The Role of Management Accounting and Control Systems as Information Networks and as Networks of Relationships on the Development of Organizational Knowledge

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1. INTRODUCTION

Management accounting and control systems (MACS) may be defined as part of the global information system, through which it is collected, processed, analyzed and communicated information (financial and non-financial, internal and external) used for planning, monitoring and control of different organizational activities, to optimize the use of resources, to support the process of decision making and to the performance evaluation process. In this way, the concept of MACS in use in this article expands the notion of management accounting systems to embrace the entire array of control mechanisms used by organizations (See Machintosh & Quattrone, 2010).

The design of MACS as elements of organizational structure that favor the development of intellectual capital has been highlighted in the literature (Cf. e. g. Prieto, 1999; Tayles, Bramley, Adshead, & Farr, 2002; Roberts, 2003; Widener, 2004; Wingren, 2004; Bjurström & Roberts, 2007; Cleary, Kennedy, O’Donnell, O’Reagan, & Bontis, 2007; Tayles, Pike, & Sofian, 2007; Cleary, 2009; Massaro, Bardy, & Pitts, 2012; Massaro, Bardy, & Zanin, 2013), mainly as a means of communication, dissemination and interpretation favoring the interaction mechanisms essential to the creation, transmission and integration of organizational knowledge.

In this article, MACS will be described as elements of the managerial apparatus that managers may use to promote the activities that invoke organizational knowledge, i.e., the fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. Organizational knowledge often becomes embedded not only in documents or repositories but also in organizational routines, process, practices, and norms (Davenport & Prusak, 1998). The main objective of the article is to discuss the role of management accounting and control systems as information networks that collect, process and communicate information that influence the development of organizational knowledge, as well as networks of relationships that support the establishment of conditions for the creation and integration of organizational knowledge.

2. BACKGROUND

In recent years, several attempts have been made to positioning management accounting and control on IC sphere, which has enabled filling a gap in empirical academic literature and has provided some clarification as to how MACS contribute towards the identification, measurement and management of IC. The main issue here is that if knowledge is a resource then there exist a link between MACS and knowledge management, and this involves examining whether and how its technology can contribute in this field.

The literature has suggested the development of management accounting and its instruments in order to comprehensively embrace IC. Tayles et al.’s (2002) concerns about the potential role of management accounting stressed the importance of strategic management accounting in supporting the measurement and management of IC. They contended that the real strategic value of management accounting shall be expressed by the feasibility to identify and value, with some precision, the component elements of the IC of
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... as elements of organizational structural capital. They still correspond to the part of structural capital that can

need to ensure that their MACS are developed to some

Tayles et al., 2007), which means that organizations

measures (Roberts, 2003; Bjurström & Roberts, 2007;

confluence of financial and nonfinancial methods and

interpretative context. At the same time, it is clear from

and the interdependencies of resources. The resultant

connectivity, that is, the flows of knowledge transfer

management accounting focus is much more about managing

by accounting technologies. Accordingly, the manage-

accounting-based concept of the knowledge production

process based on the principle of connectivity. Accord-

ing to this approach, knowledge is an object that can

be accounted for as well as open up for manipulation

by accounting technologies. Accordingly, the manage-

ment accounting focus is much more about managing

connectivity, that is, the flows of knowledge transfer

and the interdependencies of resources. The resultant

implications are multiple and challenging, and call for

the use of non-financial performance evaluation and

management control frameworks based on interaction

and dialogue (Roberts, 2003).

After several years of developments, it is clear from

the literature that the IC phenomenon has a strong hu-

man focus and that the management accounting and control perspective on IC should not disregard this.

Consequently, calls for a human resource perspective

on management accounting and control have been made

in order to provide management with accounting and

control information on human resources. As Roberts

(2003) observed, developments in management control

frameworks (e.g. balanced scorecard, levers of control,

and so on) reveal an effort to integrate different func-

tional perspectives and place human capital in a wider

interpretative context. At the same time, it is clear from

the literature that knowledge management involves the

confluence of financial and nonfinancial methods and

measures (Roberts, 2003; Bjurström & Roberts, 2007;

Tayles et al., 2007), which means that organizations

need to ensure that their MACS are developed to some

degree in order to fully address the issue. Finally, it

is also clear that management accounting and control

is an instrument of knowledge management activities

(Bhimani & Roberts, 2004; Ditillo, 2004; Edwards,

Collier, & Shaw, 2005; Ditillo, 2012; Massaro et al.,

2012; Massaro et al., 2013), and that much of the

contribution of MACS to the IC relies on its capacity to

address the concerns of knowledge management and

and the issues of information, flows of information and

interaction mechanisms it comprises. In this way, MACS

may be seen as elements of the managerial apparatus

that managers use to support the activities that

promote knowledge, namely as information networks

and as networks of relationships.

3. MACS, INFORMATION, AND KNOWLEDGE

One of the functions associated with MACS is the

 provision of information for planning and control

purposes. This function highlights the importance of

MACS so that the characteristics and features of the

information provided by the system are prominent

issues and constitute the basis for development of

practices and techniques and to evaluate their utility

(IFAC, 1998). Any organizational information system

is based on information technology, regarded as the

infrastructure that supports and increases the volume of

data, information and knowledge that can be processed

by the organization (Robey, Boudreau, & Rose, 2000;

Alavi & Leidner, 2001; Gold, Malhotra, & Segars,

2001; Spek & Carter, 2003; Tippins & Sohi, 2003;

Peppard, 2005; Prieto & Revilla, 2006).

While it is true that knowledge management is not

just the issue of information technology, its role is high-

lighted as a facilitator of the inherent processes, mainly

in terms of capturing, structuring and dissemination

of knowledge in formats accessible to users, leading to a
decentering of the accounting knowledge (Granlund,

2011; Schermann, Wiesche, & Krcmar, 2012; Burns,

Quinn, Warren, & Oliveira, 2013). Moreover, by the

way they are immersed in the organizational structure

they are usually singular constructions with transfer

costs associated (Peppard, 2005). In this sense, man-

gement information systems, i.e., the structured and

integrated information technology networks, are seen

as elements of organizational structural capital. They

still correspond to the part of structural capital that can