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ABSTRACT

Managing corporate crises has always been a topic of interest in the evolving research about futures, especially as far as recent literature about scenario planning is concerned. Dealing with crises is even more important to date, because of the large amount of corporate failures determined by the current macro-economic recession worldwide. While a number of reliable research methodologies on crises' antecedents exist, it is still maintained that both the literature and practice of management lack appropriate theoretical perspectives for holistically capturing the overall dynamics of crises' paths. This conceptual article aims at contributing to filling this gap by suggesting that patterns of corporate crises can be conceived through extensively drawing on the evolving literature about organizational adaptation. The article follows one of the latest streams of research published in *Futures*. In fact, through adopting co-evolutionary lenses to adaptation, the article provides its readers with an interpretative framework that conceptualizes crises' patterns as an ineffective adaptation process.

Keywords: corporate crisis, organizational adaptation, co-evolution, decision making.

Interpreting corporate crises: Towards a co-evolutionary approach

1. Introduction

Why do *corporate crises* happen? What are their main antecedents and timely dynamics? This conceptual article is intended for all those scholars and practitioners who seek to enhance their comprehension of how corporate crises can be prevented (or countervailed) through advancing their understanding of when, how, and why they occur.

Managing corporate crises has always been a topic of interest in the evolving research about futures [1], especially as far as recent literature about scenario planning is concerned [2]. Dealing with crises is even more important to date, because of the large amount of corporate failures determined by the current macro-economic recession worldwide. Over the years, empirical inquiries have demonstrated that the antecedents of a crisis can be multiple, because they can range from macro environmental to industrial or firm specific factors. While a number of reliable research methodologies on these antecedents exist to date, it is still maintained that the literature and practice of management lack appropriate theoretical perspectives for holistically capturing the overall dynamics of crises' paths (e.g. [3-5]). This lack not only reduces the possibilities for conceptualizing crises properly, but also – and this appears as even more dangerous for practice – it negatively affects the possibilities for preventing (or countervailing) them appropriately.

The aim of this article is to contribute to filling the identified literature gap by suggesting that patterns of corporate crises can be conceived through extensively drawing on the evolving literature about *organizational adaptation* (e.g. [6-10]). As already known, this literature has attempted to import (fully or partially, e.g. [11-16]) biological assumptions [17] into the study of competitive (or cooperative) relationships between firms and their external (i.e. task or general) environment. Organizational adaptation has recently been used in this journal to provide readers with valuable tools for scenario planning. In particular, drawing on Evans [18], Breslin [19] specifically relied on some elements from the *co-evolutionary* approach to adaptation (e.g. [10, 20-23]) for proposing a possible interpretation of futures through the multi-level co-evolution of organizational practices. Positioned in this latest stream of research, this article adopts co-evolutionary lenses for providing its readers with an interpretative framework of crises as ineffective processes of adaptation.

The article is structured as follows. In section 2, the theoretical background about corporate crises is presented. This section seeks to guide its readers into the big picture surrounding this important research topic to date. The section explains how crises can be defined or conceptualized and how, over the years, their study has been leading both researchers and practitioners into different kinds of inquiries, assessing methodologies, and perspectives. Section 3 deals with organizational adaptation. This section substantially asserts that the co-evolutionary approach has greatly reduced the long-standing dichotomy between environmental determinists and managerial voluntarists on what forces drive adaptation. In fact, this approach has suggested that determinism and voluntarism have to be considered as variables whose dynamic relationship is potentially changing over the corporate life cycle, with co-evolution being generally

conceived as the joint outcome of managerial intentionality, environmental pressures, and institutional forces. While Sections 2 and 3 treat their contents as standalone topics, Section 4 combines their main elements for proposing the framework representing the core of this article. By also using anecdotal evidence, this section shows that a key role in the framework is played by some milestones, such as the concepts of *hidden traps* and *heuristics* in decision making, developed by the behavioural literature [e.g. 24, 25] originating from Herbert Simon's bounded rationality [26]. Finally, Section 5 concludes the article by discussing its major insights and suggests avenues for future research and practice on crisis issues.

2. Corporate crises

At least since the second half of the 20th Century, the research on crises has been witnessing the development of two partially intertwined views, i.e. the *macro* and *micro* analytical approaches. While the macro approach has been mainly investigating the crisis of whole economic systems, business industries or well defined geographical areas, the micro approach, adopted in this article, has mostly devoted time and inquiries to the studying of crises at a corporate (i.e. firm) level.

To date, the perspectives belonging to the micro analytical approach set the basis of their investigations through perceiving the corporate crisis as a situation in which a firm suffers the concrete risk of failure and exit from its competitive environment (e.g. [4, 27]). Signalled by continuous (and often growing) economic, financial and/or organizational disequilibrium, in most of the cases the crisis requires the distressed firm to immediately formalize appropriate turnaround plans, if both its shareholders and stakeholders are really directed at avoiding its final dismissal. It is known that these interventions are often associated with the opening of legal procedures for bankruptcy protection. Although presenting different peculiarities worldwide, these procedures commonly seek to help the distressed firm to survive or, in the case of its ineluctable failure, at rationalizing the final liquidation of the assets belonging to it.

On this premise, the micro approach to corporate crises has been composed of two main research streams over the years. The former stream has been mostly *financial*, in that it implies those studies which have been mainly devoted to implementing models for the effective predicting of corporate bankruptcy (e.g. [28]). The latter stream, in which the present article is positioned, has been *strategic*. In particular, strategists have been specifically committed to exploring different but related phenomena, such as the causal antecedents and timely dynamics of corporate crises.

2.1. Antecedents and timely dynamics

At the very beginning, the investigation of the *internal* (i.e. firm specific) antecedents has been preferred to that of the *external* (i.e. environmental or industrial). In the 1970s, for example, scholars paid relevant attention to the crises determined by the mistakes associated with corporate strategy, business strategy or operational tactics (e.g. [29]). To date, internal crises can be considered as those crises mainly determined by relevant deficits in the strategic, organizational or operational planning, such as productive inefficiency and plants' excess capacity, wrong financial investments, lack of product or organizational innovation, etc. Also, internal crises can be separated into *birth* and

management crises respectively (e.g. [30]). Birth crises are associated with the mistakes related to the strategic and organizational planning of those firms which are still not existing formally, or those firms that are still nascent. Management crises, instead, are related to the mistakes associated with the strategic and organizational planning of those firms that, not only exist, but are also evolving, in that they have already survived the first years of their life cycle. The studying of the external factors has come to be relevant mostly since the beginning of the 1980s, when the corporate crises determined by the changes in the political, social or competitive environment started to be investigated (e.g. [31]). To date, external crises can be considered as those crises mainly determined by (macroeconomic or industrial) environmental determinants, such as the weakness of financial markets, banking systems and currency exchange rates, as well as the lack of countries' primary infrastructures and/or in rules for protecting investors (as the most recent international financial frauds suggest).

Despite the conceptual distinctions presented above, over time strategists have been providing evidence that, almost never, can corporate crises be considered as completely internal or external. Much more often, they come to be the combined mixture of internal and external antecedents contemporaneously or progressively occurring, with each case of crisis presenting its own individual characteristics. At the same time, what has become progressively evident to strategists is that, according to the cases, identifying the specific weight attributable to the different antecedents is not easy. One of the most experienced explanations of this problem has been that the possibility of identifying significant evidence about specific responsibilities attributable to corporate executives is not rarely high and this challenge has often made accessing proper data difficult. This is also why, over the years, several research approaches have been adopted, with methods varying from quantitative analyses based on cross-sectional samples (e.g. [32]) to qualitative case studies based on in-depth field interviews (e.g. [33]).

Also, strategists have found that a corporate crisis is rarely a sudden event, in that, over the years, they have generally discovered that a crisis is much more often the extreme consequence of the increasing decline of corporate profitability [34-36]. They have associated the concept of *decline* not only with the sustained increase of negative profitability, but also with the sustained decrease of positive profitability. When further amplified by an (internal or external) unexpected event, labelled as *triggering*, the *status* of decline, which can be considered as somehow informal, often shifts into the *status* of crisis [37]. As already introduced in this section, the latter *status* is a formal situation which causes corporate bankruptcy if no appropriate corporate restructuring is promptly started.

For the scope of this article, it has to be finally acknowledged that there also exist corporate crises specifically associated with triggering events as their primary (unique, in some cases) determinants. In particular, these crises are mainly associated with contingencies such as natural disasters, explosions within production plants, or market launches of poisoned products (e.g. [38]). They have been receiving growing interest by both scholars and practitioners over the years and, to date, the discipline known as *Crisis Management* [39] specifically refers to how they can be managed and also, in some cases, prevented.

3. Organizational adaptation: Determinism, voluntarism, and co-evolution

Since the second half of the 20th Century, organizational adaptationists have been providing the management literature with relevant interpretations for different but related phenomena, such as firms' birth, survival, natural or competitive selection, and death. Adaptationists have been developing the term *adaptation* in a number of ways. For some of them, this term has simply meant corporate reaction to environmental pressures and change, while, for some others, it has also implied the possibility of proactive corporate behaviours.

As evidenced in the introduction to this article, a relevant scientific challenge among adaptationists has always been concerned with the dichotomy between *environmental determinism* and *managerial voluntarism* in defining adaptation, thus in shaping corporate goals and behaviour [40]. Determinists have argued that firms' top decision makers are substantially dependent on the external environment for their strategic planning. Thus, determinists have mainly conceived firms as fundamentally reactive – and sometimes even inactive – with regard to environmental pressures. Even if adopted at different grades, determinism can be considered as the common ground of various views developed on organizational adaptation (at least) over the second half of the 20th Century. For example, contingency theory, organizational ecology, and neo-institutionalism have basically converged in relying on deterministic foundations as the main basis of their theoretical underpinnings. Conversely, voluntarists have contended that firms' top decision makers are basically independent of the external environment and their role, as a consequence, is fundamentally proactive in shaping corporate goals. Also this point of view has constituted the basis of various schools of thought again (at least) within the second half of the 20th century, such as the strategic choice and upper echelons theories, as well as the resource dependence perspective, the evolutionary theory and the resource based/dynamic capabilities view of the firm.

The identified dichotomy has been reduced over the last thirty years, because the organizational adaptation literature has also seen the birth and development of a large body of more convergent interpretations, which have substantially agreed in viewing determinism and voluntarism as variables whose relationship is dynamically changing. Drawing on the seminal *dialectical* assumptions by Weick [41] and Benson [42], these interpretations have substantially contended that firms can be either proactive or reactive to environmental pressures within the various stages of their life cycle. Thus, the intensity of determinism and voluntarism, as competitive forces, can be different and changeable over the corporate life cycle, according to the case [e.g. 43, 44]. This new way of considering adaptation is reflected in the seminal ideas offered by Hrebiniak and Joyce [7], who argued that “the interdependence and interactions between strategic choice and environmental determinism define adaptation; each is insufficient and both are necessary to a satisfactory explication of organizational adaptation. Adaptation is a dynamic process that is the result of the relative strength and type of power or dependency between organization and the environment ... Both strategic choice and environmental determinism provide trusts for change; each is both a cause and consequence of the other in the adaptation process ... To understand this dynamic change phenomenon, it is necessary to think in circles, to investigate the reciprocity of relationships between organization and environment, and to study the mutual causation that obtains” [pp. 346-347].

Following this vein, some scholars have, over the years, specifically adopted a co-evolutionary approach to the understanding of organizational adaptation, with co-evolution being defined as the joint dynamic outcome of managerial intentionality, and environmental and institutional effects (e.g. [10, 19, 20-23]). Co-evolutionary scholars have basically argued that co-evolution is *multilevel*, i.e. it takes places at multiple levels within and between firms (e.g. [47, 48]). For example, it has been distinguished as *micro* co-evolution, i.e. the co-evolution of intrafirm resources and capabilities, and *macro* co-evolution, i.e. the co-evolution between firms and their external competitive setting. Also, co-evolution formally implies *mutual interdependencies* and *reciprocal feedbacks* between levels, which can be individuals, groups, firms, or populations. For example, by distinguishing the stages of natural and competitive selection within the firm's life cycle, Cafferata [10] has elaborated a possible virtuous adaptation path, that means a positive evolution of the firm's existence, as well as a possible contradictory adaptation cycle, which, instead, prospects an inglorious path of the firm's evolution. In this regard, Baum and Singh [48] have distinguished between *direct* co-evolution, in which one unit evolves in response to another unit (and vice versa), and *diffuse* co-evolution, in which one or more units evolve in response to several other units (and vice versa).

The development of the co-evolutionary approach has basically reduced the distance between determinists and voluntarists over the years [49-51]. In this article it is argued that (at least) some elements from this approach can be useful to the general understanding of why corporate crises happen. This will be explained in the following pages.

4. Towards a co-evolutionary approach to corporate crises

The framework proposed in this section combines the main elements discussed in the previous sections. In particular, the framework considers, simultaneously, elements from the strategic management perspective on corporate crises and elements from the co-evolutionary approach to organizational adaptation. As shown in Figure 1, the framework identifies corporate crises as ineffective adaptations.

 Insert Figure 1 about here

As depicted in the figure, the framework considers a supposed firm at the time X, which is conceptualized as every single moment in the life cycle of this firm. The framework is divided into two intertwined and subsequent stages, notably the *decline* and *crisis* stages. Their main contents are presented below.

4.1. Stage 1 (Decline)

The framework adopts the co-evolutionary approach to adaptation in that it takes contemporaneously into account the possible interdependencies between the external and internal antecedents of crisis. In particular, the basic assumption of the framework is that, although each of these antecedents, when separately considered, may have its

own influence on the firm's negative performance over time, the sole possibility for conclusively capturing this influence is given by considering the joint and dynamic occurrences between the antecedents.

As introduced in the theoretical background of the article, several examples of external factors can be found at the institutional/environmental level (e.g. macro-economic, regulatory, and/or technological) and at the industrial level (e.g. industry's life cycle and dimension) as well. Instead, the internal factors of the framework are specifically drawn from the upper echelons theory [52] and warrant additional discussion. Drawing on Child's strategic choice [53] (and on Simon's bounded rationality [26] also), Hambrick and Mason developed a theoretical framework in which firms appear as deep reflections of their top executives, with corporate strategies mainly determined by the *socio-demographic features* of the firms' Top Management Team (hereafter TMT). Characteristics such as age, gender, functional background, and tenure, are significant examples of these features. Over the years, upper echelons scholars have evidenced a number of correlations between the TMT socio-demographic features and different strategic outcomes, such as acquisitions, alliances, firm's innovativeness, strategic dynamism, internationalization and diversification. To date, these scholars depict the exploring of specific *personality traits* of the executives, such as the CEOs' narcissism [54], as a very promising area for the understanding of TMTs' internal behaviours [55], although empirical evidence within this field seems to be still fragmented [56]. Also, for the scope of this article, it is worth mentioning that, over the years, the upper echelons scholars have produced valuable considerations regarding the question of what TMT socio-demographic features can affect the survival of firms suffering a crisis. In particular, the TMT tenure has resulted in the most investigated variable, with most of the results evidencing that its high level negatively affects the profitability of distressed firms. Similar results have applied to the TMT heterogeneity, with most of the studies converging in showing that the heterogeneity reduces the possibility of a corporate crisis. Conversely, contrasting evidences have emerged when the negative relationship between organizational death and the TMT level of education has been supposed. Finally, while the relationship between corporate crisis and the TMT age is still not conclusive, the lack of core function expertise has been univocally considered as a predictor of diminished survival chances.

As depicted in Figure 1, the proposed framework considers the internal factors of decline at two levels. The first level is constituted by the composition of the supposed firm's TMT, which has to be considered as the configuration of the socio-demographic features and personality traits of its members. In the figure, the firm's CEO receives specific attention as a single TMT subgroup, because, over the years, the upper echelon scholars have been strongly committed to the understanding of how CEOs' socio-demographic features and personality traits, rather than those of TMTs more generally, specifically impact on corporate strategy. In fact, the inverted arrows which, in the figure, connect the CEO to the other members of the TMT, prospect the possible mediating and moderating interactions between them. The second level is composed of a number of strategic and organizational variables that the TMT can set according to its overall socio-demographic composition, thus emerging as the consequence of the TMT's decision making process. Examples of these variables can be individuated in, but are not limited to, the corporate (e.g. diversification or vertical integration) or business (e.g. cost leadership or product differentiation) strategies, or in the corporate

investments as well, such as the expenditures in R&D, marketing, or production plants. In the figure, the arrow connecting the two levels explains the hierarchy between them.

The most relevant role within the framework is played by the TMT (*mis*)perceptions (i.e. wrong perceptions) of the environment appearing in Figure 1. Acting as the linking pin between the external and internal factors, these wrong perceptions can be used as the major tool for formalizing the co-evolutionary nature of the framework. In fact, the framework considers these TMT misperceptions as something external to the TMT itself, although it is acknowledged that the way people, not only corporate decision makers, perceive the real world around them is, of course, influenced and conditioned by their socio-demographic features and personality traits. It is contended that the TMT misperceptions can regard the comprehension of factors external to their firm, such as the environmental changes affecting industry's competition, or of internal factors as well, such the real value of their firm's resources and capabilities. It is maintained that these misperceptions constitute one of the most vivid (and possible) explanations of the firm's ineffective adaptation, in that they are assumed to be the main antecedents of the strategic and/or organizational mistakes performed by the firm's TMT over a certain period of time. Once occurring, these mistakes lead to a loss in the firm's competitiveness, which brings about the firm's initial decline.

Anecdotal evidence from the crisis of the Italian automobile manufacturer Fiat in the second half of the 1990s can be useful for the comprehension of the assumption introduced above. One of the key determinants of this crisis was the lack of product innovation in the automobile core business, which was the consequence of the firm's TMT decision to reduce Fiat's R&D expenditures in car vehicles in those years [57, 58]. One of the possible interpretations of this reduction might come if Fiat's positive past performance in the first half of that decade is considered. In general, scholars argue that continuous periods of high performance and competitive success can, sometimes, lead the firms' top decision makers to greed and presumption [59]. This can significantly affect the whole corporate decision making process through a negative mechanism that strategists call *strategic dormancy* (e.g. [10, 60, 61]). The impact of strategic dormancy on firms' performance can be dramatic, with the crisis itself being potentially the most negative consequence. Could have this happened at Fiat in the 1990s? Giovanni Agnelli, one of the most important historical leaders of the firm, argued that, in the automobile industry, the firms' performance has often fluctuated between decline and growth. This means that firms have moved from vicious to virtuous circles, in which the effective competitive action has empowered the commitment of both managers and employees. As a result, further successful initiatives might have been implemented. In this vein, several crises and corporate turnarounds also characterized Fiat's history in the 20th century. In searching for past evidence throughout the firm's evolution, Mr. Agnelli argued that the situations of crisis preceding that of the 1990s had been overcome by the firm through the launch of very successful automobile milestones, such as the 127 model in 1971, Panda in 1980, Uno in 1985 and Punto in 1993. In this regard, experts (e.g. [62, 63]) have argued that, between 1997 and 2002, Fiat was not able to repeat Punto's success because it did not launch an equally successful car model. One reason for this can be the possible strategic dormancy of the high tenured TMT in charge of the firm, which was unable to react effectively to the changes affecting the national and international competition within the automobile industry. In fact, things have started to improve seriously only since 2004, when a series of new successful vehicles was introduced by the new (and lower tenured) TMT.

4.1.1. TMT misperceptions. The hidden traps and heuristics in decision making

Stemming from the milestones of Simon's bounded rationality, a growing corpus of studies within the behavioural decision making literature [24, 25] has devoted efforts to the explanation of why human misperceptions can occur (e.g. [64, 65]). One of the most evocative interpretations was provided by Hammond, Keeney and Raiffa [66]. Drawing also on past attempts, such as the *competency* trap (e.g. [67]), these scholars tested empirically a series of *hidden traps* in decision making, through which they formalized a number of situations in which the human brain is abnormally deviating from deciding rationally. For example, the *anchoring* trap is said to occur when data or comments coming from the external environment negatively influence the decision making process in conditions of information asymmetry. Similarly, the *status-quo* trap occurs when the decision makers prefer to stay anchored to the current, although not satisfactory, *status* in order to escape from the risk and responsibility of changing. Also, the decision makers are affected by the so-called *confirming-evidence* trap, when they prefer to take into account evidence confirming their instinct, rather than evidence that does not, because they have already taken their decision at an unconscious level. Finally, the *framing* trap could also happen when the way in which two solutions are presented may influence a specific choice. In particular, if presented in different ways, equal solutions may lead to different choices.

The decision making literature has often associated the reasons why the presented traps can happen with the concept of *heuristics*. Newell and Simon [68] seminally defined heuristics as those cognitive shortcuts that the human brain tends to use when its decision making process is limited in terms of time and availability of data. Famous psychologists (e.g. [69]) have stressed the limitations of heuristics over the years. In particular, these psychologists have maintained that heuristics are often sources of decision making bias because, often, they lead to the misuse of probability computations while the decision makers try to actualize the *future states of the world*. It is worth mentioning that, more than once, this negative view by psychologists has also influenced the way in which heuristics have been considered by strategic management literature.

4.2. Stage 2 (Crisis)

Stage 2 starts with considering the supposed firm already suffering declining performance and this happens because of the reasons explained above. In stage 2, the framework specifically contends that this decline continues because of the lack of prompt responses by the firm's TMT. Thus, in most of the situations, the continuing decline definitely bursts out into a formal *status* of crisis (i.e. the final deterioration of the firm's adaptation process), because of the occurrence of an external (i.e. environmentally related) or internal (i.e. firm specific) triggering event, with this concept drawn from the *Crisis Management* literature introduced in the theoretical background of this article. As explained, the triggering event is a sudden and often unexpected event, that acts as a catalyst in amplifying the already negative performance of the declining firm below what could be conceptualized as a resistance point.

Anecdotal evidence from Fiat's crisis in the second half of the 1990s is also useful for explaining this issue. In the 1980s, Fiat improved its competitive positioning in the automobile core business. However, at the end of the decade, the group's performance

worsened again. Its market share in Italy decreased from 60% in 1987 to about 52% in 1990. In 1993, its economic performance registered 921 million euros of loss and the Italian market share decreased to 44%. As a consequence, the firm's TMT implemented a series of structural investments to stop the firm's performance decline. For example, in 1994 Fiat built new plants in Pratola Serra and Melfi (Italy) and introduced some new car models as well. One of them, the Punto car, was particularly successful from the very beginning, as already discussed. In general, the product innovations caused a temporary increase in the firm's performance between 1994 and 1997. In 1998, however, the performance started to deteriorate once again. In 2001, the firm's crisis became evident to all its stakeholders. That year, Fiat's consolidated loss amounted to 445 million euros and its net debt amounted to 6,035 million. On December 10th, 2001, the Group's Board of Directors publicly acknowledged the situation and announced the turnaround plan. In 2002, the group's economic performance worsened even further, with the consolidated loss amounting to 3,948 million. Thus, between 2003 and 2007 a number of strategic, organizational and financial operations defined the firm's corporate restructuring. In particular, the group strongly refocused on the automobile core business and sold some non-core subsidiaries (such as Fiat Avio and Toro Assicurazioni) to improve its financial position. Also, Fiat launched new car models (such as the restyling of the Punto, Panda and 500 vehicles), which immediately met with customer satisfaction. As a result, the firm's performance saw a major upturn between 2003 and 2007. In the narrative provided, the triggering event of the crisis can be found in the September 11th, 2001 terrorist attack to the twin towers in the United States of America. In fact, this event determined a macro-economic recession worldwide, that, with minor exceptions, affected most industries, including the automobile industry. In fact, in almost all the automobile manufacturers, profits between 2001 and 2002 were reduced. But, those players, such as Fiat and General Motors, which were already suffering a declining performance, definitely became formally distressed. In this regard, the concept of *resistance* point is imported from negotiation theory. Specifically, when applied to the present framework, it serves to represent the negative performance limit below which the *status* of crisis starts, i.e. when the TMT of the distressed firm announces a formal turnaround plan through the help of the legal procedures pertaining to the firm's parental country.

The lack of TMT prompt responses discussed above plays a pivotal role in this section of the framework. This lack can generally derive from those TMT misperceptions which can also act as possible antecedents of decline. More specifically, the lack can be the consequence of resistance to change in general, as well as of structural inertias or path dependence mechanisms in particular.

5. Discussion and implications

This article has attempted to conceptualize the overall pattern of corporate crises. In particular, the article has oriented its readers towards a two-stage framework, which interprets corporate crises as ineffective adaptations, thus deteriorations (and even complete failures) of the adaptation process. Before starting the discussion of some specific peculiarities presented in the framework, a couple of premises are required. First, the framework has been intended to prospect the possible path of crises by focusing mainly on those crises generally deriving from an incurrent (and progressive)

lack of competitiveness within a firm. Thus, the framework has not considered those situations in which the triggering events, such as natural disasters or products' poisoning, can be considered as primary antecedents of crisis, but only those situations in which these events act as secondary antecedents (as evidenced in stage 2). Second, the framework has started from the assumption that the behaviour of the supposed firm's top decision makers is always ethical along its stages. Thus, the framework has not taken into account possible behaviours guided by free riding or conflicts of interest. It is argued here that (especially) this issue could be considered as a promising and relevant area of extension of the framework.

This being stated, some elements from the co-evolutionary approach to adaptation have played a pivotal role in the framework and this constitutes the *first* item for additional discussion in this section. As explained in the background of the article, the co-evolutionary approach has, at least partially, reduced the long-standing dichotomy between environmental determinists and managerial voluntarists within the adaptation debate. In particular, the co-evolutionary approach has looked at determinism and voluntarism as interdependent variables whose hierarchy can dynamically change according to the different stages of the firm's life cycle. Thus, the main assumption from co-evolutionary scholars is that considering determinism and voluntarism separately is not the most appropriate method for explaining adaptation. Stemming from past attempts also [4], the framework proposed in this article has tried to follow the insight recalled above. In this regard, the framework has simplified the corporate life cycle as a passage of time and experience starting from the beginning of stage 1 to the end of stage 2. Thus, the framework has made no strict distinction between the start-up, growth, or mature stages of the firms' state of being. It is argued here that considering how this framework can vary according to these different stages seems important for providing both researchers and practitioners with conclusive assessments in the future.

This being clarified, the concept of TMT misperceptions has constituted the tool for considering, at the same time, the possible external (i.e. institutional/environmental) and internal (i.e. firm specific) determinants of crisis. In this regard, quantifying the overall effect of these TMT misperceptions on the adaptation failure may be relevant for deepening the nature of the proposed co-evolutionary approach to corporate crisis. In fact, it is supposed that this effect could take, at least, three different directions: a) it could reduce the influence that both the institutional/environmental and firm specific factors, if taken individually into account, might have on the firm's performance; b) it could amplify this influence; c) it could have no influence. Also, it has been explained that the co-evolutionary approach considers the interplay of institutional forces and managerial voluntarism. In this regard, how are the TMT cognitive frames and decision making paradigms shaped by these forces? How much can the TMT reliance on cognition be dependent on them? More generally, the identified research avenues are associated with claims that more conceptual and methodological refinement is needed if co-evolutionary scholars want to come to conclusive interpretations of how successful, not only ineffective, organizational adaptation processes occur [10, 19, 49-51]. Moreover, as co-evolutionary scholars contend, this refinement seems crucial for the important understanding of how evolution (or involution) works when the unit of analysis is not only firms but general environments (e.g. country systems) as well.

The item representing the TMT misperceptions opens the door to the *second* element needing additional discussion in this section. In the framework, TMT perceptions in general – and its misperceptions in particular – have been used as the linking pin

between the internal and external antecedents leading to decline and, eventually, to crisis. It is known that the TMT serves as a filter for its firm. In fact, the way it interprets the firm's competitive positioning basically determines corporate strategy, with the underlying essence of this assumption stemming from the upper echelons perspective mainly. As for the scope of this article, it is somehow to be expected that TMT misinterpretations lead to crisis. However, what might break the cycle of these misinterpretations and yield a different outcome [70]? In particular, what TMT socio-demographic features or personality traits can help the survival chances of distressed firms? Research on this issue has been growing over recent years, but conclusive results seem still to be missing in the literature [71]. Also, it has been explained that incorrect perceptions often happen because of the so-called hidden traps in decision making and these traps have been associated with the concept of heuristics. One of the most relevant questions for future research should address whether heuristics adapt, or not, to changes in the wider business environment and its addressing would clearly have implications for practice. Moreover, it is argued here that more research is needed to understand whether, in general, heuristics are really negative or not for corporate decision making, as contrasting evidence is growing. In particular, some emerging psychological researches have stressed the positive facets of heuristics. For example, Kahneman, Lovallo and Sibony [72] recently maintained that heuristics can enhance the quality of the overall decision making process, if the cognitive distortions which can be somehow associated with them are promptly monitored and minimized. It seems that these latest evidences are also affecting the way in which some strategists have started to think about heuristics and the way these strategists have started to collect evidences about them. In this regard, Bingham and Eisenhardt [73] recently provided a very interesting multiple case study narrative, which highlights a positive view of the heuristics as *rational*, and their findings appear to be consistent with some other recent managerial insights on this topic.

In the framework proposed in this article, heuristics have been associated with the mechanisms of resistance to change, structural inertia and path dependence, which represent the *third* element of specific discussion. In fact, it is known that, despite the latest and significant attempts (e.g. [74-75]), the appropriate understanding of these mechanisms still constitutes an important call for both researchers and practitioners, as they still appear, for some aspects, as *black boxes* to date. Also, it is acknowledged here that the proposed framework has specifically considered the occurrence of these mechanisms mainly at the stage 2 level, but it could be supposed that they could negatively affect firms also at stage 1. This means that these mechanisms should be explored not only as possible antecedents of the final corporate crisis, but, also, in association with the TMT misperceptions, as possible antecedents of the initial performance decline. Also, it has to be considered that, within the framework, the lack of TMT prompt responses has been treated solely as a result of these mechanisms. However, research in upper echelons theory has shown that various TMT features can also result in the slow responsiveness of TMTs (e.g. [76]). This kind of research has investigated this aspect mainly in relation to firms' competitive moves in general, but it is supposed that a similar line of inquiry might be specifically tested in crises' settings as well.

Finally, all the elements presented in the framework – and further recalled in this section – lead the present discussion to the *fourth* and last item of analysis, which wonders what possible methods can be regarded as the most appropriate for future

empirical investigations in this area. In this regard, it is believed that the comprehension of corporate crises as ineffective adaptation processes might benefit more from the comparison of qualitative evidence-based case studies than from quantitative analyses. In fact, although it is acknowledged that the latter methods can be particularly useful for providing both scholars and practitioners with contextual ideas about the crisis setting, it is believed that case studies can be the most appropriate for deepening the behavioural determinants of crises that have been specifically highlighted in the proposed framework. At the same time, it is acknowledged that identifying the determinants of corporate crises only through qualitative tools, such as in-depth interviews with executives and managers, can be hard for both researchers and practitioners. In fact, as discussed, the chance of capturing significant evidence on specific responsibilities attributable to corporate executives is not rarely high and this can influence the availability of relevant data.

5.1. Concluding remarks

This article has dealt with corporate crises by presenting a possible interpretation of them as ineffective adaptation processes. In particular, the framework developed in the article has adopted some elements from the co-evolutionary approach to organizational adaptation for elaborating the proposed interpretation of the investigated phenomenon. Some milestones from the decision making literature have also played a pivotal role in the framework. Of course, the framework is not intended to be conclusive or exhaustive, in that it has mostly intended to represent an attempt for opening up new research avenues in this pivotal area within the management literature. Scholars may benefit from implementing the exploratory framework used in this article, as it has been explained that the framework aims to respond to the need for research to find a common ground on crisis issues. For example, new conceptual elements, or new relationships between those elements already present in the framework, could be considered. Formal propositions could be developed as well. At the same time, practitioners could benefit from a unique conceptual approach that may improve not only their *ex post* overall understanding of corporate crises, but also their *ex ante* tentative prevention or *in fieri* successful managing.

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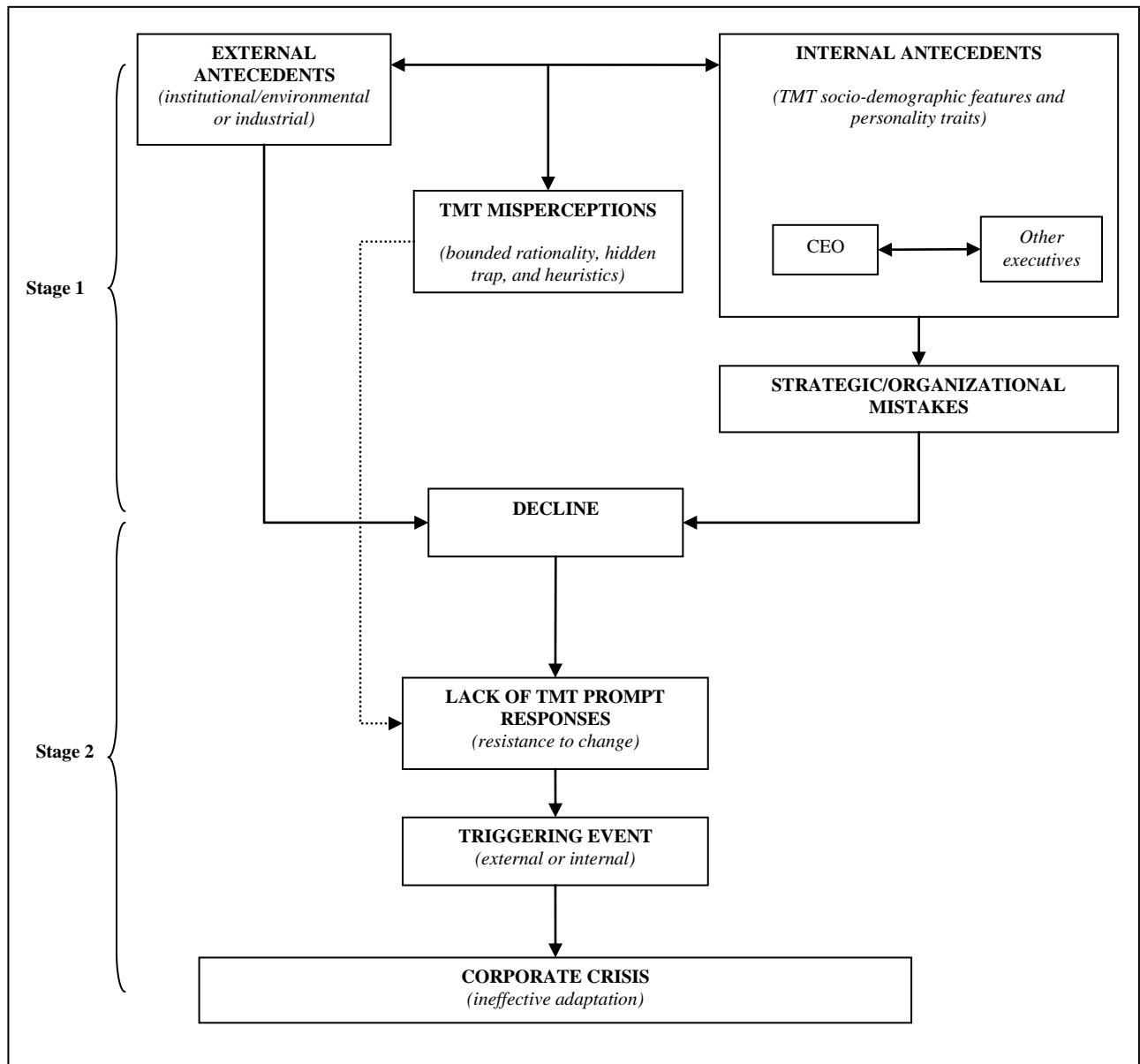


Fig. 1. Corporate crises as ineffective adaptations. Towards a co-evolutionary approach.