechanisms were measured by adapting the scale proposed by Miao and Evans (2014), particularly with a focus on assessing the capabilities of marketing professionals. Under this control typology, marketers are under less pressure to focus on immediate results, and encouraged to adopt a long-term problem-solving approach and focus on marketing objectives (Guenzi et al., 2014) by identifying needs of skills to improve the attitude and organizational performance. Table S1 shows that Cronbach's alpha was 0.86 and the four items were evaluated on the Likert scale from *Totally disagree* (1) to *Totally agree* (7). Perceptions of the informal control construct were adapted based on the scale proposed by Jaworski et al. (1993), particularly the professional control, because that is the one with the greatest influence from management, given that a certain level of professionalism of the work team is determined by the requirements of the profiles, as well as being designed to improve the capabilities achieved through work experience and training. This indicator is recognized for its significant influence in studies involving organizational control (Malek et al., 2018). The six items present a Cronbach's alpha of 0.92 and were assessed on the scale from *Totally disagree* (1) to *Totally agree* (7).

- *Antecedent's variables*

The variables regarding the total years of experience in marketing, the years active in the current marketing job were quantitative variables expressed with a decimal number, while both the manager's general satisfaction at their current job and motivation to stay in that position in the next year were rated on a scale from very dissatisfied/unmotivated (1) to very satisfied/motivated (7).

- *Non-financial results*

Marketing indicators most frequently used by marketing managers to measure performance were selected (Ambler et al., 2004; Sampaio et al., 2011). Subsequently, perceptions of non-financial metrics with significant impact on organizational value results were analyzed (Edeling and Fischer, 2016; Katsikeas et al., 2016). Table S2 shows that customer loyalty (two items) and brand equity (two items) were chosen as market asset metrics. In relation to the marketing programs metrics, the following items were selected: the competitor's relative price (two items), product quality (two items), the conversion rate of digital marketing (two items), and market coverage (four items). Cronbach's Alpha for each non-financial result were 0.85,

0.89, 0.88, 0.86, 0.88 and 0.86, respectively. The items were rated on the Likert scale from very low (1) to very high (7).

- *Financial results*

The proposed metrics for the perceptions of financial results construct also include indicators associated with the measurement of organizational value, including return on assets, EBITDA and the organization's general performance (Morgan *et al.*, 2021). Return on assets was also included as a variable to measure performance (O'Sullivan and Abela, 2007). Table S3 shows that the following metrics were selected: metrics related to the profitability level (2), cash flow (1) and the perception of the overall performance achieved by the company (2). Cronbach's Alpha was 0.91. The items were evaluated on a scale from very low (1) to very high (7).

All the items in the questionnaire have a factor load greater than 0.7, which means they have a high influence on each construct and guarantee the psychometric properties of the scales. In addition, for each construct, the average variance extracted (AVE) is higher than the recommended minimum level of 0.5 (Hair *et al.*, 2014, p. 100), and each item's communalities are higher than 0.5. These statistics indicate an optimal consistency and validity of the scales used in this study. To evaluate the previously specified measurement model, a confirmatory factor analysis (CFA) is carried out with the support of SmartPLS 4. The Fornell and Larcker test (1981) indicates that there is discriminant validity because the AVE for each construct is greater than the square of the existing correlation between each pair of constructs (Table 1). The unidimensionality of the scale was verified given that the SRMR = 0.045 (<0.06) and the NFI = 0.91 (>0.9) (Table 2).

5. Results

To identify the marketing control combinations, the classification procedure based on metric distance implemented by Jaworski *et al.* (1993) was adapted. Since the control measurement scales for our study are seven-point Likert scales, the vectors for each pure control combination were adjusted, meaning that the pure high control vector is composed of values of 7 for the formal and informal typologies, the clan control has 1 for the formal typology and 7 for the informal; the bureaucratic control has 7 for the formal typology and 1 for the informal typology, and the low control has 1 for the formal and informal typologies. This classification reported 202 business units with a high control, 41 with a clan control, 32 without classification, 19 with a low control and seven with a bureaucratic control. This classification order coincides with the one presented by Jaworski *et al.* (1993), which was applied to marketing managers. The same procedure was applied by Cravens *et al.* (2004) to validate the four control combinations in managing sales forces.

Under this procedure the ties between pairs of control combinations remain uncategorized. In addition, a control combination is classified with the minimum distance criterion, even though the value of this distance is very small. Taking these considerations into account, the distances for each case were reviewed individually (301), while the relative percentage of the distance was calculated for each control combination. When performing this calculation, the percentages and the lowest distances were reviewed. We analyzed whether, for the same SBU, there is another close percentage with a difference of No more than 5%. The ties were also grouped according to the lowest distances. To illustrate the procedure, Table S4 shows an example where a marketing manager rated each formal and informal control item. This value was subtracted from the pure control vectors and four distances were obtained; one for each control combination. As a result, the shortest distance equals 22 and is very close to the distance 26, with a difference of only 3% (<5%) when

Table 1.
Discriminant validity

	1	2	3	4	5	6	7	8	9	10	11	12
1. Formal-control	0.78											
2. Informal-control	0.66**	0.82										
3. Market-coverage	0.23**	0.21**	0.78									
4. Brand-equity	0.22**	0.16**	0.50**	0.89								
5. Relative-price	0.15*	0.04	0.40**	0.36**	0.89							
6. Digital-marketing	0.19**	0.10	0.22**	0.30**	0.16*	0.88						
7. Product-quality	0.23**	0.27**	0.24**	0.32**	0.23**	0.29**	0.87					
8. Customer-loyalty	0.23**	0.19**	0.40**	0.35**	0.32**	0.33**	0.36**	0.86				
9. Finance	0.28**	0.30**	0.45**	0.25**	0.27**	0.30**	0.27**	0.39**	0.81			
10. Experience-role	−0.07	−0.08	0.03	0.02	0.05	−0.10	0.00	0.04	−0.01	0.37**		
11. Experience-marketing	0.09	0.02	0.04	0.01	−0.01	−0.16	−0.04	−0.02	−0.05	0.08	0.19**	
12. Satisfaction	0.37**	0.32**	0.13*	0.10	0.03	0.10	0.19**	0.14*	0.24**	0.08	0.14*	0.68**
13. Motivation	0.35**	0.29**	0.21**	0.08	0.03	0.15*	0.15**	0.19**	0.28**	0.08		
Note(s): **Significant: level 0.01 (bilateral)												
*Significant: level 0.05 (bilateral)												
AVE in diagonal												
Source(s): Table by authors												

Table 2.
Model fit indices

comparing the percentage of the total distance. This case is classified in the high-bureaucratic category.

The rankings based on the groupings discussed above are shown in Figure 3. High control continues to be in first position. However, the second combination integrates some cases of high control and clan control into a single category. From the initial ranking, this new category takes 23 combinations of high control, 23 of clan control and 20 unranked. It should be noted that bureaucratic control loses ground as an independent category (3 cases) and merges with other types of control, such as high control (6 cases) and low control (5 cases).

To validate the new control combination classifications, a hierarchical cluster analysis was carried out with the formal and informal control results using the Ward's Grouping method (Hair *et al.*, 2014), and from the agglomeration coefficients, significant increases were identified in conglomerates two to three (53%). With these findings, the non-hierarchical cluster analysis was conducted for two and three conglomerates. The data distribution for two conglomerates is not heterogeneous for cluster 1, since the same number of high-clan control cases and unclassified cases are grouped. The data distribution for three conglomerates turns out to be more heterogeneous in nature. For cluster 1, 73% (82) of the

	Estimated-model
SRMR	0.05
d_ULS	0.86
d_G	0.91
Chi-squared	1251.41
NFI	0.91

Source(s): Table by authors

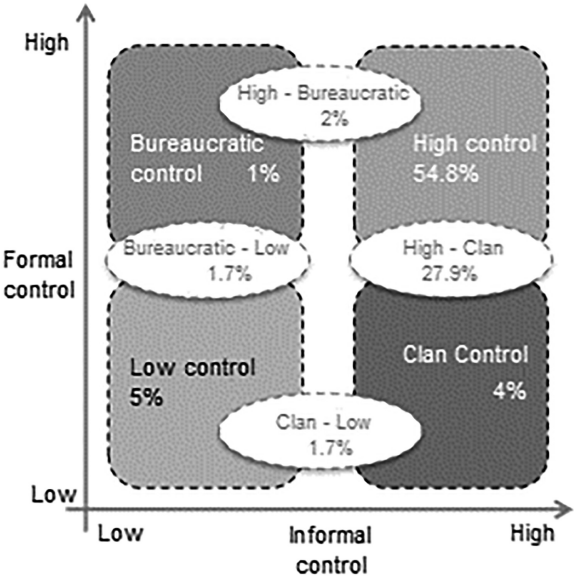


Figure 3.
New control
combinations

Source(s): Figure by authors

cases correspond to high-clan control, for cluster 2, 97% (165) to high control, and for cluster 3, 100% (19) correspond to No classification.

From clan control, the sample sizes are statistically small and are assigned to the unclassified category, the concentration in the control combinations in Figure 3 can be confirmed. As shown in Table 3, for these three clusters, there is a significant difference in the formal control average (F -value = 535.78), and the informal control (F -value = 289.24) according to the Sheffe's test (P -value < 0.05). Given that cluster 3 has a very small sample size ($n = 19$), high-clan control and high control will be used to validate the hypothesis.

The data analysis was carried out with the IBM SPSS Statistics 24 software. For this, the following were used: both, the control combinations, based on Jaworski *et al.* (1993) (model 1) metric distance procedure, and the combinations obtained when making adjustments in the distance classification and ties (model 2). Table 1 presents the correlations among variables. This highlights the fact that the experience in the role has No significant correlation with the other variables and that the experience in marketing only has a significant and positive correlation with experience in the role. Similarly, neither the relative price nor the digital marketing metric shows a significant correlation with informal control.

To explore the relationship between satisfaction, motivation, experience in marketing and the role on the control combinations, a discriminant analysis and ANOVA test were carried out. As shown in Table 4, in model 1, the manager's satisfaction and motivation are higher for high control compared to low control and clan control, as well as in the new combined control classification. Therefore, it can be confirmed that hypotheses 1 and 2 are not rejected. Since experience in the role does not lead to differences in the control systems, there is not enough evidence not to reject hypothesis 3. Furthermore, in model 1, the manager's experience in marketing has No relationship on control systems. However, in Model 2, there is a significant difference between the high control and the high-clan control. It is evident that the number of years of experience is related to the implementation of more high control than with any other marketing control combination, which means that hypothesis 4 is not rejected. Thus, the results of the discriminant analysis and Sheffe's test support the finding of differences between independent variables and control combinations.

To determine the relationship between the control combinations and non-financial and financial results, an ANOVA was performed. Table 5 shows that, in Jaworski's model, there are significant differences only in product quality and financial results. However, in the distance adjustment model, there are significant differences in all organizational results. Regarding the relative price result, this difference is only significant for a p -value < 0.1. In addition, for high control, all organizational results tend to be greater, so hypothesis 5 is not rejected. It can also be noted that the best valued results are product quality, brand equity and customer loyalty, respectively (which correspond to market assets). The lowest valuation corresponded to digital marketing results.

	Cluster 1: High-clan	Cluster 2: High Average (SD)	Cluster 3: No classification	F -value	Sheffe's test ($p < 0,05$)
Formal-control	3.93 (0.80)	6.23 (0.63)	2.09 (0.85)	535.78	High > High-Clan > No classification
Informal-control	5.33 (0.95)	6.42 (0.58)	2.12 (1.08)	289.24	High > High-Clan > No classification

Source(s): Table by authors

Table 3.
Difference between
formal and informal
control for each cluster

Table 4.
Discriminant analysis

Mean (SD) Independent- variables	Model 1: Metric distance classification					Model 2: Metric distance classification with tie adjustment Mean (SD)					
	High	Clan	Low	Discriminant load- function I	F-value	Sheffe's test (<i>p</i> < 0.05)	High	High- clan	Discriminant load- function I	F-value	Differences
Experience-role	3.90 (4.23)	4.78 (5.10)	5.16 (6.86)	-0.38	1.13	None	4.06 (4.50)	4.05 (4.41)	-0.17	0.00	None
Marketing- experience	11.23 (7.07)	10.36 (6.59)	8.58 (6.57)	0.24	1.40	None	11.47 (6.86)	9.73 (7.03)	0.28	3.94	High ≠ High-Clan
Satisfaction	6.28 (0.87)	5.34 (1.53)	5.26 (1.69)	0.48	18.84	High ≠ Low and Clan	6.37 (0.83)	5.73 (1.18)	0.41	24.78	High ≠ High-Clan
Motivation	6.25 (1.13)	5.09 (1.85)	4.84 (2.14)	0.57	19.41	High ≠ Low and Clan	6.39 (0.99)	5.49 (1.47)	0.65	30.70	High ≠ High-Clan
Multivariate-summary						Canonical- correlation	Wilk's lambda	Chi- squared	Multivariate-summary		
Chi- squared									variance	% variance	Canonical-correlation
Function-1	0.82 **		50.77 **	98.0	0.42	Function 1	0.88 **	30.21 **	100.0		0.37
Function-2	0.99		1.14	2.0	0.07						
Source(s): Table by authors											

Mean (SD) Results	Model-1: Metric distance classification					Model-2: Metric distance classification with tie adjustment					
	High	Clan	Low	F-value	P-value	Sheffe's test ($p < 0.05$)	Mean (SD)			F-value	P-value
							High	High-clan	High		
Market-coverage	4.94 (1.15)	4.43 (1.20)	4.32 (0.77)	3.95	0.02	No	5.04 (1.13)	4.36 (1.15)	8.28	0.00	
Brand-equity	5.41 (1.21)	5.06 (1.54)	4.88 (1.62)	2.14	0.12	No	5.53 (1.16)	4.85 (1.38)	15.11	0.00	
Relative-price	4.58 (1.11)	4.25 (1.22)	4.47 (0.98)	2.22	0.11	No	4.71 (1.06)	4.43 (1.14)	3.51	0.06	
Digital-marketing	4.33 (1.57)	3.76 (1.71)	4.07 (1.14)	1.85	0.16	No	4.46 (1.54)	3.79 (1.55)	7.78	0.00	
Product-quality	5.52 (1.11)	5.14 (1.10)	4.72 (0.98)	5.60	0.00	High $\neq$ Low	5.63 (1.04)	5.17 (1.13)	9.44	0.00	
Customer-loyalty	5.05 (1.15)	4.92 (1.23)	4.47 (0.69)	2.08	0.13	No	5.15 (1.13)	4.70 (1.24)	8.05	0.00	
Financial	4.99 (1.04)	4.43 (1.22)	3.92 (0.82)	12.53	0.00	High $\neq$ Low and clan	5.05 (1.05)	4.65 (1.04)	8.52	0.00	
Source(s): Table by authors											

Table 5.
Relationship between
control combinations
and organizational
results

6. Discussion and conclusions

On the basis of these findings, it can be concluded that, by combining the control mechanisms performed in this research, new control configurations emerge. One of them is called high-clan, which as yet has not been explained in existing literature, although it is to some extent supported when the scope of each typology is presented separately (Cravens *et al.*, 2004). High and clan control lead to better non-financial outcomes (Jaworski *et al.*, 1993), suggesting that marketing departments play an important role in organizational innovation processes, having to translate the ever-changing needs of customers into new products, services or business models (Verhoef and Leeflang, 2009). Similarly, the marketing department has been associated with the high level of creativity required to design programs that differ significantly from traditional marketing practices (Verhoef and Leeflang, 2009). These characteristics require organizational conditions in which professionals enjoy greater autonomy, identify with their professional group, are committed to developing and maintaining the value of their profession and are supported by other professionals, resulting in recognized levels of informal control. As such, it is likely that ensuring the presence of a high level of informal control is necessary in functional areas that are provided with changing information about an organization's internal and external environment, which are usually not characterized by achieving only short-term results, but tend to promote a culture of autonomous work environments and self-employment regulations, and have a clear impact on a company's long-term results.

The influence of the marketing managers' satisfaction and motivation levels on the marketing control systems is consistent with Wieseke *et al.* (2012). Marketing leaders have the ability to stimulate organizational connections between employees and the organization through charismatic interactions, and can create a work environment that fosters a commitment to objectives. This can be achieved if the marketing managers are committed and motivated. Regarding the marketing managers' experience, previous studies show that experience in their role is negatively related to the use of financial metrics and is not related to the use of non-financial metrics (Mintz and Currim, 2013), which also confirms that there is a weak relationship between the experience in a managerial role and the implementation of control mechanisms. It has been shown that marketing experience increases a manager's education levels (Moorman and Day, 2016) and with it the ability to control marketing resources. Marketing experience improve the ability to make decisions involving control systems because experienced managers tend to focus on identifying the skills and abilities professionals need to face the challenges of the market and avoid dysfunctional behavior altering information from customers and competitors. It has also been shown that decisions concerning resource allocation in such a critical area as advertising are not always resolved with the managers' earlier experience (Hutchinson *et al.*, 2010). On the other hand, Jaworski's model highlights that the weakest averages of the variables are generally attributed to low control, which is consistent with Cravens *et al.* (2004), who suggest that low control is not a strategic decision and has a greater probability of temporarily occurring in companies when there are changes in the structure and, in general, in managerial roles.

When identifying the perceptions of the relationship between control systems and organizational results, several aspects can be highlighted. In Jaworski's model, there are significant differences between two types of organizational results, where the high control system has the best evaluation levels: the effects on product quality and financial results. However, the differences and ties adjustment model show that, for all the results, there are significant differences between the high control and the high-clan control systems. These results to some extent contradict those presented by Jaworski *et al.* (1993), since, in this study, the effective and efficient completion of a manager's tasks is not associated with high levels of organizational performance.

These findings extend existing knowledge by justifying the inclusion of a greater presence of informal control in marketing control systems in order to achieve the desired results, and by indicating that the existence of formal and informal marketing control does not result from the purely combinatorial choices that have been traditionally studied, but that a wider range of combinations should be considered when, for example, informal control emerges in different intensities from control that does not depend directly on management decisions, but rather on the conditions of the organizational culture and the experience of the professional teams. These mechanisms are associated with the promotion of flexible values, as well as with open communication channels and a spontaneous flow of information (Henri, 2006), which is fundamental in any company's activities. Furthermore, analyzing the variables related to control systems, either as antecedents or as response variables, allows for a better understanding of control decisions and strengthens the theory involving the appropriate levels of control that facilitate marketing productivity. On the other hand, as occurred in the two proposed models, and as suggested by Malmi and Brown (2008) and Moorman and Day (2016), some control systems can be substituted (such as bureaucratic control and the clan) and other systems can be complemented, as has happened with the high-clan control. Consequently, it is found that pure behavior cannot be assumed in marketing control decisions. Instead, the analysis of control typology combinations with different levels of intensity should be considered. These give rise to other unexplored systems and a greater extent explains the business reality in terms of marketing decisions and their value within the organization under examination.

7. Management implications

Each organization needs to analyze the configuration of control combinations and their particularities to achieve the desired objectives, while marketing managers need to consider the coexistence of capability and professional control. There are several reasons to include informal controls in marketing control systems. Firstly, although the configuration of control systems may follow organizational guidelines, marketing departments have a high degree of responsibility for innovative and non-standardized processes, which in turn improve the organization's results. Second, marketing professionals perform tasks that require constant creativity and innovation, so it is necessary to cultivate autonomy and self-regulation through professional control. Finally, organizations need to encourage their employees to work together by socializing corporate values in events or rituals, which implies the appropriate use of informal control mechanisms.

Marketing managers also play an important role in control decisions, which means that companies need to ensure higher levels of satisfaction and motivation of managers are higher, to ensure adequate control resources management. This implies the configuration of a control system that adjusts to the interrelationship dynamics of marketing professionals, as well as to the expected objectives and organizational culture. Furthermore, if organizations have a better understanding of the most effective control combinations and determine the relationship to internal variables like organizational values and external variables like manager experience, they can save time and money in managing marketing budgets. Consequently, productivity levels will increase and greater value will be placed on control decisions in organizations.

8. Limitations and future research

Internal factors, such as the decision to hire highly results-oriented marketing professionals, can also affect the intensity of formal and informal controls. It may also be associated with a strategy in which professionals need to demonstrate high levels of independence and promote the generation of new market opportunities. As such, the level of professional orientation can

be included as a variable in future empirical studies on control systems, along with the control systems implemented in organizations can fluctuate and change over time. Furthermore, it is interesting to analyze how the intensity of the formal and informal controls implemented at different times changes, as well as identify the internal and external variables that influence these changes. These variables can be associated with the stages of product life cycles, where different levels of economic investment are required and control decisions are made to achieve the objectives at each stage. Since the determination of the types of control was carried out using the metric distance methodology, future research could design a measurement scale where each combination of control is a construct. Finally, during the COVID-19 pandemic, remote working and customer relationships mediated by technology have increased, which means that control systems have to incorporate new external variables associated with changes in *ex ante* and *ex post* information flows to support control decisions.

References

- Abernethy, M.A. and Stoelwinder, J.U. (1995), "The role of professional control in the management of complex organizations", *Accounting, Organizations and Society*, Vol. 20 No. 1, pp. 1-17.
- Ambler, T., Kokkinaki, F. and Puntoni, S. (2004), "Assessing marketing performance: reasons for metrics selection", *Journal of Marketing Management*, Vol. 20 Nos 3-4, pp. 475-498.
- Armstrong, J.S. and Overton, T.S. (1977), "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, 396.
- Bande, B., Kimura, T., Fernández-Ferrín, P. and Jaramillo, F. (2021), "Capability management control and salesperson turnover: a double-edged sword in a product complexity scenario", *Industrial Marketing Management*, Vol. 96, pp. 100-112.
- Bedford, D.S. and Malmi, T. (2015), "Configurations of control: an exploratory analysis", *Management Accounting Research*, Vol. 27, pp. 2-26.
- Bergestuen, T., Thompson, K.N. and Strutton, D. (2022), "Dual distribution systems: investigating their effects on independent manufacturers' representatives' perceptions of manufacturers", *Journal of Personal Selling and Sales Management*, Vol. 42 No. 1, pp. 68-82.
- Challagalla, G.N. and Shervani, T.A. (1997), "A measurement model of the dimensions and types of output and behavior control: an empirical test in a salesforce context", *Journal of Business Research*, Vol. 39 No. 3, pp. 159-172.
- Conde, R., Prybutok, V. and Thompson, K. (2021), "A new perspective on sales outcome controls: an inside sales perspective", *European Journal of Marketing*, Vol. 55 No. 10, pp. 2674-2699.
- Cravens, D.W., Lassar, F.G., Low, G.S., Marshall, G.W. and Moncrief, W.C. (2004), "Formal and informal management control combinations in sales organizations. The impact on salesperson consequences", *Journal of Business Research*, Vol. 57 No. 3, pp. 241-248.
- Edeling, A. and Fischer, M. (2016), "Marketing's impact on firm value: generalizations from a meta-analysis", *Journal of Marketing Research*, Vol. 53 No. 4, pp. 515-534.
- Evans, K.R., Landry, T.D., Li, P.-C. and Zou, S. (2007), "How sales controls affect job-related outcomes: the role of organizational sales-related psychological climate perceptions", *Journal of the Academy of Marketing Science*, Vol. 35 No. 3, pp. 445-459.
- Flamholtz, E., Das, T.K. and Tsui, A. (1985), "Toward an integrative framework of organizational control", *Accounting, Organizations and Society*, Vol. 10 No. 1, pp. 35-50.
- Fornell, C. and Larcker, D.F. (1981), "Structural equation models with unobservable variables and measurement error: algebra and statistics", The University of Michigan, Michigan.
- Guenzi, P., Baldauf, A. and Panagopoulos, N.G. (2014), "The influence of formal and informal sales controls on customer-directed selling behaviors and sales unit effectiveness", *Industrial Marketing Management*, Vol. 43 No. 5, pp. 786-800.

- Hair, J., Anderson, R., Tatham, R. and Black, W. (2014), *Multivariate Data Analysis*, Pearson Prentice Hall, New York, NY.
- Henri, J.-F. (2006), "Organizational culture and performance measurement systems", *Accounting: Organizations and Society*, Vol. 31 No. 1, pp. 77-103.
- Homburg, C., Hahn, A., Bornemann, T. and Sandner, P. (2014), "The role of Chief Marketing Officers for venture capital funding: endowing new ventures with marketing legitimacy", *Journal of Marketing Research*, Vol. 51 No. 5, pp. 625-644.
- Hutchinson, J.W., Alba, J.W. and Eisenstein, E.M. (2010), "Heuristics and biases in data-based decision making: effects of experience, training, and graphical data displays", *Journal of Marketing Research*, Vol. 47 No. 4, pp. 627-642.
- Jaworski, B. (1988), "Toward a theory of marketing control: environmental context, control types, and consequences", *Journal of Marketing*, Vol. 25 No. 3, pp. 23-39.
- Jaworski, B. and MacInnis, D. (1989), "Marketing jobs and management controls: toward a framework", *Journal of Marketing Research*, Vol. 26 No. 4, pp. 406-419.
- Jaworski, B., Stathakopoulos, V. and Krishnan, S. (1993), "Control combinations in marketing: conceptual framework and empirical evidence", *Journal of Marketing*, Vol. 57 No. 1, pp. 57-69.
- Katsikeas, C.S., Morgan, N.A., Leonidou, L.C. and Hult, G.T.M. (2016), "Assessing performance outcomes in marketing", *Journal of Marketing*, Vol. 80 No. 2, pp. 1-20.
- Krafft, M. (1999), "An empirical investigation of the antecedents of sales force control systems", *Journal of Marketing*, Vol. 63 No. 3, pp. 120-134.
- Liang, X. and Frösén, J. (2019), "Examining the link between marketing controls and firm performance: the mediating effect of market-focused learning capability", *Journal of Business Research*, Vol. 109, March 2020, pp. 545-556.
- Malek, S.L., Sarin, S. and Jaworski, B.J. (2018), "Sales management control systems: review, synthesis, and directions for future exploration", *Journal of Personal Selling and Sales Management*, Vol. 38 No. 1, pp. 30-55.
- Malek, S.L., Sarin, S. and Jaworski, B.J. (2021), "A measurement model of the dimensions and types of informal organizational control: an empirical test in a B2B sales context", *International Journal of Research in Marketing*, Vol. 39 No. 2, pp. 415-442.
- Malmi, T. and Brown, D.A. (2008), "Management control systems as a package—opportunities, challenges and research directions", *Management Accounting Research*, Vol. 19, pp. 287-300.
- Matemilola, B.T., Bany-Ariffin, A.N., Azman-Saini, W.N.W. and Nassir, A.M. (2018), "Does top managers' experience affect firms' capital structure?", *Research in International Business and Finance*, Vol. 45, pp. 488-498.
- Merchant, K.A. (1988), "Progressing toward a theory of marketing control: a comment", *Journal of Marketing*, Vol. 52 No. 3, pp. 40-44.
- Miao, C.F. and Evans, K.R. (2014), "Motivating industrial salesforce with sales control systems: an interactive perspective", *Journal of Business Research*, Vol. 67 No. 6, pp. 1233-1242.
- Mintz, O. and Currim, I.S. (2013), "What drives managerial use of marketing and financial metrics and does metric use affect performance of marketing-mix activities?", *Journal of Marketing*, Vol. 77, pp. 17-40.
- Moorman, C. and Day, G.S. (2016), "Organizing for marketing excellence", *Journal of Marketing*, Vol. 80 No. 6, pp. 6-35.
- Morgan, N.A., Jayachandran, S., Hulland, J., Kumar, B., Katsikeas, C. and Somosi, A. (2021), "Marketing performance assessment and accountability: process and outcomes", *International Journal of Research in Marketing*, Vol. 39 No. 2, pp. 462-481.
- O'Sullivan, D. and Abela, A.V. (2007), "Marketing performance measurement ability and firm performance", *Journal of Marketing*, Vol. 71, April 2007, pp. 79-93.

- Pinder, C. (2008), *Work Motivation in Organizational Behavior*, Psychology Press, New York, NY.
- Ramaswami, S.N. (1996), "Marketing controls and dysfunctional employee behaviors: a test of traditional and contingency theory postulates", *Journal of Marketing*, Vol. 60 No. 2, pp. 105-120.
- Sánchez, E., Sanz, R. and Barba, I. (2007), "Antecedents of repatriates' job satisfaction and its influence on turnover intentions: evidence from Spanish repatriated managers", *Journal of Business Research*, Vol. 60 No. 12, pp. 1272-1281.
- Sampaio, C., Simões, C., Perin, M. and Almeida, A. (2011), "Marketing metrics: insights from Brazilian managers", *Industrial Marketing Management*, Vol. 40, pp. 8-16.
- Schweper, C.H. and Good, D.J. (2004), "Marketing control and sales force customer orientation", *Journal of Personal Selling and Sales Management*, Vol. 24 No. 3, pp. 167-179.
- Thompson, K., Strutton, D., Mims, T.C. and Bergestuen, T. (2022), "The impact of sales controls on manufacturers' agents' tactical decisions: the importance of inter-organizational climate", *Journal of Business and Industrial Marketing*, Vol. 37 No. 6, pp. 1222-1240.
- Verhoef, P. and Leeflang, P. (2009), "Understanding the marketing department's influence within the firm", *Journal of Marketing*, Vol. 73, March 2009, pp. 14-37.
- Wieseke, J., Kraus, F., Ahearne, M. and Mikolon, S. (2012), "Multiple identification foci and their countervailing effects on salespeople's negative Headquarters Stereotypes", *Journal of Marketing*, Vol. 76 No. 3, pp. 1-20.
- Zang, Z., Liu, D., Zheng, Y. and Chen, C. (2020), "How do the combinations of sales control systems influence sales performance? The mediating roles of distinct customer-oriented behaviors", *Industrial Marketing Management*, Vol. 84, pp. 287-297.

Corresponding author

Paola Andrea Ortiz-Rendon can be contacted at: paortiz0@unal.edu.co

Formal-control	Factor-loads
1. The skills that the marketing professionals use to run their tasks are evaluated quarterly	0.74
2. The marketing professionals quarterly receive guidance on how to improve their skills	0.75
3. The marketing professionals are motivated to learn about how to use tools that make their job more effective	0.82
4. The marketing professionals receive public recognition if they improve their skills	0.81
AVE	0.61
Cronbach's-Alpha	0.86
Composite reliability	0.86
<i>Informal-control</i>	
1. In this business unit, we promote cooperation among the marketing professionals	0.81
2. The marketing professionals are familiar with the productivity of others	0.82
3. In this business unit, we foster an environment where the marketing professionals respect the marketing staff's work in which they operate	0.79
4. In this business unit, we promote work-related discussions among the marketing professionals	0.83
5. The marketing professionals can provide accurate evaluations of the marketing staff's work in which they operate	0.79
6. The work environment encourages the marketing professionals to take pride in this business unit	0.87
AVE	0.67
Cronbach's-Alpha	0.92
Composite reliability	0.92

Source(s): Table by authors

Table S1.
Reliability and validity
analysis of the
marketing control
scale items

Table S2.
Reliability and validity
analysis of the non-
financial results
scale items

Customer-loyalty	Factor-loads
1. Customer loyalty in the last year	0.85
2. Customer loyalty in the last three years	0.87
AVE	0.74
Cronbach's-Alpha	0.85
Composite reliability	0.85
<i>Brand-equity</i>	
1. Brand equity in the last year	0.84
2. Brand equity in the last three years	0.94
AVE	0.80
Cronbach's-Alpha	0.89
Composite reliability	0.89
<i>Competitor's relative price</i>	
1. Competitor's relative price in the last year	0.88
2. Competitor's relative price in the last three years	0.90
AVE	0.79
Cronbach's Alpha	0.88
Composite reliability	0.88
<i>Product-quality</i>	
1. Product quality in the last year	0.85
2. Product quality in the last three years	0.89
AVE	0.76
Cronbach's-Alpha	0.86
Composite reliability	0.86
<i>Digital-marketing</i>	
1. Digital marketing conversion rate in the last year	0.87
2. Digital marketing conversion rate in the last three years	0.89
AVE	0.78
Cronbach's-Alpha	0.88
Composite reliability	0.88
<i>Market-coverage</i>	
1. Market coverage in the last year	0.79
2. Market coverage in the last three years	0.80
3. Distribution channels' coverage in the last year	0.70
4. Distribution channels' coverage in the last three years	0.82
AVE	0.60
Cronbach's-Alpha	0.86
Composite reliability	0.86
Source(s): Table by authors	

Table S3.
Reliability and validity
analysis of the
financial results scale

Financial results	Factor-loads
1. General return on the investment	0.78
2. General finance performance	0.86
3. Return on assets	0.79
4. EBITDA	0.79
5. Organization's overall performance (accomplishment of organizational objectives)	0.91
AVE	0.66
Cronbach's-Alpha	0.91
Composite reliability	0.91
Source(s): Table by authors	

Pure-vectors	Control typologies										Distance in absolute value	% of the total distance						
	Formal (four items)		Informal (seven items)		Formal (four items)		Informal (seven items) Case example		Formal (four items)									
High	7	7	7	7	7	7	7	7	5	4	3	4	3	4	3	22	17%	
Bureaucratic	7	7	7	7	1	1	1	1	1	7	5	4	3	4	4	3	26	20%
Clan	1	1	1	1	7	7	7	7	7	7	5	4	3	4	4	3	40	30%
Low	1	1	1	1	1	1	1	1	1	7	5	4	3	4	4	3	44	33%
Total															132	100%		
Source(s): Table by authors																		

Table S4.
Example of
classification
procedure