

# Indicators to Assess the Quality of Organizational Attention: First Steps Towards a Measurement Instrument

**Fernanda Bigolin**  
University of Minho  
id5061@alunos.uminho.pt

**Isabel Ramos**  
ALGORITMI Centre  
University of Minho  
iramos@dsi.uminho.pt

**Victor Barros**  
University of Minho  
vfbarros@dsi.uminho.pt

## Abstract

Organizations increasingly have access to varied and sophisticated information about their internal and external environments. While there is the general belief that accessing high quality and sophisticated information leads to more effective decisions, this is not necessarily true. In a number of disciplinary fields, from economics to psychology and technology, scholars are emphasizing that information overload produces confusion and reduces consistent decision-making. This paper focuses organizational attention and presents a tool to assess the quality of organizational attention mediated by technology. This instrument was tested and will soon be applied in a pilot study to further refine it.

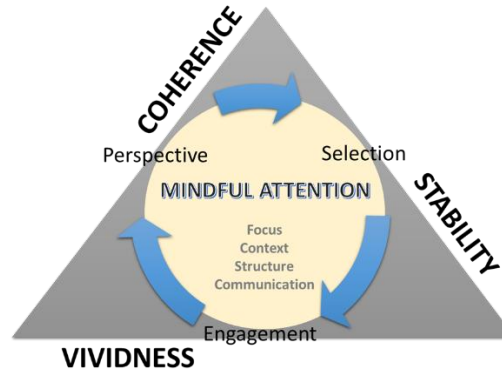
## Keywords

Organizational attention, quality of attention, technology, decision-making.

## Introduction

Organizational attention is defined as an organization's ability to observe, encode, interpret and focus time and effort on a number of issues and answers that are relevant to implement the organization's strategy (Ocasio 1997). The set of questions and answers is defined by the inter-subjective understanding of the context (internal and external) in which work takes place and the collective ability of decision-makers to deal with the various stimuli they receive (Eggers and Kaplan 2013; Hoffman and Ocasio 2001). In this paper it is assumed that the structure of organizational attention is based on three pillars (Ocasio 1997): (i) the communication channels established and distributed in the organization; (ii) the priorities set by the organization's strategy; and (iii) the social, economic and cultural aspects that shape the organization. For (Barnett 2008), these three pillars of attention determine how decision makers justify and prioritize objectives and activities.

Ocasio (1997) emphasizes the collective dynamics that give rise to organizational attention, but does not provide guidance on how to assess its quality. While Ocasio (1997) explains attention as a scarce and critical resource in organizations that must be managed to ensure the quality of the decision, (Rerup 2009) provides guidance on how to assess the quality of organizational attention. Claus Rerup (2009) proposes three dimensions for the organizational attention: stability, vividness and coherence. Integrating both theoretical perspectives allows for a more complete understanding of organizational attention. Figure 1 presents this integration.



**Figure 1. Organizational Attention According to Ocasio (1997) and Rerup (2009)**

The integration of the two theoretical perspectives offers the theoretical basis required to build the instrument to assess the organizational attention mediated by technology presented in this paper. In this work, we assume that the higher the quality of attention the better the decision and the more effective the action will be (Goleman and Damasio 2014). The study described in this paper is a first attempt to answer the research question:

*How to assess the quality of organizational attention mediated by technology?*

This paper starts by presenting the theoretical model that supports the developed instrument. This model shows the relevant variables and our proposal for their measurement emerges from the literature review in the area. The theoretical model was validated for its consistency. A group of experts was consulted to elicit the adequacy of the questions to measure the variables. The purpose of this research is to present a first draft of the instrument to assess organizational attention already integrating the feedback of the consulted experts. In order not to exceed the maximum number of pages, we decided not to integrate details about this consultation process.

In the following section, the theoretical basis of the research is presented. This overview of the organizational attention concept relevant to our research is then followed by the methodology used to search and select the literature that supports our model. In the rest of the paper we detail both the model and the assessment instrument.

## Explaining Organizational Attention

Information overload can divert the attention of individuals, overburdening their cognitive resources and causing a deficit of attention (Javadi et al. 2013; Melinat et al. 2014). Since attention is a scarce resource (Ocasio 1997), and workers can focus only on a limited amount of information at any time, strategies and tools are necessary to guide the attention towards information regarded as relevant to decision and action.

The Attention-based View of the Firm (ABV) explains the way organizations allocate, distribute and regulate the attention of their decision-makers (Ocasio 1997). ABV states that decisions depend on what questions and answers decision-makers focus their attention. Attention is structured by three main principles: (i) Focus of Attention: the focus of attention is directly related to the objectives of decision makers (Ocasio 1997); (ii) Situated Attention: aspects focused by decision-makers depend on the particular context in which they are; and (iii) Structural Distribution of Attention: organizational attention is distributed by the various organizational units, processes and authority levels (Ocasio 1997). Hansen and Haas (2001) emphasize the importance of ABV for the study of decision making in organizations because the intense use of diverse IT-artifacts may expose decision makers to a growing inability to identify and focus information that is really important for decision making. In the same line, (Joseph and Wilson 2017) state that more important than the capacity to process information is the ability to quickly identify the critical issues that must be monitored to make effective decisions.

Rerup (2009) explains that learning happens when critical issues are identified and answers are defined. This learning depends on the integration of three dimensions of attention: stability, vividness and

coherence. *Stability of attention* refers a constant attention to the aspects considered relevant to decision making; it lasts uninterrupted for the time needed to understand those aspects. Stability is perceived when the mind takes a clear ownership of the different relevant aspects analyzed and emerges from the repeated and focused examination of some aspects over time. *Vividness of attention* refers to a rich and relatively broad understanding of a set of inter-related aspects; the mind focuses on the analysis of various aspects at the same time in order to generate complex interpretations of situations, even when contradictions can be found in available information. *Coherence of attention* implies that at the various organizational units, processes and authority levels, individual attention is similar, complementary and compatible and, as a result, the organization pays proper attention to the aspects that are relevant for the successful conduct of its business.

Each dimension of attention produces an incomplete understanding of problems and opportunities (Rerup 2009); the triangulation of the three dimensions is necessary to maintain the mindful engagement required to process relevant stimuli at all levels of the organizational structure (Rerup 2009). For Bansal et al. (2017) a detailed monitoring of all potentially relevant problems and opportunities overloads the organizational resources and can potentially bring out contradictory information, increasing the likelihood of failures. Therefore, the proper selection of what to focus and what to ignore is of crucial importance for effective decision and action.

When the organization is unable to focus its attention on the most relevant information, with stability and vividness, it may become unable to identify issues that should solve or circumvent (Bansal et al. 2017). In short, the stability of organizational attention must be combined with the vividness and coherence of attention in order to identify and integrate relevant information to decision, identify aspects that are emerging as relevant and integrate different perspectives in order to produce coherent organizational behavior.

## **The Process of Literature Review**

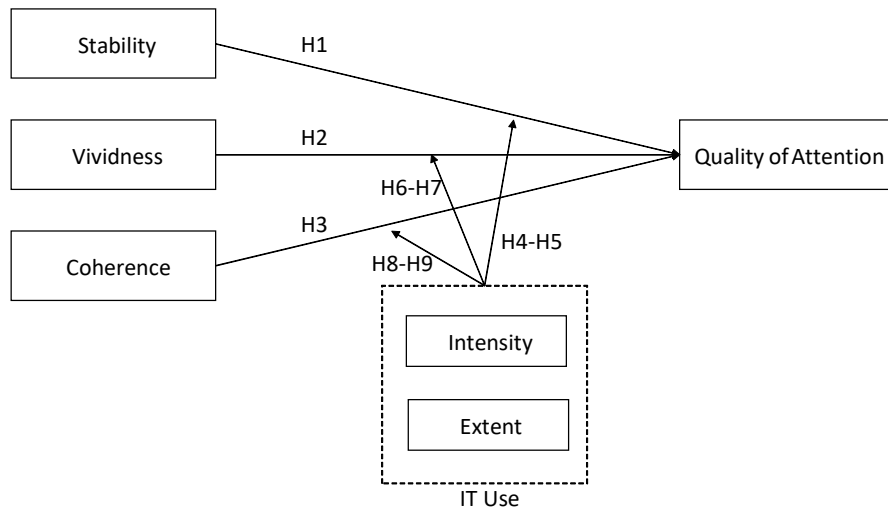
The selection of papers for literature review was performed in two stages. In the first stage, scientific papers were selected with the aim of producing a coherent and broad understanding of organizational attention and the assessment of its quality. We also wanted to establish a relation between organizational attention and the use of information technology. The search was conducted in the scientific databases: Scopus, Web of Science and Google Scholar. These databases have been chosen due to their widespread use by the scientific community and, in particular, because they give access to a substantial number of scientific publications in the field of information systems.

The second stage allowed for the analysis of qualitative and quantitative studies of organizational attention mediated by information systems. A systematic collection of papers was done by searching the terms "organizational attention" and "survey", "measuring organizational attention" and "measurement of organizational attention" in the title, abstract and keywords. The search allowed to identify more than 2000 papers.

The next step in the selection of papers focused the abstract in order to identify how the papers addressed the themes relevant to our work. This analysis identified 297 scientific papers potentially relevant. After analyzing the number of citations and the quality of journals and conferences where they were published, 51 papers were selected. After identifying the duplicated papers collected from different sources as well as those that addressed the use of IT artifacts, 24 papers were thoroughly analyzed and used to ground our work.

## **Measuring the Level of Attention in the Organizations**

From our analysis of the literature emerged the model in Figure 2. The attention's dimensions (stability, vividness and coherence) correspond to 3 independent variables which impact on the dependent variable "Quality of Attention" shown in. For all variable considered, the unit of analysis is the organization.



**Figure 2. Conceptual Model of Organizational Attention Mediated by Technology**

Table 1 presents the characterization of the dimensions of attention at its extreme points. A high stability implies a profound and sustained attention and the absence of disturbances and distractions (Weick and Sutcliffe 2006; Ocasio 2011), that is, denotes a high effort to focus on a clearly defined set of aspects. Low stability of attention implies the existence of an organizational attention deficit, which translates into reduced capacity to understand situations and plan coherent action (Ocasio 1997). Highly vivid attention translates into the ability to formulate complex understandings, which are well discerned and relatively independent of existing conceptual schemes or labels (Dane 2013). A low vividness implies a fuzzy understanding of the situations (Dane 2013). Highly coherent attention promotes consensus or easy negotiation of perspectives, thus reducing the likelihood of fragmented collective attention (Rerup 2009). A low level of coherence may involve serious difficulties in decision and action since individuals and groups are unable to relate their different understandings (Rerup 2009).

	<b>High</b>	<b>Low</b>
<b>Stability</b>	<ul style="list-style-type: none"> <li>• Deep and undistracted attention to issues and relevant responses;</li> <li>• Attentional discipline over time;</li> <li>• Accurate analysis of situations;</li> <li>• Unwillingness to do more or different from what is pre-defined in the working procedures: excessive and rigid performance.</li> </ul>	<ul style="list-style-type: none"> <li>• Superficial attention;</li> <li>• Poor time management;</li> <li>• Difficulty prioritizing tasks;</li> <li>• Difficulty in generating understanding about situations.</li> </ul>
<b>Vividness</b>	<ul style="list-style-type: none"> <li>• Enhanced ability to detect problems and opportunities in the periphery of the main focus of attention;</li> <li>• Freedom from existing schemes and conceptual labels;</li> <li>• High capacity to create complex understandings and a clear insight into the situation;</li> <li>• Vulnerability to distraction.</li> </ul>	<ul style="list-style-type: none"> <li>• Inability to detect unexpected information;</li> <li>• Tendency to develop simplistic understandings;</li> <li>• Difficulty in generating new answers.</li> </ul>
<b>Coherence</b>	<ul style="list-style-type: none"> <li>• Good balance between top-down attention (strategy / planning) and bottom-up attention (distributed experience);</li> <li>• Collective and distributed capacity to maintain the balance between external and internal focuses;</li> <li>• Increased ability to maintain motivation and cooperation;</li> <li>• Difficulty in nurturing diversity of perspectives.</li> </ul>	<ul style="list-style-type: none"> <li>• Inability to define a common set of problems and responses;</li> <li>• Duplication of time and effort in analyzing aspects (potentially not relevant);</li> <li>• Conflicting / uncoordinated perspectives leading to widespread demotivation.</li> </ul>

**Table 1. Consequences of Extremes for the Dimensions of Attention**

## ***The Instrument to Assess Organizational Attention Mediated by Technology***

In this section, the variable of the instrument are presented and explained.

### **Assessing the Stability of Attention**

The collective ability to sustain a steady attention over time to the aspects considered relevant for implementing the organization strategy is what defines a stable organizational attention (Bouquet and Birkinshaw 2011; Rerup and Salvato 2012). This constant and disciplined attention facilitates the deep understanding of the focused aspects and allows for the identification of the risks in different scenarios (Weick et al. 2008). Too much stability may lead to a too narrow focus where emerging issues pass unnoticed (Bansal et al. 2017). On the other hand, an unstable attention produces poor understandings and induces low quality decisions (Ocasio 1997; Ocasio and Joseph 2005). In sum, *organizations must provide decision makers with the time required to identify and analyze, in detailed and disciplined way, the aspects<sup>1</sup> considered relevant to the decision [stable focus].*

**Assertion 1:** Employees in our organization have the time they deem necessary to analyze the information for decision.

The use of technology in organizations must not promote distraction. On the contrary, it must provide the information when required and in a format that minimizes the effort and time needed to understand it (Joseph and Ocasio 2012). The assertions addressing the use of technology can be adjusted to focus a specific types of IT application.

**Assertion 2:** Technology-in-use provides the information required to the detailed analysis of relevant aspects for decision.

Stable attention requires the existence of a work environment that promotes sustained attention of decision-makers. Moreover, culture and work routines encourage the continuous monitoring of the internal and external environments and the detection of relevant stimuli (Ocasio 1993; Barnett 2008). The analysis should promote a deep understanding of situations in their entire length, including contours considered less important but with the potential to become relevant in the future (Yadav et al. 2007; Palmié et al. 2015); information on aspects such as legislation, emerging technology, market changes, among others, should be integrated in the analysis of issues / problems / solutions / opportunities as they will be required to realize the limits of the decision and its future impact. Therefore, stable attention should be permeable to the environment in which the decision maker is inserted but without allowing the fragmentation of attention (Ocasio 2011). *The environment, culture and work routines influence who, when, how, for how long and why individuals focus on certain aspects, while ignoring others (Rerup and Salvato 2012); the used technology clarify and support the focus of attention [context of stable focus].*

**Assertion 3:** Decision makers at our organization have access to the resources and channels necessary to develop deep understanding of situations.

**Assertion 4:** Technology-in-use provides the information required at each level of decision.

Organizational structure and coordination channels (operational and of governance) define how individual attention is distributed and related in the organization (Ocasio and Joseph 2005; Henri 2006). Governance channels connect middle and top managers, responsible for the top-down strategic decisions; operational channels comprise connect those executing the operational tasks to managers thus promoting bottom-up decisions (Ocasio and Joseph 2005). *The configuration of the network of operational and governance channels promotes the allocation of the effort, time and energy required to the search, identification, coding and interpretation of the multiple aspects relevant to the organization, favoring the concentration distribution across the organization [structure of stable attention].*

**Assertion 5:** In our organization, the effort required to understand the various aspects relevant to implement organizational strategy is well distributed among decision makers.

---

<sup>1</sup> problems / opportunities / solutions

**Assertion 6:** Technology-in-use provides the information required to keep a sustained monitoring of aspects relevant to strategic decision.

### Assessing the Vividness of Attention

A too stable organizational attention may result in an inability to detect changes or events that impact the results of decisions. Thus, the decision maker should be able to maintain a "peripheral vision" about what may be happening in the vicinity of the situations being analyzed. This peripheral vision can draw attention to biased interpretations, alternative perspectives and incorrect information (Weick and Sutcliffe 2006; Barry and Meisiek 2010). Information that is different, extreme, unusual and negative has a big potential to call the attention of decision-makers regardless of their importance to the analysis in progress, therefore leading to distraction (Rerup and Salvato 2012). If, however, this distraction allows for the identification of unexpected and relevant issues then the salient information enriches the analysis of situations and can lead to better decisions. Rerup(2009) says that the vividness is attained by focusing on many issues at the same time, promoting complex insights on situations, the contemplation of various interpretations - sometimes contradictory. Therefore, *a vivid attention allows for the identification of relevant aspects that emerge outside the main focus of attention, establishing interconnections that promote a comprehensive understanding of situations [vivid focus].*

**Assertion 7:** Employees in our organization are able to anticipate events with impact on their activities.

**Assertion 8:** Technology-in-use supports the search for new information about situations.

Historical factors influence decision since what seemed relevant in the past the organization guides the focus of attention (Rerup 2009). The understanding of situations is grounded on the decision maker's cognitive processes and personal values as well as the experiences, objectives, roles / functions and incentives associated with their hierarchical position in the organization (Lavie 2006; Rerup and Salvato 2012). The context and history of organizational decision shapes individual intuition. Intuition accelerates the understanding of situations, eventually promoting the emergence of biased perceptions (Goleman and Damasio 2014). The diversity of perspectives is, therefore, important for an effective decision. In sum, *the environment, culture and work routines influence the importance given to the peripheral aspects as well as the perceived links they have to those being monitored routinely [context of vivid attention].*

**Assertion 9:** Decision makers at our organization have access to the resources and channels necessary to the emergence of alternative interpretations of situations.

**Assertion 10:** Technology-in-use provides information that allows for the integration of unexpected events into established understandings of situations.

Organizational structure influence the focus of attention in organizations (De Mesquita Ferreira 2010; Joseph and Wilson 2017). It can assist in detecting lower intensity problems, that are nevertheless important in decision making, and also in understanding the details and complexity of those issues (Vendelo and Rerup 2009; Brooks-Ames 2016). Both the decision process and the strategic response are influenced by the distribution of authority in organizations. The delegation or centralization of decision have influence on the collective ability to cover emerging peripheral aspects, through its fragmentation, dispersion or concentration. An appropriate distribution of decision responsibilities is critical for the organization to be able to develop comprehensive understandings of the various situations faced. *The configuration of the network of operational and governance channels allows for the allocation of the effort, time and energy to the search, identification, coding and interpretation of the peripheral aspects considered relevant by the organization (Ocasio and Joseph 2005) [structure of stable attention].*

**Assertion 11:** In our organization, the effort required to identify unexpected events potentially relevant to organizational strategy is well distributed among decision makers.

**Assertion 12:** Technology-in-use provides the information required to connect emerging understandings at the various levels of the organization's structure.

### Assessing the Coherence of Attention

The coordination of individual and groups' attention efforts, ensuring an adequate exchange of information, results in the emergence of compatible and / or similar perspectives relevant for the implementation of the organizational strategy (Gavetti et al. 2012). This coordination of attention at all levels reduces the fragmentation of collective attention, providing greater coherence to the collective efforts in monitoring the internal and external environments (Rerup 2009). Thus, the organization ensures that all relevant aspects for the success of its activity are all taken into account (Argote and Greve 2007). *Collectively, the decision-makers at the different levels, functions and units, attend to all aspects considered relevant to the implementation of organizational strategy [coherent focus].*

**Assertion 13:** Employees in our organization are able to assess the impact of their decisions on the implementation of the organizational strategy.

**Assertion 14:** Technology-in-use supports the assessment of alternative courses of action.

The top-down and bottom-up sharing of emerging understandings allows for a more comprehensive and distributed experience with the challenges of implementing the defined strategy (Joseph and Ocasio 2012). Rerup(2009) highlights that a lack of attention coherence may occur due to the absence of mechanisms to coordinate and exchange information among decision makers and to an organizational culture that induces the decision-makers of higher hierarchical levels to dismiss information from lower levels in the hierarchy. *The environment, culture and work routines influence how the various understandings emerging in the organization are negotiated and connected [context of coherent attention].*

**Assertion 15:** Decision makers at our organization have access to the resources and channels necessary to the emergence of consensual perspectives.

**Assertion 16:** Technology-in-use provides information to support the discussion of different perspectives on situations.

The coherence of attention is facilitated by the use of management structures to coordinate efforts in monitoring issues, problems, opportunities or solutions at all levels of the organization (Durand 2003; Rerup and Salvato 2012); thus encouraging the emergence of common understandings, reducing conflicts and accelerating the decision. *The configuration of the network of operational and governance channels allows for the allocation of the effort, time and energy to the search, identification, coding and interpretation required for coordination and negotiation of various organizational perspectives (Ocasio and Joseph 2005) [structure of coherent attention].*

**Assertion 17:** In our organization, the integration of the different perspectives relevant for decision-making is easy.

**Assertion 18:** Technology-in-use provides the information required to negotiate different perspectives.

### Assessing the Quality of Attention

To keep focused and sustained attention to the questions and answers within a particular context provides the conditions for disciplined and accurate analysis over time. Stable *organizational attention allows for a deep and relatively narrow awareness of what goes on in a specific context that potentiates the clear understanding of a limited set of aspects relevant for decision [stability].*

**Assertion 19:** Decision-makers are usually able to prioritize objectives.

**Assertion 20:** Decision-makers are usually able to fulfill deadlines.

To anticipate and detect stimuli at the vicinity of the main focus is crucial to anticipate and detect unexpected problems and opportunities. A peripheral vision offers a greater ability to create sophisticated interpretations and to develop a clear discerning about situations in which the organization finds itself (Dane 2013). *A vivid organizational attention allows for rich and detailed interpretations of situations, promoting freedom from established concepts and behaviors therefore supporting creativity and innovation [vividness].*

**Assertion 21:** Decision-makers are usually able to anticipate relevant events.

**Assertion 22:** Decision-makers are usually able to develop creative solutions to problems.

The way work is distributed and distributed in the organization should potentiate the collective experience in solving problems and taking advantage of opportunities. Collective experience should inform strategy and strategy should provide guidance to collective learning. That is, strategy and collective experience are instrumental for coherent attention and decision; they feed cooperation and motivation (Dane 2013). *A coherent organizational attention is distributed in the organization and promotes the cohesive understanding of situations [coherence].*

**Assertion 23:** Decision-makers are usually able to cooperate in the analysis of problems and opportunities.

**Assertion 24:** Decision-makers are usually able to link their perspective to the perspectives generated in other parts of the organizational structure.

### Connecting the variables: the hypotheses of the model

From all that has been described up to this point, the following hypotheses arise:

**H1:** Stability of organizational attention is positively associated with the quality of attention in organizations.

**H2:** Vividness of organizational attention is positively associated with the quality of attention in organizations.

**H3:** Coherence of organizational attention is positively associated with the quality of attention in organizations.

Regarding the impact of IT Use on the quality of attention, we consider that the *intensity of use* (how often the technology is used for decision making) and *extent of use* (support provided by the technology to the execution of tasks) moderate the quality of attention in organizations. Therefore, we hypothesize that:

**H4:** The intensity of IT use plays a moderating role on the stability of organizational attention.

**H5:** The extent of IT use plays a moderating role on the stability of organizational attention.

**H6:** The intensity of IT use plays a moderating role on the vividness of organizational attention.

**H7:** The extent of IT use plays a moderating role on the vividness of organizational attention.

**H8:** The intensity of IT use plays a moderating role on the coherence of organizational attention.

**H9:** The extent of IT use plays a moderating role on the coherence of organizational attention.

### Conclusion

In an increasingly digital and hyper connected world, the problem is not anymore the lack of information but its overabundance. People and organizations are continuously broadcasting their opinions, discoveries and achievements. Information systems support the continuous monitoring of markets and innovations. Scientific advances transform previous certainties into obsolete understandings. Fake news and rumours shape opinions and actions. Fashionable technology drive the attention of investors. All these circumstances make the study of attention crucial for the success of organizations and individuals.

Our paper focus the attention in organizations and starts from the premise that the higher the quality of attention the more assertive is the decision and action of organizational actors. The paper describes a model to explain organizational attention mediated by technology and presents its variables and hypotheses in detail according to the supporting literature. Organizational attention is shown as dependent of the stability, vividness and coherence of attention in the organization and moderated by the used technology.

Our research is now in the phase of dissemination and discussion of the model created, to be followed by the definition of an instrument for measuring organizational attention mediated by technology.

In future work, this theoretical model will be validated for its consistency and reliability. To ensure consistency, two groups of experts validated the effectiveness of the proposed measurement of variables according to the guiding metric principles commonly accepted in the specialized literature. To ensure its



reliability, a factorial analysis will be performed to confirm the relationship of all variables within each of the model dimensions, after the application of the questionnaire in a pilot study designed to improve its reliability. Later the instrument will be applied in various organizational settings.

The resulting model and instrument will provide a scientific contribution in the field of information systems as they will offer a theoretical support to (1) assess the impact of IT applications on the organization's capacity to produce clear understandings of situations; and (2) the design of innovative applications that promote individual and organizational attention. These results will also be useful for practitioners willing to assess the quality of attention in their organizations and to implement information systems that increase that quality.

## Acknowledgements

This work has been supported by CAPES Foundation, Ministry of Education of Brazil and by FCT – Foundation for Science and Technology within the Project Scope UID/CEC/00319/2013.

## REFERENCES

- Argote, L., and Greve, H. R. 2007. "A Behavioral Theory of the Firm—40 Years and Counting: Introduction and Impact," *Organization Science* (18:3), pp. 337–349.
- Bansal, P., Kim, A., and Wood, M. 2017. "Hidden in Plain Sight: The Importance of Scale on Organizational Attention to Issues," *Academy of Management Review*, Amr-2014.
- Barnett, M. L. 2008. "An Attention-Based View of Real Options Reasoning," *Academy of Management Review* (33:3), pp. 606–628.
- Barry, D., and Meisiek, S. 2010. "Seeing More and Seeing Differently: Sensemaking, Mindfulness, and the Workarts," *Organization Studies* (31:11), pp. 1505–1530.
- Bouquet, C., and Birkinshaw, J. 2011. "How Global Strategies Emerge: An Attention Perspective," *Global Strategy Journal* (1:3-4), pp. 243–262.
- Brooks-Ames, R. E. 2016. "Situated Attention: Exploring Strategic Responses to Emergent Issues in Transnational Environments," PhD Thesis, PhD Thesis, Universität St. Gallen.
- Dane, E. 2013. "Things Seen and Unseen: Investigating Experience-Based Qualities of Attention in a Dynamic Work Setting," *Organization Studies* (34:1), pp. 45–78.
- De Mesquita Ferreira, L. C. 2010. *Attention Mosaics: Studies of Organizational Attention*, (No. EPS-2010-205-ORG).
- Durand, R. 2003. "Predicting a Firm's Forecasting Ability: The Roles of Organizational Illusion of Control and Organizational Attention," *Strategic Management Journal* (24:9), pp. 821–838.
- Eggers, J., and Kaplan, S. 2013. "Cognition and Capabilities: A Multi-Level Perspective," *The Academy of Management Annals* (7:1), pp. 295–340.
- Gavetti, G., Greve, H. R., Levinthal, D. A., and Ocasio, W. 2012. "The Behavioral Theory of the Firm: Assessment and Prospects," *Academy of Management Annals* (6:1), pp. 1–40.
- Goleman, B. D., and Damasio, A. 2014. "The Focused Leader," *Harvard Business Review* (91:12), pp. 50–60.
- Hansen, M. T., and Haas, M. R. 2001. "Competing for Attention in Knowledge Markets: Electronic Document Dissemination in a Management Consulting Company," *Administrative Science Quarterly* (46:1), pp. 1–28.
- Henri, J.-F. 2006. "Organizational Culture and Performance Measurement Systems," *Accounting, Organizations and Society* (31:1), pp. 77–103.
- Hoffman, A. J., and Ocasio, W. 2001. "Not All Events Are Attended Equally: Toward a Middle-Range Theory of Industry Attention to External Events," *Organization Science* (12:4), pp. 414–434.
- Javadi, E., Gebauer, J., and Mahoney, J. 2013. "The Impact of User Interface Design on Idea Integration in Electronic Brainstorming: An Attention-Based View," *Journal of the Association for Information Systems* (14:1), pp. 1–21.
- Joseph, J., and Ocasio, W. 2012. "Architecture, Attention, and Adaptation in the Multibusiness Firm: General Electric From 1951 to 2001," *Strategic Management Journal* (33:6), pp. 633–660.
- Joseph, J., and Wilson, A. J. 2017. "The Growth of the Firm: An Attention-Based View," *Strategic Management Journal*, pp. 1–40.

- Lavie, D. 2006. "Capability Reconfiguration: An Analysis of Incumbent Responses to Technological Change," *Academy of Management Review* (31:1), pp. 153–174.
- Melinat, P., Kreuzkam, T., and Stamer, D. 2014. *Information Overload: A Systematic Literature Review*, presented at the International Conference on Business Informatics Research, Springer, pp. 72–86.
- Mu, E., and Butler, B. S. 2009. "The Assessment of Organizational Mindfulness Processes for the Effective Assimilation of IT Innovations," *Journal of Decision Systems* (18:1), pp. 27–51.
- Ocasio, W. 1993. *The Structuring of Organizational Attention and the Enactment of Economic Adversity: A Reconciliation of Theories of Failure-Induced Change and Threat-Rigidity*.
- Ocasio, W. 1997. "Towards an Attention-Based View of the Firm," *Strategic Management Journal* (18:Summer Special) (1), pp. 187–206.
- Ocasio, W. 2011. "Attention to Attention," *Organization Science* (22:5), pp. 1286–1296.
- Ocasio, W., and Joseph, J. 2005. "An Attention-Based Theory of Strategy Formulation: Linking Micro-and Macroperspectives in Strategy Processes," in *Strategy Process*, Emerald Group Publishing Limited, pp. 39–61.
- Palmié, M., Lingens, B., and Gassmann, O. 2015. "Towards an Attention-Based View of Technology Decisions," *R&D Management*, pp. 1–16.
- Rerup, C. 2009. "Attentional Triangulation: Learning from Unexpected Rare Crises," *Organization Science* (20:5), pp. 876–893.
- Rerup, C., and Salvato, C. 2012. "Role of Attention Triangulation in Organizational Learning Processes," in *Encyclopedia of the Sciences of Learning*, Springer US, pp. 2882–2886.
- Vendelo, M. T., and Rerup, C. 2009. *Weak Cues and Attentional Triangulation: The Pearl Jam Concert Accident at Roskilde Festival*, presented at the Academy of Management Annual Meeting, Chicago, IL, pp. 1–38.
- Weick, K. E., and Sutcliffe, K. M. 2006. "Mindfulness and the Quality of Organizational Attention," *Organization Science* (17:4), pp. 514–524.
- Weick, K. E., Sutcliffe, K. M., and Obstfeld, D. 2008. "Organizing for High Reliability: Processes of Collective Mindfulness," *Crisis Management* (3:1), pp. 81–123.
- Yadav, M. S., Prabhu, J. C., and Chandy, R. K. 2007. "Managing the Future: CEO Attention and Innovation Outcomes," *Journal of Marketing* (71:4), pp. 84–101.