

The Intertwining between Corporate Governance and Knowledge Management in the Time of Covid-19 – A Framework

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Abstract

It isn't "Love in the Time of Cholera," but companies will face momentous challenges and trials regarding corporate governance in the time of Coronavirus. Meanwhile, knowledge has been viewed as the most significant asset for organizations in the last decade, this also being reinforced by the knowledge-based view of the company which looks at intangible resources of a company (such as intellectual capital) as the source of high competitive advantage. This paper's objective is to develop an understanding of how responsiveness in an organizational structure may be approached from a combined corporate governance (CG) and knowledge management (KM) view in a context characterized by uncertainty, volatility, precariousness, panic and disorientation. Based on a synthetic review of earlier research and empirical data, this study suggests that managers nowadays have in general a limited understanding of the current developments in the CG – KM interfaces. This knowledge gap has important implications for as regards what should be researched in the area and how, as well as for the usefulness of knowledge, one wants to hold out to. The paper aims to explore how knowledge management governance (KMG) can conduct to positive delivery of KM strategic benefits and the critical issues relating to it. Through the proposed framework, the research argues whether KMG plays a critical role in providing a balance between human resource, processes, and use of technology in KM strategy, KMG being defined as an executive framework which comprises authority, strategy development, organizational culture, risk management, as well as assessment and measurement in regards to KM organization. Therefore, the purpose of this study is to critically evaluate the status of the interdependence relationship between CG and KM in the proposed framework. The paper also explores the CG and KMG perspectives relating to the new Coronavirus socio-economic crisis, identifying CoVid-19 as a systemic risk, providing a CG lens, to focus on Board leadership and effectiveness. The study reveals some recommendations in order for the Boards to optimise the level of appropriateness and adequacy of the governance mechanisms so as to sustain the realization of KM objectives.

Keywords: Coronavirus, CoVid-19 pandemic, corporate governance, knowledge management, knowledge management governance.

JEL classification: G34, O31, L22, M12.

1. Introduction and context

The current pandemic, generated by the *new Coronavirus* (commonly known as CoVid-19), emerged in December 2019 and has rapidly become a global crisis that threatens not only the health of individuals, but also the welfare of societies on a vast scale, including its impact on worldwide economic activity and growth. Regarding this extremely sensitive socio-economic environment, the International Corporate Governance Network (I.C.G.N.) predicts that global growth could drop to 1.5% by the end of 2020, half the rate projected before the virus outbreak.

Presenting health, wellbeing and financial issues to both people and business, as well as severe disruption of operations across functions, the CoVid-19 crisis spawned tremendous trials and very profound challenges, therefore it must be regarded as a top priority, especially by those charged with governance within a company.

In this context, the Board of Directors, whose main role is to watch over the health of the company, as well as business prospects, steering the new Coronavirus crisis necessitates vigilant concern regarding a range of issues under these unprecedented circumstances.

Obviously, this particular situation – this socio-economic crisis that captures the concerns of all societal actors – “calls for fundamental reconfigurations of economic philosophies and

of the dominant action logic”. Therefore, Boards need strategies – to break out of economic weakness, respectively tactics – to control the effects of entrainment, immobilization, and contribute to restoring of stimuli (Deliu, 2019a).

Recent progresses, emerging trends, changing behaviours, new complex rules of competition and multifaceted patterns of nowadays business environment ought to be taking into consideration to classic management systems, especially the knowledge management process, since new-fangled elements, such as innovation and knowledge, should be added (Deliu, 2019b).

In the last decade, *knowledge* is, undoubtedly, viewed as being the most important asset for any company. This is reinforced via the “*knowledge-based view of the economic entity*” that guises at the goodwill of a company, for example, as the “source of competitive advantage” (Spender, 1996, Zack, 1999). Nonaka & Takeuchi (1995) explain in what way knowledge is expected to remain the only resource inside an economic entity, which is hard to mimic by competitors and, therefore, they are arguing that creating inimitable knowledge, per se, will become “the key to a sustainable competitive advantage in the future”.

Thus, having grasped the *strategic role of knowledge*, corporations have endeavoured to leverage knowledge with the aim of augmenting their performance, “managing knowledge” becoming a recurring topic in companies from numerous industries. In this context, the specialty literature often designates *Knowledge Management (KM)* as “self-realizing the potential that an economic entity has over its knowledge asset towards effectiveness and accomplishment” (Ardianto, 2013).

Over time, KM has progressively been recognized as “a business approach which uses technology as an enabler”, notwithstanding that early research saw KM as a strong technology-driven initiative, as Wiig (1997) outlines. However, in order to successfully implement KM in organizations, thoughtful *KM strategy* must be developed, as Zyngier & Burstein (2004) observe, through “ascertaining areas in which knowledge is critical and setting up actions, tools, and methods that can best leverage knowledge”, as Ardianto (2013) summaries. This also regards the enlargement of KM strategy which foresees the aspect of human, material, as well as technical resources. (Tiwana, 2002).

Hence, this study regards KM strategy as comprising a framework to attain the strategic objective of enhancing knowledge on the way to reaching organizational goals. Whereas the significance of having enunciated KM strategy has got significant focus in the specialty literature, little is known about how the *governance of KM strategy* is actually acted upon.

The governance of KM (hereafter named Knowledge Management Governance – KMG) has one grand objective: and that is to warrant the transfer of KM strategic benefits, by generally dealing with the “framework of decision rights, organizational structure, policy guidelines, risk management, performance measurement, and feedback mechanisms in relation to KM deployment” (Smith & McKeen, 2003, Onions & de Langen, 2006, Zyngier, 2006, Ardianto, 2013).

This paper attempts to explore how KMG can conduct to effective delivery of KM strategic benefits, while highlighting the main concerns it involves. It also debates on how KMG can contribute to apprehending the interdependence amongst people, processes, and technology within KM strategy, especially in this sensitive socio-economic context generated by the CoVid-19 pandemic. In order to clarify the application of the KMG, a proposed framework is presented. From a more specific point of view, this paper is expected to contribute to the comprehension of the specific roles KMG can play in a successful KM initiative, in the current sensitive socio-economic environment. The research aims to depict how KM, in conjunction with an effective CG can play a life-saving role in the current Covid-19 epidemic.

2. Methods & Materials

This paper comprises a fundamental research, encompassing numerous debates about KM as a fundamental concept, respectively aspects related to models and framework regarding KM. The main focus lies in the strong interdependence relationship between KM and CG, the research starting from the following assumption: “*The Governance of Knowledge Management is based on an effective CG*”. The research is loomed through a positivist research leaning, with all-encompassing interpretative approaches (regarding current perception on KM best practices in organizations) and with a number of critical elements, personal views and debates, which intertwine harmoniously and give the paper novelty. In terms of generated knowledge, this research has a qualitative approach, most investigated items being of qualitative nature. The research follows a transverse direction through the used observation, comparison and conceptual analysis techniques. Thus, specialty literature was valued by processing it with various methods specific to socio-human sciences, such as non-participating observation and comparison. The non-participating approach is due to the research field and the current state of knowledge in the field of interest, although comparisons made and opinions and conclusions expressed show certain participating aspects of the research, respectively the relevance of transmitted information. The dynamics of scrutinising scientific literature is, in the author’s opinion, extremely relevant in the investigation of management trends, and consequently for increasing complexity of tasks and responsibilities attached to those charged with governance within a company, the more that we talk about periods of socio-economic crises, like the one we are experiencing right now, respectively the turbulences, insecurity, volatility, shakiness, unstableness, fluctuation, uncertainty, precariousness, imbalance, panic, disorientation – all generated by the new Coronavirus (CoVid-19) pandemic.

3. Conceptual & Theoretical Background

3.1. Corporate Governance in the Current Sensitive Socio-Economic Context Generated by Covid-19

The new *Coronavirus (CoVid-19) outbreak* raises corporate governance (CG) concerns and, consequently, may give rise to jeopardies and risks that should be taken into consideration by companies and their Boards. In this context, listed companies are expected to ensure a qualitative, effective CG, by rigorously coalescing transparency, accountability, responsibility and control. These four features should build the foundation for all actions taken by the Board in relation to the CoVid-19 pandemic.

CoVid-19 clearly meets the criteria of a *systemic risk*, as also put forward, in a presumptuous manner, in the International Corporate Governance Network (I.C.G.N.)’s 2018 Guidance on Investor Fiduciary Duties: “The nature of systemic risk is that it builds over time, it is interactive and synergistic and, once in play, is difficult to control. Systemic risk drivers tend to be cumulative and/or interdependent, resulting in far-reaching impacts, shocks or even system-wide failure”.

Among this, other past worldwide-spread CG failures of organizations have kept governance issues on the front burner of academics, economists, Boards and the policy makers in the last decades.

CG, according to O.E.C.D. is “a set of relations between a company’s management, its Board, its shareholders and other stakeholders, providing the structure through which the objectives of a company are set and the means of attaining those objectives and monitoring performance are determined”. The primordial scope of CG is to promote efficient and equitable use of resources, as well as “share accountability for the stewardship of resources in a manner that aligns the interests of individuals, the company and society at large”.

However, only virtuous management can make these happen, especially in this current crisis that poses high commercial risks which impact the companies' ability to deliver products and services on time. In order to mitigate these risks, those charged with governance (and especially directors) should judiciously, carefully and proactively consider their company's condition and check for alternatives. They should also consider developing a business continuity plan and a risk management strategy. The Board shall review and assess the main risks to which the company is exposed in pursuing its corporate purpose as well as the strategy implemented to control and manage these risks, furthermore, it shall inform shareholders of the conclusions of its review and assessment. Directors of listed companies should also check if the company's particular situation requires the disclosure of inside information since, in the sensitive socio-economic context we are experiencing, this kind of information is considered information of a precise nature which, if it were to be made public, would be likely to have a significant effect on the price of the issuer's financial instruments or related derivative financial instruments. It is up to the directors to evaluate whether the CoVid-19 crisis requires such disclosure.

Until now, a pandemic would have represented for most corporations and Boards a proverbial "unknown unknown". Nonetheless, numerous organisations "will have had in place disaster or crisis planning capabilities to deal with these sorts of unknowns or unanticipated shocks. In the first instance this often comes under a company's risk management function and then through risk oversight of management's response to such risks at the Board level", as I.C.G.N (2020) sketches.

In some CG structures there may have already existed *risk committees or crisis working groups* to aid define just-in-time decision-making and/or operational protocols. Usually, a crisis task force works diligently with the management, taking a lead in addressing unexpected crises, quandaries and emergencies, being a noteworthy contributor to CG effectiveness in general, and Board efficiency in particular.

Nevertheless, the earnestness of CoVid-19 designates that this is a matter for those charged with governance within a company as a whole, and that the Board is ultimately accountable for a company's responses, even though the company's management itself may be confronting these risks on a day-to-day basis.

Questions like the following may arise:

Table 1. Interrogative Decalogue of Covid-19 in relation to CG Questions for those charged with governance

Q1	"Does the Board recognise its role and accountability to provide oversight to the company's management of the CoVid-19 crisis?"
Q2	"How is the Board structured to address the crisis? Is there a clarity of roles and responsibilities?"
Q3	"How does the Board get information about the crisis and demonstrate that it has an adequate and up-to-date understanding of the risk faced by the organisation? Does the Board have access to internal or external subject matter experts on CoVid-19 to support decision making?"
Q4	"If a crisis management committee exists how does the Board allocate responsibilities to it and how does this committee interact with management and the Board as a whole?"
Q5	"Scoping the problem: what are the key financial risks and pressures and how resilient is the company to confront negative economic outcomes?"
Q6	"How is the Board addressing the crisis and its impact on employees, customers, supply chains and local communities?"
Q7	"What key financial and strategic decisions have to be made and in what time frame?"
Q8	"How will the company balance the interests of shareholders, stakeholders and the overall sustainability of the company itself?"
Q9	"What are the plans for business continuity?"
Q10	"How are communications managed internally and externally? How will the company communicate the economic impacts and threats to the company's financial sustainability and business model?"

Source: own projection, after I.C.G.N (2020)

The answer to all of these questions may find its correspondent in the KM and, consequently, in the KMG. Nevertheless, from this angle, the author believes the general principles for an *effective CG during this crisis* should include:

- keeping the Board engaged and informed with virtual Board meetings wherever possible,
- keeping critical functions going wherever possible,
- managing working capital (liquidity and working capital requirements, assessing short-term requirements of cash and sources available, securing liquidity requirements),
- continuing to meet statutory obligations (monitoring everything related to financial reporting, ensuring complete integrity and transparency in managing external reporting, sustaining continued performance of internal controls, ensuring data security, guaranteeing disclosure by communicating with regulators and providing public disclosure where it is needed or warranted as new information emerges),
- recalibrating risk assessments (identifying risks that may have been previously considered managed, but are now potentially high-risk, reviewing cyber risks in the short/medium term),
- communicating with internal and external stakeholders as regularly as possible,
- analysing the possibility and opportunity of interim moratoriums and restructuring.

3.2. Knowledge and Knowledge Management (KM)

As Bill Gates emphasized, "knowledge management is a fancy term for a simple idea – you're managing data, documents, and people efforts".

Therefore, before debating on Knowledge Management (KM), the concept of *knowledge* must be clearly comprehended and defined. Part of the struggle of outlining knowledge arises from its correlation to *data* and *information*, these two concepts being often considered as lower denominations of knowledge. However, the exact liaison differs prominently from one circumstance to another.

In this context, Thierauf (1999) defines these concepts as follows: data is the basis, the foundation (comprising an amorphous assemblage of facts and figures), while information is the next level (being considered as structured data), whereas, finally, knowledge is defined as "information about information". Yet, other approaches start to increasingly regard knowledge as a more complex, multifaceted and (inter-)personal concept that incorporates more than just information. The Longman Dictionary depicts one delineation that has a similar approach to the way that knowledge is usually regarded within KM, stating: "the information, skills, and understanding that you have gained through learning or experience". While still closely corroborated with information, notions like skills, abilities, comprehension, competencies, and experience begin to surface.

Therefore, in order to ascertain and define the forms in which knowledge occurs, as well as the different means of accessing, sharing and combining knowledge, one must first endeavour to establish clear boundaries between data, information and knowledge, the figure below attempting to do that:

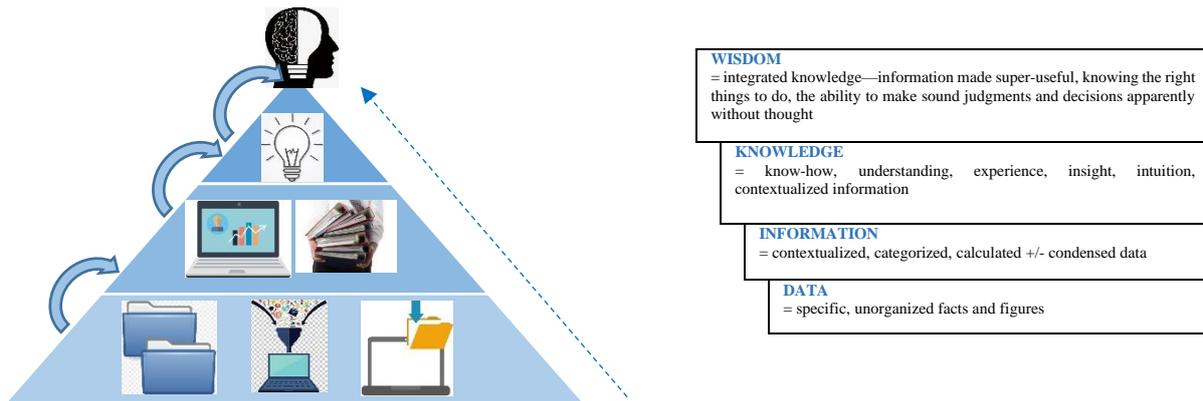


Figure 1. DIKW pyramid – defining data, information and knowledge

Source: own projection

Thus, in the author's opinion, *data* mostly designate something specific and do not deliver any further information regarding circumstances, patterns, configurations or context, having little impact on the typical manager. Meanwhile, *information* finds its correspondent in relevant, purposeful data (Bali et al., 2009), respectively “contextualized, categorized, calculated and condensed data” (Davenport & Prusak, 2000), answering to questions like: who, what, where, why, when, how (Ackoff, 1999). Hence, information **thrives in painting a bigger picture and can, henceforth, show a trend in the environment or signpost a pattern within a certain period of time. Although IT is usually invaluable in the capacity of turning data into information, the human brain is predominantly required to provide assistance in this contextualization.**

Knowledge is watchfully linked to undertaking and performing, and, accordingly, implies know-how and understanding. Each individual possesses a certain knowledge, which is “a personal product of his experience and encompasses the norms by which he evaluates new inputs from his surroundings and the context in which he carries out his activity”. Based on this delineation, Gamble & Blackwell (2001) added a few more insights, observing that knowledge is “a fluid mix of framed experience, values, contextual information, expert insight, and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information”. Within this frame of reference, one perceives that knowledge “originates and is applied in the mind of the knowers”. As such, in companies, especially in corporations, it often becomes embedded not only in documents, forms or repositories, but also in organizational routines, norms, practices and culture.

Within any business, an essential step for KM lies in understanding and distinguishing between the two different forms that knowledge can exist in: *explicit knowledge* and *tacit knowledge*. The former refers to knowledge that is captured, codified and documented (such as the one set up in documents and databases, for which IT is essential in order to transfer it and store it), whereas the latter one refers to non-codified, but often personal/experience-based knowledge, which is hard to measure and document. As it can be seen in the figure below, tacit knowledge can be transferred through *socialization* (i.e. sharing experiences, observing, imitating, brainstorming without criticism, mentoring) or *externalization* (i.e. writing down, creating metaphors and analogies, modelling). On the other hand, explicit knowledge can be conveyed through *combination* (i.e. sorting, adding, categorizing, creating methodologies, outlining best practices) or *internalization* (i.e. accessing codified knowledge, goal-based training). Nonaka (1994) is the first to point out that “KM and organisational learning theory almost always take root in the interaction and relationship between these two types of knowledge, creating a theoretical cornerstone of the discipline”. Conversely, Botha et al.

(2008) later on observe that these two types of knowledge ought to be seen as a “spectrum” more willingly than as “definitive points”.

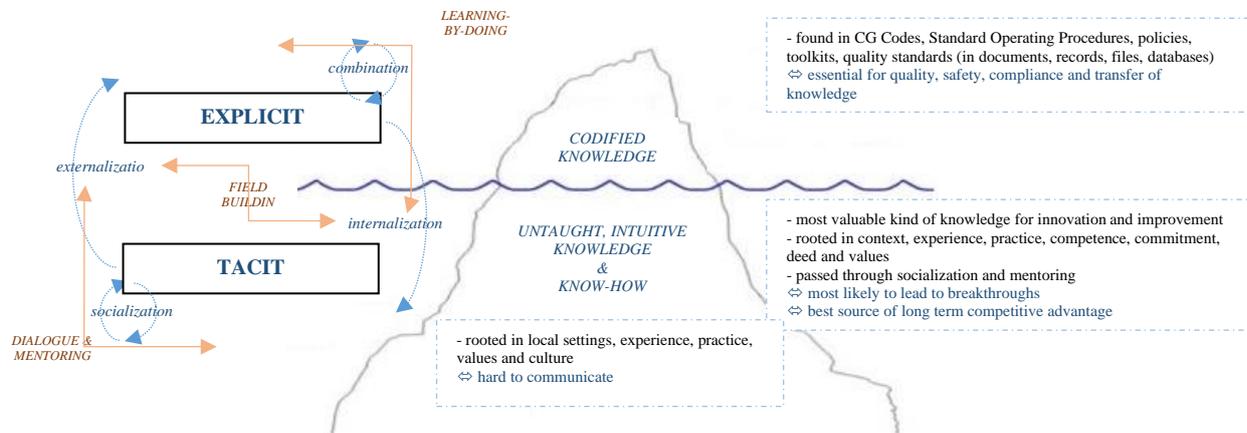


Figure 2. Knowledge as an iceberg (explicit knowledge vs tacit knowledge)

Source: own projection

Indeed, in practice, all knowledge is actually a blend of both tacit and explicit ingredients, however, within KM, understanding the distinction between these two is vital. Below the research aims to confer a synopsis of these categories, as well as a short discussion on the way Knowledge Management Systems (KMS) can manage them or not.

On one hand, being formalized and codified, *explicit knowledge* is occasionally being referred to as know-what (Brown & Duguid, 1998), being easy to detect, categorise, store, and retrieve (Wellman, 2009). It can be efficiently handled by KMS, which are very effective at facilitating the storage, retrieval, and modification of documents and texts, to put it briefly, it can be found in: notes, memos, documents or databases, etc. (Botha et al. 2008). From the managerial viewpoint, the highest challenge is that it is similar to information, therefore managers need to make sure that employees have access to what they need, that important knowledge is stored, reviewed, updated, and/or discarded, according to the case. Explicit knowledge is often regarded as being less important (Brown & Duguid, 1991, Cook & Brown, 1999, Bukowitz & Williams, 1999), since it does not encompass the rich experience-based know-how and empirical skills that can generate lasting competitive advantage. Although this is currently changing to some limited degree – due to the digital changes generated by the current CoVid-19 pandemic – KM initiatives driven by technology have often had the flaw of focusing almost exclusively on this type of knowledge. Hereafter, this has created many products labelled as KMS, although they were just information and plain KM software.

On the other hand, *tacit knowledge*, initially demarcated by Polanyi (1966) and sometimes being referred to as know-how (Brown & Duguid, 1998), is referring to “intuitive, innate, hard-to-define knowledge that is fundamentally experience-based”. For this reason, it is often context-dependent, insight-based and personal, deeply rooted in action, practice, values, commitment and involvement (Nonaka, 1994), being hard to communicate. Being regarded as the most valuable source of knowledge, it is “the most likely to lead to breakthroughs in the organization”, as Wellman (2009) outlines. Gamble & Blackwell (2001) link the lack of focus on tacit knowledge directly to the reduced capability for innovation and sustained competitiveness. It is obvious, therefore, why KMS have difficulties handling tacit

knowledge, because of the impossibility of codifying it. The exact extent to which IT systems can aid in the transfer and enhancement of this type of knowledge is a rather complicated discussion. It is important to emphasize the fact that tacit knowledge is “found in the minds of human stakeholders, including cultural beliefs, values, attitudes and mental models, as well as skills, capabilities and expertise” (Botha et al. 2008).

Trustworthy and easy-to-find information is critical during uncertain times. Although it appears that the CoVid-19 curve is starting to flatten, it is believed the process is going to be gradual, therefore economic entities will continue to conduct their business in an instable environment. KM will play a critical role in delivering goods and provision of services during this period.

The full scope of KM, generally speaking, lies in “making the right knowledge available to the right people” by making sure that the entity can learn and will be able to retrieve and use its knowledge in current activities (Hajric, 2018). It entails “the coordination and exploitation of organizational knowledge resources, in order to create benefit and competitive advantage”, as Drucker (1999) highlights. Oppositely, Wellman (2009) narrows the scope of KM to “lessons learned and techniques employed for the management of what is already known”, arguing that knowledge creation is often perceived as a separate discipline and generally falls under *innovation management*. However, Bukowitz & Williams (1999) link KM directly to tactical and strategic requirements, as “its focus is on the use and enhancement of knowledge-based assets to enable the company to respond to these issues”. A similarly broad definition is presented by Davenport & Prusak (2000), which state that KM is “managing the corporation's knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both the tacit and explicit knowledge of employees to enhance organizational performance and create value”.

In the framework the author will propose, the approach will be from the broader perspective, since the author considers KM incorporates not just the exploitation and controlling of already existing knowledge assets, but the also the initiatives involved in the creation and acquisition of new knowledge.

Hence, taking all these into consideration, the definition for KM delineated in this paper would be as follows: KM finds its correspondent in the methodical and systematic management of a company's knowledge assets with the resolution of not only meeting tactical and strategic requirements, but also of creating value. It resides, therefore, in all the “initiatives, processes, strategies and systems that sustain and enhance the storage, assessment, sharing, refinement and creation of knowledge” (Hajric, 2018).

Henceforth, *KM implies a strong tie to the effectiveness of CG*, to organizational goals and strategy, involving the management of knowledge that is useful for some purpose and which creates value for the economic entity. Expanding upon the previous KM definition in the specialty literature, KM involves the understanding of: “where and in what forms knowledge exists, what the organization needs to know, how to promote a culture conducive to learning, sharing, and knowledge creation, how to make the right knowledge available to the right people at the right time, how to best generate or acquire new relevant knowledge, how to manage all of these factors so as to enhance performance in light of the organization's strategic goals and short term opportunities and threats” (Hajric, 2018).

Unfortunately, KM is a zone in which companies are often unwilling to invest because of the implementation expenses, since it is particularly problematic to determine a specific Return On Investment. Moreover, due to the fact that its definition is not universally accepted, it is often seen as a shallow, information-oriented approach, this being why particularly in the early days, we witnessed some *KM failures*, which have tarnished the reputation of the topic as a whole.

Conceivably the major challenge companies have faced adjusting to the “new normal” has been the shift to remote working in an unprecedented scale, having to place more reliance on KM for consistent information and guidance.

In general, a relevant KM model can incorporate numerous features and should be able to highlight the interdependence relationships.

Before attempting to create a framework able to depict the intertwining between KM and an effective CG, it is mandatory to identify *KM's primordial components*. At the most basic level, as Hajric (2018) synthesizes, KM consists of the following steps: “identification of needs, identification of knowledge resources, acquisition, creation and/or or elimination of knowledge-related resources, processes and/or environments, retrieval, application and sharing of knowledge, and storage of knowledge”, none of these processes being independent and all of them being affected by very many aspects. This is why KM frameworks are typically very different and can be presented in a wide variety of ways. Hajric (2018) observes: “while some models are sequential and seek to provide a better overview at the expense of “realism”, other models display overlapping processes in an attempt to simulate what actually occurs inside an organization”.

This is why there is no such thing as an integrated and fully detailed KM framework, i.e. one that captures all relevant aspects with appropriate detail. However, there are basically three questions that a relevant KM framework may select to answer: what/how (the actual processes of KM), why (an indication of the reasons behind using one method or the other), and when (the timing for using one method or another). While the latter two questions are usually tackled in *strategy-oriented models* that take a larger perspective, the first one is usually dealt with in *process-oriented models* that emphasizes on a comprehension of what tools the manager has available.

There are three main KM models, which will be synthesized below:

Table 2. Most well-known KM models
Model presentation

Model	Model presentation	Model focus																				
<p>KM Process Framework – Bukowitz & Williams (1999)</p>	<p>Figure 3. KM Process Framework – Bukowitz & Williams (1999) Source: Bukowitz & Williams (1999)</p>	<p>→ emphasizes the "why" and "when" aspects (the process that defines the strategy to build, dissociate and enhance knowledge assets,)</p> <p>→ strengths: strategic focus (putting KM action into context), → KM initiatives = the result of the response to tactical and strategic changes and needs,</p> <p>⇔ provides a great overview of the strategy behind KM, but does not include any deeper insight into what initiatives are suitable in a given instance.</p>																				
<p>KM Matrix Model – Gamble & Blackwell (2001)</p>	<table border="1"> <thead> <tr> <th>Approach \ Type</th> <th>Embodied</th> <th>Represented</th> <th>Embedded</th> </tr> </thead> <tbody> <tr> <th>Sense</th> <td>Observe</td> <td>Gather</td> <td>Hypothesize</td> </tr> <tr> <th>Organize</th> <td>Contextualize</td> <td>Categorize</td> <td>Map</td> </tr> <tr> <th>Socialize</th> <td>Share</td> <td>Disseminate</td> <td>Simulate</td> </tr> <tr> <th>Internalize</th> <td colspan="3">Apply, Decide, Act</td> </tr> </tbody> </table> <p>Figure 4. KM Matrix – Gamble & Blackwell (2001) Source: Gamble & Blackwell (2001)</p>	Approach \ Type	Embodied	Represented	Embedded	Sense	Observe	Gather	Hypothesize	Organize	Contextualize	Categorize	Map	Socialize	Share	Disseminate	Simulate	Internalize	Apply, Decide, Act			<p>→ as all sequential models, the steps are not to be taken literally, but they do provide an outstanding gestalt of the role of the KM manager,</p> <p>→ limitations:</p> <ul style="list-style-type: none"> ○ its focus – the overall strategic role outline is not included, ○ KM's role – limited to knowledge sharing, omitting the processes of knowledge acquisition and creation, <p>⇔ a legitimate approach to KM where the focus is on the sharing and retrieval of existing knowledge, but it does not fulfill the overall scope of the KM.</p>
Approach \ Type	Embodied	Represented	Embedded																			
Sense	Observe	Gather	Hypothesize																			
Organize	Contextualize	Categorize	Map																			
Socialize	Share	Disseminate	Simulate																			
Internalize	Apply, Decide, Act																					
<p>KM Process Model – Botha et al. (2008)</p>	<p>Figure 5. KM Process Model – Botha et al. (2008) Source: Botha et al. (2008)</p>	<p>→ attempts to offer a more realistic overview of the KM process,</p> <p>→ focus on managerial initiatives,</p> <p>→ the three broad categories overlap and interact with one another,</p> <p>→ limitations:</p> <ul style="list-style-type: none"> ○ strategic focus (the "when" and the "why" as opposed to the "what") – omitted. It is noteworthy that this model does include the creation of new knowledge as a specific KM initiative. 																				

Source: own projection

What these three models do not take into consideration lies in the assessment of the effects that lets CG structures know whether the implemented initiatives are achieving the desired results or not. This is reliant on data and information management, but is paramount for forthcoming KM initiatives.

Moreover, nowadays, it is observed that, largely, companies incline to approach the knowledge sharing issue as a technological challenge rather than a socio-organizational one.

Therefore, the present research will present an integrated KM model, the framework proposed in this paper drawing upon elements presented by Nonaka & Takeuchi (1995), as well as on components depicted by Bukowitz & Williams (1999), Gamble & Blackwell (2001), Botha et al. (2000) in their own models. The integrated KM framework that was created focuses on the CG structure and, therefore, has a strategic perspective, attempting to link both processes and strategy.

3.2. Knowledge Management Governance (KMG)

In the literature, governance of KM is fairly discussed with reference to its conception and conceptualization. Zyngier et al. (2006) conceptualize KMG in a strategic context, delivering and describing the links between KM strategy and its implementation. In their study, KMG is regarded as being evolutionary, due to the readiness of “feedback mechanisms that enhance all governance processes: authority, risk management, evaluation and measurement”.

It can, therefore, be assumed that KMG is wielded to warrant the provision of KM strategic benefits through leadership, risk mitigation and feedback mechanisms.

Having more pragmatic understanding of governance, Schroeder & Pauleen (2007) outline KMG considering how structure and processes within a company can be enhanced in order to sustain coordination activities in KM deployment. KMG, in this delineation, largely deals with “incorporating appropriate coordination and control to enable effective KM”. “Leadership, organizational structure, and relational mechanisms among stakeholders are the common themes of governance under this conceptualization”, as Schroeder et al. (2010) later on conceptualize.

Leadership is defined as the portrayal of authority which “focuses on guiding and directing organizational strategy to support the value proposition of the organization” (Zyngier & Burstein, 2004). The governance aspect in authority means “rules and exercise of authority are subject to good practices”. However, as leadership and authority transpire in organizational practices, they cannot be liberated from the notion of organizational culture, Burstein et al. (2010) show.

It should not be overlooked, nonetheless, that organizational culture is a key factor which expresses the performance of KM system (Storey & Barnett, 2000). In the same time, Zyngier & Burstein (2004) debate that leaders “substantially influence the creation of organizational culture through their attitude, management style and organization structure”. It is considered, indeed (and rightly!), the culture itself can be in form of “corporate values, professional attitude, ethical conduct, or simply the positive climate to foster collaboration and task achievement”.

Onions & de Langen (2006) convey KMG as “an attempt to maintain performance management of KM in order to match or exceed the predefined standards and objectives. Thus, it emphasizes more on the quality of performance and the standards employed in the KM initiative”.

The implementation of KM, therefore, needs to be governed in a way that ensures the achievement of performance standards.

Drawing from the various definitions of KMG above, the main areas of KMG can be summarized to include *authority, strategy development, risk management, organizational culture, and evaluation and measurement*. These are the domains of KMG governance which, in the author’s opinion, influence the impacts that KM initiatives in an organization will engender.

In order to talk about an effective KMG, besides the triad “*People-Processes-Technologies*”, there is one extra component that must be taken into consideration, this adding more definition and purpose to the whole concept. In practice, there are situations when a

system is in place, but it is not used, procedures not being respected. Although the first thought would be that either culture or discipline is missing, it must be understood that these two are both outcomes of something else.

For example, in the context of the current CoVid-29 pandemic, there are three factors that make employees follow the – sometimes burdensome – safety and security procedures: *clarity of expectation* (they know they should follow the procedures), *tools* (they know how to do it), respectively *monitoring* (they know if they don't follow them, there will be consequences). These three factors are actually the “*pillars of corporate governance*”, and, consequently, can be applied to any management system or leadership style (Deliu, 2020). If these governance elements are taken into consideration, the employees will follow, and the culture will develop. In conclusion, similar *governance elements* are needed in order for KMG to make sure the KM tasks are accomplished:

- *KM policies*: an assemblage of clear corporate expectations, as well as accountability for the ownership of key knowledge areas, and the definition of KM corporate standards,
- *Training and support* in the use of the KM framework, including training in how to perform roles, how to follow KM processes, and how to use KM technology,
- *Monitoring, measuring or auditing* the application of KM: to validate whether employees are delivering on their responsibilities and tasks and smearing the system in the way that they are expected to, this will identify the need for new interventions to enhance the KM system, ensuring an incessant progress of the company in the ability to manage strategic knowledge.

Introducing KM is commonly acknowledged as a “culture change process”, and once the culture has been presented, along with the roles, processes and technologies, at that point it's tempting to assume objectives will be accomplished. However, governance is missing.

Governance denotes all of the management and organisational components that need to be in place so as to make sure knowledge is coped with accurately and rigorously, in a sustained (and sustainable!) way. These three pillars – *clarity of expectation, tools and monitoring* – ensure objectives will be accomplished. They form a governance system and are obligatory in structuring a governance framework for KM.

4. Knowledge Management vs an Effective CG – A Framework

Implementing KM, hence, has several dimensions, the framework outlined for KM, henceforth, containing six primordial elements:

1. A set of clear policies and corporate expectations. KM *strategy* is requisite to be reliant on corporate strategy, the main scope being to manage, share and generate relevant knowledge assets that will help accomplish tactical and strategic objectives. For this, a set of clear policies is obligatory in order to properly manage knowledge within a company, including the accountability and assumed roles for the ownership of key knowledge areas, as well as the designation of corporate standards for KM. When one tries to find an approach for organizing and managing content, one should take into consideration all tacit and explicit knowledge, as well as taxonomy, metadata, templates and tools. Therefore, all business rules (for how to categorize content for successful search and retrieval and how to store it) must be identified and implemented. Another method may find its correspondent in the endorsement of the content on initial capture and assurance that the content remains up-to-date, respectively in the archival of out-of-date content. These policies will provide long-term support in implementing and sustaining initiatives that involve virtually all organizational functions, although they may be costly to implement (both from the perspective of time and money), often not having a direct influence on Return On Investment.

2. **A *KM system*.** It must provide the resources that can aid in managing knowledge, referring to a holistic management system, that will comprise:
 - 2.1. ***Roles.*** *People* embrace the KM behaviours of pursuing and sharing knowledge and collaborating across functional or geographical areas and boundaries. Therefore, employees' engagement is directly related to company culture. In accordance with the size of the company, their roles (governance body, change agents, subject matter experts, trainers, mentors, etc.) may assigned to the same person, multiple persons, teams, being shared or outsourced. Moreover, KM calls for skilled and experienced *leadership* at all levels. There are a wide variety of KM-related roles that an organization may or may not need to implement (i.e. a CKO, knowledge managers, knowledge broker, etc.).
 - 2.2. ***Business processes.*** The processes refer to all the adequate processes, environments and systems that enable KM to be implemented in the company. These processes – which are created for capturing, organizing, accessing and communicating knowledge – enable oversight of overall programs and support accomplishing its objectives at different stages of development and maturity (i.e. core KM processes, governance, measurement approach, change management, etc.). A comprehensive communication plan with targeted messaging during development, implementation and ongoing use of the program is mandatory.
 - 2.3. ***Technologies*** implemented for capturing, organizing, accessing and communicating knowledge. Technology finds its correspondent in all systems, tools and technologies that fit the company's requirements. If they are accurately designed and properly implemented, they should support programs, strategy and already selected approaches. By using data storage, document repositories, team sites, network software and search capabilities, technology can bridge geographies and people, by enabling real-time and rapid access and simplifying complex multiple sources of information. Technology must be fit-for-purpose and should fit within existing business processes.
3. **A *monitoring committee/structure*.** Monitoring activities must be integrated in the KM framework in order to assess and measure the application of KM, as well as to ensure employees are delivering their assigned tasks and are applying the system just as they are expected to. Monitoring committees will eventually ascertain the prerequisite for new intercessions to improve the KM system and, therefore, will ensure a continuous improvement in the ability of the company to manage strategic knowledge.
4. ***Continuous improvement*.** Initially, a program and strategy will be designed to accomplish company's needs and objectives. A flexible roadmap will provide guidance throughout its evolution, using knowledge-driven learning and development, in order to reach the goal of *continuous improvement*. Both the program and the strategy must progress to meet changing business in response to internal and external influences (i.e. the current pandemic).
5. ***Organizational culture*.** An *organizational culture* of pursuing and sharing knowledge is mandatory for the success of any activity. Therefore, those charged with governance should enable behaviours such as: actively seeking and sharing knowledge, proactively using existing knowledge, open communication and collaboration across boundaries, focusing on the collective goal rather than on individual roles, tasks or functions, considering both positive and negative outcomes as sources of valuable knowledge, considering time spent seeking, haring and capturing knowledge as a value-added activity, encouraging incessant learning and continuous collaboration.
6. **An *effective CG*.** An *effective CG* will ascertain the critical knowledge that is essential in order to comprehend where enhancement of knowledge flow may provide opportunity for

enriched execution of improving critical business outcomes. After defining and deploying mechanisms able to empower and expand knowledge access and sharing, it should assess performance against outcomes and adjust if necessary.

Finally, all these actions will contribute to assessing prospects for continuous improvement in order to sustain the KM framework over time.

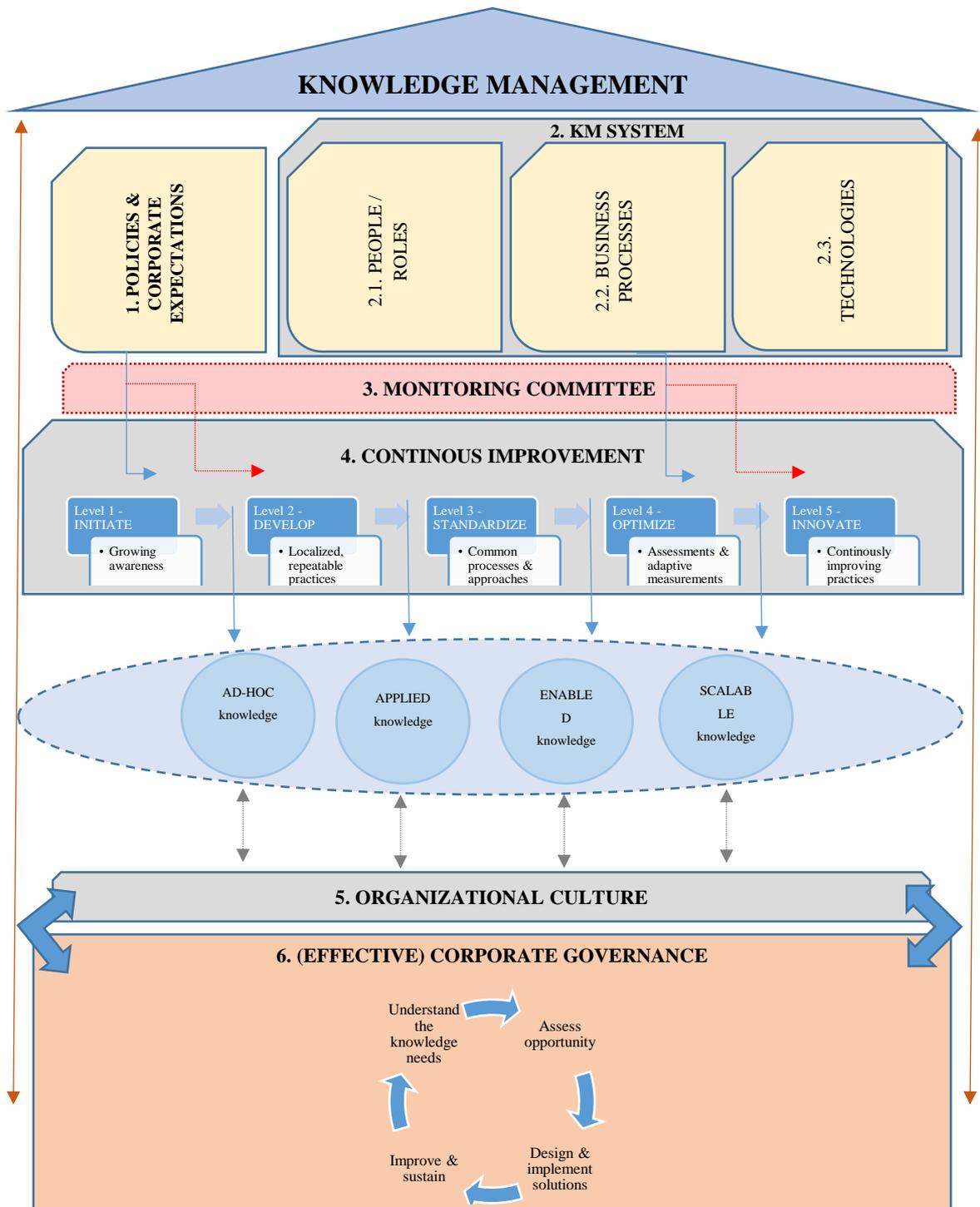


Figure 3. The interdependence between an effective Corporate Governance and Knowledge Management – a framework

Source: own projection

5. Findings and Discussion

KM is contingent on the administration of the company's knowledge creation and conversion mechanisms, as well as on company's "memory", retrieval facilities, organizational learning, and organizational culture. For that reason, *through the CG structures*, KM must:

- ✓ provide (or create) the adequate resources, tools, people, knowledge, organizational structures, culture, etc. so as to boost learning and knowledge creation,
- ✓ apprehend the worth and applications of the newly created knowledge,
- ✓ store this knowledge and make it freely available "for the right people at the right time",
- ✓ unceasingly measure, evaluate, apply, polish and/or remove organizational knowledge juxtaposed with tangible short-term and long-term objectives and factors.

Especially in the current sensitive and instable socio-economic environment, *KM is vital for all top- and middle-managers, as well as for the effectiveness of the CG*, because it is responsible for understanding:

- what the company "knows",
- how and where is the knowledge located (i.e. in the mind of an expert, a certain department, in old files, within a particular team, on paper, etc.),
- the transferability of the knowledge to relevant employees, so as to be able to take advantage of it and/or to safeguard that it is not lost (i.e. setting up a mentorship relationship between experienced experts and new employees, implementing a document management system to provide access to key explicit knowledge, etc.),
- the need to systematically evaluate the company's actual know-how vs the company's needs and to act accordingly (i.e. by promoting specific in-house knowledge creation, etc.),

KM is, for all these reasons, extremely beneficial nowadays – because it puts an emphasis on knowledge as an actual asset, rather than as something intangible, enabling the company to better shield and exploit what it knows, as well as to expand and highlight its knowledge progress efforts to match its prerequisites. In other words, KM:

- ✓ aids the company in acknowledging its "own memory" so as to learn from past mistakes,
- ✓ better exploits already-existing knowledge assets by re-deploying them in areas where the company stands to gain something,
- ✓ stimulates a longstanding focus on developing the right abilities, talents and skills by simultaneously eradicating obsolete knowledge,
- ✓ augments the company's capacity to innovate,
- ✓ heightens the company's capacity to safeguard its key knowledge and critical competencies from being copied or lost.

Conclusions

At this time, the world seems to be commencing to face a challenging time, comparable to the global socio-economic crisis that began since late 2007. In this sense, it must be emphasized what A. Einstein pointed out: „*It is in crisis that invention, discovery and large strategies are born*”.

This paper comprises a fundamental research, encompassing numerous debates about KM as a fundamental concept, respectively aspects related to models and framework regarding KM.

The centre of the research comprised sketching and highlighting the strong interdependence relationship between KM and CG, commencing from the following assumption: "*The Governance of Knowledge Management is based on an effective CG*".

In this context, the paper has investigated and debated on how KMG takes place in companies, given the sensitive socio-economic context spawned by the new Coronavirus (CoVid-19) pandemic, and what principles are applied in each of the governance domains. With the areas defined to include policies and corporate expectations, people (with roles and authority), business processes (with strategy development), monitoring activities (evaluation, measurement and risk management), continuous improvement and an effective corporate governance, KMG can be considered beneficial in ensuring the delivery of KM strategic benefits.

In conclusion, all those charged with governance within an economic entity should first ascertain the most important information and relevant knowledge needed by the company. This will provide comprehension of the challenges, jeopardies and risks related to knowledge gaps and, consequently, an assessment of KM behaviours of the whole organization.

Secondly, top management should identify existing gaps in the availability of specific knowledge needed to support key business processes. All these opportunities should be prioritized based on business needs, and, afterwards, business cases and pilot projects should be proposed to relevant governance body for approval.

Thirdly, relevant KM approaches should be selected and adequate tools should be designed, in order to, afterwards, develop the training implementation plans and training materials that will be delivered to trainees. Measures for assessing use and effectiveness will also be defined.

Finally, CG structures will institute constant oversight and adequate business processes for program maintenance and improvement. Taking into consideration the ever-changing business needs, an effective CG will continuously update and enlarge both the strategy and the program. Business-related actions for performance assessment will be defined and, afterwards, implemented, while approached for reinforcement and recognition of success will be developed.

A knowledge-seeking and sharing culture together with supporting business processes and people, as well as a qualitative CG, are primordial for the efficacious integration of KMG – in general and KM approaches into routine work – in particular.

In closing, the added value that an effective CG brings within KM finds its correspondent in:

- ✓ Connecting employees with information and experts more rapidly (or even just-in-time),
- ✓ Reducing needless or redundant activities athwart employees/teams/functions,
- ✓ Retaining and facilitating sharing of critical knowledge,
- ✓ Enabling searching, finding and applying information faster,
- ✓ Enhancing decision-making.

This is why the author considers that, when KM is in practice, employees within a company will not only know what knowledge already exists, where to find it, how to speedily access it, who the experts are or how to contact them for assistance, but also how to capture the knowledge in a consistent and searchable manner. Hence, the employees will benefit from an environment where they can share lessons learned, so new tasks and activities will always start using the current best practice. Henceforth, they will bond freely across boundaries of teams, groups, functions and/or geographies.

Further research of this topic will focus on the exploration and investigation of the interplay of KM, IT and business strategies. This is particularly due to the interdependency among them that affects the arrangements of KMG.

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