

Management control and cognitive computing: a research approach – Work in progress

Christian Moinard – EDBA Dauphine / PSL Paris (France)- Intake 2017

Main issue

The multiplication of available data and their improved accessibility by the generalization of databases allow the emergence of hybrid controllers at all levels of the organization." (Caglio 2003, Burns and Vaivio 2001,

Both according to professional and researchers, the impact of cognitive computing (Big data, IA, BI...) on management control is a major subject

According to Rikhardssona and Yigitbasioglu's research propose 5 dimensions to explore this subject:

- Transformation of cognitive mechanisms for deciders and users
- Change in management accounting practices
- Management accounting's position and role on organization
- Users' perception and their expertise's capabilities and the data governance issue
- How to insure data quality



Research gap

But there is still an important research gap → the meeting between management control and cognitive computing required further exploration → "our current understanding of these developments in the accounting academia is very limited" (Granlund, 2011)

A research problem to tackle

What are the impacts of the set of technologies include in so called "cognitive computing" on management control

The cognitive issue and how to approach → 3 possibilities

1. Micro vision of individual cognitive mechanisms
2. Mezzo (organizational) level: the Transformations of management control function and its organizational and strategic role – the place in decision taking process
3. Macro level: the new role and place of information : distribution, quality criteria



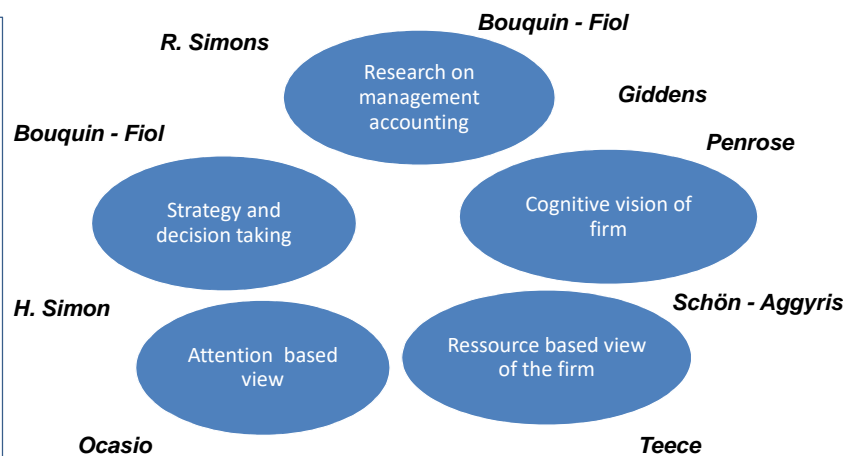
The mezzo (organizational) level seems promising:

- A link between micro and macro
- The organizational question: an important lack in research
- Vision of strategic role and professional change

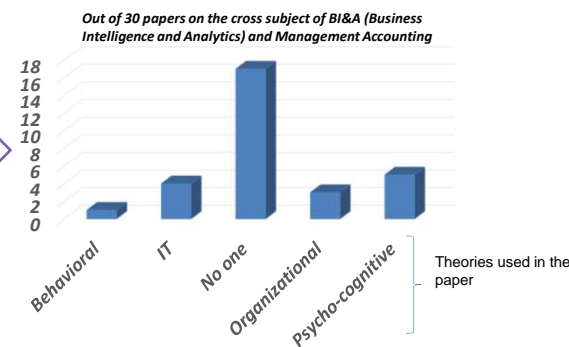
A first research question: *what's the new place for management controllers in decision taking process, induced by cognitive computing technologies*

Literature review: in search for a theoretical framework

First exploration (abstract)



According to Rikhardssona and Yigitbasioglu (2018) "there is relatively little anchoring in existing theory"



A lack of theory to explore this subject

A proposed theory to explore this subject:

•The dynamic capabilities theory focusing on "the need for constant skill adjustment in dynamic environments" (Josserand 2007) could be a promising approach to explore this subject → it allows to explore the transformation of the role of management controllers and their cognitive model in the context of changing decision-making processes.

Research design (possible)

- Qualitative design in order to explore the interconnections between individual and organizational level
- Case studies to explore in deep the transformation in progress

Contribution objectives

- Exploring the on going reality and the mutation of management control functions
- Fulfilling (partly) the research gap on this subject
- Identifying patterns of new role and new structure of control
- Identifying new education programs for management controllers