

INNOVATION GOVERNANCE IN PRACTICE: A BUSINESS POLICY APPROACH

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Abstract

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Innovation is a key driver for any organization's competitiveness and sustainability. Even in the public sector, a lack of innovation may affect organizations in many different ways, ranging from lost opportunities for more efficient and innovative processes to staff morale decrease; staff that embeds organizational knowledge, values and culture. Innovation can provide new ways of doing things; strengthening competitive advantages or providing more competitive products and services. Innovative organizations also make jobs more fulfilling, and ultimately making the world a better place. Board directors need to be more than just observers. According to Chouaibi, Boujelbene, and Affes (2009), board directors do have a main role in what driving innovation concerns, and that there is a need for an adequate framework in order to promote such involvement from the board of directors. Moreover, Saravia and Saravia-Matus (2017) suggest the problem of the determination of causality has become an increasingly important question in the field of corporate governance. By following a logical thinking process, we ended at a pragmatic and deployable model backed by logical cause and effect. Taking a business policy approach, we argue that it is possible to attain more innovative organizations and innovation governance should be on every board's priority list.

Keywords: Governance, Innovation, Business Policy, Board Directors, Logical Thinking

Authors' individual contributions: Conceptualization - P.B.A.; Methodology - P.B.A.; Formal Analysis - P.B.A. and A.C.; Investigation - P.B.A. and A.C.; Writing - P.B.A. and A.C.

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1. INTRODUCTION

Long is gone the time when boards of directors used to be mere passive observers, just ensuring compliance with regulations and codes (Bobillo, Rodríguez-Sanz, & Tejerina-Gaite, 2018; Sharma, Jhunjhunwala, & Sharda, 2018). Present day board directors have a much broader scope and must play more proactive roles (Charan, 2005; Nueno, 2016). This demands board directors to step into matters as strategy shaping, risk supervision and guidance,

and supporting management in organizational development, of which innovation governance is one facet (Hill & Davis, 2017; Lorsch, 2012).

As suggested by Barton and Wiseman (2015), many board directors do not understand their companies' strategy, and innovation is one of the key components of strategy, which contributes to organizations' sustainability. Chouaibi et al. (2009) suggested that board directors do have a main role in what driving innovation concerns, and that there is a need for an adequate framework in order to

promote such involvement from the board of directors. Why innovation governance shall be under the attention of the board, and how to do it in practice - how to govern innovation within organizational context - are the main drivers behind this research. Even if at a conceptual level, it is directly related to the need to institutionalise organizational policies that once 'normalized' would, *ceteris paribus*, improve the innovation culture within organizations.

For instance, being diversity a key element to foster innovation across an organization, board directors shall proactively monitor how's the diversity barometer in the organizations under their responsibility, especially at senior management levels where it is important to prevent CEOs to surround themselves with people who mirror them. This is particularly important during recession times, when "fixer" CEOs may be hired (Tomasko, 2006). Such "fixers", as opposed to "growers", are profiles taken in to sort performance issues in need for urgent measures. Fixers might surround themselves by other "fixers", thus killing the initiative and innovation across an organization - especially critical for companies that depend deeply on innovation (e.g., pharmaceutical, tech business).

The approach addressed by the present work places a considerable focus on innovation architecture, taking the whole organization as a political system composed of four main governing areas, and elaborating on a deployable model, in order to provide usefulness not only for academic circles but also to practitioners, hence reducing the gap between these two worlds. Therefore, and differently from other approaches, this one intends to be comprehensive, starting from the identification of the problem - the need for organizations to become more innovative - progressing towards the governance of such organizations in order to achieve more innovative cultures and expected performance.

This text is composed of four main sections, in addition to this introduction and the conclusion. The Section 2 provides some relevant literature background on innovation governance and the urgent need for attention, in order to sustain businesses and organizations (Scherer & Voegtlin, 2020). It also brings a holistic approach to organizations, by introducing the business policy model (BPM) as a holistic approach to organizations (Calleja & Melé, 2017; Valero y Vicente & Lucas Tomas, 1991). In the same section, the innovation architecture model of Miller and Wedell-Wedellsborg (2013) is introduced and combined with the BPM, therefore providing a comprehensive approach to an organization's innovation capability building.

In Section 3 the methodological approach, based on Goldratt's (1994) logical thinking process (LTP), is introduced. It provides direction for practical deployment of the designed strategy, bringing into scene a strategy development approach (Mabin & Davies, 2010, p. 560). Within LTP, we start by considering the main reasons for change while considering the business policy model. Then questioning what to change; what to change to; and how to cause the change. In order to do so, it needs the identification of critical success factors (CSF) for attaining the desired future organizational paradigm. The process starts by assessing the current stage; creating needed transformations in

order to fill the gaps, which provides for the design of a future reality tree - a cause-and-effect logical tree - which shows how selected actions will enable a more innovative organization, ensured by the *sufficiency* of the conditional logic. The approach ends with an additional kind of logical tree - the *prerequisite tree* (PRT); one aimed at identifying organizational obstacles to change and strategy deployment.

In Section 4 the resulting trees from the logical analysis are presented. In Section 5, it is discussed how the developed model can be made deployable in the real world. It is implicit that theoretical models are necessary conditions, however not sufficient to make a meaningful change. Finally, this work concludes with some key remarks regarding a model's usefulness as a way to close the gap between academia and practitioners.

2. LITERATURE REVIEW

Innovation is key for all organization's competitiveness, process improvement and ultimately long-term organizational sustainability. With few exceptions, innovation governance is not a regular subject on typical boards' agendas, however, it needs to be because so much is usually at stake. Previous literature reviews on the effect of corporate governance on innovation have pointed towards the need to do more research (Gonzales-Bustos & Hernández-Lara, 2016; Asensio-López, Cabeza-García, & González-Álvarez, 2019).

2.1. Innovation governance

Innovation can be defined as 'creating value by doing new things or in a better way'. Innovation architecture, the subject we are interested herein, can be defined, as an arrangement through people that makes other people innovate by changing the environment they work in (Miller & Wedell-Wedellsborg, 2013). Innovative organizations own a highly sought-after competitive edge, with several benefits besides direct growth potential. Such capability, however, will not be sustainable if not properly governed.

Deschamps and Nelson (2014) suggest that innovation shall not be a subject left solely to CEOs and their executive teams' attention, because, as the CEO and executive teams are frequently under the pressure of short-term financial results, they tend to place innovation at a lower priority on their 'to do' lists, which raises organizational risk. This perspective can also be inferred from Zouari and Rim (2015), who suggest, backed by a real case that board directors are fundamental to ensure enough investment goes into research and development. In companies for which innovation is critical, innovation governance should be high on the list of board auditing missions. Moreover, as board directors get more involved with the companies, they are responsible for and engage with people, they may both promote innovation and get insights on their companies' capabilities from such employees.

A first cut on the subject of innovation governance would show that the board of directors is responsible for ensuring adequate shareholders' benefits, managing risk, and keeping future

company performance. Risk may or may not be at odds with innovation, which prompts a first critical issue, where the CEO profile by falling into one of two main stereotypes – *fixer* or *grower* – may dictate an organization's fate (Tomasko, 2006).

Fixer CEOs are hired by the board to manage turnaround and other difficult episodes on a companies' history. Grower CEOs, however, are brought in, in order to prepare the company to compete into the future, typically through innovation (Tomasko, 2006). Not all businesses need the same effort in what innovation concerns, however, both CEO profiles need close board supervision. Whenever the CEO is a fixer, the board needs to ensure such a CEO doesn't compromise the company's long-term future by killing initiative and innovation. In contrast, if the CEO in question is a grower, the board shall ensure the company is not taking 'too much' risk.

Making boards aware of the need to care about innovation governance, on its many forms, is a necessary condition, however not sufficient. To govern innovation in practice it needs a holistic model together with processes that harmonise the business areas as a whole in its attempt to achieve a high maturity level in what innovation governance concerns.

2.2. The business policy model as a holistic approach to organizations

As organizations are systems – “*a grouping of parts that operate together for a common purpose*” (Forrester, 1968, p. 1-1) – a suitable approach in dealing with them shall be a systems approach as well, as such is indeed a holistic approach.

Senior managers choose and act in order to achieve the desired future situation for the organization, supposedly better than the current one in relative terms. Architecting and creating a desirable new organizational culture – a culture of innovation – demands, firstly, approaching the organization in a holistic way to ensure that unintended consequences are minimized. Among several possible approaches Christensen, Andrews, and Bower (1978) set up the early roots of what can be considered a holistic organizational approach – the *business policy approach* – consisting originally of three governance areas: 1) corporate strategy, 2) executive structure, and 3) the incentive systems.

Later on, Valero y Vicente and Lucas Tomas (1991), developed the *business policy model*, a reference framework that builds on the business policy works of Christensen et al. (1978) and conceived senior leadership work as including four main areas of governance, together with the development of specific procedures that provide detailed steps for the analysis, choice and implementation of the organization's desired future. The four main governing areas are: 1) the business; 2) the directing structure; 3) professional commitment (incentive systems); and 4) the institutional configuration. Distinguishing these four aspects is useful to preserve a global approach (Calleja & Melé, 2017).

Choosing the *business* means deciding to carry out the particular content of the activities or operations that, when harmoniously related, allow

the best possible evolution of organization's performance. Business is something very specific and may refer to performance results others than solely profit. Bringing people together and putting them to work is one of the basic pillars of senior management. Hence, creating a *directing structure* means entrusting individuals with particular parts of what needs to be done to effectively move the organization forward and fairly. Innovation is most dependent on the way organizations structure and manage information; and how freedom of choice and autonomy is allowed by the organization's values and culture as well – key factors for innovation governance.

Fostering initiatives and innovation is one of the key tasks of a manager. Through *professional commitment* senior management must seek procedures that will help people carry out their work, that is, ensuring the professional commitment across the whole organization. It means getting the people who form the organization to work professionally, contributing with new ideas through creativity and knowledge. These criteria shape an organization's innovation culture and vice-versa. The challenge is to ensure the adequate professional commitment of all people across the organization, so everyone contributes positively to an organization-wide innovation culture.

Finally, the fourth key aspect on which an organization depends is *institutional configuration*, which is related to *initiative*, *money* and *power* (Valero y Vicente & Lucas Tomas, 1991). The institutional configuration refers to determinants of company viability on its whole. In this sense, *money* dictates financing for innovation initiatives. *Power* is an enabler, or sometimes a disabler, of innovation across organizations, as it may foster or restrain the level of organizational *initiatives*. Boards' attention to the institutional configuration dimensions is critical to enable proper innovation governance.

The institutional configuration is of utmost importance for organizational sustainability. It is where the critical dimensions of *initiative*, *money* and *power* are at play, sometimes exhibiting complex dynamics (Valero y Vicente & Figueroa, 2011). Such sustainability is even more critical whenever an organization engages in a 'change strategy', as could be the case for changing towards a new innovation culture.

The business policy model of Valero y Vicente and Lucas Tomas (1991) suggests that management may be more humanistic, and practical, being a good alternative to the traditional schools of thought that promote a simplistic or mechanistic approach to strategic management, focusing almost exclusively on short term profit. Due to its comprehensive scope, the business policy model approaches the organization as a system on its whole and has the virtue of connecting a humanist vision of business with the role of business in society. Because innovative behaviours and creativity are related to *intrinsic* motivation factors, such a humanistic approach is of the essence for any organization aiming at improving its innovation culture. Table 1 summarizes the crossing of innovation and the above-mentioned governing areas.

Table 1. Innovation governance and the BPM (business policy model) governing areas

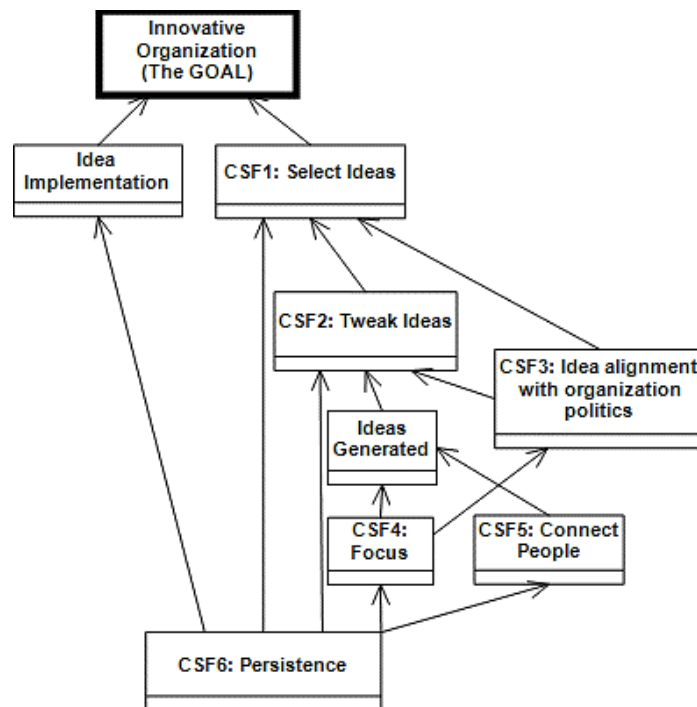
Governance area	How innovation relates to the governing areas
The business	An organization's business consists of offering (in non-profit or public organizations (Jia, Huang, & Man Zhang, 2019), or for-profit organizations) services and goods on the market on a continuous basis, obtaining revenue in return. It is therefore important to specify how the company makes money, and how that depends on innovation across the organization. In the case of a non-profit organization, it still has a business model, based on efficiency and new and better ways of doing things with the available resources.
The directing structure	The organization's executive structure makes explicit those responsible for carrying out the specific tasks. Thus, organizing for innovation affects the structure and gets affected by it as well.
The professional commitment	One of the key tasks of top management is to get people to work in the pursuit of organizational goals. Therefore, suitable incentive mechanisms should be thought of in order to ensure the right intrinsic and extrinsic motivation towards a more innovative organization.
The institutional configuration	Initiative, money, and power are the three critical dimensions of the institutional configuration of any organization, and affect (and get affected) by their systemic interrelationship in promoting an innovation culture across the organization.

2.3. Organizing for innovation

A considerable effort has been made in order to understand *how to make an organization more innovative* and the due governing of innovation, by means of using and blending different models. The usefulness of a model is oftentimes at odds with its comprehensiveness, which makes us look for simpler but equally useful models. All models, formal or mental, are partial and incomplete representations of reality. Hence, models cannot be validated in terms of truth, but they can be evaluated in terms of their usefulness in what regards supporting policy design and decision-making (Sterman, 2000, p. 846 and 890). Such is the pursued choice in this text.

Miller and Wedell-Wedellsborg (2013) suggested a model supported by six critical success factor, which are crucial when considering an innovation

strategy aiming at changing an organization's innovation culture. These six key factors are: 1) focus, 2) connect, 3) tweak, 4) select, 5) stealthstorm plus 6) persist. These authors suggest that ideas on their original form are rarely ready for deployment, and need to be "tweaked" in order to improve. Figure 1 illustrates how the mentioned six critical success factors, CSF1-6, support the main goal - getting an *innovative organization*. As suggested by Miller and Wedell-Wedellsborg (2013) and Wedell-Wedellsborg and Miller (2014), having good ideas is a "necessary condition", however "not sufficient". There is a need for governing innovation in a systemic way, by understanding how the different relevant variables interrelate with each other, increasing (or decreasing) performance. Figure 1 further illustrates a possible interaction and dependency among the main enablers of innovation as suggested by these authors.

Figure 1. The strategic intermediate objectives map, having as its goal a more innovative organization

Source: Authors' elaboration.

Having established the importance of innovation governance, and a holistic model of organizations, as well as the innovation key enablers, a process will be needed to support boards of directors in developing their strategies and policies aimed at transforming organizations for increased innovation performance and attaining a better future.

The movement towards a more innovative organization is a governance process that demands a “change strategy”, which by itself demands a suitable strategy development approach. The term “development” suggests the strategy process does not end with the strategy formulation but actually shall continue with the strategy deployment in the field, together with the “normalization of innovation” (Vilà, 2011, 2012). Only then can proper innovation governance be achieved. This subject is covered by the followed methodology.

3. PROPOSED APPROACH

3.1. Methodological background

Among several possible approaches, Goldratt’s (1994) theory of constraints (TOC) with its logical thinking processes is a possible one, as it allows for a robust establishment of cause-and-effect relationships, prompting a fast recognition of the strategic problem and root causes identification.

The pursued methodological approach makes use of logical thinking, contrasting to other approaches. Saravia and Saravia-Matus (2017) argue that in recent years the problem of the determination of causality has become an increasingly important question in the field of corporate governance, which suggests the need to go into causal research, in contrast with traditional statistical inference which doesn’t ensure causality.

This issue is more critical the more complex is the system under study, as for instance, human organizations. One of the main thinking revolutions of the 1950s suggests that one cannot fully understand the nature of a system by analysis, statistical or any other. So, another method is desirable - synthesis. When trying to understand a system the first thing analysts do is to take it apart; when synthesis advocate exactly the opposite. The defenders of deductive approaches may disagree, however, all creativity (hence ideas) come from induction thinking. Deduction is useful however to “validate” or refute a hypothesis or set of hypotheses for a certain period of time. Analysts even suggest the product of analysis is knowledge.

Knowledge is not always the same as understanding. Knowledge may even lead to *know how* it works, but not *know why* it works.

When we give up synthetic thinking for the sake of analysis, we start missing understandability. Systems thinking, fundamentally grounded on logic is a blend of analysis and synthesis, leading towards an expansionism instead of reductionism (analysis) doctrine (Forrester, 1961; Senge, 1990). Such an approach suggests that in order to build increasing understanding we have to move towards larger systems. With synthesis, knowledge goes from wholes to larger wholes, not the opposite - from wholes down to parts.

Causality implies determinism, and logic ensures causality. Aristotle’s first law of logic states that in a logical implication, if one denies the consequences (effects), one must deny the precedence. Hence, it is a fundamental law of logic that non-determinism cannot ensure causality. The followed logical approach, drawing from Goldratt’s (1994) logical thinking process, starts by questioning what is wrong with the current organizational paradigm, and what has to be done regarding matters of ensuring an adequate innovation architecture and governing of innovation (Mabin & Davies, 2010, p. 559). As a secondary objective, the followed approach intends to contribute to filling the gap between the academic and the practitioner by providing deployable ideas, as opposed to just theoretical ones. Hence some practical suggestions are provided in graphical form.

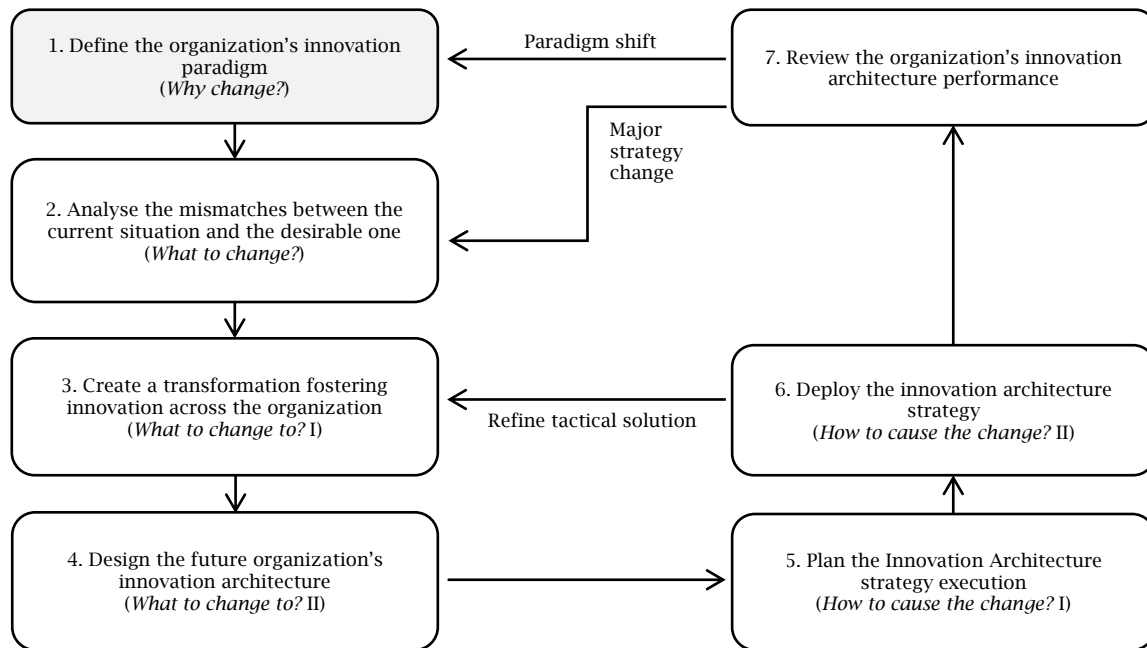
3.2. A logical thinking process approach

Proper innovation governance is an imperative and change is of the essence. Before boards become able to govern innovation within the organizations that they are responsible for, they need to help set such organizations innovation architectures. The logical thinking processes, initially introduced by Goldratt (1994) suggests one possible comprehensive approach to building the intended innovation architecture, bounded by the four questions:

1. Why change?
2. What to change?
3. What to change to?
4. How to cause the change?

While the answer to the first question - *Why change?* - seems obvious by now, the remaining three questions need addressing, which is progressively done below by making use of LTP tools, and considering the diagram in Figure 2.

Figure 2. The constraint management model as a strategy development tool



Source: Mabin and Davies (2010, p. 564)

The process starts at the top left corner box forcing the boards of directors and senior management to rethink its desirable innovation paradigm; then comparing it with their organization's current paradigm in order to analyse the differences. After this stage the process demands the creation of a transformation and design of a suitable strategy; then comes the planning, execution and deployment stages. Finally, taking change as the normal state of affairs it is necessary to check the organization's performance at any point against the organization's goals; which will demand to start the same process all over again from the top-left corner, as per Figure 2. The overall model architecture is developed through steps 1 to 5 and presented in the following section.

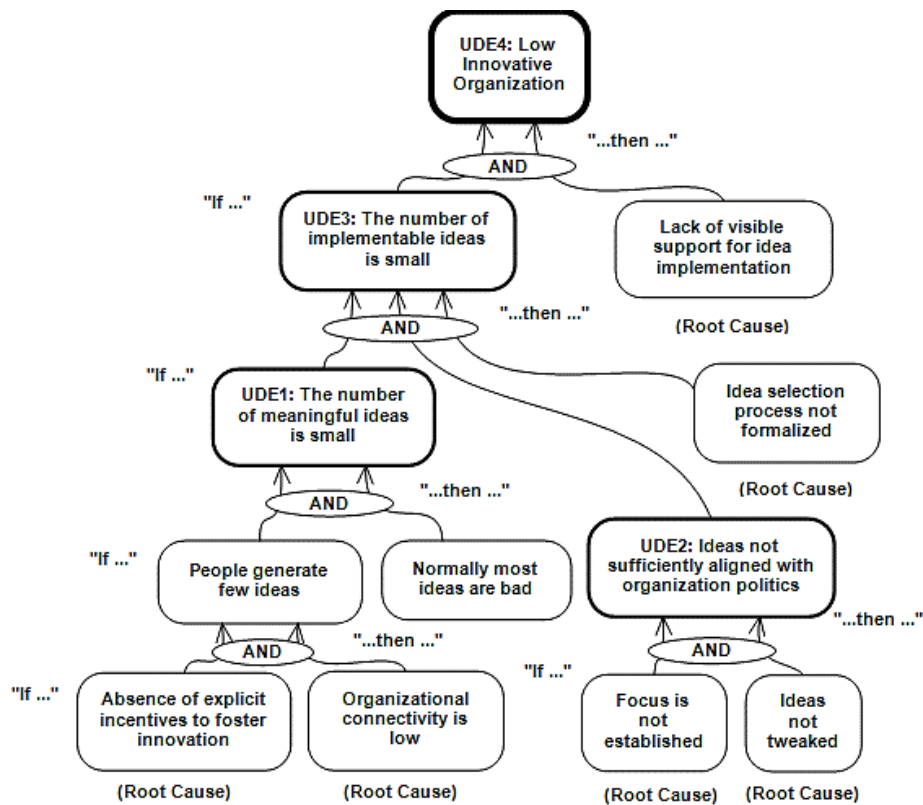
4. RESULTS

The results of the followed approach are obtained by building the correct sequence of logical trees,

starting by the current reality tree (CRT), analysing the gaps between an organization's current situation and designing the future reality tree (FRT) in order to fill the gaps, which means removing the "system's constraints".

Having the dependencies and paradigm definitions from Figure 1 as background assumptions, and taking a holistic view of the organization by means of the business policy model as a conceptual framework, the logical thinking processes approach next stage encompasses the drawing of a CRT, in order to clarify what is wrong with the current paradigm in what innovation is concerned (Figure 3). Such a tree develops from the bottom up and some explanations are due. The terminating statements with undesirable effects (UDE) are the unwanted effects triggered by the precedent chains of cause-and-effect. Also visible in the tree are "root causes" that shall be addressed in later stages of the logical thinking process.

Figure 3. Current reality tree illustrates the organization’s “current” state regarding innovation



Source: Authors' elaboration.

Taking the current reality tree, the undesirable effects are eliminated one-by-one by focusing on the identified root causes (“What to change?”), and by making use of the concept of “evaporated clouds”- a process of creative problem solving developed by Goldratt (1994, p. 22). Progress is made towards “What to change to?” in each of the four business policy areas in order to eliminate the respective

undesirable effects and ending at a strategic future reality tree. In order to build this stage, it calls for addressing the root causes of problems as well as the respective assumptions on how the whole organization functions. Table 2 summarizes some relevant questions to be placed in order to develop this stage.

Table 2. The BPM conceptual framework supports innovation governance strategies

Governance area	Questions concerning innovation vs. governing areas	Action
The business	What are the necessary conditions for architecting a more innovative organization? One that ends up with better products, services or efficiency? How to increase the number of ideas across the organization? How to improve the quality of the generated ideas? How does one ensure alignment between ideas generated and the organization’s strategy?	INJ4 INJ5 INJ6
The directing structure	How the organization’s management structure makes explicit those responsible for carrying out the concrete tasks of organizing and fostering innovation as an organizational capability?	INJ1 INJ6
The professional commitment	How to motivate people across the organization so they generate and contribute with more innovative ideas? How do people become more aware of the need for an innovation paradigm change across the organization?	INJ2 INJ3
The institutional configuration	How to institutionalise the innovation architecture and establishing it as a perpetual organization policy?	INJ1

Figure 4 shows the resulting future reality tree with several “injections” (INJ#), which remove the system’s constraints, in order to change the whole innovation architecture towards a better paradigm, thus approaching the whole organization to its goal. A visible bowtie symbol with “MAG” symbolizes a conjunction and logic function where the effect is potentially, *ceteris paribus*, magnified by the joint action from the respective causes.

The FRT conveys a narrative where the “injections” (INJ#) are enabling actions that will drive

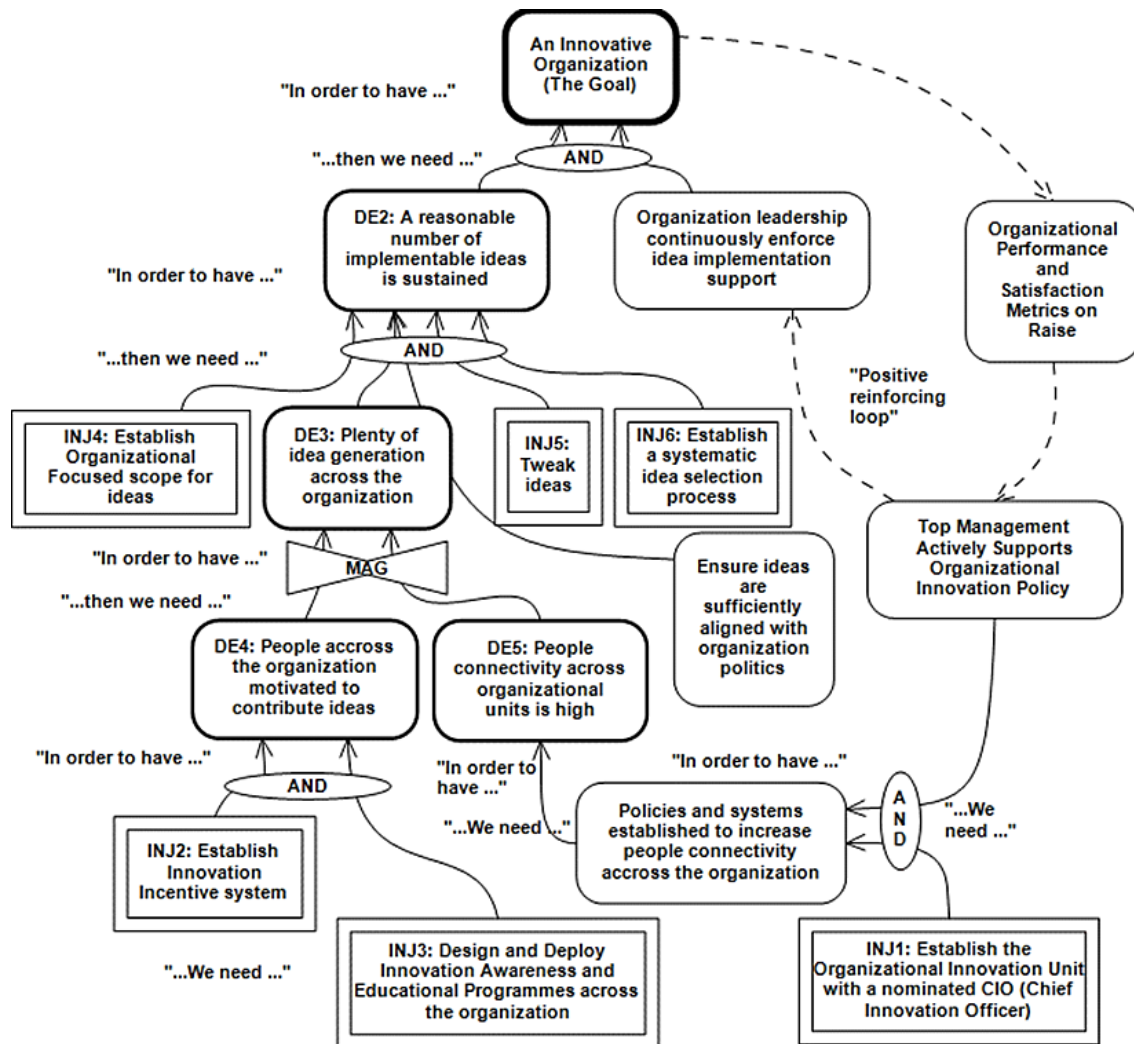
the organizational system towards the desired goal - becoming a more innovative organization. The identified actions are:

- INJ1 - establish an *organizational innovation unit* with a nominated chief innovation officer (CIO), and being supported by a proactive board.
- INJ2 - establish an *innovation incentive system*, so people across the organization are aware of the personal benefits by engaging in innovation. Moreover, it may be considered an extrinsic motivation system.

- INJ3 - design and deploy *innovation awareness and educational programmes* across the organization in order to integrate people in the greater organizational change picture. This also contributes to people's intrinsic motivations, as by understanding the whole concept they will be contributing with more initiatives and ideas.
- INJ4 - establish *focus*, so people don't just generate ideas, but generate ideas supporting the organizational strategy.

- INJ5 - systematically *check and tweak ideas at early stages*, so the number of meaningful ideas will, *ceteris paribus*, increase.
- INJ6 - establish a systematic *idea selection system*, so the organization will ensure that bad or weaker ideas are discarded sooner rather than later, thus minimizing waste of resources. This is a delicate step as some people might feel demotivated and stop contributing with new ideas.

Figure 4. Future reality tree



Note: Rectangles represent INjection actions.
Source: Authors' elaboration.

With the visible desired effects (DE1-5), the FRT answers the third question (*What to change to?*). Hence, the last question - *How to cause the change?* - in order to make an organization more innovative, is addressed by the *prerequisite tree* (Mabin & Davies, 2010), and is dealt with in the following section.

5. DISCUSSION

This section progresses with the logical approach that permeates this text a step further towards the sufficiency of the overall approach followed so far. Oftentimes, practitioners disregard many academics

for their abstract or theoretical approaches. The approach here taken intends to help fulfil such a gap by providing a pragmatic deployable strategy in order to install policies that support the setting of the right innovation endeavour and allowing its governance.

The rationale for the developed model and the stated cause-and-effect relationship are based on logic. By clarifying *What to change?* and *What to change? to* one ends up at a set of necessary conditions. Such necessary conditions may not be enough, however, to ensure sufficiency in attaining the desired organizational paradigm. In order to be truly useful for board directors in supporting their

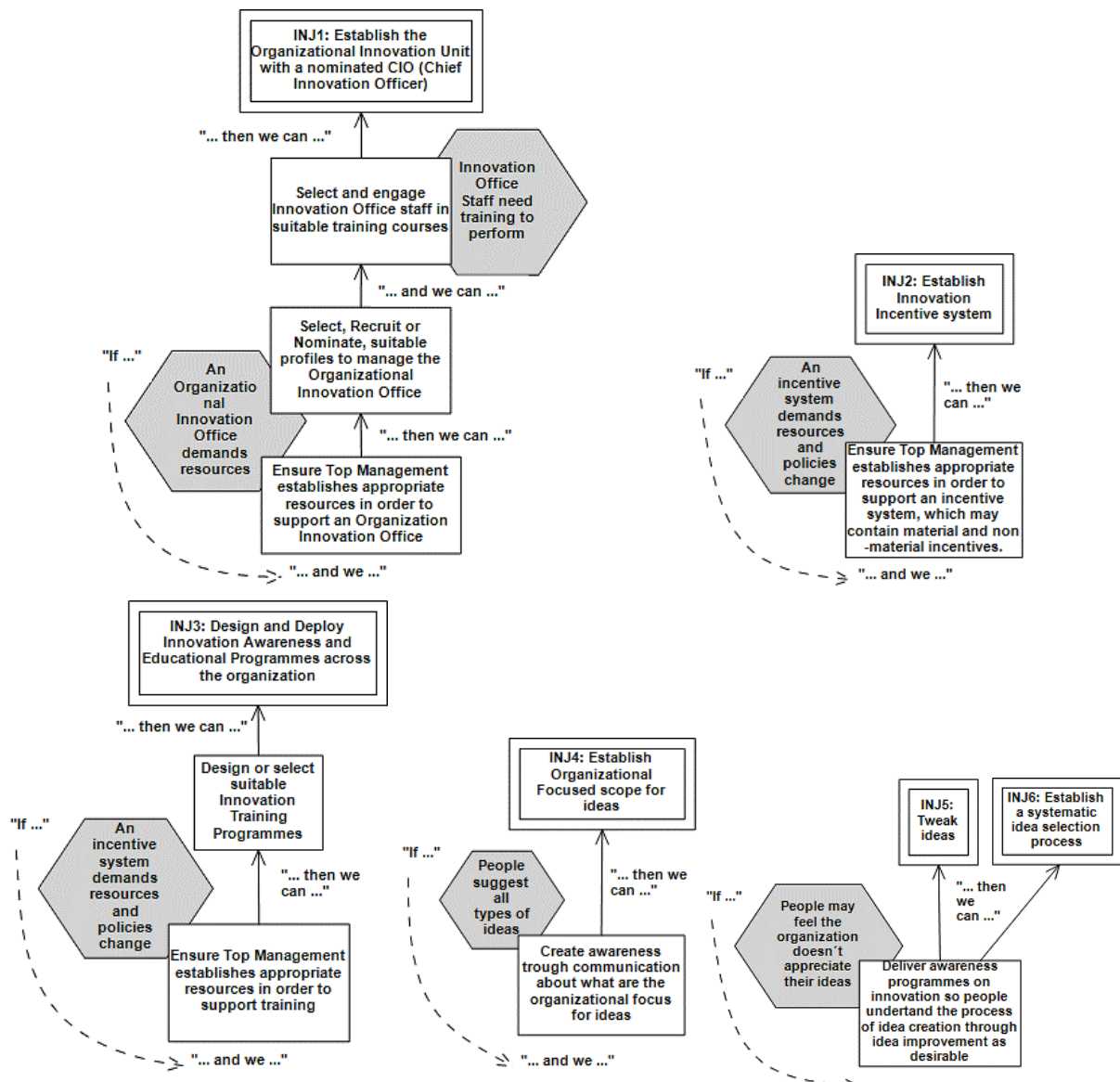
endeavour, it needs to further solve the question of *How to cause the change?* which is part of the innovation governance in practice.

Several authors signalled the importance of not underestimating the resistance to change as a constraint (Kotter, 1996; Sull, Homkes, & Sull, 2015). To attain such goals *prerequisite trees* are used, which ensure governance will drive the desired organization transformation towards a more innovative performance. Prerequisite trees are built to ensure the 'strategic injections' are implemented in practice and obstacles to such implementation are removed. Figure 5 illustrates six identified injection actions within the context of the developed model. The hexagons signal obstacles that must be overcome in order to implement the changes.

Moreover, the developed solution for such strategic problem would benefit from checking all measures against the DOTMLPFI framework of organizational variables (Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, and Interoperability) in order to further clarify any additional constraints as needed (Lofgren, 2016). From such confrontation, a more robust implementation set of measures can be refined.

Several models were used in developing the overall model, however, there is growing understanding that by using multiple models, it is possible to minimise suboptimal decisions (Page, 2018).

Figure 5. Prerequisites trees, as a way of overcoming policy resistance



Source: Authors' elaboration.

6. CONCLUSION

This paper calls attention to the need to prioritise innovation on the board's agendas and the urgency for proactive innovation governance, in order to strengthen organizational sustainability. In the end, it may be an organization's innovation capability that dictates its fate. Innovation can be broadly classified as disruptive, incremental, and recombination.

This paper is in itself a form of recombination innovation, as it blends knowledge from models belonging to several different fields: organizing for innovation, approaching the organization as a political system through the business policy model, and using a robust logical methodology. The pursued approach interconnects three frameworks into a single one by means of a systems approach and logical rationale, supporting the building of an organizational innovation architecture, which can further be governed.

This text provides a front-end approach to innovation architecture, which may be further detailed to accommodate specific realities and help support innovation governance - an urgent topic to

be made normal in board meetings' agendas. In contrast with abstract papers, the main contribution of this paper is a deployable model. Moreover, a clear illustration is provided on how to bridge the gap between the academic or theoretical and the practitioners' world, where governance happens every day; hence contributing to integrate such communities - research and practice.

From the developed approach, there are several tangible measures which, *ceteris paribus*, will improve organizational performance in what innovation governance concerns, especially if taken in the correct sequence. Such measures, listed as injections (INJ1-5) summarized in Table 2, should ensure an organization will progress on an innovation maturity ladder, from initial stages towards better innovation governance.

Despite the robust logic of cause and effect done in this research, a potential limitation could be the lack of empirical study to validate it in the real world. This could be done by taking this model as a starting point, and using a case study approach as field research over a period of three to five years, to validate its merits.

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