

# INFORMATION GOVERNANCE: THE ROLE OF INFORMATION ARCHITECTURE FOR EFFECTIVE BOARD PERFORMANCE

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## Abstract

Among the growing demands in corporate governance is better decision-making. The best board dynamics and focus on substantive business issues do not ensure effective boards functioning. Better decision-making implies the availability of quality information in adequate amounts. Better information does not exist on its own, it is necessary to design adequate information architectures in order to gather such information for effective board decision-making. Relying on solid information sources fosters awareness and lies the grounds for a better information architecture, so directors can do their job in a more effective and efficient way. What, why, how and where questions shall be raised in order to reach such goals, and the pillars for such architecture shall be laid down, by means of an adequate information architecture. This text provides clarity and the main thinking behind such information architecture design, ending with a set of recommendations.

## 1. INTRODUCTION

The current pandemic paradigm has no space for amateur and rubber stamp boards, which have to improve their decision-making processes and way of functioning. Boards shall not only become better monitors but become better at strategic decision-making. For good decision-making quality information is of the essence. A process is a set of coherent

activities aligned with the system’s goals. By system, it is meant an effective, optimal and efficient information architecture to support decision-making at the board level. Without an adequate decision-making process, the board will not have it clear about when to lead, when to partner with executive management, or when to stay out of the way. A large number of cases of bad or suboptimal corporate governance cases legitimate the need to dedicate some attention to this subject. Information architecture is critical for boards effectiveness, and such architecture does not need to be complex. To improve the effectiveness of boards in accomplishing their duties to the organizations they are accountable for, attention shall be taken for information needs and an adequate information architecture, comprising both formal and informal channels, conveying relevant information for short- and long-term strategic issues. Formal channels are designed, however, informal channels may be more subtle and demanding the need to conquer peoples’ trust, be they company executives or the workforce. Moreover, to face the demands of the post-pandemic paradigm, effective corporate governance will need boards to pay attention to internal as well as external information concerning the business. The board’s scope of responsibilities has been increasing as shown by the growing trend for specialized committees, from strategy, risk, sustainability, even innovation governance (Água & Correia, 2020; Ormazabal, 2016). Besides this introduction, the second section, background, lies some references that characterise the background on the subject under study. Next, the adopted methodology is introduced, followed by a section on propose and an information architecture logic tree. A final concluding section provides some discussion and conclusions, suggesting some rethinking about the role information architecture has on decision-making as a better way to design the necessary information architectures needed for effective boards of directors’ effectiveness.

## 2. BACKGROUND

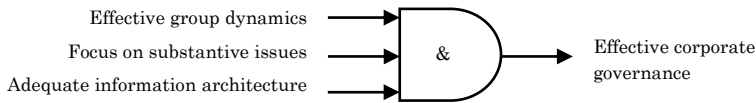
Some authors have been calling attention to a few critical success factors (CSF) needed in order for an effective board of directors functioning. According to Charan (2005), the three main enablers of effective boards functioning are (Figure 1): 1) group dynamics, 2) focus on substantive issues, and 3) information architecture.

Good group dynamics is a critical activity both for interactions between the board and management, as well as among the board directors themselves. Focusing on substantive issues dictates if boards are focusing on the right issues concerning the short- and long-term strategic issues faced by the companies they are responsible for, taking into account the difference between doing the right things and doing the things right.

How boards of directors get the relevant information and in what form is critical for their *modus operandi*. Regardless of the board dynamics and substantive issues that may affect a business, if boards do not have the right information and in adequate quantities and quality, their efforts may end up being ineffective. Therefore, an effective Information architecture is of the essence to support effective corporate governance.

Having these three domains under control is critical for good board functioning. They are necessary conditions that function as enablers for board effectiveness, and without which boards may become ineffective, if not difunctional. Because these enabling factors are critical, they are designated as critical success factors.

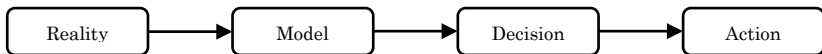
**Figure 1.** Enabling factors for effective governance



This research focuses on information architecture, its analysis, and ends with a possible information architecture solution for effective board performance, presented as a logic tree.

For someone non-familiar with boards operation, it all may seem sometimes as a sort of *millieu* where influence movements and sometimes sinister characters operate. It might well be like that, and such paradigms may actually still be common across many companies and geographies. However, the demands of the XXI century corporate governance standards, aggravated by the current pandemic paradigm, have no place for such amateur approaches. In order to design an adequate solution, a first step may be to clarify the applicable taxonomy. Like everyone, boards model reality to decide their actions in what concerns their businesses’ futures (Figure 2).

**Figure 2.** Action depends on adequate modelling of reality



However, acquiring the relevant aspects from reality into a model that supports decision-making involves data and information, being the decision-making process a function of the used models and the quality and availability of relevant information. Hence, a need is stated to clarify which types of information are relevant, why and how.

### 3. INFORMATION TAXONOMY

For effective performance board directors need information both internal and external to the businesses they are accountable for. Moreover, information may be formal or informal. Information that comes from formal communication channels, designed by the board or by the board in conjunction with management, is considered formal.

However, for high effectiveness boards also need to rely on information that comes from informal channels, such as casual (or systematic) contacts with management, or information that are obtained by “governing by walking around”, which entails visits to the company production plants, operating facilities, where boards may be engaging informally with directors and sometimes the workforce. These actions are critical in order for board directors not to fall victims of information filters — as no matter how performing a CEO might be, board directors will always get filtered information. Soichiro Honda was known for wearing blue-collar clothes when visiting the Honda Motor Company assembly lines and manufacturing plants in Japan, where the workforce would feel at ease to speak freely, hence sharing valuable pieces of information (Derisbourg, 1993). Actually, some of them would not even recognize Mr. Honda as the ‘big boss’. Another example could come from the way Konosuke Matsushita interrelated with his workforce across many of his companies, and where the same informality would provide this top leader with the highest quality information from his workforce, while at the same time would motivate such workforces due to his amicable style. At his early times as a business leader, Matsushita even used to do picnics at the beach with his workforce (Kotter, 1997). These are excellent examples of informal communication channels that may bring high-quality information to the top of organizations, calling attention to the human side of information gathering. Perhaps there are some relevant lessons to be taken from these founders of modern age Japan, which may be useful for a new culture of information in what corporate governance concerns.

A needed trend for business and society to recover from the current pandemic and engage the economic growth that should come with good governance will surely demand more attention to factors as information flows across companies, encompassing the board of directors. balanced scorecards (BSC) are commonly used by management for controlling purposes, however, such tools may even play a strategic role when designed and used by boards of directors (Kaplan & Nagel, 2006; Utrilla, Araneta, & Trianteno, 2019). Perhaps better than the standard BSC, would be the much older *Tableau de Bord*, originated in France, which differently from the BSC offers a more strategic and less ‘controlling’ view over the organization.

A good information architecture demands the board of directors to pay attention to internal issues as well as external ones. Internal

information comes typically from management as summaries and briefs, with issues prioritization according to the strategic relevance, and sometimes suggesting a set of options (Nueno, 2016). However necessary, this approach is not sufficient. Boards also need to be aware of the external context surrounding the business, understanding the competitive landscape, understanding the customers, mapping stakeholders' concerns, technological risks and otherwise. Boards also need both formal and informal information channels, comprising, for instance, CEO reports, financial sheets and forecasts, management meetings and letters. Board directors shall also have multiple informal channels, from engaging with peer directors on a case-by-case basis to getting in touch with management and the workforce. Having coffees or lunches with key personnel should never be overlooked as an excellent way of gathering awareness about relevant business issues, within the right balance. Directors should also ensure they get as much information as possible from independent sources, in order to cover potential 'blind spots', while avoiding management frames. Moreover, Siciliano (2002) suggests that boards shall be proactive in defining their specific information needs, in order to perform their jobs diligently. Amaral-Baptista, Lewé van Aduard de Macedo-Soares, and Melo (2010, p. 714) further suggest that boards shall have the specific information needed to understand the key issues under their responsibility, however, the amount and nature of the information that reaches them may result in dysfunctionality and suboptimal performance.

**Table 1.** Information scope and communication channels for the board

<i>Scope of information</i>	<i>Communication channels</i>	<i>Examples</i>
Internal	Formal	Financial reports, management briefs, summaries and presentations, strategic plans, 'gene pool', employee surveys
	Informal	Directorship by walking around, informal talks with management and key personnel, company site visits, informal conversations with employees
External	Formal	Media and analysis reports, investor and industry reports engaging with customers and stakeholders, competitor analysis and performance comparisons
	Informal	Media reports, regulatory reports and legislation awareness, key customer feedback, industry trends and technological change, talks with key stakeholders

#### 4. METHODOLOGY

A logical analysis approach is taken in order to define the information architecture paradigm in order to enable boards to perform their duties. Only determinism ensures causality. Hence, logical analysis and thinking processes have been selected to establish adequate

cause-and-effect chains that maximize the effectiveness of information flow into and within the board. As opposed to typical statistical analysis which cannot ensure causality solely on its own, the causal relationships have been subject to clauses of legitimate reservation (CLRs) in order to ensure the logic behind the analysis and the proposed solution are robust. A logic tree is presented in order to shed light on what is at play, as a basis for further development concerning specific solutions for any considered organization. Such a solution is however halfway to solve such kind of problem, as care shall be taken to ensure change management and due implementation of final solutions. The cause-and-effect chain is established by subjecting each causal influence to seven questions — the CLRs — addressing the following dimensions (Table 2):

**Table 2.** Categories of legitimate reservation and cause-and-effect logic

<i>Reservation levels</i>	<i>Clause reservation</i>	<i>Description</i>
Level 1 Clause	1. Clarity	Used to develop a better understanding of an entity (a logical statement)
Level 2 Clauses	2. Entity existence	Challenges the existence in reality of either the cause entity or the effect entity
	3. Causality existence	Challenges whether causality exists between the two entities
Level 3 Clauses	4. Additional cause	Challenge that the presenter has captured the major causes of the effect entity
	5. Cause insufficiency	Questions that something else must exist in addition to the current cause to create the effect
	6. Cause-effect reversal	Challenges the thought pattern where the cause and effect seem reversed
	7. Predicted effect existence	Serves to explain why one disagrees with the presenter's previous explanation

*Notes: Adapted from Mabin and Davies (2010).*

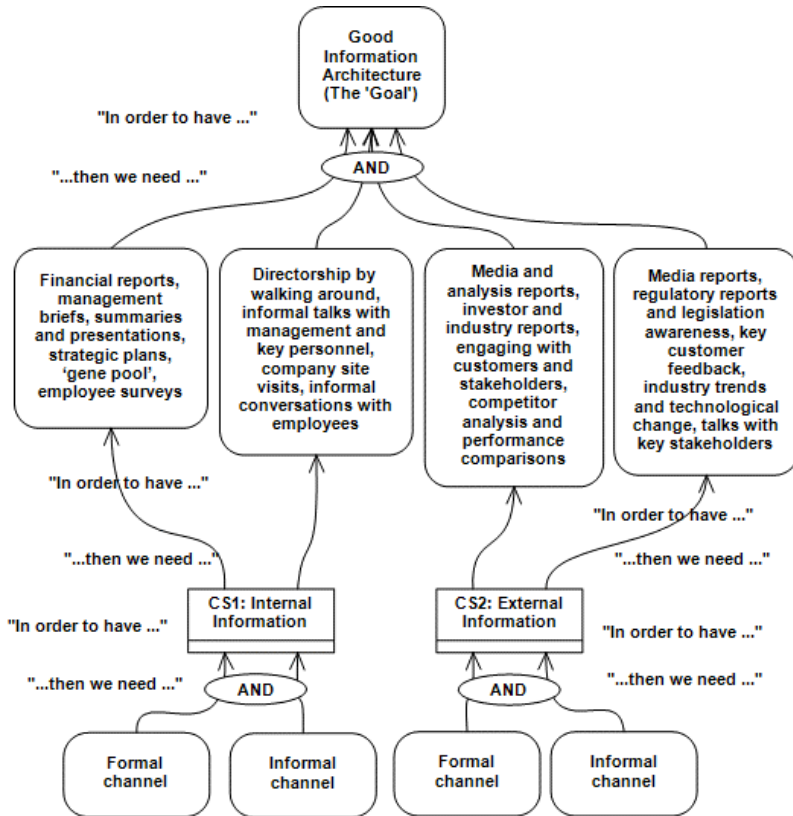
## 5. A SUGGESTED INFORMATION ARCHITECTURE

Many empirical studies claim validity based on co-variance or other statistical techniques, however, being stochastic, such statistical techniques would hardly ensure true validity in what causality concerns. Therefore, it is necessary to understand and translate the structure of the system under analysis into a set of logical relationships (Sterman, 2000).

A concept borrowed from the ‘theory of constraints’ (TOC) is used to ensure validity in terms of cause an effect within an information architecture frame (Mabin & Davies, 2010). Such a concept is coined by practitioners and scholars of the TOC as a ‘future reality three’ (FRT). Such a logical tree depicts the necessary — oftentimes necessary and sufficient — conditions in order to obtain the desired state in what

information governance concerns. It is read from top to down, where the above state depends on the local chains below it. Such causal relationships were subject to the CLR in order to ensure logical determinism (Figure 3). For the elaboration of this logical tree, the taxonomy of Table 1 was considered.

**Figure 3.** Enabling Information architecture for the board



Besides the robustness of the logic of cause-and-effects, this conceptual model could be improved through empirical evidence. Further research is being considered, consisting of qualitative analysis and questionnaires focusing on a set of practitioners in order to validate the information architecture ideas presented in Figure 3.

## 6. CONCLUSION

Board of directors is a broad concept whose application may spill over the purely commercial corporation. Hence, one may find boards in non-profit organizations, public services, or even academies. The latter is usually termed Advisory Council in some geographies. What is common to all of them is that for good performance boards need to ensure they have the right group dynamics, focus on substantive issues and have an adequate information architecture. None of these enabling conditions suffice on its own. All are needed for good corporate governance. The scope of this text focused on a particular case of information architecture as a necessary condition for good board performance. Information scope matters, to bring awareness into the board regarding internal conditions as well as external ones. Information brought to the board by the CEO is always filtered and as such hardly comprehensive. Hence board directors shall establish formal as well as informal channels in order to ensure they have the adequate information to feed the decision-making process. While the formal communication channels may be designed jointly with management, the informal communication channels are usually put in place by the board directors themselves, which may demand informality in approaching specific company leaders or the workforce. Moreover, growing attention to information systems governance as well as data governance shall be under the attention of the board in order to harness the context of growing digital transformation that are impacting businesses, for the good or bad, across many industries — a subject for further research. To recover from the state induced by the global pandemic, board directors shall be proactive in ensuring that have these information needs covered, for maximum performance and acting under the finest ethical standards.

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