OPEN YOUR EYES: UNVEILING THE EFFECT OF DISSONANCE BETWEEN PERCEPTION AND REALITY OF COMPETITIVE ENVIRONMENTS

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ABSTRACT

Assessment of competitive environments is a key process on strategy formulation. Managers rely on their cognitive capability to sense the context, its threats and opportunities. However, cognition is influenced by perception, based on past experience and beliefs. When facts and perception collide, discrepancy among them can arise dissonance, a psychological effect of discomfort. Dissonance can influence imbalance in the strategic choice, and potentially ends in disturbance on the expected outcome. Through empirical research on Spanish firms in a hostile environment, we set a process to identify discrepancy in environmental scrutiny and proved its effect on strategic imbalance and outcome disturbance. This research calls for a combined effort of managers, research and institutions to minimize discrepancy and the negative effects on strategic actions and its results.

KEYWORDS: strategy, intuition, rationality, cognitive discrepancy, dissonance, environment

INTRODUCTION

Context evaluation is a key strategic activity in the cognitive process of formulating and implementing a strategy (Eggers and Kaplan, 2009; Porter, 1980). Therefore, environmental scanning is one of the most frequently addressed topics in research on business behavior (Wilden et al., 2013). Managers are interested in noticing and exploiting opportunities, as it represents an important strategic action (Shepherd, McMullen, and Ocasio, 2017). Organizations must tailor their strategies to the requirements of the environment (Stieglitz, Knudsen and Becker, 2016), although such alignment needs of adaptive behavior (Kaplan, 2008) and therefore, is complex in situations of turbulence, volatility (Bamiatzi et al., 2016), major organizational change, that can disturb managers attention from strategic issues, (Laamanen et al., 2018) and intense competition (Wilden and Gudergan, 2015).

However, a wrong environmental scanning is identified as the cause of major strategic failures (see f.i., Eggers and Kaplan, 2009 Kodak case and the analogies found with Tripsas and Gavetti 2000 study on Polaroid). In the present study, we sought an answer to Child's question (1972:5): why don't companies react to observable changes in the environment?. The question seems always relevant, but specially in the case of hostile, low munificent environment, as such the case of firms competing in stagnant and declining businesses that we have deeply examined. To this end, we studied context evaluation from the point of view of the top manager (owner or CEO). All managers, administrators and entrepreneurs possess their own knowledge structures with which to summarize the information. These reflect their attitudes, beliefs, processes and emotions, shape their perception and permeate their decision-making process (Kaplan, 2008; Helfat and Martin, 2015:1285). The rich streams of research that have reviewed this issue previously give us a platform to understand how they influence the focal attention of the organization and their

deliveries (Barney, Foss, and Lyngsie, 2018). We understand the dialogue among individual frames of cognition and the social and political communications (Eggers and Kaplan, 2009; Kaplan, 2008) and how managerial capabilities could support, if dynamic and adaptive enough, in the process of "sensing" the environment (and the capabilities of the firm: Helfat and Martin, 2015; Helfat and Peteraf, 2015; Teece, 2007). Finally, we review psychologically-driven literature (Walsh, 1995) to understand the effect of a mismatch between what managers believe and what the rational analysis of evidence (Lovallo and Kahneman, 2003). Festinger (1962, 1964) cognitive dissonance theory (CDT) studies the effect caused by cognitive discrepancy between objective reality and perception of the same (Hinojosa et al., 2017).

Our main aim with the present study is to integrate this rich streams of research with an ordered and parsimonious approach when studying managerial behavior, especially in hostile and turbulent contexts. To our view, academic data-driven analysis and diagnose can hidden the fact that environmental scrutiny, done by managers, is the starting point for strategical process (sensing the context before seizing and reconfiguring; Teece, 2007; understanding the structure to set the conduct that fits into, Porter, 1980). Our first contribution is the empirical methodology employed (measurement instrument and statistical study), which has enabled us to confirm that cognitive discrepancy is accompanied by imbalance and disturbance of the expected outcome. As a second contribution, our research also took into account the "discrete context" (Johns, 2006) in which management behavior occurs, since the consequences of actions undertaken to reduce the effect of dissonance must be measured considering space and time (Hinojosa et al., 2017). Although from a different perspective, cognitive load theory, Laamanen et al. (2018:637) point out the consequences of cognitive overloads (asking for more resources –to accomplish a task – than an individual working memory capacity) in managers' and organization ability to cope with unexpected external strategic issues. As said before, we understand that may small and family owned firms lack of the

organizational mechanisms to avoid managerial cognitive biases (Shepherd et al., 2017). Hence, our study focused on Spanish industry sectors in decline, in a period (2007-2012) of economic recession, as we foresee a potentially greater effect of dissonance when the decision to take is especially adverse (Schultze, Pfeiffer and Schulz-Hardt, 2012).

The empirical study confirmed the potential emergence of dissonance due to cognitive discrepancy between perception and objective evaluation of the environment. However, solving this issue in real life business will require constructing intentional rationality and examining the theoretical frameworks proposed for decision-making (Angwin and Meadows, 2015; Dean and Sharfman, 1993; Gary, Dosi and Lovallo, 2007). Our last contribution and final conclusion for entrepreneurs and managers is to engage in disinterested dialogue with researchers and industry experts, since "evidence doesn't argue for itself" (Garbuio, Lovallo, and Sibony, 2015b) .

This article is structured as follows: first, we review the literature to summarize the key concepts used to explain managerial cognition in the process of context evaluation. Then, we present the research model and hypothesis to study cognitive discrepancy as a predictor of dissonance, imbalance and disturbance. Next, we present the context of our empirical analysis, followed by the procedure and results. The article ends with the conclusions.

LITERATURE REVIEW. THE PROCESS FOR CONTEXT EVALUATION

In the process of examining and evaluating the environment and formulating strategies (Ben-Menahem et al, 2013) managers must deploy their cognitive capacity for perception in order to detect threats in the environment promptly and devise an effective, timely response (Bromiley and Rau, 2014; Helfat and Peteraf, 2015). In light of the difficulty of evaluation in uncertain, dynamic or highly competitive environments, several studies have proposed configured frameworks to

facilitate the analysis of decisions, implementation and follow-up (Kahneman and Tversky, 1982; Ocasio, 1997).

As regards the decision-making process, managers may adopt a rational or an intuitive approach (Sadler-Smith and Shefy, 2004), both of which are valid in the endeavor to ensure that internal resources meet the demands of a changing environment (Ben-Menahem et al., 2013). However, relying solely on intuition (Elbanna, Child and Dayan, 2013), complacency regarding previous "ways of doing" and experience (Miller and Friesen, 1984) and ignoring the cognitive biases of management and team (Lovallo and Kahneman, 2003) can have adverse consequences for the firm (Shepherd et al., 2017). In a rational approach to formulating strategic behavior, managers gather the relevant information and base their decisions on its analysis (Dean and Sharfman, 1993:1071). However, relevant information can be also biased, as top managers (TMT) and main executives (CEO's and owners) influence the process (Kahneman, Lovallo and Sibony, 2011) : they can select "what" has to be studied, they can choose "why" it is important and they decide "how" to react after information gathering is complete.

Selection: attention-view process to understand the competitive context

"What decision makers do depend on what issues and answers they focus their attention on" (Ocasio, 1997:187). Cultural and cognitive repertoires of the individual and the organization, (Ocasio, 1997:203) explain what do firm's focus (in term of opportunities) but also what they neglect to look up. The cognitive process follows three levels of attention (individual, social and organizational) and their dialogue is necessary to "sense" (the environment) and to act (pattern of decision that explains firm's behavior). Managers' selection is influenced by their individual underlying cognitive frame to notice and interpret change (Eggers and Kaplan, 2009:46). but also

by the political relations ('coalitions'); accordingly, cognition is not only an individual act, albeit "a dynamic, purposive and politically-charged process of meaning construction" (Kaplan, 2008).

Top executive tenure has also its influence. Founders are likely to experience greater ego costs if firm environmental scanning reveals negative information (Lee, Hwang and Chen, 2017). Owner or founder do not consider information that (Belenzon, Patacconi and Zarutskie, 2016) they think is not relevant (Tarakci et al., 2018:1158). Because of its influential position (Barney et al., 2018) CEO's become 'powerful champions' of resource allocation, incentives and organizational climate (Eggers and Kaplan, 2009); "cognitive blindness" in this core position can result on myopic or visionary effects. Causes of this blindness could come from attention driven misleading (Ocasio, 1997), lack of abilities to interpret new signals (Levitt, 1960) but also from knowledge structures that "impede to notice stimuli… even when they are highly prominent" (Shepherd et al., 2017). On the other hand, when top management initiate the process of (strategic issue) attention, correctness of decision is significantly and positively influenced (Laamanen et al., 2018)

Management capacities and cognitive maps

Why experienced managers fail in their context evaluation can be a part of the answer to Child's initial question. Firm adaptation requires management to deploy dynamic capabilities related to examination (sensing), evaluation (seizing) and reconfiguration (reconfiguring) (Teece, 2007). Managerial cognitive capabilities[1] (planning, anticipating, responding to unexpected events) play a key role in this transformation (Helfat and Peteraf, 2015). When managers pay attention to the environment, strategic change is quicker and more extensive, whereas the absence of attention

[1] This term, proposed by Helfat and Peteraf (2015) "highlights the fact that capabilities in general encompass the capacity to perform not only physical but also mental activities. For managers faced with the need to develop and implement strategic change, the latter are likely to hold particular importance These cognitive capabilities involve both automatic and controlled mental processing".

exerts the opposite effect (Helfat and Martin, 2015:1292). This indicates that cognitive capacity, the ability to foster strategic change and firm outcomes sustain the sensing-seizing-reconfiguring strategical activities and processes (Helfat and Peteraf, 2015). However, not all managers have the ability to transfer their capacities across contexts: attitudes towards uncertainty and a sense of responsibility vary according to sex, age and culture (Johns, 2006).

Intuition and rationality, cognitive discrepancy and dissonance

Research in psychology distinguishes between two modes of mental processing of information (Helfat and Peteraf, 2015). Automatic process, inside view or system 1 (Kahneman and Lovallo, 1993; Kahneman and Tversky, 1982) focuses on capacities and abilities, and constructs scenarios that extrapolate from current reality. Automatic mental activities enable quick responses to external stimuli and data (Helfat and Peteraf, 2015). Automatic responses can be worded as intuitive outcomes. Intuition combines experience, opinion, tacit knowledge, sensitivity, feelings, reflection, incubation and creativity (Sadler-Smith and Shefy, 2004). Adopting a heuristic or intuitive approach (Kahneman and Tversky, 1982) can lead to systematic bias in the decision-making process, generating evaluation errors (Gary *et al*., 2007) if informal, unstructured reasoning is employed without the support of analytical tools. Nevertheless, intuitive, creative or entrepreneurial approaches are appropriate when previous ways of doing have not generated learning (Martin and Eisenhardt, 2004) and use of analogies is not possible (Gavetti and Rivkin, 2005).

The other mode of processing, "outside view or system 2", "deliberative" mental processing or "executive function"[2] (Helfat and Peteraf, 2016) considers industry dynamism, competitor activity and trends (Camerer and Lovallo, 1999:315). Criticisms have been levelled at 1970s rational strategic planning models due to their low permeability to entrepreneurial proposals and the difficulties entailed in adapting them to dynamic environments (Ramirez and Selsky, 2014:6). An analysis of the data does not guarantee superior deliveries, as focus (attention-view, Ocasio, 1997), may conceal some of the information necessary for decision-making due to the circumstances or cognitive biases of the team (Garbuio et al., 2015a; Lovallo and Kahneman, 2003).

Intuition and rationality are two parallel systems of knowledge that form a dual process (Harmon-Jones et al., 2009). Studies of human behavior have shown that people tend to select decisions that do not conflict with their cognitive map, which is composed of knowledge, beliefs, values and attitudes (Festinger, 1962, 1964). Dissonance is the psychological effect caused by a discrepancy between a subject's cognitive elements and an external evaluation of reality based on data, analysis or recommendations. It is the result of new or unforeseen events, but also of contradictions between reality and the cognitive map, giving rise to conflict due to the attractiveness of the options from among which to choose (Festinger, 1964). Predominance of the inside view over the outside view leads to cognitive biases, including confirmation bias, whereby people ignore any evidence that contradicts their preconceived notions (Gary et al., 2007). On the other hand, people who fail to solve a problem even after analyzing it thoroughly using the outside view will experience dissonance as a result of realizing that they are unable to find an answer and take action (Kahneman

[2] Helfat and Peteraf (2015) include the following APA *Dictionary of Psychology* definition: "executive function includes the ability to plan and anticípate outcomes (cognitive flexibility) and to direct attentional resources to meet the demands of nonroutine events."

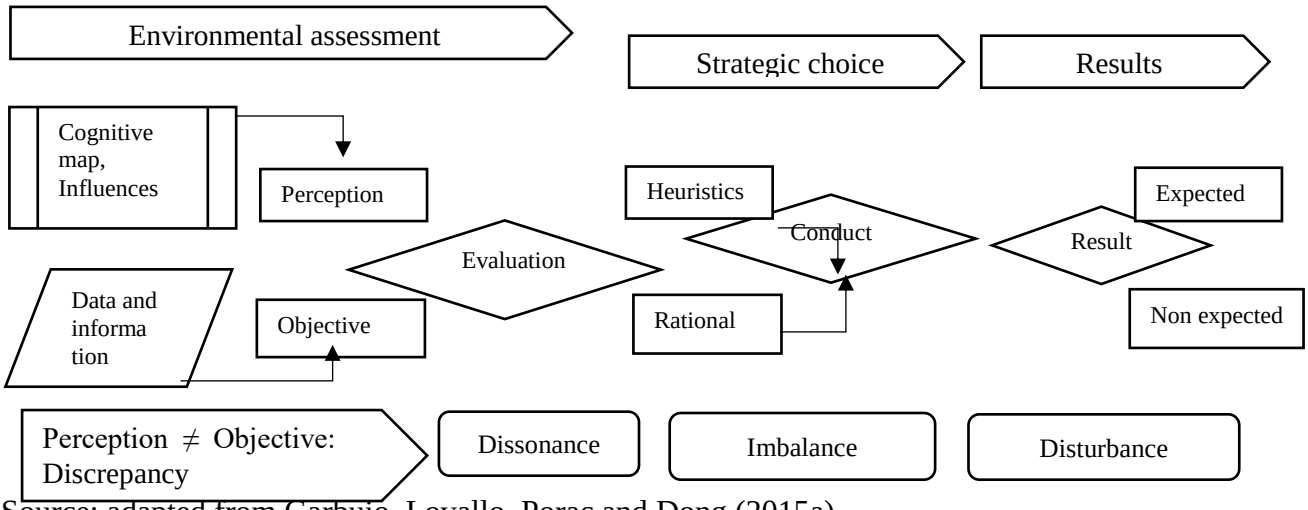
et al., 2011). On the outside view, creating and consolidating routines that ensure stable expansion may also entail the risk of losing opportunities and curbing the creativity of the management team (Dimitratos et al., 2014). In sum, an analysis does not in itself yield effective responses; management judgement is also necessary (Garbuio et al., 2015b; Wilden and Gudergan, 2015) to evaluate the consequences of a decision and formulate necessary adaptations to the challenges of the environment (Wilden et al., 2013).

Having examined the key concepts of the decision-making process and management biases, influences and capacities, below we present the theoretical framework for the relationship between cognitive discrepancy, the emergence of dissonance and its effects on imbalance and disturbance. This framework serves as a reference for the propositions and hypotheses of our empirical study.

THEORETICAL FRAMEWORK FOR THE RELATIONSHIP BETWEEN COGNITIVE DISCREPANCY, DISSONANCE, IMBALANCE AND DISTURBANCE

In accordance with the schema presented by Garbuio et al. (2015a:447), context analysis tools comprise the first step in a schema related to cognitive acts, leading to the formulation of strategic actions (Helfat and Peteraf, 2015). Bain-Mason paradigm structure-conduct-performance (Porter, 1980) and the sensing-seizing-reconfiguring flow (Teece 2007) give the sequence of proposition and hypotheses of our model. We posited that discrepancies in evaluation ("cognitive discrepancy", Harmon-Jones et al., 2009; "divergence between archival and perceptual measures", Boyd et al., 1993:2014) would predict dissonance, and that the actions implemented by managers to reduce its effect (Festinger, 1964) would cause imbalance between behavior and the requirements of the environment (Eggers and Kaplan, 2009; Gary et al., 2007), which can result in a different business outcome to that expected (disturbance; Elbanna et al., 2013:152).

Figure 1. Framework and model of environmental discrepancy, dissonance, imbalance and disturbance



Source: adapted from Garbuio, Lovallo, Porac and Dong (2015a)

Once managers enact their capabilities to pay attention and perceive the competitive context, their "sensing" of it will lead to activities of problem solving and reasoning ("seizing"). If discrepancy arises when performing the evaluation, dissonance can be attenuated by behavior, using a heuristic decision model. In volatile environments and turbulent contexts, as analogies are not useful (Gavetti and Rivkin, 2005) this heuristic behavior can result in imbalance with the environment and disturbance of the expected outcome. To confirm that sequence, we propose below the following general proposition and hypothesis for the empirical study

General proposition and hypotheses of the model

As management research, this study lacks of the psychological abilities to really understand if there is, or not, a causal link among discrepancy and dissonance. Therefore, we do not word our general proposition as "hypothesis", being conscious of that limitation of our research. Nevertheless, what we can study is if cognitive Discrepancy is a proxy of Dissonance. Having established the initial

proposition, we present the hypotheses that, from the perspective of the strategic continuum, relate behavioral adaptation to the context.

General proposition: Managers evaluate the environment based on their own perception and an assessment of objective data. If there is a mismatch between perception and evaluation results, Dissonance could appear as the consequence of cognitive Discrepancy arising from it.

Once managers enact their capabilities to pay attention and perceive the competitive context, their "sensing" of it will lead to activities of problem solving and reasoning ("seizing"). If discrepancy arises when performing the evaluation, dissonance can be attenuated by behavior, using a heuristic decision model. In volatile environments and turbulent contexts, analogies are not useful (Gavetti and Rivkin, 2005) can result in imbalance with the environment and disturbance of the expected outcome. Schultze et al. (2012) used an experimental design to examine how the information proposed for a decision was evaluated, and found that this was influenced by the beliefs and views of the evaluator.

The first hypothesis is that the relationship is affected by dissonance. As dissonance is the consequence of the contradiction between reality and the cognitive map, we sought to determine whether there is a difference between perception of the environment and evidence of the environment based on expert opinion. Dissonance would be the result of this difference (Dean and Sharfman, 1993) and might exert an effect on behavior (hypothesis 2) and the heuristic or rational approach taken to decision-making.

Hypothesis 1: The existence of dissonance in an evaluation of the environment leads to imbalance in the choice of strategic behavior.

We are going to study manager activities in accordance with the theoretical framework. Ocasio (1997:190) posits that "environmental scanning involves not only individual cognition (it) results from the organization of communications and procedures in which social cognition takes place". Top management and CEO's influence the focus of attention, that is selective (an object or idea that facilitates perception and answer), situated (context dependent) structured and hierarchical (Barney et al., 2018). However, we understand as Kaplan (2008) that there is an individual frame that precedes social cognition (situational context) and organization level: our purpose is to measure managerial cognition directly (Eggers and Kaplan, 2009).

Managers whose context evaluation does not coincide with the scenario indicated by objective measures can decide on behavior that coincides with their perception of reality, in order to avoid the psychological consequences of dissonance (Festinger, 1962). This strategic action may not be appropriate to the demands of the context. Failure to adopt a rational approach adapted to the context evaluation entails the risk of not achieving the expected outcome (Elbanna et al., 2013). Hence, the second hypothesis is that dissonance may lead to outcomes that differ from those originally envisaged for the chosen behavior.

Hypothesis 2: Dissonance in context evaluation causes disturbance of the expected outcome of the chosen behavior.

When decisions are made based on the intuitive and fluid reasoning characteristic of the inside view, and errors are committed, dissonance will subsequently emerge due to not obtaining the expected outcome of the action (Gary et al., 2007) The effect of cognitive discrepancy between perception and reality due to deficient information, organizational pressure or personal bias (Festinger, 1962) is greater when the process is primarily based on intuition (Dean and Sharfman, 1993).

Having described the framework for the relationship and its hypotheses, now we present the methodology and results of the empirical study conducted to test these.

EMPIRICAL STUDY OF THE EFFECT OF DISSONANCE ON IMBALANCE OF THE STRATEGIC CHOICE AND DISTURBANCE OF THE EXPECTED OUTCOME

The strategic decision-making context. The industrial decline stage

When analyzing context, the industry in which the firm competes plays a major role (Short et al., 2007). In addition, the life cycle stage of the industry (ILC) has been identified as an explanatory variable when assessing the effect of the environment on firm outcomes et al., 1993). Just as discrepancy between perception and reality can become accentuated as organizations grow older (Miller and Friesen, 1984), heuristic or rational decision-making is contingent upon the life cycle stage of the firm and the competitive context (Dean and Sharfman, 1993). In highly competitive or hostile environments, the risk entailed in using a heuristic approach in decision-making is higher (Covin and Slevin, 1989; Elbanna et al., 2013), although the reward for risk-taking may also be greater (Stieglitz et al., 2016). In contrast, rational decision-making has been associated with the stages of growth and maturity of the industry and organizations. Turbulence in the environment cannot be ignored without repercussions, nor can it be considered an aberration in a relatively stable field (Ramirez and Selsky, 2014:11).

In the present study, we focused on the decline stage. In decline, reading the situation correctly is critical in decision-making (Harrigan, 1980); however, there is a known propensity to ignore negative information or to overestimate possibilities (Schultze et al., 2012). Decline is described as a context of hostility and intense competition: "… (in the decline stage) … more firms exit and the industry concentrates around the few remaining competitors. Growth vanishes,

resulting in intensified rivalry and shakeout…" (Karniouchina et al., 2013:1012). By studying firms in the same life cycle stage, we aimed to ensure that the results for imbalance and disturbance would not be influenced by the substantial differences in outcome obtained in different stages. Analyzing the decline stage also facilitates a comparison between the behavior implemented and the model proposed by Harrigan (Harrigan, 1980, 1988), Porter (1980) and Harrigan and Porter, 1983:118) . Concurrent and subsequent studies (Hall, 1980; Hammermesh and Silk, 1979; Thiètart and Vivas, 1983) have added empirical evidence to the model proposed by Harrigan and Porter, which is the most well-known. In this model, the behavior recommended (strategy choice "stay" or "exit") depends on whether the environment is diagnosed as favorable or unfavorable, and can involve pure strategies of differentiation or cost aimed at leadership or focusing on a niche in order to stay, an immediate exit (divest now) or an exit after harvesting (milking).

Scope of the empirical study. Population, sample and data sources

In the present study, we examined product lines and classes from the food and beverages industry (SIC code 20) absolute and per capita unit consumption by the Spanish population between 2000 and 2010. The geographic scope of the study was the Spanish domestic. The threshold (trigger point) for defining decline was established as a reduction in demand rate close to or higher than 10 % (Harrigan, 1980; Thiètart and Vivas, 1983). Source of data come from the Food consumption panel of the Ministry of Agriculture, Fishery, Consumption and Environment (MAPAMA). This measure is consistent due to its methodology and extended time scale, and is not affected by inflation. However, to distinguish decline from the consequences of the economic crisis in 2007, we compared with Hall's (1980) condition, that establishes the threshold in rate of growth at or less than one half the rate of gross domestic product.

Our primary source of information on management perception and firm's strategic choice was a structured questionnaire, completed by the chief executive of the firm (owner or CEO). The questionnaire was sent by post to a population of 2.368 subjects competing in the declining segments of the industry, an identified through the Orbis-Sabi database. A total of 265 firms successfully completed the questionnaire, representing 11.7% of the firms contacted, a figure in line with that reported in other Spanish studies using this database to recruit participants (Claver-Cortés, Pertusa-Ortega and Molina-Azorín, 2012: 8.61%).

The second of our hypotheses posits that the emergence of dissonance due to discrepancy would cause disturbance of the expected economic outcome. The source of outcome was accounting data, coming from yearly records in Orbis database. Although accounting data ensured the quality of the information, enabled comparison and avoided the risk of single respondent bias, it reduced the number of firms since not all deposited their balance sheets. Thus, we obtained a sample of 229 firms with sufficient information to analyze the relationship between dissonance and disturbance, with a sampling error of 6.5%. Having described the population and sample characteristics and the data sources used for the variables, below we report the results obtained from testing the initial proposition and the hypotheses of the model of a relationship between dissonance, imbalance and disturbance.

Empirical confirmation of general proposition and hypotheses

Confirmation of general proposition

General proposition entailed a comparison of two measures of the same concept; a diagnosis of the context of decline as favorable or unfavorable. The first measure comprised an objective assessment based on secondary sources, and the second, an evaluation based on management perception. We aimed to determine whether a discrepancy existed between the two, as a source of

possible dissonance. The objective assessment was conducted using variables related to demand behavior and industry structure reported in studies of industry structure and particularly, on decline contexts, as proposed by previous research (Calori and Ardisson, 1988; Covin and Slevin, 1989; Harrigan, 1980; 1988; McGahan, 2004; Miles et al., 1993; Porter, 1980; among others). They were measured using information from secondary sources (Spanish government agencies, market research institutes and respected business organizations, e.g. the Spanish National Institute of Statistics (INE), MAPAMA and the Spanish Industry Federation for Food and Beverages (FIAB). Diagnosis of the environment as favorable or unfavorable was performed using the context evaluation procedure proposed by Harrigan and Porter (1983) and yielded the variables we termed OBJ(ective). Aggregation was performed by means of a two-stage cluster analysis of the context variables related to demand and industry structure. This technique is appropriate when, as in the present case, the researcher can propose variables and conduct an interpretation guided by theory (Angwin and Meadows, 2015). The F test and discriminant analysis indicated that the result was statistically robust, and this was confirmed by an expert panel.

The second of the dimensions, perception of the context, was constructed with the information obtained from the structured questionnaire completed by the chief executive (owner or director), which contained 24 items, of which 13 corresponded to demand behavior and 11 to diagnosis of the industry. Care was taken to ensure that the presentation and order of items in the questionnaire did not influence the response (Garbuio et al., 2015b). Management perceptions of demand and the industry yielded variables that we termed DIR (ective). The items related to trends in demand were rate of and variations in the reduction in consumption, observable causes due to demographics and legislation, and the existence of attractive niches that encouraged firms to stay (Harrigan and Porter, 1983:117). Measures on industry dynamism rely on the Dess and Beard

(1984) seminal contribution, as magnitude, volatility and frequency of change (Girod and Whittington, 2017; Stieglitz et al., 2016). Questions to be answered by managers followed the wording of the Survey of Business Strategies (ESEE) by the *Sociedad Estatal de Participaciones Industriales* [Spanish sovereign wealth fund] (Spanish initials: SEPI), a data source that has been used in previous studies (e.g. Campa and Guillén, 1999). With regard to diagnosis of the industry, items reflected the possibility of differentiation, the existence of customer and supplier power, the intensity of competition and barriers to the exit of a firm in difficulties (Caves and Porter, 1977).

Managers scored the items using a 5-point Likert scale (5=strongly agree; 1=strongly disagree). The results were added inductively using an exploratory factor analysis (Dimitratos et al., 2014; Wilden et al., 2013). Their convergence with the theory that inspired them was confirmed by a comparison with the deductive approach of additive scales (Campbell-Hunt, 2000) and Cronbach's α (Wilden et al., 2013; Garbuio et al., 2015a). This methodology supplemented the quantitative result with a wealth of business experience, and facilitated generalization by means of the proposed scales. It was, therefore, appropriate for the problem we aimed to measure (Campbell-Hunt, 2000).

Figure 2. Managers' evaluation of the environment. Factor analysis. Demand traits

Item demand traits	**Loading**	**Factor**	**Factor**	**Factor**	**Factor**	**Factor**
Sales of this products are recessionary, as they decrease year after year	0.565	-0.113	0.670	0.302	0.058	-0.099
The consumption of this product is pretty stable, does not suffer strong variations	0.831	-0.083	-0.160	-0.041	0.044	0.892
We have seen oscillations is demand during the recent times that we are not able to explain	0.550	-0.011	0.706	0.048	0.074	-0.210
I have enough information on the evolution of consumption to plan the activities of the company	0.610	-0.140	-0.744	0.059	0.063	-0.172
Consumption of food and beverages is strongly influenced by fashions in the consumption habits of the families	0.726	0.006	0.002	0.792	0.260	0.177
Consumption of food and beverages is strongly influenced by known changes in population (age, origin,,,)	0.741	0.031	0.198	0.825	-0.094	-0.103

Specialists and families have better information on nutrition and are worried about diet composition	0.661	0.128	-0.137	0.396	0.678	-0.099
Government regulations on child obesity, smoking banning, alcoholic drinks… affect the industry	0.469	0.577	0.352	-0.008	0.112	-0.002
There is a growth opportunity in the development of new products	0.680	0.811	-0.026	0.056	-0.099	-0.089
There are market opportunities in value segments that can be profitable for the firms that enter in them	0.697	0.823	-0.117	0.004	-0.012	0.070
Consumer prefers local food and beverages	0.687	-0.123	0.189	-0.028	0.793	0.086
Overall consumption of food and beverages is stable, but there are segments who decrease and others increase	0.701	0.525	0.159	0.307	-0.038	0.551
There are opportunities of added value and high prices as there is people asking for ecologic, biological or free-from products.	0.640	0.590	-0.051	-0.105	0.527	0.024
% variance		18.18	13.74	12.87	11.39	9.65
name assigned to factor		FAVOR	UNFAV	CAUSE	NICHE	STABLE
α Cronbach		0.725	0.567			
Rho Spearman				0.403	0.330	

Source Authors' elaboration with primary data.

Figure 2 gives the results of the exploratory factor analysis with respect to managers' perception of the decline in demand. With only one exception ("government regulations…"), the items presented a loading higher than 0.5 in the extraction. The KMO statistic obtained a value of 0.597 and Bartlett's test was significant. The rotated solution presented five factors with a total explained variance of 65.83%. The first factor, FAVOR(able), loaded items related to growth and opportunities. This factor explained 18% of the variance, with acceptable internal consistency (0.725) for a completely new scale (Garbuio et al., 2015b). The second factor loadings were items reflecting recession and volatility; therefore, we named it UNFAV(orable). This factor explained 13.74% of the variance and obtained a low Cronbach's α (0.567). Factors three and four grouped CAUSE and NICHEs of favorable demand; in both cases, Spearman's Rho indicated that the factors presented internal consistency. The last factor only loaded one item, which explained 9.65% of the variance, and reflected an assessment of consumption as STABLE, without variations.

Below, we discuss the consistency of the UNFAV factor. Wilden and Gudergan (2015:191) measured uncertainty with the item from the scale proposed by deSarbo, di Benedetto and Sinha (2005) "It is difficult to predict…", but did not obtain significant results. In our case, the Spearman correlation indicated that there was no correlation between FAVOR and UNFAV and that the factor STABLE presented a positive correlation with FAVOR (r^2= 0.190; ρ=0.004) and a negative correlation with UNFAV (r^2= -0.189; ρ=0.004). In the cross tables procedure, the uncertainty coefficient indicated a greater likelihood of an UNFAV environment diagnosis at levels presenting less agreement with STABLE. Despite the value of α, the UNFAV factor represented what we aimed to measure and could not be eliminated from the analysis without the risk of compromising the overall results.

Figure 3. Managers' evaluation of the environment. Factor analysis. Industry outlook

Item industry outlook	Loading	Factor	Factor	Factor	Factor	Factor
We foresee good perspectives as the consumer is loyal to our products and brands	0.867	0.070	0.096	0.000	0.923	-0.033
Because of the pressure on prices we invest less in advertising and development of new products	0.753	0.833	0.058	0.100	0.190	-0.095
It is difficult to recover recent investment in new factories and equipment	0.677	0.758	0.282	-0.019	-0.134	0.073
Some basic products are less consumed because there are plenty of alternatives	0.622	0.042	0.768	0.156	-0.022	0.074
Families spend less and less in food, they prefer other places to put their money	0.617	-0.019	0.653	0.349	0.128	-0.230
The market is dominated by the big buyers, they control the demand and fix the prices	0.604	0.217	0.273	0.660	-0.197	-0.091
Today it is not profitable to manufacture, costs are increasing continuously and prices are down	0.622	0.249	0.329	0.668	-0.070	0.009
Closing the own business is the higher barrier to exit in this sector	0.919	-0.027	0.032	0.045	-0.005	0.957
Small and medium companies have good perspectives as they are more flexible and agile	0.573	0.242	0.664	-0.258	0.054	0.070
We compete on prices because there is excess capacity in the industry	0.578	0.220	0.710	0.137	0.075	0.014

The market is dominated by the big manufacturers, they control the offer and fix the prices	0.601	0.640	0.074	0.418	0.008	-0.105
% variance		18.02	17.78	14.16	9.61	8.28
name assigned to factor		RIVALRY	SUSTITUTIVE	POWER	DIFFERENT	BARRIERS
Cronbach α		0.733	0.647			
Spearman Rho				0.485		

Source: Authors' elaboration with primary data.

Figure 3 gives the results of managers' perception of the industry as hospitable or hostile. An exploratory factor analysis yielded a five-factor solution with an acceptable degree of communality (KMO statistic 0.673; Bartlett's test significant), which explained 67.85% of the variance. The first factor loaded items related to price pressure and competitors' power, termed (competitive) RIVALRY, which explained 18.08% of the variance and presented internal consistency according to the value obtained for α (0.733). The second factor, named SUSTITUT(ive), explained 17.18% of the variance and loaded items related to basic products, change in habits and opportunities for small competitors due to potential resource partitioning (Cameron and Zamutto, 1983). However, the item "we compete on prices…" also loaded here and possibly as a result, internal consistency was lower (α=0.647). Factor 3 explained 14.16% of the variance and consisted of two items that reflected customer and supplier POWER, with a high internal correlation (r^2=0.485). Factor 4, opportunities for DIFFERENT(iation) due to consumer loyalty, and factor 5, BARRIER to exit due to divestiture, loaded single responses and explained 9.61% and 8.28% of the variance, respectively.

In accordance with the theory, high scores for the factors RIVALRY, SUSTITUT(ive), POWER and BARRIER defined a hostile industry structure, whereas the possibilities of DIFFERENT(iation) indicated a hospitable industry structure with attractive niches that could be fully exploited (Harrigan, 1980). Spearman correlation showed that the factors RIVALRY and

SUSTITUT(ive), (r^2=0.256; ρ=0.000), POWER and SUSTITUT(ive) (r^2=0.356; ρ=0.000) and POWER and RIVALRY (r^2= 0.385, ρ=0.000) presented high and significant correlations, a relationship that was absent in the other factors.

Confirmation of general proposition implies the existence of a significant difference between these two measures of the same concept, one coming from management perceptions (DIR) and the other from an assessment based on objective measures (OBJ). In order to conduct a comparison, it was necessary to transform both assessments. In the case of the objective assessment, a cluster analysis based on quantitative indicators was used to classify firms in decline as experiencing favorable or unfavorable demand, or as existing in a hospitable or hostile industry structure. In the case of management perceptions, scores were transformed into binary variables, similar to the classification into two clusters for the objective assessment. The binary variable DEMANDDIR was given the value of 1 when the score for FAVOR and STABLE was higher than the score for UNFAV. The binary variable INDUSTRYDIR was given the value of 1 when the mean score for RIVALRY, SUSTITUT and POWER was higher than the score for DIFFERENT.

In the case of demand, the difference was striking: 209 managers perceived demand as FAVOR(able), whereas OBJ assessment indicated that this was only the case for 133 firms. With regard to an evaluation of the industry, the degree of coincidence with the objective assessment was higher.

Figure 4. Cross frequencies of cases. Variables DIR and OBJ

	DEMAND	DIR			INDUSTRY	DIR		
		Unfav	Favor	Total		Hostile	Hospit	Total
OBJ	Unfav	5	91	96	Hostile	33	32	65
	Favorable	15	118	133	Hospitable	68	96	164
	TOTAL	20	209	229		101	128	229

OBJ: Archival measures; DIR: Perceptual measures

Management perceptions did not coincide with objective assessment, but to confirm the general proposition we have to establish that they are different dimensions. The t-test on mean differences, of independent samples obtained significant results (mean difference OBJ-DIR demand 8.433, ρ=0.000; mean difference OBJ-DIR industry -3.698; ρ=0.000; 228 degrees of freedom). We also controlled for the lack of effect of one factor (OBJ) on the other (DIR) by means of the χ^2 test and Anova (significant in the Demand dimension: F= 11.038; ρ=0.001). An additional test was performed using binary logistic regression (BLR) where OBJ variables explained the DIR variable. Regression showed low significance for Demand (χ^2=2.726; ρ=0.099) and no significance for Industry (χ^2=1.629; ρ=0.202). Therefore, we found no relation or influence of OBJ on DIR in Industry, and a weak relation (as shown by the Anova and BLR) in Demand. On the other hand, we confirm that the two variables of the perception dimension were related with a BLR test that shows that there was double the chance of favorable perception of demand when the manager perceives industry as hospitable, and vice versa (β DEMANDDIR=2.085; ρ=0.001; β INDUSTRYDIR=2.118; ρ=0.001).

Perception (measured by the DIR variables reported by managers) and OBJ (measured using database records) of the competitive context did not coincide. This result is in line with the findings of Boyd et al. (1993), and give us the platform to test hypotheses 1 and 2.

Test of hypothesis 1. Influence of dissonance on imbalance of strategic choice

The first of our hypotheses states that dissonance due to discrepancy in a context evaluation causes imbalance in the choice of behavior. Therefore, we compare the declaration of activities of the firm (first-hand information, Eggers and Kaplan, 2009) with the strategic action prescribed by Harrigan and Porter's 1983 model, to check for strategic imbalance. The strategic choice to stay

(STAY) is recommended in situations of favorable demand and a hospitable industry. In all other circumstances, leaving (EXIT) is the choice that best protects the firm's economic outcomes (Porter, 1980). To measure the choice of strategic behavior, we analyzed management self-reports of the competitive strategies implemented (stay strategies based on cost, differentiation or market power; exit based on strategies of harvesting or disinvestment). An analysis of management responses showed that in 177 cases, firms chose to stay, while in 52, they chose to exit. However, applying the model, only 105 of the 229 firms in our sample would be elegible to stay. The difference in the decision may have been motivated by discrepancy in the evaluation or by a heuristic decision process that attenuated dissonance, because exiting is a less pleasant decision for managers (Baden-Fuller, 1989).

In order to test the validity of the relation discrepancy-dissonance with imbalance, we investigated whether the groups formed by strategic choice (stay or exit) were influenced by dissonance. We use a measure of discrepancy as a proxy of it. For the purposes of comparison, we created the categorical variables DIS (DEMANDIS and INDUSTRYDIS), which were given the value "better" when management perception was more positive than the objective assessment, "equal" when it was the same and "worse" when it was more negative. Tarakci *et al*. (2018) use difference of the individual's score to the average mean as the measure of dissonance in social aspiration. A count of frequencies for the variable DEMANDIS indicated that in the group of managers (91) who evaluated the decline in demand more positively than the objective assessment, most opted for the strategic choice to stay (73). Similarly, in the group of managers who evaluated the industry as hospitable when the objective assessment indicated that it was hostile (32), most chose to stay. Even when managers considered the industry hostile, when the objective assessment indicated that it was hospitable (68), the strategic decision was still to stay (54).

To determine the effect of the groups formed by the dissonance factors DEMANDIS and INDUSTRYDIS on the variable strategic choice, we conducted the χ^2 test used for contingency tables, accompanied by a confirmatory Anova (Miles et al., 1993). Figure 5 summarizes the results. The Anova indicated that the variable DEMANDIS did not influence the strategic decision to stay or exit. However, the χ^2 statistic of the contingency tables was significant (7.099; ρ=0.029). A detailed examination by contingency table factor level showed that the effect was due to the value "better" (8.242; ρ=0.016) (the manager has a more favorable view of the environment than that indicated by the objective assessment). This result was consistent with the frequency count (91 cases at this factor level). With regard to INDUSTRYDIS, the Anova F-test was significant (3.625; ρ=0.028). A Tukey test confirmed that those with the perception "better" in INDUSTRYDIS chose to stay to a greater extent than those who coincided with the objective assessment (0.94 vs 0.79). Although the value of χ^2 for this relationship was not significant, a relationship was identified in the case of the assessment "better", in line with the Anova result (ρ=0.1). There is significant and positive correlation between DEMANDIS and INDUSTRIADIS for Kendall's ταυ–β (0.254; ρ=0.000) and Spearman's Rho (0.269; ρ=0.000).

Figure 5. Influence of variables DEMANDIS and INDUSTRYDIS in STRAT (choice)

FIRM'S TRAITS	N	STAY	EXIT	F (ANOVA) (sign)	χ^2 (sign)
DEMAND – DISSONANCE	229	177	52	0.467 no sig	7.099 (ρ=0.029)
Directives' perception is BETTER	91	73	18		8.242 (ρ=0.016)
EQUAL	123	92	31		4.434 no sig
WORST	15	12	3		1.875 no sig
INDUSTRY - DISSONANCE		177	52	3.615 (ρ=0.028)	0.943 no sig

Directives' perception is BETTER	32	30	2		5.452 (ρ=0.065)
EQUAL	129	93	36		3.821 no sig
WORST	68	54	14		2.082 no sig

Source: Authors' elaboration

Next, we tested the relationship between discrepancy in context evaluation as a proxy of the potential raise of dissonance, and imbalance in strategic choice. To this end, we created the variable STRATDIS, to measure the difference between the strategic choice recommended by the model (STRATOBJ), and the one actually implemented (STRAT). Both were transformed into binary variables (0=EXIT, 1=STAY): STRATDIS= -1 (95 firms) indicated that the firm decided to stay (1) when the recommendation was to exit (0); STRATDIS= 0 indicated that the implemented and recommended choice was the same (111 firms) and STRATDIS= 1 (23 firms) indicated that the choice was to exit (0) but the recommendation was to stay (1). The Anova results and contingency table statistics confirmed that discrepancy in the context evaluation positively influenced the existence of imbalance in the strategic choice (compared with the theoretical model by Harrigan and Porter, 1983). We found significant differences of means between STRATDIS factor levels according to the Games-Howell test. A Tukey-b test identified two groups in the STRATDIS factor, the first of which (32 cases in INDUSTRYDIS; 91 cases in DEMANDIS) grouped firms whose managers viewed the environment and industry as favorable, while the second grouped the rest.

The relationship between discrepancy and imbalance was then confirmed with a general linear model in which STRATDIS was explained by the discrepancy (DIS) variables of demand and industry and their interaction. Figure 6 presents the main results, which we discuss below. The model was significant and showed a high explanatory power for imbalance in the decision (adjusted R^2 0.480). All the variables were explanatory and the parameters β confirmed our hypothesis of

imbalance in the presence of context discrepancy (proxy of dissonance), given its negative sign and the value of the parameters (-0.825 DEMANDIS "better"; -1.200 INDUSTRYDIS "better"). The Tukey-b test and significant difference of means confirmed the results of the first Anova. Hence, discrepancy in a context evaluation could cause dissonance and, in order to attenuate it, led to imbalance in the strategic decision, confirming hypothesis 1.

Figure 6. Influence of environmental dissonance (DEMANDIS and INDUSTRYDIS) in strategic choice (different from prescribed= STRATDIS)

	dg	F (ANOVA) (sign)	Obs	Adjusted R^2	parameter β
Corrected model	8	27.257 (ρ=0.000)	1,000	0.480	
Intercept	1	70.552 (ρ=0.000)	1,000		
DEMANDIS	2	26.270 (ρ=0.000)	1.000		
"better"			0.992		-0.825 (ρ=0.000)
INDUSTRYDIS	2	19.924 (ρ=0.000)	1.000		
"better"			0.973		-1.200 (ρ=0.000)
"equal"			0.487		-0.700 (ρ=0.054)
DEMANDIS* INDUSTRYDIS		4.228 (ρ=0.003)	0.922		

Source: Authors' elaboration. Only significant results are shown.

Test of hypothesis 2. Impact of dissonance on firm outcomes

Having proved a relationship between dissonance and imbalance, we next tested the validity of hypothesis 2, which stated that dissonance causes disturbance of the expected outcome of the strategic choice. Thus, we created the variables PERFORMANCE as the summatory of employment, turnover and market share yearly changes (positive or negative) in the period 2007-2011. ECONRESULT summarized changes in the value of net profit before taxes (NP) and added value (AV), as a % of income. We then calculated mean values and transformed into a z score for the purposes of aggregation. As test procedure, we used a univariate GLM in which the two

dissonance factors, DEMANDIS and INDUSTRYDIS, were explanatory factors and the variables explained were PERFORMANCE and ECONRESULT. As an additional test, GLM was confirmed with two individual variables, TURNOVERCHANGE and ADDEDVALUE.

The test is exigent, as the main effect on outcome (variable strategic choice) was not present). The results given in Figure 7 indicate differences between the values for PERFORMANCE and ECONRESULT according to different values for DEMANDIS and INDUSTRYDIS. PERFORMANCE was higher when managers rated the industry as "better", albeit with low significance (β=0.209; ρ=0.118). The Games-Howell test of means indicated that when the perception of industry was better, the difference in performance in favor of the factor level "better" was somewhat more significant (ρ=0.082). No significant results were detected for the factor DEMANDIS at the level of performance. With regard to ECONRESULT, the models revealed significant differences according to factor levels. In the case of DEMANDIS, the prediction of ADDEDVALUE, through the β coefficient, was negative for the value "better" (β= -0.524; ρ=0.059). We found a significant unfavorable difference in means for the level "better", compared with "equal" and "worse", for the variables ECONRESULT and ADDEDVALUE. With regard to the INDUSTRYDIS factor, the models showed significant results for a worse ECONRESULT (β=29.317; ρ=0.000) and ADDEDVALUE (β=-0.872; ρ=0.000), confirmed by the Games-Howell difference of means test.

The model results are consistent with the underlying theory; in the event of an unfavorable objective assessment of demand and industry, the company should opt to exit, leading to a better economic outcome. This confirms the findings of Elbanna et al. (2013), who found support for their hypothesis of a relationship between use of intuition and disturbance of the expected outcome of the decision (as measured by a reflective indicator).

Figure 7. Influence of environmental discrepance (DEMANDIS and INDUSTRYDIS) in disturbance in results (different from expected)

	PERFORMANCE		TURNOVER CHANGE	
	1	2	1	2
Independent	DEMANDIS	INDUSTRY DIS	DEMANDIS	INDUSTRY DIS
F (sign)	0.462 (0.631)	2.474 (0.087)	0.015 (0.985)	4.012 (0.019)
Adjusted R^2		0.013		0.026
Observed Power		0.494		0.713
Factor's level Mean Better Equal Worst		 0.216 -0.057 0.007		 0.263 -0.163 0.182
Games Howell Better vs equal Equal vs worst		(ρ=0.082)		(ρ=0.005) (ρ=0.042)
	ECONRESULT		ADDED_VALUE	
	1	2	1	2
	DEMANDIS	INDUSDIS	DEMANDIS	INDUSDIS
F	2.524 (ρ=0.082)	8.654 (ρ=0.000)	3.587 (ρ=0.029)	11.230 (ρ=0.000)
Adjusted R^2	0.013	0.063	0.022	0.082
Observed Power	0.502	0.967	0.661	0.999
Parameter β better		-0.583 (ρ=0.000)	-0.524 (ρ=0.059)	-0.872 (ρ=0.000)
Factor's level Mean Best Equal Worst	 -0.133 0.087 0.09	 -0.483 0.067 0.100	 -0.207 0.114 0.317	 -0.744 0.117 0.127
Games Howell Better vs equal Better vs worst	(ρ=0.088) (ρ=0.088)	(ρ=0.000) (ρ=0.000)	(ρ=0.064) (ρ=0.094)	(ρ=0.000) (ρ=0.000)

Source: Authors' elaboration with primary and secondary data.

In conclusion, our analysis confirmed hypothesis 2, that dissonance in evaluation influenced disturbance of the expected outcome. Managers whose evaluation was different to the objective assessment obtained a better performance result in their firms but a worse economic outcome, and in the stage of decline, only this latter is important (Porter, 1980). In a context of low munificence

such as decline, the negative impact of dissonance is difficult to sustain: an examination of the main figures for industry indicate a continuous loss of added value, employment and firms.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

We set as inspiration question of this research that of Child (1972) asking why (some) companies do not see the (evident) signals from the environment. The most answer frequently gives the responsibility to managers. This is the case of this empirical test, too. But the aim of the research was to make evident that, when management perceptions of the competitive context differ from an objective assessment, the discrepancy between the two is a powerful predictor of imbalance in the strategic decision. In a declining stage of the business cycle, managers who perceived the environment of their firm as more favorable, both in terms of demand and industry, chose to stay and obtained a worse outcome, as discrepancy in the context evaluation is also a predictor of disturbance of the outcome. This is a novel approach to Child's (1972) question, given that to the best of our knowledge, few studies have examined the impact of dissonance on the strategic choice (Boyd et al., 1993). The empirical evidence of the present study confirms that due to the barrier posed by cognitive biases and over-reliance on intuition and experience (Elbanna et al., 2013; Garbuio et al., 2015b) or interpretation of the information (Boyd et al., 1993; Miller and Friesen, 1984), managers fail to identify changes in the industry (McGahan, 2004). Experience improves the ability to read the environment but can generate over-confidence, with negative consequences (Maitland and Sammartino, 2015). CEO's are "powerful champions" not only of attention driving (Ocasio, 1997), but also of resource allocation, incentive construction and organizational climate; therefore, they can cause cognitive blindness (Eggers and Kaplan, 2009) or economic firm constrains due to their decisions (Harrigan, 1988). Political relations (within the organization and the context; Kaplan, 2008) explain that powerful firms fail as "managerial beliefs" were not aligned

with market opportunities (Eggers and Kaplan, 2009:462). Also, we notice that in turbulent contexts, or while suffering frequent organizational changes, a firm's team can suffer from cognitive overload (Laamane et al., 2018:637) that will end in a reduction of organization's sensitivity to external challenges.

Earlier, we explained that our selection of the decline stage to perform this study was due to its unique characteristics, including the scant second chances available to redirect strategy. Working on a specific industry life cycle stage avoided the risk of comparing divergent contexts (Karniouchina et al., 2013; Helfat and Martin, 2015). The literature on decline shows that managers may present inertia or implement end-game actions; however, a firm's survival depends on exploring new business opportunities and adopting entrepreneurial approaches (Martin and Eisenhardt, 2004:357). None of these situations, except perhaps inertia, will occur if managers are not aware of the decline. Firms cannot make sensible investments if they are unaware of how their industry is changing (McGahan, 2004:87). Our discussions with experts highlighted the need for complementary tools based on dialogue and respectful questioning of general perspectives of the context.

The present study expands our knowledge of the impact of discrepancy between perception and reality on business outcomes in an unstable, competitive context where firms are experiencing a decline in demand and munificence. Although management behavior in turbulent situations has been studied in start-up firms (Wilden and Gudergan, 2015), little research has examined this and its adaptation in situations of low munificence, maturity and decline (Martin and Eisenhardt, 2004). Here, we propose an instrument to assess the existence of dissonance in contexts of zero or low munificence, where an erroneous evaluation can be lethal (Harrigan, 1980). Research has demonstrated the difference between measures recorded in secondary sources and measures based on perception, and has striven to create instruments that combine a solid theoretical and factual

basis with management self-reports (Wilden et al., 2013:80). Grouping the proposed items in additive scales yielded a robust assessment of the environment, in line with previous research (Stieglitz et al. 2016).

From the information collected from managers, it was not possible to determine if this imbalance in strategic choice was deliberate and corresponded to an entrepreneurial approach (Martin and Eisenhardt, 2004), or the result of management inertia (Miller and Friesen, 1984) or dissonance (Helfat and Martin, 2015). Whatever the reason for imbalance, the behavior does not correspond to an objective assessment of the environment. Our analysis confirmed Harrigan's (1980) conclusion that firms which are not cognizant of the environment and decide to stay at all costs will achieve worse outcomes, as firms where management evaluation was more positive than objective assessment present disturbance (worse outcome than expected) of economic outcome variables. Experts from the FIAB enriched the discussion by emphasizing that an assessment based on objective indicators should use various measures and include the negative effects of asymmetry as well as the positive effects of cooperation, collaboration and alliances with competitors, customers and suppliers established by firms (Ramirez and Selsky, 2016). In particular, industry practitioners highlighted the need to explore the possible causes of dissonance and make managers aware of its effects on imbalance and disturbance. The first of the conclusions reached through this dialogue concerned confusion about the situation of the industry. Despite countless publications and statistics, predictions differ depending on whether they are based on domestic market consumption or overall turnover (FIAB report, 2016). Public information is complete, but its publication is slow and lacking in detail. Consequently, managers reported an absence of information against which to compare their own experience and perceptions. This analysis of the possible causes of dissonance also shed light on managers' cognitive maps, their possible inability to "read" the market signs and the impact of their own actions and those of their competitors (Helfat

and Martin, 2015). They need trusted groups with whom to engage in proactive and open discussion of decisions (as "evidence does not argue by itself", Garbuio et al., 2015b). An organized and shared heuristic procedure appears preferable to the uninformed decision-making characteristic of organizations that do not facilitate learning (Ganz, 2018). Furthermore, seeking advice from specialized analysts (Brauer and Wiersema, 2018) may be less effective than constructing a network where managers can give and ask for advice (social cognition, Ocasio, 1997), and even more, but difficult to implement in SMEs, a trained and collaborative internal team that can lead with the external pressures while maintaining attention to firms' strategic priorities (Laamanen et al., 2018).

Our study has shown the importance of measuring managers' perception of the context to understand their further movements. The question is, to us, relevant, as we have proven that, in the presence of dissonance, firms do not achieve the outcomes expected from the decision implemented. However, the study presents some limitations. The first of these is its inevitably exploratory and tentative nature, given that few studies have compared perception and reality, explored the causes and studied the consequences. In addition, the analysis of a domestic industry in the current context of globalization and blurred borders of the industry entails limitations, as regards sectoral classifications and observation of behaviors such as the move of product architectures towards comprehensive consumption and service experience systems (Cusumano et al., 2015). Further research is required to expand our knowledge of strategic decisions in adverse contexts such as decline, given the prospect of stagnant or null growth in many Western industrial sectors (Bloom, 2014).

We propose several areas for future research. From an academic perspective, it would be interesting to gain a deeper insight into managers' cognitive maps in order to identify the dynamic capabilities that firms require for strategic renewal and the people who should lead this. Due to the

scope and objectives of the present study, we were unable to examine managers' cognitive maps and intellectual and social capital in any detail, which would have considerably enriched our study of management perceptions; in line with Menon (2018), we posit that "if such mental models are not accounted for, the outcomes predicted by the analysis could be quite different from those obtained in reality". From a practitioner point of view, reducing discrepancy in environmental scanning is the first step to avoid dissonance and a negative (less adaptive) response (Eggers and Kaplan, 2009). However, we know that founders and owners' perspectives put a bias on the selection and the interpretation of the information (Belenzon et al., 2016); Tarakci et al. 2018). Therefore, a specific effort from institutions, and especially academy and researchers, is needed to offer such a platform to SMEs and family firms, to overcome the barriers that size and affect can oppose to data availability and analysis. As a final reflection, business organizations and government agencies should take proactive measures to provide the necessary resources for strategic renewal. Facilitating access to knowledge and limiting uncertainty is insufficient in terms of supporting entrepreneurs, especially in the case of small firms with limited resources. It is necessary for the institutional framework to facilitate the now complex process of commencing anew and renewing the firm's resources and capabilities to embark on a new life cycle.

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