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ON THE ROAD WITH FELLOW TRAVELLERS: INVESTIGATING THE CONTRIBUTION OF ARTEFACTS TO THE MANAGEMENT ACCOUNTANT'S IDENTITY WORK AND CONSEQUENCES ON ORGANIZATIONAL ROUTINES

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TABLE OF CONTENTS

1. Introduction to the thesis

2. A journey into the management accountant's identity work: a literature review

3. The roles of artefacts in the management accountant's identity work and influences on organizational routines: a theoretical analysis

4. When IT tools become identity resources: a case study about the management accountant's identity work and the occupational competition with IT specialists

5. Conclusions of the thesis

1. INTRODUCTION TO THE THESIS

1.1. Research background

The academic interest around the management accountant's topic dates back to 1954 with the pioneering contribution of Simon, Guetzkow, Kozmetsky and Tyndall (Byrne and Pierce, 2007), which distinguished three typologies of accounting information produced by the management accountant: score-card, attention directing and problem-solving ones (Simon *et al*. 1954 in: Hopper, 1980). Afterwards, since the 1980s, a stream of research in management accounting started devoting attention to the management accountant's activities and roles within organizations (Hopper, 1980; Sathe, 1983). Nowadays, due to the challenges to which the management accountant has to face, the management accountant's topic is still at the centre of a stimulating international debate.

The management accountant belongs to the accounting and finance function by recognizing the CFO as her/his formal authority and the top management and operational managers as her/his main stakeholders. Traditionally understood as data producer and information provider, the management accountant oversees the maintenance of the management accounting infrastructure of the organization. Bhimani, Horngren, Datar and Rajan (2015) presented an exhaustive classification of the management accountant's main activities by highlighting her/his

responsibilities related to "the identification, generation, presentation, interpretation and use of relevant information" (p. 3).

Early studies about the management accountant have explored his/her main activities, roles and role changes within organizations. From a theoretical point of view, roles can be understood as "generalized expectations of behaviour communicated in the environment" (Sveningsson and Alvesson, 2003, p. 1169). Thus, exploring roles means studying the objective aspects of the management accountant's occupation. Particularly, two main roles have been highlighted: the bookkeeper role, related to the traditional financial data collection activity, and the service-aid role, oriented to the business support to line managers (Hopper, 1980; Sathe, 1983).

Over decades, literature has explored the management accountant's orientation and attitude towards the two roles (Burns and Baldvinsdottir, 2005; Coad, 1999; Emsley, 2005), the relationships with other organizational groups (Mouritsen, 1996; Lambert and Sponem, 2012; Pierce and O'Dea, 2003; Windeck, Strauss and Weber, 2015; Weber, 2011) and the factors that have allowed changes in the management accountant's roles within the organization (Byrne and Pierce, 2007; Granlund and Lukka, 1998a; Järvenpää, 2007). Particularly, it has been investigated the influence brought by the introduction of new management accounting techniques and tools (Friedman and Lyne, 1997; Hyvönen Järvinen and Pellinen,

2015) and innovations in IT tools (Caglio, 2003; Granlund and Malmi, 2002; Scapens and Jazayeri, 2003) to the management accountant's role. Broadly speaking, by adopting different theoretical lenses, an abundant literature on the management accountant's topic has been produced.

However, despite the plethora of works, Byrne and Pierce (2007, p. 474) pointed out that literature offered a "fragmented, incomplete and contradictory picture of the contemporary roles of management accountants". Particularly, they showed that different aspirations, individual motivations and personalities of each management accountant influence the development of the role and suggested that management accountants themselves and their main stakeholders' perceptions, i.e. top management and operational managers, play a pivotal role in defining the management accountant's roles. In this concern, the need of emphasising "softer aspects of role(s)-changes", such as "changing others' perception of accountants" and "accountants' perceptions of themselves", has been emphasised (Burns and Baldvinsdottir, 2005, p. 748).

Therefore, growing attention has been devoted to the management accountant's subjective definition of her/himself, i.e. the management accountant's identity (Ahrens and Chapman; 2000; Goretzki, Strauss and Weber, 2013; Goretzki and Messner, *in press*; Heinzelmann, 2018; Horton and de Araujo Wanderley, 2018; Järvinen, 2009; Morales and Lambert, 2013; Tailor and Scapens, 2016).

Interestingly, it has been shown that the management accountant is active in crafting his/her work (Morales and Lambert, 2013), to align "what s/he is" (or wishes to become) with "what s/he does" (Horton and de Araujo Wanderley, 2018) to favourably positioning the self against her/his main stakeholders, i.e. top management and operational managers.

In this regard, coping with the twofold responsibility towards top management and operational managers can be a demanding activity for the management accountant because, in representing "the top management perspective" (Mouritsen, 1996, p. 299), operational managers may challenge the management accountant's "surveillance" and try not to involve her/him in their business (Mack and Goretzki, 2017). Moreover, the multitude of ways in which management accounting techniques can be entrenched within organizational activities and processes (Ahrens and Chapman, 2000; Burns and Scapens, 2000), makes management accounting "vulnerable" (Ezzamel and Burns, 2005, p. 758) to non-accountants' demands as well as interventions (Burns and Vaivio, 2001; Ezzamel and Burns, 2005). Therefore, the domain of expertise of the management accountant is "negotiable" (Mouritsen, 1996, p. 100) within the organization. Finally, due to the introduction of information systems, management accountants, operational managers and IT specialists' domains of expertise have been increasingly intermingling (Caglio,

2003) by fuelling the rise of the competition among occupational groups (Rom and Rohde, 2007).

In this scenario, research has recently focused on the subjective processes through which the management accountant makes sense of her/himself and tries to construct positive self-representations which reflect her/his aspirational identity (Goretzki and Messner, *in press*; Horton and de Araujo Wanderley, 2018; Morales and Lambert, 2013). In doing so, the authors used the concept of "identity work" which refers to "people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness" (Sveningsson and Alvesson, 2003, p. 1165).

Existing studies have shown that the management accountant's identity work has a "fragile" nature (Morales and Lambert, 2013, p. 243). Particularly, it has been found that, within organizational boundaries, constructing coherent representations of the self may be a challenging exercise for the management accountant because operational managers and top management have the power to support (Goretzki *et al*., 2013; Hyvönen, Järvinen and Pellinen, 2015; Järvenpää, 2007; Windeck *et al*., 2015) or not (Ezzamel and Burns, 2005; Lambert and Pezet, 2011; Morales and Lambert, 2013) her/his identity claims.

Thus, social interactions represent the ground of individuals' identity work because it is the positioning of the self in relation to others that allows to evaluate

the solidness of a claim or not. Therefore, the management accountant can perceive the stability as well as the fragility of her/his position, depending on the degree to which her/his identity work influences other organizational actors' patterns of actions, i.e. organizational routines, in different time and situations.

It seems important to highlight that, when referring to the "management accountant", in literature the term "controller" has also been found. Some researchers have specified different facets of the two words, as understood in different national contexts (Ahrens and Chapman, 2000; Granlund and Lukka, 1998a; Messner, Becker, Schäffer and Binder, 2008). However, the two terms are often understood as synonyms. For the sake of clarity, in this thesis, the term management accountant will be used.

1.2. Research gap

Management accounting literature has recently focused on the management accountant's identity and her/his struggles to reach rewarding positions by following individual aspirations, when interacting with the top management and operational managers (Goretzki and Messner, *in press*; Horton and de Araujo Wanderley, 2018; Morales and Lambert, 2013). In this scenario, authors have called for further research about the management accountant's identity work. Particularly, Morales and Lambert (2013, p. 243) suggested that "there is a promising avenue of

research to be explored in studying how some members succeed in creating an image of homogeneity". Sveningsson and Alvesson (2003, p. 1164), who defined the concept of identity work adopted in this thesis, stated that "the understanding of specific processes and situations of identity construction in and around work and organizations is thus somewhat poor". Therefore, there is a need for further investigating processes of identity work within organizations and, as the literature has highlighted, the management accountant is an organizational actor who, due to his positioning between the top management and operational managers, struggles to construct positive and coherent representation of the self.

To date, research about the management accountant's identity work has shown that actors and devices may represent resources through which the management accountant tries to situate in a stronger position within the organization. Particularly, certain organizational actors, such as the Chief Executive Officer (CEO), the Chief Financial Officer (CFO) and operational managers (Goretzki *et al.* 2013; Goretzki and Messner, *in press*; Hyvönen *et al.*, 2015; Janin, 2017; Morales and Lambert, 2013) and the use of informational tactics (Goretzki, Lukka and Messner, 2018; Mack and Goretzki, 2017; Puyou, 2018) may support the management accountant's identity work.

However, despite previous research has widely shown that management accounting tools and IT systems play a role in enlarging the management

accountant's competencies and enabling role changes (Caglio, 2003; Chiucchi, 2013; Friedman and Lyne, 1997; Goretzki *et al.*, 2013; Hyvönen *et al.*, 2015), to date, it has not been fully investigated if and how these tools may support the management accountant's identity work. This topic, instead, seems to be of crucial importance because these tools represent the basis through which the management accountant creates information (Goretzki, Strauss, and Wiegmann, *in press*; Weber, 2011) and convey it to her/his stakeholders. Since the management accountant is "equipped with various kinds of artefacts and technologies that mediate their actions and practices" (El-Sayed and El-Aziz Youssef, 2015, p. 220), this thesis aims to investigate the contribution of management accounting tools and IT tools to the management accountant's identity work. To our best knowledge, except for Heinzelmann (2018), Morales and Lambert (2013) and Taylor and Scapens (2016), research has not explored if and how these tools can support the subjective processes through which the management accountant understands who s/he is and whom s/he wishes to become or not, in detail.

1.3. Research aims and research questions

The purpose of this thesis is to contribute to the stream of research concerning the management accountant's identity and identity work by examining the contribution of management accounting tools and IT tools. Management accounting

is an organizational practice (Burns and Scapens, 2000; Siti-Nabiha and Scapens, 2005) surrounded by a plethora of tools, orchestrated by the management accountant. Management accounting tools related to accounting systems, formal control systems and performance measurement systems and IT tools, such as Excel and Enterprise Resource Planning (ERP) systems are part of the management accountant's equipment of tools. Despite IT tools, such as the ERPs, are not accounting tools *per se* (Ferreira and Otley, 2009), as far as they have been introduced within organizations, they have become strictly interconnected with accounting (Dechow and Mouritsen, 2005; Ferreira and Otley, 2009; Granlund and Malmi, 2002; Quattrone and Hopper, 2006; Rom and Rohde, 2007; Scapens and Jazayeri, 2003). In this regard, several studies have showed that, even if information systems traditionally pertain to the IT realm, IT tools have been playing a growing role in shaping the management accountant's competencies and roles (Caglio, 2003; Hyvönen *et al*., 2015; Goretzki *et al*., 2013). Therefore, by defining management accounting tools and IT tools as artefacts, namely "material objects produced by human activity" (Cacciatori, 2012, p. 1560), this thesis aims to answer to the following research question:

i) **If and how do the design and use of artefacts contribute to the management accountant's identity work?**

The descriptors "design" and "use" are considered useful steps of the creation process of an artefact to investigate if and how artefacts may express their potential as identity devices for the management accountant's identity work. The design phase consists of the following activities: definition and the design of measures, definition of target level and performance evaluation, setting of the rewarding systems and of the informational flows supporting the use (Chiucchi, Giuliani, Marasca, 2014; Ferreira and Otley, 2009; Wouters and Wilderom, 2008). The use phase relates to the application of the designed system and to how it is used by organizational actors (Chiucchi *et al.*, 2014; Ferreira and Otley, 2009). If the system is not used, studies have showed that, to preserve previous investments, the re-design phase can take place (Chiucchi, 2013).

In this scenario, management accounting literature has showed that the design and use of tools are not easy-going and peaceful processes within organizations (Granlund, 2001): during those processes, different and contrasting interests, logics and values of organizational groups may surface and, even, clash. Therefore, and related to the first research question, it would be interesting to explore how the design and use of artefacts, which support the management accountant's identity work, influence organizational routines. In this regard, the second research question to which this thesis aims to answer is the following:

ii) **How do the design and use of artefacts, contributing to the management accountant's identity work, influence organizational routines?**

1.4. Theoretical framework

Aiming at exploring if and how management accounting tools and IT tools contribute to the management accountant's identity work, in this thesis the concepts of artefacts and organizational routines are employed and entrenched with the concept of identity work. Specifically, to discuss *if* and *how* different types of tools can support the management accountant's identity work, management accounting tools and IT tools will be understood as artefacts. The definition of "artefact" adopted is the one proposed by Cacciatori (2012), who described artefacts as "material objects produced by human activity" (p. 1560). It has been decided to use the concept of artefact because artefacts, due to their characteristics, can contribute to the understanding of the dynamics around the construction of the management accountant's coherent representations of the self, through tools.

In this regard, organizational studies illustrated that artefacts "are not neutral" (D'Adderio, 2011, p. 212) constructions, but designers of artefacts can attach specific meanings to them, related to their values (Bechky, 2003a; 2003b; D'Adderio, 2011). D'Adderio (2011) highlighted that "in the struggle between competitive performative programmes some agencies are able to inscribe their own

worldviews in artifacts" (p. 218): in doing so, individuals delegate to artefacts the role of convey certain views and purposes and activate certain actions, that are important for the designer.

Besides, as widely showed in management accounting literature, management accounting is an organizational practice (Burns and Scapens, 2000; Siti-Nabiha and Scapens, 2005) surrounded by a plethora of artefacts. In this regard, organizational studies have illustrated that artefacts shape organizational routines in which organizational actors are involved (D'Adderio, 2011; Dionysiou and Tsoukas, 2013; Pentland and Feldman, 2008): individuals can decide to welcome, accept or reject the artefact, depending on how and to what extent the artefact bothers their usual actions. Particularly, it has been illustrated that artefacts influence organizational routines at technical as well as social levels (Bechky, 2003b); they contain the knowledge and expertise of who creates them, symbolize social groups and can be a "means for some groups to maintain control and power" (Bechky, 2003b, p. 748).

Thus, by understanding organizational routines as "generative systems that produce repetitive, recognizable patterns of independent action carried out by multiple participants" (Pentland and Feldman, 2008, p. 236), this thesis adopts this concept to understand how artefacts, contributing to the management accountant's identity work, influence organizational routines.

1.5. Steps of the research

1.5.1. First step: literature review

Chapter 2 presents the literature review about the management accountant's identity and identity work. It firstly provides theoretical clarifications about the notions of role and identity, aiming at introducing to the concept of identity work. Then, it presents findings so far achieved on the management accountant's identities and introduces to the reasons why studying the management accountant's identity work is important. Results about the management accountant's identity work are presented and the analysis about intra-occupational competition that can arise when different organizational actors are engaged in constructing their identities will follow. The chapter ends with some reflections on the literature review. Specially, the literature review conducted has allowed to highlight the research questions of this thesis.

1.5.2. Second step: theoretical analysis

Chapter 3 presents a theoretical discussion about the contribution of artefacts to the management accountant's identity work and their influence on organizational routines. Drawn on the concepts of "generic" and "specific" artefacts (Cacciatori, 2008; 2012) and organizational routines (Pentland and Feldman, 2008), the analysis presents theoretical propositions on *if* and *how* the design and use of different

artefacts can support the management accountant's identity work and trigger different organizational routines.

Therefore, infused by empirical findings achieved in literature, which have investigated the processes of design and use of artefacts, this chapter contributes to the extant literature by suggesting that management accounting tools and IT tools not only enlarge the management accountant's competencies and skills, but also contribute to the management accountant's identity work. Particularly, various configurations of tools support the management accountant's identity work in different ways, depending on the characteristics of the tools themselves, the development of the design process and the degree of use of the tools. In doing so, the chapter illustrates levers that the management accountant can use to be positively perceived and, hence, influence organizational routines.

1.5.3. Third step: case study

Chapter 4 presents an in-depth single case study within an Italian firm which has allowed to empirically investigate the research questions. The empirical research was aimed at exploring the contribution of artefacts to the management accountant's identity work and the influences on organizational routines. In this regard, the management accountant interviewed strongly and spontaneously linked

her identity work, within the firm, to IT tools and to her relationship with the IT function.

The empirical research illustrates that, at the beginning of the management accountant's career, IT tools and the relationship with the IT function were source of dissatisfaction for the management accountant. Then, the introduction of new information systems, her relationship with the newcomer IT manager and the CEO's understandings about the management accountant's role have triggered new organizational routines which supported the management accountant's aspirations to recognize herself and be recognized as internal consultant.

The chapter contributes to the extant literature by showing that, due to the hybridization of occupational positions, also artefacts, traditionally pertaining to another field of expertise, contribute to the management accountant's identity work. It also illustrates that information systems can be source of recognition for different actors, namely management accountants and IT experts, and this fuels the intra-occupational competition between them. Interestingly, such competition can be also nourished by operational managers, who do not welcome that the introduction of information systems changes their usual patterns of actions.

2. A JOURNEY INTO THE MANAGEMENT ACCOUNTANT'S IDENTITY WORK: A LITERATURE REVIEW

2.1. Introduction

The management accountant, due to her/his positioning between the top management and operational managers, copes with different and challenging responsibilities. On the one hand, the management accountant has to align managers' behaviours to the top management's expectations, whereas, on the other hand, s/he is expected to provide useful information to managers to support their decision-making processes (Hopper, 1980; Sathe, 1983). In this regard, researchers have promptly highlighted the need of a "strong" management accountant (Sathe, 1983, p. 36), able to manage both responsibilities towards the top management and operational managers.

The distance between those responsibilities has driven the development of two main models that, at a theoretical level, describe the management accountant's acting within organizations: the "bean counter" and the business partner" models. In this vein, it has been also suggested that the transition towards more business-oriented positions, within the organization, is a rewarding process for the

management accountant (Friedman and Lyne, 1997; 2001; Granlund and Lukka, 1998a; Vaivio and Kokko, 2006).

However, several authors have emphasised that the management accountant's positioning within the organization is something more than a technical change from the "bean counter" to the "business partner" models (Horton and de Araujo Wanderley, 2018; Järvenpää, 2007). In this concern, it has been suggested that the individual aspirations and the struggles to cope with conflicting representations of the self play a pivotal role in the management accountant's positioning and need to be further explored (Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007; Jarvenpää, 2007; Lambert and Sponem, 2012). According to Taylor and Scapens (2016), in those years, several studies have investigated the management accountant's identities, even if they did not refer to them as such (e.g. Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007).

Thus, in recent years, research has been paying a growing attention to the management accountant's identity (Ahrens and Chapman; 2000; Goretzki, Strauss and Weber, 2013; Goretzki and Messner, *in press*; Heinzelmann, 2018; Horton and de Araujo Wanderley, 2018; Järvinen, 2009; Morales and Lambert, 2013; Tailor and Scapens, 2016). Although it has been assumed that the management accountant benefited of a specific occupational identity (Ahrens and Chapman, 2000), conflicting findings concerning the solidness of such identity have been found in

literature. Particularly, the management accountant's attempts to construct her/his identity may bother other actors' interests and their own patterns of actions. In this regard, other actors' acceptance relates to the possibility that the management accountant's identity may serve other organizational members' interests (Ezzamel and Burns, 2005; Windeck *et al.*, 2015).

Therefore, by using Sveningsson and Alvesson (2003, p. 1165)'s concept of "identity work", which refers to "people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness", recent contributions have investigated the management accountant's continuum attempts to (re)positioning her/himself within the organization, namely the management accountant's identity work (Goretzki and Messner, *in press*; Horton and de Araujo Wanderley, 2018; Morales and Lambert, 2013).

The present thesis aims to contribute to this stream of research and, in doing so, this chapter offers a review of the literature about the findings so far achieved. The remainder of the chapter is structured as follows. The next paragraph reviews literature concerning the management accountant's identities by firstly providing some theoretical clarifications about the notions of role, identity and identity work, as understood in this thesis. Then, the management accountant's identities are introduced and the reasons why studying the management accountant's identity

work is important discussed. The following section is dedicated to the management accountant's identity work by highlighting the resources which can play a role over these processes. Then, a discussion about the intra-occupational competition that can arise when different organizational actors are engaged in their own identity work processes follows. The chapter ends with some reflections regarding the literature review and highlights the research questions to be answered.

2.2. The management accountant's identities

2.2.1. Theoretical perspective: roles, identities and identity work

The concept of "identity work" (Sveningsson and Alvesson, 2003) allows to explore the management accountant's processes of construction of representations of the self within organizational boundaries. Before introducing the definition of "identity work" and, then, positioning the research within this stream, some clarifications about the link between the concepts of identity and role are needed.

Roles can be defined as "generalized expectations of behaviour communicated in the environment" (Sveningsson and Alvesson, 2003, p. 1169). In this regard, organizations are settings in which occupational roles are established and explicitly associated to sets of activities, responsibilities and competencies. In this concern, each organizational actor knows the tasks for which s/he is responsible, the actors

with which interacts and the goals that her/his superiors expect s/he reaches. Thus, roles are the objective aspects of a certain occupation. However, by performing a role, everyone develops a self-definition of it. Such individual understanding, that is subjective, relates to the concept of identity.

According to Kärreman and Alvesson (2001), the identity is built on feelings and ideas about key features that define a person or a group (*central characteristics*) and differentiate them from others in order to be recognizable by themselves and others (*distinctiveness*) over time and in different situations (*coherence*) as well as on actions committed towards certain objectives (*direction*).

The development of the self-definition of the identity usually builds on available "social identities" (Watson, 2008), which are understood as "cultural, discursive or institutional notions of who or what any individual might be" (p. 131). By nurturing their interests, goals and values, discourses on available social identities create ideal types and, consequently, some solicitations on individuals: social identities fuel individual aspirations.

Thus, roles and identities interact. As stated by Barley (1989: in Chreim, Williams and Hinings, 2007, p. 1517), "role and identity are two sides of the same coin: while roles look outward towards the interaction structure in a setting, identities look inward towards the self-definition associated with role enactment".

Particularly, the processes through which individuals try to construct coherent representations of themselves are embraced within the concept of "identity work".

Scholars have accepted as rigorous (Watson, 2009) the definition of identity work provided by Sveningsson and Alvesson (2003), according to whom "identity work" pertains to "people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness" (p. 1165). The authors have focused on the continuous need to actively work – *engagement* - on identities and make sense of actions performed in different situations to try to construct coherent representations of the self. Their view of an identity "frequently in movement" (p. 1165) has solicited the use of verbs like "*form*", "*repair*", "*maintain*", "*strengthen*" and "*revise*", that emphasise the dynamic processes of the construction of "precarious" (p. 1167) becoming, rather than stable being of the self's representations (Alvesson and Willmott 2002; Brown, 2015; Sveningsson and Alvesson, 2003).

Studies have been highlighting that organizations are settings where identities shape (Alvesson and Willmott, 2002; Kärreman and Alvesson, 2001; Sveningsson and Alvesson, 2003; Watson, 2008). Indeed, in social environments, where different organizational actors interact by performing their roles, claims for the establishment of an identity may be shaped by others. Social interactions among different actors are the basis of individuals' identity work (Beech, MacIntosh and

McInnes, 2008; Sveningsson and Alvesson, 2003; Kärreman and Alvesson, 2001) because is the positioning of the self in relation to others that allows to evaluate the solidness of the identity's claims. In such interactions, individuals try to avoid being engaged in "dirty work" (Hughes, 1951 in: Brown, 2015, p. 28), i.e. "work that is perceived as degrading, humiliating and demeaning to those performing it", since that work distances individuals to their aspirational identities and situates them in a devaluated position compared to other actors' positions.

Despite the engagement in the construction of a representation of the self (*form*), coherent with certain values and goals, is the others' confirmation that enforces (*strengthens*) such representation: in these situations, identities are understood as ad interim achievement to be preserved (*maintained*). However, in other situations, the same representation can be challenged or, even worse, rejected. In those circumstances, the meanings attached to the identity may be negotiated with the others and the identity adjusted (*repaired*). If rejected, the representation of the self needs to be reconsidered and improved (*revised*). Hence, organizational actors have the power to "accept, reject, ignore or unrecognize" individual's claims for a certain identity (Beech *et al*., 2008, p. 963).

Therefore, identities can be understood as "social constructions" (Alvesson and Willmott, 2002; Kärreman and Alvesson, 2001; Sveningsson and Alvesson, 2003). Being dependent on social interactions among different people, it has been found

that identities may be "multiple, fragmented, processual and situational, rather than coherent, fixed and stable. […] Identity is partly a temporary outcome of the powers and regulations that the subject encounters" (Kärreman and Alvesson, 2001, p. 63).

In this scenario, empirical evidence has shown that certain resources such as accounts of the self, technical knowledge or conversations can represent identity work resources since they help people to establish and reinforce their claims when "encountering" other actors (Kärreman and Alvesson, 2001; Beech *et al*., 2008; Watson, 2009). Beech *et al.* (2008, p. 964) defined "identity resources" as "things that can be used to establish or maintain an identity position" and suggested the following ones: hard-to-access status, restricted access to discursive resources, acknowledged skill or expertise, ability to position the self, influence and networks. Kärreman and Alvesson (2001) emphasised the role of meetings as a conveyance for claiming and constructing identities through talks, conversations and accounts.

Overall, roles and identities interact and reciprocally fuel "identity work" (Sveningsson and Alvesson, 2003). Indeed, working on the construction of coherent representations of the self involves, on the one hand, the understanding of what is rewarding in terms of a positive recognition of the self and, on the other hand, the willingness to make sense of the actions to undertake in the encounter with other actors, in order to reach individual goals (related to the identity).

Recently, the metaphor of the "identity work" has been explicitly introduced into the stream of research devoted to the management accountant's topic (Goretzki and Messner, *in press*; Heinzelmann, 2018; Horton and de Araujo Wanderley, 2018; Morales and Lambert, 2013). However, insights of the management accountant's identity work, within organizations, had already been gained, although researchers did not refer to them as such. Aiming at contributing to this line of research, the next paragraph will review extant literature about the management accountant's identity.

2.2.2. The management accountant's identities: bean counter vs business partner

In the management accounting field, two main identities of the management accountant have emerged: the "bean counter" and the "business partner". Activities often attached to the bean counter's type are "recording, data inputting and reporting tasks" (Järvinen, 2009, p. 1188). This type of management accountant is thereby usually seen as physically placed in a centralized position and only seldomly interacting with managers (Hopper, 1980; Sathe, 1983). Underlying the need of independence from line managers, Sathe (1983, p. 36) defined that type of management accountant as "independent controller". Indeed, by belonging to the accounting function (Granlund and Lukka, 1998a), the CFO represents her/his main stakeholder (Goretzki *et al.*, 2018). S/he has been often depicted as passive,

methodical, objective, detached and conservative (Friedman and Lyne, 1997; Vaivio and Kokko, 2006).

As business partner, by contrast, the management accountant is physically decentralized and directly involved in supporting operational managers' decision-making processes (Hopper, 1980; Sathe, 1983). In doing so, the management accountant identifies line managers as her/his main internal customers (Goretzki *et al*., 2018). Sathe (1983, p. 35) labelled her/him as "involved controller". Järvenpää (2007, p. 100) argued that the business-oriented management accountant (i.e. business partner), in contrast to the bean counter, possesses "the willingness and ability […] to provide more added value to the management (decision-making and control) of the companies".

In this regard, due to the changes in the business environment, in which firms operate and changes needed by organizations to remain competitive, the importance for the management accountant to put more emphasis on business-oriented activities, rather than on bookkeeping ones, has been shown. Thus, to cope with the new challenges, scholars have underlined that the management accountant should develop broader competencies and skills, such as communicational and team-working skills, business knowledge and the management of new management accounting techniques and systems. In this regard, universities and professional associations, such as the CIMA in U.K., have revised their curricula, in order to

train management accountants to be more business-oriented (Ahrens and Chapman, 2000; Burns, Ezzamel and Scapens, 1999; Scapens and Jazayeri, 2003).

Literature has also shown nuanced contours of the identities of "bean counter" and "business partner" and some labels have captured particular facets of them. Related to the bean counter, the label "historian" emphasises the management accountant's accuracy on writing financial accounts, focusing on the past with a lot of attention to precision and form. The label "watchdog", instead, underlines the activity of internal control carried out by the management accountant on managers' behavior (Granlund and Lukka; 1998a; Vaivio and Kokko, 2006). On the other hand, labels such as "internal consultant" (Scapens and Jazayeri, 2003), "advisor" and "change agent" (Granlund and Lukka; 1998a) relate to the business partner. Particularly, "internal consultant" and "advisor" emphasise the support to provide to the line managers; in a noticeable way, the "change agent" is a management accountant also able to promote improvements and changes within the organization.

Over years, scholars have been wondering whether the management accountant may "wear these two hats effectively" (Sathe, 1983, p. 33); Sathe (1983, p. 37) identified in the "strong" management accountant the ability to cope with both responsibilities. In this concern, Burns and Baldvinsdottir (2005) pointed out that the management accountant may be inclined towards one or another type according to her/his aspirations. Particularly, they illustrated that, for the management

accountant, is difficult to move towards hybrid positions if s/he prefers the bean counter or the business partner types. The management accountant who prefers the bean counter type aspires to a financial career within the accounting department, avoiding disseminating financial information within the organization (Hopper, 1980; Pierce and O'Dea, 2003); by contrast, the management accountant who prefers the business partner identity aims to collaborate more with line managers. In this regard, Byrne and Pierce (2007) highlighted the importance of individual antecedents, such as attitudes, personality and initiative; different aspirations, motivations and experiences exert a strong influence on such preferences.

In a captivating way, it has been widely suggested that developing a business orientation is more rewarding than fulfilling scorekeeping activities; hence, the business partner identity is a social identity (Watson, 2009) associated to a positive recognition, whereas the "bean counter" identity is seen as a representation from which the management accountant should distance the self (Baldvinsdottir, Burns, Nørreklit and Scapens, 2009; Friedman and Lyne, 1997; 2001; Vaivio and Kokko, 2006). In this concern, literature also suggested that the "business partner" identity is the product of the "transition" (Jarvenpää, 2007, p. 100) from the "bean counter" one (Granlund and Lukka, 1998a; Byrne and Pierce, 2007; Hyvönen *et al*., 2015; Jarvenpää, 2007). By illustrating such a transition as desirable and rewarding, that

discourse created some solicitations leading the business partner identity to become an aspiration for the management accountant (Morales and Lambert, 2013).

Therefore, a growing body of literature has been paying attention to management accountant's "identity work" (Sveningsson and Alvesson, 2003), namely the subjective processes through which the management accountant come to understand who is and what s/he wants to become. The next paragraph will explain the reasons why studying the management accountant's identity work matters.

2.2.3. The relevance of studying the management accountant's identity work

The management accountant belongs to the accounting "family" (Lambert and Pezet, 2011, p. 15), that consists of those occupations characterized by a technical accounting knowledge, such as bookkeepers, treasures and financial accountants whose daily work is based on accounting. Within organizational boundaries, the management accountant is a member that belongs to the finance function and recognize in the Chief Financial Officer (CFO) the formal authority (Goretzki and Messner, *in press*; Goretzki, Lukka and Messner, 2018; Mack and Goretzki, 2017).

Although a great deal of management accounting literature has assumed that the management accountant benefited of an "occupational specialism with a defined identity" (Ahrens and Chapman, 2000, p. 478), research has recently shown that,

within organizations, the management accountant's identity work is "fragile" (Morales and Lambert, 2013, p. 243). Such fragility can be explained by the following reasons.

Firstly, as a member of the accounting and finance function, the management accountant is expected to represent the top management's interests, in terms of enforcing finance metrics, standards and performances. By controlling and challenging operational managers, the management accountant should be able to align managers' behaviours to top management's expectations. Yet, the management accountant often can also be called to be more business-oriented by providing information to operational managers to help them in decision-making processes (Goretzki *et al.*, 2018). So, the management accountant may be an information provider for both the top management and operational managers, who represent her/his main stakeholders. Coping with those responsibilities can be a demanding activity, that can situate the management accountant in a weak position. Particularly, in representing "the top management perspective" (Mouritsen, 1996, p. 299), operational managers may challenge the management accountant's "surveillance" and try not to involve her/him in their businesses, since the management accountant does not have a formal authority on them (Mack and Goretzki, 2017).

Secondly, following her/his individual aspirations, the management accountant may have an inclination to control-focused activities over line managers or, instead, to positions of partnership in favour of managers (Burns and Baldvinsdottir, 2005). If s/he feels to prefer business-oriented activities but, at the same time, s/he wants to safeguard a correct façade in the eyes of the top management (Goretzki *et al.*, 2018), the management accountant can experience a painful misalignment between her/his individual attitude and how s/he is expected to act within the organization. So, exploring how the management accountant tries to make sense of her/his actions and situate her/himself in a rewarding position within the organization appears to be important.

Thirdly, despite the technical knowledge on management accounting owned by management accountants, the production of these information is lacking in legal requirements (Ezzamel and Burns, 2005). The multitude of ways in which management accounting techniques can be entrenched within organizational activities and processes (Ahrens and Chapman, 2000; Burns and Scapens, 2000), makes management accounting "vulnerable" (Ezzamel and Burns, 2005, p. 758) to non-accountants' demands as well as interventions. Since calculations can be produced following different approaches, organizational groups can challenge management accounting information or, rather, produce their own data (Ezzamel and Burns, 2005). Therefore, the domain of expertise of the management

accountant is "negotiable" (Mouritsen, 1996, p. 100) within the organization: the entrance to the management accounting field from other groups, i.e. "competing groups" (Ezzamel and Burns, 2005, p. 756), such as operational managers, may redefine the boundaries of the management accounting realm by emphasising the vulnerability of the management accountant's claims for expertise.

Finally, a phenomenon that has been increasingly explored in the management accounting literature concerns the "hybridization" (Burns and Baldvinsdottir, 2005; Caglio, 2003) of the organizational positions; this phenomenon is understood as "the enlargement in the set of practices and legitimated competencies which make up the domain of a specific expertise" (Kurunmäki, 2001: in Caglio, 2003, p. 147). As showed in her research, in which management accountants, operational managers and IT specialists' domains of expertise have intermingled due to the introduction of an IT system, Caglio (2003, p. 128) explained that organizational actors may "extend their knowledge basis, strengthen their professional legitimacy and enhance their intra-organizational power or status". This said, within organizations, the competition among occupational groups can arise (Ezzamel and Burns, 2005).

Thus, due to the hybridization of the professional positions, the management accountant needs to develop a stronger identity to both preserve and highlight her/his area of expertise (Alvesson and Willmott 2002; Caglio 2003). In this

concern, the introduction of IT systems has allowed the dissemination of the accounting knowledge outside the realm of the accounting function by provoking the fall of its boundaries, but also the management accountant's access to other professional fields, i.e. IT domain. Generally speaking, it has been found that domains of expertise represent sources of power for the professional identification by implying the rise of the intra-occupational competition over them (Burns and Vaivio, 2001; Ezzamel and Burns, 2005; Rom and Rohde, 2007).

Studying the management accountant's identity work matters. Existing literature has shown that claims for the establishment of the management accountant's identity may be shaped by others organizational groups which have their own expectations about the management accountant's behaviours. The construction of coherent representations of the self depends on others' confirmations, that may vary over different situations. Hence, social interactions represent the ground of individuals' identity work because it is the positioning of the self in relation to others that allows to evaluate the solidness of a claim or not.

Therefore, it has been suggested that the establishment of the management accountant's identity is a complex phenomenon (Horton and de Araujo Wanderley, 2018). The interactions with other professional groups require a continuum (re)positioning of the self since the management accountant's identity (work) depends on relationships and distribution of power (Caglio, 2003) with other

(sometimes competing) professional groups. The management accountant tries to situate her/himself in a valuable position within the organization, but the establishment of it is closely dependent on others' recognition.

In this scenario, it has been found that the management accountant is active in crafting his/her work in order to align "what s/he is" (or wish to become) with "what s/he does" (Horton and de Araujo Wanderley, 2018). Particularly, by reviewing existing literature, it is possible to find that certain resources may influence the management accountant's identity work.

2.3. The management accountant's identity work

2.3.1. Organizational actors and the management accountant's identity work

Since the management accountant recognizes the top management and operational managers as her/his main stakeholders (Goretzki *et al.*, 2018), literature has posited that both may have the power to determine the management accountant's identity (Lambert and Sponem, 2012; Mouritsen, 1996). It has been illustrated that the CEO and the CFO can represent "resourceful actors" (Hyvönen *et al.*, 2015, p. 35) for the management accountant because they can sponsor a business orientation of the management accountant – also, sometimes, with the purpose to "allow for more controlled action at a distance" (Windeck *et al.* 2015, p.

644) - by empowering her/him to be engaged in activities with line managers (Burns and Baldvinsdottir, 2005; Goretzki *et al*., 2013; Hyvönen *et al.*, 2015; Janin, 2017; Järvenpää, 2007; Lambert and Pezet, 2011; Windeck *et al*., 2015).

Goretzki *et al.* (2013) showed the pivotal role played by the newcomer CFO in the establishment of the business partner identity of management accountants within a German organization. Particularly, due to his previous professional experience and background, the CFO developed the belief that management accountants have the competences to perform more value-added activities, rather than those associated to bean counters. Therefore, he put in place actions which allowed the introduction and the legitimation of the business partner's concept within the organization. Among other actions, the CFO encouraged the management accountants' (and managers') participation in training courses offered by external institutions which gave them the chance to "internalise" the business partner "philosophy" (p. 57) and to transfer it within the organizational boundaries. This allowed management accountants to get closer to the managers' realm and be accepted as business partners. In a similar vein, Janin (2017) illustrated that once top managers perceive management accountants as "business partners" and trust them, management accountants gain confidence in themselves and feel comfortable when interacting with external institutions, i.e. regulatory body.

Goretzki and Messner (*in press*) illustrated that management accountants'
interactions with other organizational actors within and beyond the management
accounting function can support the establishment of the business partner identity.
Particularly, interactions with other management accountants and the CFO, within
the function, help them to develop their self-understandings of the business partner
identity and train themselves before presenting outside the function. Differently
from other studies, the authors found that the interactions with the CFO appear to
be a double-edged sword. On the one hand, the CFO supported the business
orientation of management accountants in their interactions within the function,
whereas, on the other hand he is also present in their interactions outside the
accounting realm. That makes management accountants uncomfortable with him
when interacting again within the function. Moreover, within the company
researched, the business orientation was also enacted by Human Resources
specialists who, as management accountants, belonged to a staff function: by giving
to operational managers a basis for comparison, this created some expectations as
well as agitation for management accountants concerning how business partners
should act.

Lambert and Pezet (2011) found that management accountants, whose aim was
to perceive themselves and, even, be perceived by other organizational groups, as
"producers of truthful knowledge" (p. 10) were challenged by top management and

operational managers. during monthly performance review meetings. Thus, in view of those important reunions, management accountants intensively worked on themselves by respecting a code of conduct that allowed them to make sense of their behaviour as well as actions.

Regarding operational managers, Windeck *et al*. (2015) showed that they play a central role in supporting the management accountant's position within their business units if they perceive that the business orientation supports their goals. Hyvönen *et al*. (2015) highlighted that the ability to develop networks with other organizational groups support the establishment of the management accountant's business orientation. By contrast, if managers do not perceive that the management accountant can serve their interests, they avoid involving her/him in their units because they feel controlled from actors, i.e. management accountants, who belong to a different function, that do not have a formal authority over them (Mack and Goretzki, 2017).

In this scenario, in certain situations, the management accountant's struggles to position her/himself in more manager-oriented positions may appear to be more painful than satisfying: despite performing activities consistent with the claimed identity (i.e. spending more time with managers, participating in decision making processes and board meetings, designing managerial tools), these can be sources of dissatisfaction if operational managers neglect or, even worse, exploit management

accounting matters just for reaching their interests and safeguard their position (Morales and Lambert, 2013). Particularly, Morales and Lambert (2013) distinguished "dirty work" (Hughes, 1951) between "unclean work" and "polluted work". From the management accountant's standpoint, an "unclean work" is an activity likely relates to the bean counter identity: for example, in making data reliable, s/he perceived as humiliating the activity of correcting mistakes made by managers or by her/himself by considering it a devaluating waste of truthfulness. Instead, "polluted work" is "theoretically consistent with a claimed identity but demeaning and devalued" (Morales and Lambert, 2013, p. 230) in specific settings: the management accountant considered "polluted" those activities apparently consistent with the role of business partner but that became "dirty" when other actors gathered them with a depreciated identity.

To sum up, previous studies have suggested that ideas and perceptions of organizational actors about the management accountant, can be source of recognition or, instead, dissatisfaction for the management accountant. Particularly, it has been shown that the management accountant's main stakeholders, i.e. top management and operational managers, have the power to support or deny the management accountant's position within the organization. Particularly, Goretzki and Messner (*in press*), which explored the management accountant's identity work, found that the interactions with other management accountants, operational

managers and top management have a strong influence on the management accountant's subjective processes through which s/he understands who s/he aims to become.

2.3.2. Informational tactics and the management accountant's identity work

As already discussed, the management accountant is often challenged by the twofold responsibility towards the top management and line managers. In such a contradictory situation, the management accountant appears to suffer from a weak position since s/he has to position her/himself between the control-oriented activities, expected by the top management, and the manager-oriented activities to support line managers that, in turn, may perceive them just as "watchdogs". Literature has shown that the management accountant can be able to obtain legitimacy of her/his position within those two opposites by properly managing the "panoramic knowledge" (Mack and Goretzki, 2017, p. 341) about the organizational practices that s/he gains from her/his intermediate position.

Mack and Goretzki (2017) illustrated that the management accountant who strategically informed both top management and operational managers of respective issues, was perceived by them (both) as their partner. By employing "soft influence tactics" (p. 344), the management accountant influenced operational managers' actions in order to reach her/his personal aims (i.e. solve issues considered

important for the top management), firstly by swaying them with interpersonal "suggestions", then by formally inscribing these suggestions into tools. The use of "soft tactics" was fruitful because, by using examples of best practices undertaken by operational managers from other business units, managers perceived those "suggestions" as useful recommendations for reaching their goals and, hence, welcomed and accepted them. In doing so, the management accountant also supported operational managers' identity work.

Another piece of research referred to the use of informational tactics, i.e. the management accountants' skilful mobilization of information in their interactions with other organizational actors, is proposed by Goretzki *et al.* (2018). The authors highlighted that decisions about "when", "how" and "what" information to disclose can reinforce the management accountants' position, if "they want to present themselves as competent interaction partners towards all their stakeholders involved" (p. 22). In this regard, although the management accountant aspires to be perceived as manager-oriented, the strategic management of information also allows her/him to safeguard the façade of truthful partner in the eyes of the top management.

In a similar vein, Puyou (2018) underlined that face-to-face interactions, through confidences and gossips, with both line managers and top management might enhance the management accountant's position, especially in those situations

concerning "budgetary gaming and slack management" (p. 16). In doing so, s/he handled different types of information, since "numerous cycles of secrecy run in parallel and together constitute a widespread system of secrecy" (p. 23); that allowed her/him to build "win-win" relationships with the stakeholders and, hence, reinforce her/his position.

Thus, there appears that the management accountant has found in the use of informational tactics an "identity resource" which helps her/him to establish and maintain her/his identity position (Beech *et al.*, 2008, p. 964) and cope with different, and often conflicting, representations of the self (Lambert and Sponem, 2012). Furthermore, the strategic management of information s/he gains from her/his position within the organization allowed operational managers to perceive their goals are safeguarded (Mack and Goretzki, 2017). From the identity work perspective, this is a crucial point because the positioning within organizations is a social phenomenon which strictly depends on others' acceptance. Thus, if other organizational actors perceive that certain actions support their own interests as well as their identity work projects, they, in turn, will not reject the management accountant's identity work.

2.3.3. Tools and the management accountant's identity work

Literature has illustrated that the introduction of advanced accounting systems or IT systems enabled the management accountant's business orientation by allowing the enlargement of her/his tasks, skills and competencies and enabling role changes (Caglio, 2003; Chiucchi, 2013; Friedman and Lyne, 1997; Hyvönen *et al.*, 2015; Jarvenpää, 2007; Taylor and Scapens, 2016).

Chiucchi (2013) illustrated that the introduction of an Intellectual Capital (IC) measurement system enabled the management accountant to move towards a more business-oriented identity, shifting from being a "IC bookkeeper" to become a "IC accountant" (p. 64). This was possible because, through the system, the management accountant moved from being concentrated on technical and procedural aspects of the system towards the promotion of actions supporting managerial needs. Lambert and Pezet (2011) found that management accountants enforced financial metrics by making every operational activity measurable. In doing so, management accountants tried to be perceived as "producers of truthful knowledge" (p. 10) by operational managers and top management.

Referring to IT systems, Goretzki *et al.* (2013) illustrated the reinforcement of the management accountants' position in the eyes of managers since, thanks to the introduction of an ERP system, they provided consistent information and were viewed as reliable gatekeepers. To maintain such position, they tried to protect their

professional jurisdiction on information by avoiding that non-accountants put their hands over the system. In a similar vein, Caglio (2003) showed how the introduction of an ERP hybridized the management accountants' positions by broadening their competencies towards the IT field.

Hyvönen *et al*. (2015), in turn, showed that the development of an ERP-linked profitability management system represented a situation where the management accountant could demonstrate his business orientation. Particularly, he strengthened his competencies, e.g. skills in IT and management accounting techniques, to top management, operational managers and IT specialists.

Morales and Lambert (2013) explored management accountants' actions directed to overcome the line managers' perceptions of them as bean counters, given that their aim was to gain a business-oriented position within the organization. The authors highlighted tensions emerging when management accountants' aspirations of being recognized as business partner did not match with the activities that they undertook. They found that to repair their identity and maintain a façade in front of their stakeholders, management accountants "made invisible" (p. 238) insignificant errors that were the reason for bookkeeping activities, such as correcting errors made in the data inputting by themselves or managers. This is confirmed by Heinzelmann (2018) who found that IT systems may increase the management accountant's dirty work because the management of those system may

require the fulfilment of activities, such as data inputting and reporting, that characterize the "bean counter" identity.

Taylor and Scapens (2016) found that the introduction of an advanced accounting information system allowed management accountants to perceive themselves and, even, be perceived as adding value. Specifically, differently from previous studies, the authors found that "despite being initially motivated by technical and economic concerns, the group of accountants implementing the new system seemed motivated to use it as an opportunity to improve their current status (which differed from their desired one) in the organisation" (p. 1076). Thus, the system was an opportunity for management accountants to perceive themselves and be perceived as adding value by challenging their current image of bean counters. However, the introduction of the system did not trigger the same perception to another group of accountants who, instead, continue to perceive themselves as information providers, instead of information analysts. This was because, from their point of view, "the new system did not provide what they required" (p. 1076).

To sum up, literature has shown that tools play a role in broadening the management accountant's skills and competencies and in enabling the role change towards more business-oriented positions. Regarding their role in shaping self-representations, few studies have investigated the contribution of tools to the management accountant's identity work. Instead, the design and use of tools can be

situations where the management accountant can present her/himself to other actors.

However, as already highlighted, within organizations, management accountants are not the only ones involved in constructing coherent representations of themselves; other actors, in turn, try to build representations of themselves coherent with their own understandings. In this concern, as different professional expertise has been increasingly intermingling within organizational boundaries, the management accountant's identity work can be a demanding exercise. The next paragraph illustrates how the constructions of different individual identities may provoke the rise of the intra-occupational competition within organizations.

2.4. On constructing identities: the intra-occupational competition within the organization

Over years, operational managers have undertaken some activities, traditionally pertaining to the management accounting field, i. e. the responsibility for budgets and forecasts (Burns and Vaivio, 2001; Scapens and Jazayeri, 2003) or the production of alternative calculations of costs (Ezzamel and Burns, 2005). This has entailed that operational managers (Byrne and Pierce, 2007; Coad, 1999; Chenhall and Langfield-Smith, 1998; Lambert and Pezet, 2011; Pierce and O'Dea, 2003; Windeck *et al.*, 2015), have been taking on the responsibility of the financial aspects

of their tasks (Scapens and Jazayeri, 2003) and have enlarged their competencies to the management accounting realm (Burns and Vaivio, 2001; Caglio, 2003; Ezzamel and Burns, 2005; Lambert and Sponem, 2012; Mouritsen, 1996; Scapens and Jazayeri, 2003; Vaivio, 1999). In this scenario, the management accountant has been facing the professional competition from operational managers since the latter are broadening their competencies to the accounting field of expertise.

In turn, the development of new management accounting techniques and systems have emphasised the consulting nuances of the management accountant's activities. In doing so, the management accountant has penetrated "someone else's domains" (Burns and Vaivio, 2001, p. 391), which represent "bastions of localised power" (Burns and Baldvinsdottir, 2005, p. 749) where the management accountant tries to legitimate her/his position by adapting to different managers' behaviours and styles (Byrne and Pierce, 2007). Vaivio (1999) argued that when indicators challenge managers' local areas of expertise, managers demonstrate their preoccupation as well as their resistance. Ezzamel and Burns (2005), in turn, showed that the introduction of the Economic Value Added (EVA) destabilized relationships among different areas of professional expertise creating an environment of tension and competition, in which interests of each organizational group surfaced.

Moreover, organizational groups' perceptions and interests appear to be decisive in supporting a certain management accountant's position or another (Ezzamel and

Burns, 2005; Goretzki *et al*., 2013; Windeck *et al*., 2015; Vaivio, 1999; 2004). In this regard, the management accountant may experience situations where managers use accounting to safeguard their individual goals, when challenged by the top management (Morales and Lambert, 2013). Line managers may also perceive interactions with the management accountant as a "waste of time" or "a jeopardization of their freedom" (Lambert and Sponem, 2012, p. 586). Pierce and O'Dea (2003) found that operational managers decided to address to other specialists, such as IT specialists, for obtaining supplementary information, if they perceive that the management accountant fails in providing the needed information. This may provoke the rise of competition between management accountants and IT specialists. By contrast, if managers perceive that the development of the business partner's type could help them, they encourage the entrenchment of expertise and accepted to lose some of their professional domain, since "the concept of business partner serve the needs and interests of managers, allowing them to better perform their jobs" (Windeck *et al.*, 2015, p. 620).

Then, it should be underlined that the introduction of IT tools, such as ERPs, in management accounting practices have enabled the "hybridization" (Caglio, 2003, p. 142) of professional groups, i.e. management accountants, operational managers and IT specialists. On the one hand, due to the codification of practices, management accounting knowledge has been transferred to non-accountants, such

as line managers and IT specialists: it has allowed the dissemination of the accounting outside the management accounting field by eroding their "monopoly" (Caglio, 2003, p. 124). On the other hand, the management accountant has been increasingly engaged in managing IT tools, going through the IT domain. Thus, the professional competition among the management accountant and IT specialists may intensify, since they both are information producers (Burns and Vaivio, 2001; Hyvönen *et al.*, 2015; Mouritsen, 1996) and may compete over the ownership of the IT domain (Järvinen, 2009; Newman and Westrup, 2005).

Overall, within organizations, professional expertise has been intermingling by stressing the competition among groups (Ezzamel and Burns, 2005). Professional groups have been "hybridizing" their positions (Caglio, 2003) and the management accountant needs to develop a stronger identity by negotiating such identity with other professional groups that, in the meanwhile, are engaged in positioning themselves within the organization.

2.5. Reflections on the literature review

The literature review so far conducted allows to draw some reflections about existing literature and future research directions. Firstly, by reviewing previous research about the management accountant, there appears that research has been recently investigating the management accountant's subjective attempts to establish

her/his aspirational identity within organizational boundaries. Differently from early studies, which explored management accountant's roles and activities, the focus now is on how the management accountant makes sense of him/herself, solicitated from available social identities, e.g. the business partner's identity.

Secondly, it has been illustrated that the management accountant's positioning within the organization is a complex phenomenon (Horton and de Araujo Wanderley, 2018) due to the twofold responsibility towards top management and operational managers. Particularly, the continuous attempts to construct coherent representations of the self are strongly dependent on others' confirmations, that may vary over time and situations. Nevertheless, it has been shown that organizational actors may support the management accountant's orientation if this helps them to reach their own goals.

Thirdly, certain resources may represent devices through which the management accountant tries to situate in a stronger position. By embracing the definition of "identity resources" of Beech *et al.* (2008, p. 964), it was possible to highlight that the support of organizational actors and the use of informational tactics supported the management accountant's identity work. By contrast, it has also emerged that certain actors, situations and tools may be source of "dirty work" for the management accountant. Thus, certain resources may express the stability as well

as the fragility of the management accountant's identity work, in different time and situations, depending on the degree they influence others' identity work.

The literature review has allowed to find less-researched aspects which deserve a more detailed investigation in order to explore the management accountant's identity work. Even though it has been illustrated that the introduction of management accounting tools and IT systems enabled changes in tasks and competencies, except for Morales and Lambert (2013), Taylor and Scapens (2016) and Heinzelmann (2018) little is known about if and how those systems can contribute to the management accountant's identity work. In this regard, research has not given emphasis to the management accountant's attempts of conveying certain meanings, values and interests through tools, in order to occupy a more rewarding position within the organization. Otherwise, the ways through which the management accountant creates and deals with tools (Goretzki, Lukka, Messner, 2018) may tell a lot about how the management accountant aims to position her/himself within the organization.

Moreover, few insights have been gained about top management and line managers' reactions to the management accountant's identity work. Windeck *et al.* (2015) suggested that managers encourage the establishment of the management accountant's aspirational identity, if it served their interests, in terms of better performing their work. Yet, further investigations are needed about managers'

reactions to management accountant's identity work, if this intermingles their routines.

Thirdly, it has been shown that boundaries between different functions became more fluid than in the past. In this concern, further research is needed about how individual processes of identity work may provoke the rise of the intra-occupational competition. In this respect, few studies have addressed the professional competition that could arise for the "ownership" of certain resources (Burns and Vaivio, 2001; Ezzamel and Burns, 2005).

In this scenario, Morales and Lambert (2013, p. 243) suggested that "there is a promising avenue of research to be explored in studying how some members succeed in creating an image of homogeneity". Sveningsson and Alvesson (2003, p. 1164) stated that "the understanding of specific processes and situations of identity construction in and around work and organizations is thus somewhat poor". Therefore, there is a need for further investigating processes of identity work within organizations and the management accountant is an organizational actor who, due to his position within the organization, struggles to construct coherent representation of the self.

Having observed these less-researched aspects, the literature review has allowed to formulate the research questions of this thesis, which aims to contribute to the line of research devoted to the management accountant's identity and identity work.

Therefore, the purpose of this thesis is to investigate the following research questions:

i)   If and how do the design and use of artefacts contribute to the management accountant's identity work?

ii)   How do the design and use of artefacts, contributing to the management accountant's identity work, influence organizational routines?

The next chapter illustrates the theoretical discussion about *if* and *how* the design and use of different artefacts can support the management accountant's identity work and trigger different organizational routines.

3. THE ROLES OF ARTEFACTS IN THE MANAGEMENT ACCOUNTANT'S IDENTITY WORK AND INFLUENCES ON ORGANIZATIONAL ROUTINES: A THEORETICAL ANALYSIS

3.1. Introduction

Artefacts surround us. Artefacts, as material objects, support people in performing certain actions by allowing them to fulfil activities. Some artefacts are easily traceable to actions: the phone for calling, the pen for writing and the pot for cooking. Those are examples of artefacts that anyone, regardless, can employ in the development of certain tasks. However, there are artefacts that are constructed to support the actions of certain groups of people belonging to the same area of expertise. Examples of those artefacts are the scissors for the tailor and the chisel for the craftsman.

With the rise of occupations, known under the renowned label of "knowledge workers", such as accountants, architects, professors and lawyers, whose characterizing element is the sharing of a certain branch of knowledge with people belonging to the same group, artefacts assume a new facet. They not only allow people to carry out a task, but they also convey information, which symbolizes the

knowledge, pertaining to their sphere of expertise. Within organizational boundaries, where multiple experts collaborate, artefacts pertaining to certain occupations represent the producers' knowledge. By symbolizing developers' knowledge, it has been found that those artefacts can give to developers the opportunity of gaining authority and legitimacy (Beckhy, 2003b) against other organizational groups that, in turn, design their own artefacts or use the same ones. In this scenario, artefacts allow to pursue technical as well as social purposes.

This topic seems to be of crucial importance when thinking about the management accountant's identity work within the organization. Documents such as reports, mission statements and financial handbooks, tools such as Excel and Power Point, accounting systems, formal control systems and performance measurement systems are part of the management accountant's equipment of artefacts. The focus will be on management accounting tools and IT tools which support the management accountant's work at an operational level, since those artefacts are the basis through which the management accountant creates information (Goretzki, Strauss, and Wiegmann, in press; Weber, 2011), the technical purpose of her/his work. However, it has not been fully investigated *if* and *how* the design and use of artefacts, namely management accounting tools and IT tools, may allow the management accountant to pursue social aims, in term of identity work.

In this concern, some authors suggested that certain artefacts may support the management accountant's positioning within the organization (El-Sayed and El-Aziz Youssef, 2015; Lowe, 2001; Windeck *et al*., 2015). Particularly, Taylor and Scapens (2016) found that, for example, the "new accounting systems can offer an opportunity for accountants to challenge (and try to change) their identity" (p. 1091). In this vein, Lowe (2001, p. 80) posited that the management accountant "derives identification from their activities and relations with accounting systems and systems of accounting knowledge".

Nevertheless, to date, literature has not examined in detail *if* and *how* the design and use of artefacts, in the form of management accounting tools and IT tools, may help the management accountant to position in a rewarding stance within the organization. Having observed these less-researched aspects of interactions between artefacts and management accountant's identity work, the aim of this chapter is to offer some theorizations about the support that they can offer to the management accountant's struggles to gain rewarding representations of the self against other organizational actors and influence organizational routines (Bechky, 2003a; 2003b; D'Adderio, 2011; Dionysiou and Tsoukas, 2013; Pentland and Feldman, 2008).

Drawn upon concepts of "generic" and "specific" artefacts (Cacciatori, 2008; 2012) to define management accounting tools and IT tools and infused by empirical

findings achieved in literature, which have investigated the processes of design and use of these artefacts, this chapter suggests that management accounting tools and IT tools not only allow the enlargement of the management accountant's tasks and skills, but they are also resources that contribute to the management accountant's identity work in different ways.

The remainder of the chapter is organized as follows. The next section provides a panoramic view of the artefacts employed and entrenched in management accounting practices; then, the theoretical background is presented. The following section presents theoretical propositions on the contributions of different configurations of artefacts to the management accountant's identity work. It ends offering a discussion and concluding remarks.

3.2. Artefacts in management accounting practices

Devoted to the "collection, measurement, analysis and communication of information" (Burns and Vaivio, 2001, p. 389), management accounting practices abound in artefacts. The design and use of artefacts lead new patterns of actions (El-Sayed and El-Aziz Youssef, 2015; Jarvenpää, 2007). Management accounting tools represent the main artefacts through which the management accountant materializes her/his work and, interestingly, trigger organizational actors'

interpretations and actions. According to Lowe (2001, p. 77), "accounting systems are seen to play a central and crucially constitutive function in the establishment of system/social changes within organizations".

Alongside traditional tools such as budgets and forecasts, "advanced" management accounting techniques and new management accounting systems have still been playing a central role in management accounting practices (Burns and Vaivio, 2001; Granlund and Malmi, 2002). Granlund and Lukka (1998b) found an increasing trend of adoption of renowned "advanced" systems such as, total quality management, activity-based costing (ABC), activity-based management (ABM), life-cycle costing (LCC), target costing (TC) and balanced scorecard (BSC), mostly developed in spreadsheet systems (Rom and Rohde, 2007).

In this concern, the evolution of information and communication technologies (ICT) has allowed that integrated information systems, such as ERP, and IT solutions, such as the Business Intelligence, support management accounting (Rom and Rohde, 2007). ERPs centralize, integrate, standardize and routinize information (Caglio, 2003; Granlund and Lukka, 1998b; Scapens and Jazayeri, 2003). ERP systems, understood as "transaction-oriented information systems" (Rom and Rohde, 2007, p. 43), have led the "standardization of data collection format and reporting patterns in the production of accounting information" (Granlund and Lukka, 1998b, p. 160).

Nonetheless, research posited that management accounting systems have continued to be developed in dedicated software or spreadsheets, due to the limited impact of ERPs on them (Granlund and Malmi, 2002; Jack and Kholeif, 2008; Rom and Rohde, 2007; Scapens and Jazayeri, 2003); by contrast, it has also been found that once management accounting systems logics were reproduced within the ERP, information may be no longer produced through Excel spreadsheets (Chiucchi, Gatti and Marasca, 2012). Despite IT tools, such as the ERPs, are not accounting tools *per se* (Ferreira and Otley, 2009), they strictly interconnected with accounting (Dechow and Mouritsen, 2005; Ferreira and Otley, 2009; Granlund and Malmi, 2002; Quattrone and Hopper, 2006; Rom and Rohde, 2007; Scapens and Jazayeri, 2003) and play a role in shaping the management accountant's competencies and roles (Caglio, 2003; Hyvönen *et al*., 2015; Goretzki *et al*., 2013).

Apart from financial accounting systems, whose content is strictly dictated by legal requirements, most of the tools mastered by the management accountant cannot be "mechanically applied" (Quattrone and Hopper, 2006, p. 230) because they require the involvement of different organizational actors during their construction and introduction (Lowe, 2001). This makes processes concerning the design and use of certain artefacts "spaces" in which different organizational groups' interests may surface and clash. Lowe (2001, p. 75) stated that "accounting systems not only promote a particular view of the activities of an organization or a

subunit, but in their very implementation and operation "mobilize" other organizational members in a particular direction". In such processes, actors may try to safeguard "what happens" in the background of their local units, when brought to light and challenged by the management accountant (Burns and Vaivio, 2001; Vaivio, 2004). According to Burns and Vaivio (2001, p. 395), "management accounting change is rarely consensual, neutral activity […] Stated objectives may hide the real ones. Power is involved, even when denied. Interests coincide but also collide, and alliances take shape. Resistance may have few overt forms but lies beyond surface manifestations".

Thus, the design and use of artefacts are arenas where individuals try to gain influence over others to situate in rewarding positions. In this scenario, the management accountant's identity work can be a challenging and demanding exercise. Otherwise, the ways through which the management accountant creates and deals with tools (Goretzki, Lukka, Messner, 2018) may tell a lot about how the management accountant aims to position her/himself within the organization.

The descriptors "design" and "use" can be considered useful steps of the creation process of an artefact to investigate if and how artefacts may express their potential as identity devices for the management accountant's identity work. The design phase consists of several activities: definition and the design of measures, definition of target level and performance evaluation, setting of the rewarding systems and of

the informational flows supporting the use (Chiucchi, Giuliani, Marasca, 2014; Ferreira and Otley, 2009; Wouters and Wilderom, 2008). The use phase relates to the application of the designed system and to how it is used by organizational actors (Chiucchi *et al*., 2014; Ferreira and Otley, 2009). If the system is not used, studies have showed that, to preserve previous investments, the re-design phase can take place (Chiucchi, 2013).

For the sake of clarity, several studies have positioned the "implementation" step between the design and use: however, according to Wouters and Winderom (2008, p. 490), "design and implementation are hard to distinguish" [1]. For the purposes of this work, it has been decided to include the implementation within the design phase. This is because, since both are devoted to the "production of accounting" (Chiucchi *et al.*, 2014, p. 145) they will influence in a similar way the management accountant's identity work. Particularly, the design phase is the ground where the artefact is created and can be a fruitful situation where the management accountant presents her/himself to other organizational actors who, in turn, present themselves.

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[1] Wouters and Wilderom (2008), in their work, combined the design with the implementation by using the term "development process"; whereas Chiucchi *et al.* (2014), in turn, distinguished the three phases. Finally, Ferreira and Otley (2009) by focusing on performance measurement systems, offered a framework that discuss the design and use.

3.3. Theoretical background

3.3.1. The concept of artefact and its classifications

The word "artefact" or "artifact" comes from the Latin words *arte* (ars, *art*) and *factum* (facere, *to make*). The Oxford English Dictionary Online defines artefact as "anything made by human art and workmanship" (D'Adderio, 2011, p. 200) and organizational studies have defined artefacts as "material objects produced by human activity" (Cacciatori, 2012, p. 1560). In this concern, artefacts can take the shape of rules, procedure, forms, software, tools or, even, of physical settings (Pentland and Feldman, 2008).

Cacciatori (2012) operated two main classifications of artefacts by distinguishing them into "silent" and "speaking" artefacts as well as related to "specific" occupation or "generic" to occupations. Speaking artefacts are described as formal portrayals of knowledge since they contain (and communicate) textual and visual representations of knowledge of their designers. As conveyors of knowledge, speaking artefacts "funnel and bound action" (p. 1581). Examples of speaking artefacts are "procedures, manuals, reports, technical drawings and virtual prototypes" (Cacciatori, 2012, p. 1562). Instead, silent artefacts refer to objects which do not contain neither textual nor visual representations of knowledge, such as furniture, clothing and instruments.

Moreover, Cacciatori (2012) differentiated specific artefacts from generic artefacts. The former relates to an occupation, representing its "essential" tools whereas the latter can be used by many occupations. Artefacts specific to occupations "constitute the 'tools of the trade' of an occupation or a group of closely related occupations" (p. 1564). The author provided some examples of specific artefacts such as the stethoscope for doctors, the scalpel for surgeons, accounts ledgers for accountants and the technical drawings used by engineers and architects. The first two tools are conceived as occupation specific silent artefacts since they do not contain knowledge; the last ones are depicted as occupation specific speaking artefacts since they portray knowledge.

Particularly, speaking artefacts specific to an occupation contain the occupational knowledge and the expertise of their developers. Although they are designed for/by a specific occupation, those artefacts may spread to "similar" occupations, namely those that are born as a specialized "spine" of the specific one. Moreover, specific artefacts may become challenging objects because they can be source of intra-occupational competition: "adjacent" occupations, namely "occupations in closely related task domains" (p. 1565), may claim jurisdiction over those artefacts to reinforce their professional status and define new boundaries for tasks and responsibilities. Conversely, artefacts generic to occupations "are used by the members of an organization independent of their specific occupation" (p. 1565).

Cacciatori (2012) stated that office furniture are silent generic artefacts whereas organizational procedures are speaking generic artefacts.

With a focus on speaking artefacts, Cacciatori (2012) observed that they may play a controversial role in situations of problem-solving or conflict. On the one hand, generic artefacts have a problem-solving potential because the knowledge embodied into them can be manipulated and shared among organizational occupations. In this vein, it is possible to observe that those artefacts can serve the role of "boundary objects", i.e. "objects which both inhabit several intersecting social worlds […] and satisfy the informational requirements of each of them. Boundary objects are objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites […] They have different meanings in different social worlds, but their structure is common enough to more than one world to make them recognizable, a means of translation. The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds" (Star and Griesemer, 1989, p. 393). Star and Griesemer (1989) pinpointed four different types of boundary objects: repositories, ideal types, coincident boundaries and standardized forms. Briers and Chua (2001) added visionary boundary objects. On the other hand, artefacts specific to occupations may generate conflicts since the knowledge they convey is strictly

dependent on the expertise of their designers. In this concern, it is important to consider that occupations belonging to different areas of expertise, have "ways to represent knowledge, which are adaptive to the knowledge manipulations needs of their occupations" (Cacciatori, 2008, p. 1594) and, hence, that has the potential to generate conflicts. In this concern, it has been illustrated that artefacts "are not neutral" (D'Adderio, 2011, p. 212) constructions, but designers can attach specific meanings to them, related to their values (Bechky, 2003a; 2003b; D'Adderio, 2011).

In this scenario, D'Adderio (2011) highlighted that "in the struggle between competitive performative programmes some agencies are able to inscribe their own worldviews in artifacts" (p. 218): in doing so, individuals delegate to speaking artefacts the role of convey certain views and purposes and activate certain actions, that are important for the developer. However, individuals bump into others' programmes with the consequence that, in the encounter with different agencies, only parts of both are effectively realized. This means that what comes up is "a compromise, a patchwork containing elements from competing worlds" (p. 221) which have an influence on current organizational routines.

3.3.2. Roles of artefacts in organizational routines

Many artefacts are involved in the development of a routine (D'Adderio, 2011) and studies have explored roles played by artefacts in organizational routines (Bechky, 2003a; 2003b; D'Adderio, 2011; Dionysiou and Tsoukas, 2013; Pentland and Feldman, 2008). This work embraces the definition of routine given by Pentland and Feldman (2008). The authors define routines as "generative systems that produce repetitive, recognizable patterns of interdependent action carried out by multiple participants" (p. 236).

Pentland and Feldman (2008) explained that routines are constituted by two interrelated aspects, ostensive and performative. The ostensive aspect of the routine pertains to the understandings and ideas that individuals, participating in the routine, develop about it. It implies that, with reference to the same routine, multiple ostensive aspects can be created. The ostensive aspect(s) can be understood as the structural part of the routine. These parts, that specific individuals maturate, enable them to enact actions, in specific times and places. Dionysiou and Tsoukas (2013) underlined that it is likely that understandings about a routine are shared and accepted among individuals from the same group, instead of among individuals belonging to different groups. The performative aspect of a routine refers to the development(s) of the ostensive part of the routine in practice. Authors described the performative aspect as the agential part of the routine. Dionysiou and Tsoukas

(2013, p. 183) posited that "routines are dynamic processes involving interdependent actors whose agency makes a difference in how routines are enacted".

In this scenario, artefacts can intertwine and play different roles within organizational routines because "in an organizational routine, artifacts are often used to try to ensure the reproduction of particular patterns of action" (Pentland and Feldman, 2008, p. 241). Nevertheless, artefacts may shape routines depending on if and how participants accept to incorporate the artefact within a routine because they can destabilize their patterns of actions by sustaining or avoiding coordination among occupational groups (Bechky 2003a; 2003b). Despite designers' efforts to construct an artefact following their understandings (ostensive part) about how a routine should be performed (performative part) through the artefact, it is right that people involved in the routine decide to what extent accept it or not. This is because the artefact will shape their understandings and enabling or constraining certain actions (D'Adderio, 2011; Pentland and Feldman, 2008). However, according to D'Adderio (2011), "artifacts themselves evolve as a consequence of their participation in performative programmes and the struggles among competing organizational agencies" (p. 224).

By framing the definitions of specific and generic artefacts to occupations and of organizational routines within the management accounting realm, this chapter

theoretically explores *if* and *how* the design and use of artefacts may contribute to the management accountant's identity work and influence organizational routines.

3.4. Exploring the role of artefacts in the management accountant's identity work

The management accountant is a staff member belonging to the finance and accounting function along with bookkeepers, treasures, and financial accountants. They are a "group of closely related occupations" (Cacciatori, 2012, p. 1564) because, on the one hand, they recognize the Chief Financial Officer (CFO) as their main stakeholder (Goretzki *et al.*, 2018) and, on the other hand, they share specific artefacts, such as accounting ledgers and financial accounting systems, which represent their common tools of the trade.

Moreover, by translating the Cacciatori's (2012) definition of adjacent occupations to the management accountant's world, the management accountant may recognize IT managers and operational managers as her/his adjacent occupations since research has shown that their tasks have often intermingled by also sharing the use of certain artefacts (Burns and Baldvinsdottir, 2005; Caglio, 2003; Goretzki *et al.*, 2013; Hyvönen *et al.*, 2015). It has been found that some artefacts, pertaining to the management accounting domain, e.g. Performance

Measurement Systems, are mostly co-designed with operational managers whereas IT artefacts, relating to the IT function, e.g. ERPs, are often managed by management accountants. Since artefacts orchestrated by the management accountant are imbued with meanings, knowledge and information, the focus of the analysis is about speaking artefacts, which had been described as textual and/or visual representations of knowledge of their designers (Cacciatori, 2012).

Moving from these premises, findings achieved in management accounting literature allows to construct some theoretical propositions on *if* and *how* the design and use of artefacts may contribute to the management accountant's identity work and influence organizational routines. Particularly, this chapter gives some theoretical insights about the contribution of the design and use of artefacts to the management accountant's struggles of gaining coherent representations of the self.

Besides, from the analysis of the findings so far achieved in literature, the need of distinguishing generic artefacts between two categories has emerged to provide an exhaustive picture about the contribution of different artefacts to the management accountant's identity work and their influence on organizational routines. Therefore, the distinction of generic artefacts into "genuinely" and "quasi"-generic artefacts has been introduced. In the following paragraphs, findings are presented and discussed.

3.4.1. The contribution of specific artefacts to the management accountant's identity work

Cacciatori (2012) defined specific artefacts as "tools of the trade of a specific occupation or a group of closely related occupations" (p. 1564). Migrating the definition of specific artefacts to the management accounting realm means focusing on those tools that are specific to the management accountant. The management accountant can consider specific artefacts those that strictly pertain to the financial and accounting area of expertise, whose design mainly occur within the accounting domain. These artefacts are characterized by the production of accounting information, firstly directed to the top management and external stakeholders. The design and use of these artefacts require a high technical knowledge since, most of them, have also to accomplish legal requirements. Financial accounting systems, and the related financial metrics, can be understood as the specific artefact of the finance and accounting function.

The main characteristic of those artefacts is the constraining idea of the design process because their development is driven by accounting rules and procedures. In this concern, the constraining way through which financial information is produced entails the management accountant's focus on the technical validity of the artefact (Pierce and O'Dea, 2003). Referred to the engineer's world, Bechky (2003b) found that engineering drawings of a machine, that can be understood a tool of the trade

for engineers, may represent a powerful artefact for engineers against technicians and assemblers because they are representations of their knowledge, authority and legitimacy within the organization. In this regard, engineers inscribed drawings of their specific knowledge in a way that these artefacts remain unclear and, somewhat, abstract to the others; it allowed them to maintain the control on the artefacts and be recognized as experts. Thus, within the management accounting realm, specific artefacts imbued with financial knowledge may be understood as representations of the technical knowledge: the management accountant can be recognized as a "financial and accounting expert".

In this concern, Lambert and Pezet (2011) highlighted that, to convince peers and top management that s/he is a "producer of truthful knowledge" (p. 10) about the organization, the management accountant submitted her/himself to specific artefacts, i.e. financial metrics and administrative and financial rules. Moreover, to reinforce the identity in the eyes of peers and top management, authors posited that the management accountant imposed financial metrics over operational managers by making monitored every stage of the production process. It allowed the management accountant to produce "truthful" information that situated her/himself in a rewarding position also outside the accounting function.

Otherwise, the use of those artefacts may entail that operational managers do not perceive the management accountant as business partner. Particularly, it has been

illustrated that operational managers may not fully perceive the relevance of those information for their business and may decide not to use them in their decision-making processes (Friedman and Lyne, 1997; Pierce and O'Dea 2003). Thus, operational managers may perceive that "many accountants limit their contribution by adopting an excessively narrow focus on bottom line financial numbers, both in reporting past performance and projecting future performance" (Pierce and O'Dea, 2003, p. 275). Moreover, Pierce and O'Dea (2003) showed that the "accountant's format" through which financial information was communicated to operational managers was not perceived as "user-friendly" (p. 282) by leading that operational managers may decide to design their own spreadsheets. This may happen because the logic inscribed into the system follows the management accountant's point of view and, hence, graphical interfaces do not properly translate the logic of the accounting system into users' language.

From an identity work perspective, if the management accountant's aspirations relate to a financial identity, specific artefacts contribute to her/his identity work because they allow her/him to show her/his knowledge on financial matters and be recognized as an "expert". Her/his identity is mainly reinforced within the finance and accounting function where specific artefacts are mostly used: peers and the CFO, having an accounting background, may strengthen the management accountant's self-representations. Thus, if specific artefacts allow the management

accountant to reach a rewarding position within the accounting realm, s/he may be understood as a "*primus inter pares*".

Beyond the finance and accounting function, instead, specific artefacts may not always support the management accountant's aspirations, neither if s/he is devoted to financial matters, nor if s/he aims to be recognized as more business oriented. This is because certain specific artefacts, such as accounting records, only pertain to the finance and accounting function, without appearing in the operational managers' work flows. As highlighted by Hyvönen *et al.* (2015) referring to the traditional role of the management accountant, those artefacts mainly support back-office activities. Other specific artefacts, instead, can be used outside the finance and accounting function, but they may appear not relevant for managers' decision-making processes. However, whatever is the aspiration, the management accountant can repair and revise her/his representations of the self in the managers' eyes by translating accounting logics into appealing formats: Pierce and O'Dea (2003) found that operational managers identified as important the use of user-friendly formats such as graphs and pie charts, which allow them to easily get important information. Since the influence from other groups' over the design process of specific artefacts is limited (due to the other groups' lack of accounting technical knowledge), if the management accountant communicates them in a way

that is perceived as manager-oriented, s/he may also form positive representations of the self, outside the finance and accounting function.

3.4.2. The contribution of "genuinely" generic artefacts to the management accountant's identity work

Literature has described artefacts generic to occupations as those artefacts used by "members of an organization independent of their specific occupation" (Cacciatori, 2012, p. 1565). So, by referring to the management accounting realm, it is possible to recognize as generic artefacts those whose contents pertain to business and operational issues. Their design requires a deep knowledge of the business and their use usually occurs also beyond the finance and accounting function. Management accounting literature presents much evidence of artefacts that are designed and used by management accountants and other organizational actors, i.e. operational managers.

In co-designing artefacts, the management accountant often cooperates with operational managers. Managers represent her/his adjacent occupation (Cacciatori, 2012) because they share tasks related to generic artefacts and, hence, their domains of expertise intermingle. In this concern, a clear quote is offered by Jarvenpää (2007) about the Balanced Scorecard, that is understood as an artefact "not exclusively in the hands of management accountants, but rather in those of line

managers and people responsible for this global implementation process" (p. 121). Likewise, many other artefacts related to the management accounting domain are co-designed and co-used with operational managers; it implies that those processes are arenas in which debates about different logics and values arise (Chenhall, Hall and Smith, 2013) and several implications for the management accountant's positioning within the organization originate.

In this regard, evidence has shown that the co-design of generic artefacts can enable their use, if the design process is conceived by operational managers as enabling rather than constraining (Hartman and Maas, 2011; Hyvönen *et al.*, 2015; Sundin, Granlund and Brown, 2010; Wouters and Wilderom, 2008). If so, the management accountant can reach rewarding positions in the managers' eyes. Hartman and Maas (2011) showed that differences in designing and using budgetary control systems are associated with two main different ends for the management accountant's positioning within the organization. When the artefact was perceived as constraining managers' actions in order to safeguard and reach corporate goals, the management accountant was perceived as a "corporate policeman"; conversely, when the budgetary control system was constructed in a way that consider local contingencies and mobilize them, the management accountant was conceived as a "business partner".

Focusing on Performance Measurement Systems, Sundin *et al*. (2010) highlighted that the design of a Balanced Scorecard allowed to balance participants' multiple and competing goals. Thus, managers considered it as an enabling system which, by including their interests and goals, allowed them to "understand how their own work relates to the value chain of the organisation" (p. 236). Wouters and Wilderom (2008) found that Performance Measurement Systems (PMS) were considered enabling by operational managers if they perceived their usefulness in supporting their work; from a manager's own words, the PMS should be owned by non-accountants because "if people are not going to take the effort to do the measurements and make the reports, it probably means it's not essential to do them" (p. 509). Hyvönen *et al.* (2015) illustrated that the design of an ERP-linked profitability management system allowed the management accountant to position him/herself as a business partner and "become a manager him/herself" (p. 32), because the project was perceived by managers as strategic for the management of the business.

In this scenario, Cacciatori (2012) highlighted that generic artefacts have the problem-solving characteristic since the knowledge inscribed into them can be manipulated and shared among organizational occupations by adapting it to local needs and acting as a boundary object. Therefore, literature has provided some evidences about the role of boundary objects (Star and Griesemer, 1989) played by

artefacts (Briers and Chua, 2001; Windeck *et al.*, 2015) by highlighting that the enabling process behind the design of artefacts discouraged, for example, managers' development of their own information through local artefacts (Goretzki *et al*. 2013; Windeck *et al.*, 2015).

However, it has been found that, during the design of a new generic artefact, local artefacts (previously developed) can play an important role. Goretzki, Strauss and Wiegmann (*in press*) illustrated that the design of a new global forecasting system was an enabling situation where local management accountants had the opportunity to present their knowledge, developed into local artefacts (Excel files). Those local artefacts played an important role during the design because they were points of reference when evaluating (and contrasting) a new proposal. They also provided ready-made solutions and devices that safeguarded local knowledge: if the new generic artefact was rejected, they could continue using their local artefacts.

Nevertheless, despite an enabling design process, during the use of the artefact several issues can arise, if users perceive the artefact as constraining. Qu and Cooper (2011) found that a BSC was not accepted because the design "failed to enrol current practices and absent users" (360): despite participants tried to influence the design process by exposing their local needs, the absence of key participants to the meetings has challenged the effective use of the artefact. In the context of a calculation an IC index, Chiucchi and Montemari (2016) found that the

CEO's point of view about non-financial measures was a hindering factor for the use of the artefact; by questioning the construction of those measures, top management and operational managers expressed their resistance by rejecting the artefact. Vaivio (1999; 2004) stated that, despite "non-financial measurement reduced the distance between the controller and certain prioritized organizational segments and niches" (Vaivio, 2004, p. 51), non-financial measures can be perceived as "provocative" because challenging managers' local areas of expertise. So, even though generic artefacts can be understood as consensual devices as they incorporate many viewpoints, privileged communities may exert power over others (Huvila, 2011).

However, Chiucchi (2013) illustrated that, after an unsuccessful introduction of an Intellectual Capital (IC) measurement system due to managers' difficulties of calculating and interpreting non-financial measures, the management accountant decided to tailor the artefact on managers' understanding of IC. By developing "local department-related IC reports which could support decision-making processes related to local issues" (p. 63), managers felt that their goals were safeguarded and appreciated. From an identity work perspective, it is possible to highlight that the management accountant made sense of her position and tried to influence organizational routines by accepting the compromise of developing local IC reports and, in the meanwhile, gaining a positive visibility among managers.

Overall, it is possible to suggest that the main characteristic of generic artefacts is the enabling idea behind the design process. What has emerged is that usually the design process is seen as a situation where actors, who are supposed to work with the artefact, participate for communicating their local needs and expressing how the artefact should work to support them. That enabling idea behind the design process is a very good attempt to develop artefacts and enact new organizational routines. To highlight this feature, in this work, the label "genuinely" has been added to generic artefacts. The enabling idea behind the design process of "genuinely" generic artefacts allows all actors, involved in the process, to present themselves and their goals to other participants to come out with an artefact that support different goals and interests.

However, their contribution to the management accountant's identity work appears to be controversial. On the one hand, the design of "genuinely" generic artefacts contributes to the management accountant's identity work by allowing her/him to gain visibility outside the accounting function, to position closer operational managers and to show her/his business-oriented competencies. On the other hand, it has emerged that, if users perceive the artefact as constraining and decide not to use it, the management accountant must tailor the artefact on managers' needs to safeguard what has been previously done. So, the management accountant should partly lose her/his agency over artefacts to allow their acceptance

and use. The artefact may express the vulnerability of the management accountant's position against operational managers who by challenging the management accountant, have the power to decide the "fate" (Chiucchi and Montemari, 2016) of the artefact. Thus, according to D'Adderio (2011, p. 221), "genuinely" generic artefacts can often be "a compromise, a patchwork containing elements from competing worlds".

From an identity work perspective, the management accountant can situate her/himself in a rewarding position and maintain the control over "genuinely" generic artefacts if s/he prioritizes users' needs, rather than the technical aspects of artefacts. In situations of rejection, what makes the difference for the management accountant's positioning is the ability to actively tailor the artefact on managers' local needs, without losing the control over it: it allows the management accountant to be perceived as a business partner, but also maintain her/his position of reliable reporter and corporate watchdog against the top management. S/he may also be supported by the use of informational tactics towards operational managers and top managers (Goretzki *et al.*, 2018; Mack and Goretzki, 2017): in doing so, the management accountant may try to influence the use of generic artefacts by using the "panoramic knowledge" (Mack and Goretzki, 2017, p. 330) that s/he gains from being positioned in between managers and top management. Such panoramic knowledge helps the management accountant to understand operational managers'

interests as well as preferences which, in turn, help them in their own identity work processes.

3.4.3. The contribution of "quasi"-generic artefacts to the management accountant's identity work

Cacciatori (2012) distinguished artefacts between specific and generic. Yet, when exploring the contribution of the design and use of tools to the management accountant's identity work, generic artefacts need to be split into two categories that this thesis introduces: "genuinely" generic artefacts, whose contribution has been illustrated above, and "quasi"-generic artefacts.

"Quasi"-generic artefacts are understood as characterized by a design process where the management accountant can subtly consider other participants' point of views by actively tracing a path about the use of the artefact. In this scenario, despite the process is understood by participants as enabling, it allows the management accountant to influence organizational routines. That possibility depends on the degree of affordances of artefacts and on the actors' agency (Jarzabkowski and Kaplan 2015). Evidence supporting this view is illustrated below.

Kaplan (2011) found that PowerPoint documents, despite presented as enabling artefacts, were perceived as constraining because an established template had to be

followed. Moreover, the preparer could present the document in a way that supports her/his understandings and strategies by selecting information (prepared by her/himself or other participants) to include and, even, to exclude for overcoming resistances. These documents can be interpreted as "quasi"-generic artefacts because the owner has the "control over both the workflow and the content" (p. 333).

In this regard, referred to risk managers, Hall *et al.* (2015) showed that, during the design of the artefact, risk managers did not fully disclose their knowledge to other organizational actors, in order to "plan their presence" at certain steps of the decision-making process. Particularly, they regularly updated information contained into artefacts and modified their presentations and formats. In doing so, they reached their aim to "remain necessary for fully understanding, interpreting and acting upon the knowledge generated and portrayed by those tools" (p. 18). At the same time, they did not face resistance from business managers because they adjusted the artefact in a way that also incorporated their views and allowed them not to perceive the artefact as constraining. Authors referred to this way of acting as "toolmaking", namely a "practice by which experts adopt, adjust and reconfigure tools that embody their (and potentially others') expertise" (p. 4) by demonstrating "not only that their tools are relevant but also that they themselves are necessary in

order to "translate" that knowledge into formats that management could digest and turn into actionable items" (p. 18).

Mack and Goretzki (2017) showed that during budgetary control meetings, situations in which the management accountant helped managers to improve their budget achievements, the management accountant could influence managers' actions by suggesting certain indicators that had been useful for other managers from different units. This was possible thanks to the "panoramic knowledge" (p. 330), about various practices in use within the organization, that the management accountant gained from her/his privileged position in between many operational managers and top management. Specifically, those indicators were also indirectly useful for the management accountant since, by influencing managers' practices, s/he reached her/his own goals. In that scenario, budgets can be understood as "quasi"-generic artefacts as they allow the management accountant to implicitly influence operational managers by presenting her/himself as an information gatekeeper. After meetings, the management accountant also inscribed those "recommendations" into artefacts, such as meeting protocols: that "strengthened her/his influence attempts by changing the medium from spoken to written text and re-labelling their "suggestions" as "measures" (p. 349).

However, evidence shows that "quasi"- generic artefacts can be rejected if the management accountant does not consider operational and local concerns.

Particularly, Vaivio (1999) illustrated that the introduction of a management report including financial and non-financial measures about the customer satisfaction, owned by the management accountant, faced the sales managers' resistance because their interests were not considered. Similarly, Ezzamel and Burns (2005) showed that the finance managers' attempts to introduce the EVA failed once presented to buyers and merchandisers. By reducing managers' degree of discretion through the cost of capital charges, and by controlling details of the information on which these calculations were based (such as asset registers), finance managers "sought to redefine buyers and merchandisers knowledge work and the associated creation of meaning" (p. 768-9). Yet, buyers and merchandisers rejected the EVA because they perceived it as an artefact that would undermine their performances and, even more, may promote finance managers' "hidden agenda" (p. 772).

Despite IT artefacts pertain to the IT realm, accounting literature has shown their growing entrenchment within management accounting practices and the management accountant's work. ERPs, for example, allow the integration, standardization, routinization and centralization of information (Scapens and Jazayeri, 2003) and this may strongly influence the management accountant's identity work and organizational routines.

Particularly, within organizations, IT tools have been growing managed by management accountants, who try to take influence over them to safeguard

information and discourage the production of local information (Goretzki *et al.*, 2013). In this thesis, IT tools are understood as "quasi"-generic artefacts because they led changes in practices by guiding users' actions (Caglio, 2003; Scapens and Jazajeri, 2003) and their use of information (Goretzki *et al.,* 2013).

In this scenario, the management accountant is an "adjacent occupation" (Cacciatori, 2012, p. 1565) of IT experts because their domains of tasks and the use of certain artefacts often intermingle. Particularly, Goretzki *et al*. (2013) showed that the introduction of an ERP system gave a chance to the management accountant for entrenching her/his business orientation, within the organization by cooperating with other functions. Before such introduction, "although management accountants were responsible for the reporting systems, every department had its own information": to reinforce her/his identity, after the ERP introduction, the management accountant "tried to keep non-accountants away from the information system to prevent manipulation and make sure that they were solely responsible" (p. 52).

Morales and Lambert (2013) found that a management accountant strengthened his power and gained legitimacy within the organization by imposing to operational managers a rigid accounting framework on the IT system that forced his intervention and, therefore, his presence to managers, when the latter were not able to manage it. Differently from his colleagues, this management accountant provided

his actions with meanings that allowed him to avoid "dirty work" and gain a rewarding position within the organization.

Moreover, Caglio (2003) illustrated that the introduction of an ERP system enabled the enactment of the management accountant' identity change towards "hybrid" (p. 124) positions. Specifically, s/he managed the configuration and management of the ERP (usually pertained to IT people); s/he decided parameters of the ERP and information-flows for the whole organization, "by ensuring the most appropriate presentation form for their own purposes" (p. 144). The ERP also removed accountants' discretion in procedures of collecting and elaborating data since it dictated pre-established and standardized criteria to be fulfilled.

Overall, evidence suggests that the main characteristic of the "quasi"-generic artefacts is the "quasi-participation" of the design process. Those artefacts are supposed to be co-designed, but often the presence of some of them is just "formal" because actors having more control over the artefact may subtly control the content and the flow of the artefact. From an identity work perspective, those artefacts may support the management accountant's identity work because, thanks to "panoramic knowledge" that s/he gained from her/his position (Mack and Goretzki, 2017), the management accountant may decide what, how and when information disclose (Goretzki *et al.*, 2018). During the design, the management accountant presents her/himself and communicates her/his goals by developing artefacts in a way that

other participants perceive that also their interests are safeguarded. Moreover, through "quasi"-generic artefacts, the management accountant can also plan his/her "presence" at certain steps of informational flows that s/he judges as important (Hall *et al*., 2015; Morales and Lambert, 2013), without being perceived as a "policeman", and maintain her/his reliability towards top management. Artefacts, such as reports, can be an example of artefacts supporting the management accountant's identity work since the latter have the power to forge what information disclose and in which ways. However, the management accountant has to explicitly take into account managers' needs in a way that is perceived as enabling. In this scenario, "quasi"-generic artefacts support the management accountant's identity work, but other participants have to perceive that their goals and interests are taken into account. If managers feel that the management accountant's support a "hidden agenda" (Ezzamel and Burns, 2005, p. 772), they have the power to reject the artefact.

Focusing on IT artefacts, the management accountant has been taking a growing influence over these tools: evidence has illustrated that the management accountant can control the flow and the content of the informational flows. Interestingly, Quattrone and Hopper (2006) showed that they have the power to create solicitations to individuals, both in their absence and their presence. Those artefacts contribute to her/his identity work in two different ways.

On the one hand, the management accountant reinforces her/his position because information is safeguarded from managers' manipulation and, besides, the production of duplicated information can be avoided. From the identity work perspective, this allows that the management accountant can be recognized as "reliable gatekeeper" (Goretzki *et al.*, 2013) by top managers and operational managers, as well. On the other hand, by taking influence on IT artefacts, the management accountant strengths her/his position over the IT realm. In this concern, IT artefacts strongly reinforce the management accountant's identity because they gain control, as well as power, over artefacts that, supposedly, are specific to the IT occupation. The following figure summarizes what has been discussed (fig.1).

	SPECIFIC ARTEFACTS	GENERIC ARTEFACTS	
Fig. 1 – The contribution of artefacts to the management accountant's identity work and influences on organizational routines			
		GENUINELY GENERIC ARTEFACTS	**QUASI-GENERIC ARTEFACTS**
Definition	Artefacts pertaining to the financial and accounting area of expertise	Artefacts related to business and operational issues and/or to the communication of information	
Characteristics	- Specific artefacts require a technical knowledge; - The design of specific artefacts is an enabling process for the management accountant's identity work; - The design of specific artefacts occurs within the accounting and finance function. *Example: financial accounting tools*	- Genuinely generic artefacts require a deep knowledge of the business; - The design of genuinely generic artefacts is an enabling process for the designers since it allows them to present themselves to other participants; - The design of genuinely generic artefacts occurs outside the accounting and finance function. *Example: Balanced Scorecard*	- Quasi-generic artefacts require a deep knowledge of the business and their design occurs outside the accounting and finance function. - The design of quasi-generic artefacts is characterized by the quasi-participation of certain actors, since their presence is just "formal"; - *Example: reports, IT systems*
Theoretical propositions on the contribution of the design and use of artefacts on the management accountant's identity work	1. Specific artefacts can contribute to the management accountant's recognition as a "financial and accounting expert" within and outside the accounting function; 2. Specific artefacts can contribute to the management accountant's achievement of a rewarding position within the function, as a "*primus inter pares*"; 3. If specific artefacts appear in the work-flows of other managers, they can be understood as useless and complicated by managers which, in turn, perceive the management accountant as a bean counter.	1. The design of genuinely generic artefacts allows the management accountant to present her/himself and show her/his business-oriented skills to managers; 2. Genuinely generic artefacts may express the vulnerability of the management accountant's position against operational managers; 3. Genuinely generic artefacts, tailored on managers' needs, support the management accountant's identity work by showing how the management accountant prioritizes operational needs and interests; 4. Genuinely generic artefacts, tailored on managers' needs, allow the management accountant to be perceived as a business partner by managers; 5. Genuinely generic artefacts, tailored on managers' needs, allow the management accountant to maintain the control over managers' reporting activities and to be perceived as a reliable reporter or a corporate watchdog by the top management.	1. The design of quasi-generic artefacts can be controlled, in terms of content and flow by the management accountant; 2. The management accountant's panoramic knowledge may support a collaborative approach or subtly impose something on others that, in turn, feel to be included in the design process of quasi-generic artefacts; 3. Quasi-generic artefacts may express the vulnerability of the management accountant's position against operational managers if s/he does not consider their local needs; 4. Quasi-generic artefacts, specifically IT tools, allow the management accountant to present as a reliable gatekeeper, because they discourage the production of local information and may reinforce the management accountant's identity because they gain control over "tools of the trade" of another professional group.
Theoretical propositions on the contribution of the design and use of artefacts on organizational routines	1. Specific artefacts mainly support the work within the accounting function, without appearing in managers' work-flows; 2. Specific artefacts do not influence organizational routines if managers decide not to use them; 3. The management accountant can design specific artefacts by using formats which translate accounting logics in users' language. That can enable managers' use of those artefacts.	1. Genuinely generic artefacts support the management accountant's identity work outside the accounting function; 2. Genuinely generic artefacts deeply influence organizational routines; 3. In situations of rejection of genuinely generic artefacts, the management accountant can prioritize users' needs, rather than the technical aspects to enable managers' use of those artefacts.	1. Quasi-generic artefacts may allow the management accountant to plan his/her "presence" at certain steps of informational flows; 2. Quasi-generic artefacts implicitly influence organizational routines.

3.5.   The management accountant's identity work, artefacts and influences on organizational routines

When focusing on relations among the management accountant's identity work, artefacts and organizational routines, some reflections can be developed. During the design of an artefact, participants contribute to the process by expressing their own understandings, namely the ostensive aspect, of how a routine should be performed through the artefact. Every participant, who is engaged in her/his own identity work project, participates in meetings by having in mind an idea of how the artefact should work to support her/his own agenda. Designers develop their own perspectives and make sense of the self in their local units, with their colleagues, thinking about what technical as well as social purposes they aim to reach through the artefacts. Watson (2009, p. 432) defined it the "inward-facing identity work". In this concern, Goretzki and Messner (*in press*) illustrated that "backstage interactions", which take place within the finance and accounting function, are productive sets for the management accountant who aims to present her/himself as business partner.

The work on the self prepares actors to present themselves and their own needs and goals during meetings, that is the design process of an artefact. In those situations, actors express the "outward-facing identity work" (Watson, 2009, p. 432) to present him/herself and try to convince other participants. It has been found

that "genuinely" generic artefacts are characterized by the enabling idea behind their design process, with the aim to come out with an artefact that will support the work of all participants (users). The desired output of the design process is an artefact that enables the creation of a common ostensive aspect of the organizational routine that should be enacted. In those "frontstage interactions" (Goretzki and Messner, *in press*), where the management accountant encounters operational managers, s/he can perceive the stability or the fragility of her/his identity work, depending on the degree of influence that s/he can take over the artefact and on how the artefact itself influences managers' patterns of actions.

Then, during the use, the artefact entrenches within current patterns of actions. If the developed artefact does not fit with the understandings about how the routine should be enacted and performed, the artefact can be rejected because it bothers established organizational routines. Therefore, the use of certain artefacts may discourage certain local routines and enable new ones whereas others invite managers to safeguard their local practices by avoiding entrenching the artefact in their work. In this concern, Jarzabkowski and Kaplan (2015, p. 541) suggested that "while the developers of tools may design them with specific types of strategic problems in mind, it is not clear that managers inside organizations pick or use tools for these reasons".

Overall, within organizational boundaries, identity work, artefacts and organizational routines deeply influence each other. Artefacts have demonstrated to contribute to the management accountant's identity work project because they give the management accountant the possibility to entrench her/his values within organizational routines. In the encounter with other individuals, the management accountant can perceive how strong the stability of her/his identity work is, depending on the degree of acceptance and use of the artefact. It hence implicates that the management accountant's identity work, supported by the design and use of artefacts, is a "relational phenomenon" (Karreman and Alvesson, 2001, p. 65) since many organizational actors, i.e. adjacent occupations, participate and contribute in those constructions. Therefore, it follows that management accountants could experience the materialization of multiple representations of the self.

Moreover, the distinction between artefacts strictly depends on their design and use because these processes are shaped by participants' agency: that means that the same artefact can act as a genuinely generic artefact in a specific time and situation, whereas as a quasi-generic artefact in another one. Thus, there can be certain "contingency factors" which guide organizational actors' choices. For example, an operational manager or a management accountant can be influenced by the presence of the top management, e.g. the CEO, during the design process or in another

specific situation s/he has in mind some goals to reach or interests to safeguard. Thus, it suggests that perhaps there may be situations in which managers prefer to "symbolically" accept a certain artefact, even though they do not approve it, because they are safeguarding other interests, as situating in a favourable position towards the top management.

3.6. Discussion and concluding remarks

This chapter focused on the contribution of the design and use of artefacts to the management accountant's identity work and their influence on organizational routines. Management accounting is an organizational practice (Burns and Scapens, 2000; Siti-Nabiha and Scapens, 2005) surrounded by a plethora of artefacts orchestrated by the management accountant who, in the fulfilment of her/his activities, is equipped with different configurations of artefacts, which are the basis through which s/he creates information (Goretzki, Strauss, and Wiegmann, *in press*; Weber, 2011) and communicates it.

Drawn on concepts of "generic" and "specific" artefacts (Cacciatori, 2008; 2012) to define the tools mastered by the management accountant and the role of artefacts in organizational routines (Bechky, 2003a; 2003b; D'Adderio, 2011; Dionysiou and Tsoukas, 2013; Pentland and Feldman, 2008), this chapter

investigated *if* and *how* the design and use of artefacts contribute to the management accountant's identity work and influence organizational routines.

Firstly, specific artefacts, such as financial accounting systems, contribute to the recognition of the management accountant as a "financial and accounting expert", within and beyond the management accounting realm. Particularly, if those artefacts allow the management accountant to reach rewarding positions within the function, it has been introduced that s/he can be understood as a "*primus inter pares*". By contrast, the technical knowledge imbued into specific artefacts may be perceived as useless and complicated by operational managers who, in turn, may decide to design their own reports or refer to IT specialists for requiring information. In this concern, it has been suggested that the management accountant can try to communicate accounting information in a way that embrace managers' business logics. This can be a lever for the management accountant's identity work and for influencing other organizational groups' organizational routines.

Secondly, the distinction of generic artefacts between "genuinely" and "quasi-generic" has been introduced. In this regard, when focusing on the management accounting realm, the definition of Cacciatori (2012) about generic artefacts has to be developed in order to provide a more detailed representation of the phenomenon under research. "Genuinely" generic artefacts contribute to the management accountant's identity work because, during the design process, which involve all

actors supposed to work with the artefact, they give her/him the chance to present her/himself and understand other actors' interests. Otherwise, since the introduction of such artefacts influences usual patterns of actions, operational managers may decide to reject them if they do not fit in their needs. Thus, it has been suggested that, to enable managers' acceptance and use of the artefact, management accountant should emphasise local needs, instead of the technicalities of the artefact. In doing so, on the one hand, managers' interests are supported, and the management accountant can be perceived as a partner, and, on the other hand, the management accountant can maintain the control over the artefact (and operational managers) and safeguard the position of "reliable reporter" and "corporate watchdog" against the top management.

Thirdly, quasi-generic artefacts allow the management accountant to subtly gain control over the development of the artefacts and implicitly influence managers' actions, in a way that the latter perceive as supporting their needs. The management accountant can do so thanks to the "panoramic knowledge" (Mack and Goretzki, 2017) acquired for being positioned in between managers and top management. That knowledge enables the understanding of managers' needs and, thus, the management accountant explicitly supports their identity work. Thus, the design process of the quasi-generic artefacts is characterized by the "quasi"-participation of certain actors involved because the presence of some of them is just "formal".

Therefore, management accounting tools may be resourceful devices for the management accountant's identity work since through their design and use processes the management accountant may express her/himself and influence organizational routines. Even though, they may let the management accountant perceive both the stability and the fragility of her/his identity work, the design and use of them are situations in which s/he can present him/herself to the others and try to understand others' needs to come out with an artefact that trigger rewarding organizational routines for the management accountant. Focusing on IT tools, it has emerged that they can contribute to her/his identity work in two different ways. Defined as "quasi"-artefacts, IT tools allow the management accountant to reinforce her/his position within the organization, because s/he feels that information is safeguarded from managers' manipulation and the production of duplicated information can be avoided. From the identity work perspective, this allows that the management accountant perceives her/himself as "reliable gatekeeper" (Goretzki *et al.*, 2013). On the other hand, by taking influence on IT artefacts, the management accountant strengths her/his position over the IT realm by gaining control, as well as power, over artefacts that, supposedly, are specific to the IT occupation.

As illustrated, the phenomenon under research is built on a series of relationships and dynamics involving different organizational actors. Particularly, actors' perceptions and understandings about how a routine should be enacted through an artefact have a pivotal role in accepting the introduction of it or not. Moving from

these premises, an in-depth single case study conducted within an Italian firm has allowed to empirically investigate the research questions. It will be presented in the next chapter.

4. WHEN IT TOOLS BECOME IDENTITY RESOURCES: A CASE STUDY ABOUT THE MANAGEMENT ACCOUNTANT'S IDENTITY WORK AND THE OCCUPATIONAL COMPETITION WITH IT SPECIALISTS

4.1. Introduction

As discussed in the previous chapters of this work, nowadays, different professional expertise has been intersecting within organizations and, hence, boundaries among professional occupations became more fluid than in the past. In this regard, literature has shown that the management accounting function no longer holds the monopoly over the accounting domain. Operational managers have taken on a growing responsibility over the financial features of their business units by broadening their skills and knowledge to the accounting field of expertise (Burns and Vaivio, 2001; Caglio, 2003; Ezzamel and Burns, 2005; Lambert and Sponem, 2012; Mouritsen, 1996; Scapens and Jazayeri, 2003; Vaivio, 1999). By contrast, the introduction of IT systems, such as the ERP, supporting management accounting practices has allowed the enlargement of the management accountant's competencies towards the IT domain (Caglio, 2003; Goretzki *et al*., 2013; Hyvönen *et al.*, 2015).

In this scenario, occupational groups have been "hybridizing" their positions (Caglio, 2003) and the management accountant has to negotiate her/his identity with operational managers and IT experts who, in turn, are engaged in positioning themselves within the organization. As highlighted in the second chapter (par. 2.4), each actor tries to make sense of her/himself and, thus, different individual identity work may clash. This may provoke the rise of the intra-occupational competition (Burns and Vaivio, 2001; Ezzamel and Burns, 2005) among "competing groups" (Ezzamel and Burns, 2005, p. 756).

Therefore, the aim of this chapter is to empirically investigate *if* and *how* the design and use of artefacts contribute to the management accountant's identity work and influence organizational routines. Particularly, to answer the research questions, an in-depth single case study within an Italian firm was conducted. Interestingly, the management accountant interviewed strongly and spontaneously linked her identity work, within the firm, to IT tools and to her relationship with the IT function. Thus, this suggested that also artefacts, traditionally pertaining to the IT field, may contribute to the management accountant's identity work, influence organizational routines and, even more, trigger the occupational competition with IT experts. In this concern, to date, literature has not explored in detail how IT tools, even though traditionally pertaining to the IT realm, may support the subjective

processes through which the management accountant understands who s/he is and whom s/he wishes to become.

The remainder of the chapter is organized as follows. Next section reviews previous research about the role played by information systems on management accounting practices and the management accountant's identity work. Then, the research method and the case background are introduced. The chapter continues with the presentation of the empirical material. It ends with a discussion of the results and conclusions.

4.2. The roles of information systems on management accounting practices and the management accountant's identity work

As far as information systems have intertwined with management accounting practices, literature has explored the relationship between information systems, such as ERP systems, data warehouses, software and executive portals, and management accounting systems (Chiucchi, Gatti, Marasca, 2012; Dechow and Mouritsen, 2005; Granlund and Malmi, 2002; Hyvönen, Järvinen, Pellinen and Rahko, 2009; Quattrone and Hopper, 2006; Rom and Rohde, 2007; Scapens and Jazayeri, 2003).

Although, it has been acknowledged that the relationship between information systems and management accounting is bidirectional in terms of reciprocal influences (Chiucchi *et al.*, 2012; Rom and Rohde, 2007), extant literature has mainly focused on the influence of the introduction of information systems on management accounting practices by producing several results.

Firstly, it has been found that the ERPs, understood as "transaction-oriented information systems" (Rom and Rohde, 2007, p. 43) centralize, integrate, standardize and routinize information by performing traditional activities pertaining to the management accounting function (Caglio, 2003; Granlund and Malmi, 2002; Newman and Westrup, 2005; Scapens and Jazayeri, 2003)[2]. In this concern, the introduction of ERPs has allowed the reduction of the management accountant's routine tasks, e.g. data inputting, by giving her/him more time to devote to business-oriented activities, e.g. data interpretation and business support (Caglio, 2003; El-Sayed, 2006; Hyvönen *et al.*, 2015; Scapens and Jazayeri, 2003). In this vein, in his case study, Järvenpää (2007, p. 119) found that management accountants were favourable to the ERP introduction because it "quickened and standardized the reporting and gave additional time for analysis, business support and development projects". By contrast, it has been found that ERPs may increase the amount of

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[2] Rom and Rohde (2007, p. 43) distinguished information systems between transaction-oriented information systems, such as the ERP, and analysis-oriented information systems, such as BSC software.

traditional tasks (Heinzelmann, 2018) or relegate management accountants to the role of data custodian (Jack and Kholeif, 2008).

Secondly, it has been illustrated that information systems contributed to the diffusion of accounting knowledge throughout organizations by making information accessible at all organizational levels. Scapens and Yazayeri (2003) concluded that ERP empowered operational managers to monitor the financial aspects of their units to such an extent that they felt the responsibility of preparing budgets, variances and forecasts as pertaining to them. In this regard, Business Intelligence systems defined as "specialized tools for data analysis, query and reporting" (Elbashir, Collier and Davern, 2008, p. 138), complemented by the IT infrastructure (e.g. data warehouses) which support their design and use, allow the dissemination of accounting throughout the organization.

Thirdly, the introduction of information systems has provoked the fall of the boundaries of the management accounting realm, but also the management accountant's access to other professional fields, i.e. IT domain. This phenomenon has been widely investigated by Caglio (2003), who posited that the introduction of information systems has "hybridized" organizational positions. Particularly, as showed in her research, management accountants, operational managers and IT specialists' domains of expertise have intermingled due to the ERP system.

Therefore, several studies have shown that management accountants play a pivotal role in the introduction and management of information systems by developing IT competencies (Caglio, 2003; Goretzki *et al.*, 2013; Hyvönen *et al.*, 2015) and, consequently, "eroding activities and responsibilities typical of the IT area" (Caglio, 2003, p. 142). Hyvönen *et al.* (2015), in their case study, illustrated that the management accountant was able to demonstrate his accounting knowledge and expertise in IT whereas IT specialists were just experts in programming and managing the IT infrastructure, without demonstrating competencies in accounting. This was because "their way of thinking was very technologically oriented" (p. 30). By contrast, Pierce and O'Dea (2003) found that operational managers preferred to refer to IT people as information providers because they were perceived having an accounting understanding whereas management accountant failed in IT skills.

Overall, to date, management accounting literature has mainly focused on how information systems served the role of "enablers" (Windeck *et al.*, 2015, p. 629) by leading changes to the management accountant's activities and competencies. Apart from few exceptions (see Caglio 2003; Goretzki *et al.*, 2013 Heinzelmann, 2018; Morales and Lambert, 2013), research has not explored how artefacts, namely information systems, may contribute to the management accountant's identity work and influence organizational routines. Chapter 3 suggests that IT tools can be understood as "quasi"-generic artefacts and support the management accountant's

identity work in two main ways. On the one hand, the management of IT tools allow the management accountant to perceive that information is safeguarded from managers' manipulation by also discouraging the production of local data. On the other hand, IT tools allow the management accountant to strength her/his position within the organization, because s/he takes influence on artefacts pertaining to the IT domain.

4.3.   Research method and the case background

To explore the research questions of this thesis, namely *if* and *how* the design and use of artefacts contribute to the management accountant's identity work and influence organizational routines, the research is based on a single case study (Chiucchi, 2012; Cooper and Morgan, 2008; Yin, 2014; Scapens 1990).

The choice of adopting a case study research was driven by two main reasons. On the one hand, the limited knowledge about the management accountant's identity work and the complex relationships among identity work, artefacts and organizational routines make the case study method suitable for answering the research questions. Case study method favours the analysis of complex phenomena in which many elements/processes/actors have to be taken into consideration while interacting with each other. On the other hand, since this phenomenon grounds on individuals' subjective understandings and ideas about themselves, artefacts and

organizational routines, and on the relationships among different actors, the use of the case study method has been considered well suited for developing rich understandings of complex dynamics and events to "explicitly address theory" (Cooper and Morgan, 2008, p. 160).

The research site is Alpha[3], an international company, leader in its sector. The headquarter is based in Italy where the holding company and the production platforms are located and it sells its products through several commercial branches all around the world. Alpha was selected because advanced management accounting tools have been developed and used within the company. Particularly, the head of the management accounting office, Ally has been actively working in the design and use of these tools.

Thus, in order to explore the management accountant's identity work through artefacts, the investigation revolved around Ally. Seven semi-structured interviews (Kreiner e Mouritsen, 2005; Qu and Dumay, 2011) with her were conducted over a period of six months. The interviews lasted between 35 and 75 min and were recorded and transcribed (see appendices).

The choice of using semi-structured interviews to collect data lies in the possibility they give to researchers to "help develop understanding of the ways in

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[3] To preserve the anonymity, the name of the firm and of its employees have been changed and some of the details of the firm which are of less relevance to the specific theme of this research have been omitted.

which managers make sense of, and create meanings about, their jobs and their environment" (Qu and Dumay, 2011, p. 246). The interviews were supported by an interview guide (Qu and Dumay, 2011), that included the main following themes: the management accountant's job history and her personal idea about her role; the organization of the management accounting function and the management accounting tools used; the tools that best represent the management accountant's individual understanding of her work; the influences of the design and use phases of tools on organizational routines and other actors' reactions.

It has been decided to use the term "role" instead of "identity" during interviews to make the management accountant feel at ease by using her language and not confusing her with the theoretical differences between the concepts of role and identity. Yet, the questions were formulated in such a way that allow to rebuild the definition of identity provided by Kärreman and Alvesson (2001) and to understand her identity work within Alpha (for the interview, see appendices). Surprisingly, during the first interview, when describing her professional career within Alpha, it has emerged that Ally constructed narratives about herself (Czarniawska, 2000; Maclean, Harvey, Gordon and Shaw, 2015) by mainly relating her professional growth to the introduction of information systems, instead of management accounting tools, as expected. Thus, the empirical material has been checked and it has been found that, to questions related to the management accounting tools, she

answered by spontaneously forming narratives (Czarniawska, 2000; Maclean *et al.*, 2015) referred to her relationship with the IT function and her use of information systems. Particularly, it has been noticed that Ally was able to make sense of herself as a management accountant, also thanks to artefacts traditionally pertaining to another area of expertise, the IT realm[4].

Thus, it has been decided to go back to the theory by assuming an abductive approach. In this concern, Lukka and Modell (2010; 2017) stated that the process of abduction is accepted as an integral part of interpretative research; "abduction is about developing (''inventing") theoretically informed explanations to new, and often surprising, empirical observations […] abduction relies on the skilful development of theoretical explanations with the help of everything that is known empirically and theoretically about the issue being examined" (Lukka and Modell, 2010, p. 467).

Aiming at enriching the empirical material, "by bringing out the different voices around accounting in organizations" (Ahrens and Dent, 1998, p. 2), listening "variegated speech of the field" (Czarniawska, 2000, p. 19) and triangulating findings (Yin, 2014), the IT manager was interviewed, as well. In this regard, it has to be underlined that Ally acted as a "key informant" because she provided "insights

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[4] Czarniawska (2000, p. 14) highlighted that "an interview situation can thus easily become a micro-site for production of narratives, or just an opportunity to circulate them, where a researcher is allowed to partake in narratives previously produced. In many cases answers given in an interview are spontaneously formed into narratives".

into a matter and also give us access to other interviewees who may have corroboratory or contrary evidence" (Yin, 2014, p. 111). The current IT manager, Bob, was interviewed; the interview lasted 47 min and was recorded as well as transcribed (see appendices).

Moreover, during all the interviews, researchers also took notes of interviewees' non-verbal responses, such as facial expressions, gestures and variations in the tone, which helped "in assembling the meaning and relevance of what has been said" (Mahama and Khalifa, 2017, p. 333). Finally, internal documents and presentations were reviewed. Findings were analysed by adopting the interpretative approach (Lukka and Modell, 2010; 2017) to carry out a narrative analysis about the management accountant's process of identity formation within Alpha (Czarniawska, 2000; Maclean *et al*., 2015; Sandelowski M., 1991).

4.4. Empirical analysis

4.4.1. The management accountant's self-definition of the identity

The management accounting office within Alpha belongs to the Administration, Finance and Control function, that is centralized in the headquarter. It is composed by five management accountants who recognize in Ally their manager; Ally, in turn, recognizes her formal authority in the CFO and in the CEO.

The main activities pertaining to the management accounting function relate to reporting, budgeting and controlling, fast closing and forecasting. Management accountants are also involved in projects directed to the improvement of certain procedures and to the development of Business Intelligence and ERP tools. Finally, they also carry out some typical administrative activities such as the consolidation. Management accounting practices are supported by an internally developed ERP, a Business Intelligence and software, such as a Customer Relationship Management (CRM) and a Corporate Performance Management (CPM). The implementation of an ERP SAP is ongoing.

Within Alpha, the management accountants' roles are accurately defined within the function and approved by the CEO. Particularly, management accountants are understood as the "motivators" of information: they are responsible for the effective execution of planning and control process of the company, they support the strategic and operational management by regularly providing a defined set of information useful for business decision-making processes; they also check all the reports provided by other functions and addressed to the CEO and provide ad-hoc reports required by operational managers. Besides they are guarantors of methods and standards used.

In this scenario, Ally's identity builds on the following blocks (Kärreman and Alvesson, 2001). To Ally, the central characteristics of her way of working as a

management accountant are the "*determination*", the "*ability to develop a rational thinking*" and the "*curiosity*", since the management accountant is "*someone who is always looking for something*". Besides, the management accountant stands out from operational managers because s/he "*looks at the business from outside and through the measurement and the rational thinking, suggests the best way to carry out a process, also putting some breaking points. The management accountant can question something that has always been done in a certain way but could be done in a better way*". In terms of coherence, Ally feels that the management accountant "*has to guarantee trust, integrity and frankness over time and situations*". Finally, her main aspiration is to be recognized by operational managers as an "*internal consultant*"[5].

From an identity work perspective, Ally has developed a clear understanding of her aspirational identity within Alpha. Particularly, her individual goal is to be perceived as an internal consultant by operational managers. During her career, Ally strongly worked on herself and her representations of the self have been strongly challenged by the IT function and operational managers.

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[5] In italics, Ally's words (I5).

4.4.2. The management accountant's identity work through the challenging relationship with the IT function

Ally studied Business and Administration at University with the aim to become a chartered accountant. During her studies, the encounter with the management accounting (it was an optional exam that she chose) made her change her mind. After University, she started her professional career as management accountant within Alpha. When she entered Alpha, management accounting was a staff function, born as a spine of the IT function. So, the head of the management accounting function was an ex-programmer. In those years, the main aim of Alpha was the production and elaboration of information and IT experts did so through an internally developed ERP. Ally's main activities, in turn, were related to the construction of sales reports and of the first drafts of sales budgets by inputting data on Excel:

> *"As management accountants, what we did was producing reports. Let's say that my competencies in using Excel were the first impetus for my career within Alpha. When I entered, I was one of the few ones able to use Excel and even a little of Access [...] My boss was an ex-programmer"* (Ally, I1)

However, Ally did not like the activity of inputting data in Excel. In particular, Excel was for her a source of dissatisfaction and she felt unmotivated:

"the beginning was quite hard; I never had the right totals and then I spent days and days inputting data and trying to have the right data, after I was wrong typing I do not know how many times... it was demotivating" (Ally, I1)

From an identity work perspective, it is possible to observe that as soon as she entered Alpha, she engaged in dirty work (Hughes, 1951 in: Brown, 2015). By following Morales and Lambert (2013) description of "dirty work", it is possible to observe that Ally particularly engaged in "unclean work", since the tasks she undertook were incompatible with the claimed aspirational identity. In this regard, she tried to challenge the traditional way of doing, looking for a different way to produce information. However, the IT manager rejected Ally's identity work:

"I hated this thing and therefore I looked for a different way to do it. So, I tried to talk to my IT colleagues to understand if we had the printed files also in an electronic format…looking for all the ways to avoid this barbaric work of inputting [...] in short, it was all a typing job. An IT colleague had taught me how to make queries within the database to avoid handwriting numbers; the IT manager caught me at lunchtime… I had sent a query a bit too heavy and then the servers got stuck. I risked being fired simply because I tried to do something more efficiently, rather than spending days and days typing numbers [...] if someone wants to work as management accountant, the aspiration is not to copy data and put them in Excel" (Ally, I1)

However, over years, Ally started gaining visibility throughout the organization. On the one hand, the CEO decided that all the newcomers had to spend a period in

the management accounting office to be *"trained"* in understanding numbers, before being employed in other functions. On the other hand, Alpha started growing very fast by acquiring commercial branches; in this regard, it was decided to integrate the branches within Alpha's accounting information infrastructure. This was an opportunity for Ally to show her accounting competencies. In particular, Ally closely collaborated with IT specialists for introducing the ERP in the branches by precisely defining how to structure the ERP in each of them.

In those years, the production of information reached a critical point to be solved, due to the large amount of data generated. The main tool in use for consolidating data was based on Excel and Ally felt that the system was a possible source of mistakes. From an identity work perspective, it is possible to observe that Ally was aware of the risk of engaging in "dirty work", due to the impossibility of the Excel system to support her work:

> *"We grew up as a group and we did the consolidation of all the economic statements in an Excel system [...], we reached a critical point where the consolidation with these modalities began to creak; it was a way of working in which tools influenced a lot"* (Ally, I1)

Thus, a first software selection for a CPM took place and Ally was called to participate in those meetings with the IT manager. Despite her involvement in software selection meetings, the IT manager played a stronger role in decision making processes. By following Morales and Lambert' (2013) description of "dirty

work", it is possible to observe that software selection meetings were for Ally source of "polluted work": the participation in those meetings was an activity theoretically coherent with her aspirational identity, but her participation became inconsistent in specific situations:

> *"I'll make it short, but these meetings lasted days and days, not to say months and months, before concluding. To define the choice of a software, until yesterday, there has always been the weight of the IT [...] the IT manager wanted to safeguard previous investments, databases of a certain type and therefore not always buy the software that best met management accounting needs... often we had to accept compromises to safeguard what already existed in Alpha. Previous IT manager had…so let's say he had... his power. And so, anyway, even in the choices about management accounting software, there has always been this important weight of the IT part that dictated several rules"* (Ally, I1)

Moreover, once selected, the IT manager did not allow her to directly use the software:

> *"I remember that the IT manager did not give us the possibility to extract in Excel because it meant getting our hands on data that were owned by the IT function [...] So, we did analysis written in Word about what we wanted in the first column, what in the second one, if it had to be a deviation, what formula should have been… It was something that we could do ourselves ... but we had to write the analysis, the IT function put a person (laughs) to make these queries according to our needs and saved them in pdf to us"* (Ally, I1)

In that period, Ally's identity work was challenged again by the IT manager, who did not want to lose control over the systems since those artefacts were "owned" by the IT function. Particularly, the IT manager found in those systems his "identity resources" (Beech *et al.*, 2008), which guaranteed him to maintain his position.

However, from Ally's point of view, the process of producing information was very slow compared to operational managers' needs: firstly, Ally collected informational needs of operational managers, then she asked for the data to the IT specialists and had to wait for the extraction; finally, she produced and analysed the information required and sent it to operational managers. Thus, she asked the CEO to obtain access to the system. The importance of promptly providing operational managers with information helped her to obtain the access to information systems and Ally's attempts to be recognized as an internal consultant materialized. By directly using the artefacts, Ally may present herself to operational managers as a consultant, able to provide them with prompt and analysed information. Specially, she also reinforced her identity against the IT manager. Besides, she highlighted that IT experts did not have the "sensitivity" of understanding numbers:

> *"It was not efficient as a way of doing, it was not ... information arrived late, there were often misunderstandings, naturally a technical person did not have the sensitivity of the number, so then the process of*

generating information was too long and for when the information arrived, it was no longer necessary" (Ally, I7)

Over years, several changes occurred in Alpha. An IT specialist, Bob, was promoted to IT manager (the previous one retired). Bob was employed in Alpha as responsible of the ERP unit:

"When I was employed, there was a situation in which Alpha had purchased a software and many customizations of it had been made. My task was to bring this software to a standard database. This was my first task" (Bob, I8)

Moreover, due to the retirement of the previous CEO, a new CEO arrived. Later, Alpha has been partly acquired by a private equity and Ally expressed her fears to the new CEO, about industrial costs. Particularly, with the previous CEO, the responsibility over the collection and production of those costs pertained to the operational managers and management accountants did not have the opportunity of verifying the accuracy of the information produced. However, with the arrival of the new CEO, Ally challenged operational managers by trying to bring to light what happened in the industrial side:

"the flag that I started to raise with the arrival of the new CEO ... the previous CEO blindly trusted what was happening in the industrial part, they were holders of knowledge on the industrial side and therefore we had no information of this type [...] I have no chance to verify the accuracy of these numbers…" (Ally, I2)

Particularly, in the view of the newcomer CEO, operational managers must be responsible of their goals and actions; by contrast, he found that some operational managers were used to produce their own reports and information. So, he demanded that managers showed him their decisions and report their results, only using information provided by the management accounting function:

> *"The new CEO makes you act as a manager. Once defined the guidelines, you have the tools to go on and if you do not succeed you have to go to him and say: 'I have this problem I cannot solve it'; but, in general, he gives you the indications, you share with him the road and then you are the manager, you have the resources and he asks you the results. But this is normal"* (Bob, I8)

In doing so, the CEO recognized the importance of management accounting for decision-making processes and, thus, he charged the management accounting function with the role of guarantor of all information about Alpha. However, the production of local information was so entrenched within organizational routines that the CEO decided to put in place some actions:

> *"The CEO came from previous experiences in which he had already faced this problem […] was sensitive to this problem, so much so that he tried to call a consultant, but we saw that it was not successful. That way of doing was so deeply rooted that a bigger shake was necessary. A software that does not allow to be flexible"* (Ally, I7)

Thus, Alpha faced another critical point concerning the production of information. The CEO supported Ally's fears because in the same years the idea of entering in the stock market was a key moment for understanding if the software in use were able to answer to the accounting needs. Consequently, the Business Intelligence became the official reporting system of Alpha and it was also decided to start a project for introducing a standard ERP to replace the ERP in use, which allowed too much flexibility:

> *"We have this ERP, so if you do not issue an order you can decide not to issue it, if the bill of materials is not complete you can allow the goods to enter, if, if, if, if ... then a series of informational holes generate. Things all work, but…"* (Ally, I2)

Bob, from his technical point of view, confirmed that the internally developed ERP is too flexible and facilitates the local customizations:

> *"One of the fundamental reasons why we abandon our ERP to switch to SAP is the fact that the customizations are done internally… this software is very personalized, so if you look at the processes from within, the processes are very precise and efficient [...] This really boosted efficiency that you have in a function has been revealed as a general deficiency ...with the disadvantage that you can't give an interpretation to all these numbers you have"* (Bob, I8)

Thus, the project of introducing a standard ERP was driven by the purpose of influence managers' behaviours and "*set up fixed stakes*" in order to safeguard the production of correct accounting information:

> *"we would have to set up fixed stakes with the introduction of the ERP*
> *SAP system, so much more plastered procedures […] this also allows*
> *us to have everything armoured. SAP is a thing to put in place. Today,*
> *there is not this traceability, nobody is responsible"* (Ally, I2)

The management accounting function is playing a pivotal role in introducing the ERP SAP in close collaboration with the IT function. Particularly, even though the process is ongoing, the new ERP has the power to create solicitations and challenges among organizational actors also in its absence (Quattrone and Hopper, 2006). Empirical findings about how the introduction, design and use of artefacts, mainly the Business Intelligence and the ERP, which support the management accountant's identity work, influence organizational routines are presented in the following paragraphs.

4.4.3. The influences of information systems on organizational routines: a focus on the management accountant's relationships with the CEO and operational managers

The recognition of the Business Intelligence as the only official reporting system and the project of introducing the new ERP have triggered changes within Alpha, which challenged operational managers' usual patterns of actions and established new relationships among organizational actors. Particularly, the characteristics of those artefacts have triggered the enactment of new organizational routines which supported the CEO's understandings. Indeed, the CEO wanted that all reports that operational managers presented to him were checked and certified by a management accountant, in order to avoid the production of local reports (and wrong information). In this regard, the Business Intelligence contributed to the enactment of a routine that follows the CEO's ideas and, in turn, supported Ally's identity work. Particularly, from Ally's point of view, the CEO found in the management accounting function a partner in conveying to operational managers values important to him:

> *(At the researcher's question: do you think that the CEO considers you as partner?)*

> *(silence, sighs) "definitely yes. (silence) definitely yes. [...] It's like that. The management accounting function is considered... has its*

importance. It has its importance. Often with some people, the CEO
tells me: "talk to him, try to make him understand that ..." (Ally, I3)

In this concern, the introduction of the Business Intelligence helped Ally to recognize herself and, even, be recognized as an internal consultant by operational managers. When Ally started her career, every morning (time), she delivered printed reports to managers' desks (space). Nowadays, the Business Intelligence allows operational managers to directly find the information needed by logging in the software (space), whenever they need (time). Thus, operational managers ask for Ally's support when they need more detailed and interpreted information:

> *"When I was hired by Alpha we made some binders with labels and I*
> *remember we spent most of the time to print in colour, stick the labels*
> *with the index and put in sheets… then every morning the sales reports*
> *were made, coating with plastic and carried on the desks of the various*
> *managers […] we spent the mornings going around the offices and*
> *leaving reports on the desks"* (Ally, I1)

> *"Now the report is there (in the BI), if you (operational manager) are*
> *interested in the information, you read it, otherwise if you want to take*
> *a rash decision, take it. I can help you in organizing information in the*
> *most effective way for you, but you have to ask me what you need*
> *because if you do not ask me, I cannot give you anything ..."* (Ally, I3)

Moreover, the design of the dashboards of the Business Intelligence allows her to influence operational managers' actions by suggesting them new indicators to monitor. As shown by Mack and Goretzki (2017), the panoramic knowledge that

she gained from her position supports her identity work against operational managers. In doing so, she also supports the operational managers' identity work by providing them with useful information for their decision-making processes. In this regard, she feels that the Business Intelligence is the artefact that best represent her as management accountant:

> *"definitely the Business Intelligence. Perhaps, in the various quantitative dashboards you put the indicator ... you can ... since you design them and so... you can put the information that maybe they did not ask directly"* (Ally, I6)

> *"within the BI, we tried to standardize information for everyone. Then if three managers ask me the same thing, this probably is a useful information and, then, we make it available to everyone. Maybe making it standard we also put our contribution, saying: 'Do you also need this information? Perhaps, you can use it to also see this and this'. He (the manager) does not know that such information is of another office and it has never been given to him. So, this activity is continuous. The BI changes, it's never fixed"* (Ally, I3)

Operational managers, in turn, to situate themselves in a rewarding position towards the CEO, recognize that Ally can be a "resourceful actor" (Hyvönen *et al.*, 2015, p. 35), due to her ability in interpreting information. Hence, operational managers revised their understanding of the routine in which they participate in (Pentland and Feldman, 2008) and, nowadays, support Ally's identity work:

"Some managers said: 'Oh wow! Next time I need your help to find this information because I do not want to be wrong'" (Ally, I3)

"you (management accountant) have to make them (managers) understand that that if they do certain types of activities, they will have a return in terms of information that are useful for them, first of all. So, someone overcame this step, until reaching the point that they call me saying "I would like to check this, how can I do it?" (Ally, I5)

Operational managers accept that the Business Intelligence, which support the management accountant's identity work, influences their routines because they have understood that it also supports their goals. More specifically, Ally reported that some managers strongly entrench the artefact in their activities:

"I have seen in recent years a strong evolution…those who use it, use it in decision-making processes and look at it a lot. Lately we had some problems with the software that did not work… many managers called and said 'what happened? I need it...'...people that honestly I did not think they used the system so much" (Ally, I6)

However, certain operational managers did not accept to check the information with Ally and perceive her as a "policeman":

"other managers said "it's not your activity... I took this choice, because this is right" (Ally, I3)

"there are also those managers who see management accountants as policemen ... so they say, 'I will not call you until...' or they often tell me 'then you tell it to the CEO' ... as if I were a spy..." (Ally, I3)

For example, the R&D manager, that is a key actor within Alpha due to his professional competencies, refuses to be measured:

"The R&D responsibility is in the hands of people who do not want to be measured, so there has been a bit of a trade-off... And then, they measured what they want to measure, the delays were no longer calculated and however if calculated, they were no longer presented... but here is the manager… he is a genius. This is one of those managers who did not understand that measurement firstly serves him" (Ally, I5)

From a theoretical point of view, those managers did not revise the ostensive aspect of the routine in which they participate in and, thus, recognize Ally as a "watchdog" or a "policeman". The operational managers' perceptions are also confirmed by Bob:

"Everyone sees management accountants a bit 'as policemen, which it is true in some cases. But the management accountant must be a careful policeman to avoid being treated as a policeman. S/he must interpret the role in a proactive way and then establish a relationship with the various functions, transfer the knowledge and architecture of the information to try to solve problems or identify elements of improvement. So, I think they need strong skills to have the ability to look beyond the number itself, but at the same time it also requires a strong leadership and the ability to create positive relationships with others" (Bob, I8)

By focusing on the ERP, Ally recognizes the ERP as a management accounting tool:

> *"the ERP system is a management accounting tool because many of the reports, many of the first answers are obtained directly from the ERP"*
> (Ally, I6)

When she entered Alpha, the ERP was source of dissatisfaction for Ally because the previous IT did not allow her to extract the information from it. Today, instead, the project of introducing a standard ERP in order to standardize the production of information is a resource for Ally, since it allows that managers recognize her as a consultant. Interestingly, although the implementation of the ERP SAP is ongoing, it has already triggered new organizational routines which involve Ally. Particularly, operational managers have understood the importance given to management accounting practices within Alpha and, so, perceive Ally as a consultant:

> *"Lately, in many meetings about SAP, where (in SAP) the management control part will be very developed and connected to all areas, every time someone says: 'this relates to management accounting'... because then in SAP any transaction has its link to the numbers and the control of costs. Thus, the implementation of this software has brought to the light the discourse about management accounting and the management accountants' roles. Therefore, also some activities that they cannot do alone, but must rely on us..."* (Ally, I4)

"In SAP all transactions will be linked to management accounting. So, many times, I'm also called by managers in participating in certain meetings, where I cannot understand until half of the meeting because I'm there (laughs)" (Ally, I3)

Moreover, also with the ERP some managers do not welcome the introduction of the SAP. Particularly, the R&D manager rejected it:

"now we have started with the SAP project, anyway the R&D manager does not recognize this thing, he goes on his way..." (Ally, I5)

4.4.4. The influences of information systems on organizational routines: a focus on the management accountant's relationship with the IT function

The newcomer CEO gives to management accountants a new meaning by charging them with the responsibility on information. That implies that management accountants become the official information providers in Alpha whereas the IT function is responsible of technical issues about the IT systems:

"now, our role is to certify the reporting in every sense, so even the BI software has been defined ... they (the IT experts) have defined what to buy for a series of technological constraints but, at the end, the contents of the various BI systems are defined by us" (Ally, I5)

Ally reported that, in the very first moment, the IT manager did not allow management accountants to choose the software that better fits their needs:

"At the beginning, compromises were also made… in the sense that we did not make the choice of the Business Intelligence system. We were called upon to analyse different Business Intelligence systems, then the choice was made by the IT… so again, some frictions arose…" (Ally, I7)

When Bob was promoted to IT manager by recognizing in the CEO his boss, he started carrying on his work with clear objectives with respect to his identity:

"firstly, the IT function is at the service of the business and therefore it is important to think out of the technology and the technicalities to understand business processes; only in this way, it is possible to succeed in improving business processes using the technology. This is the first important aspect for me. Secondly, it is leadership, so being able to convince others not because you are the boss but because maybe they see that you live the values that we share. The third element is not feeling as if you've made it, but always having the curiosity to go further, to see the different challenges as opportunities" (Bob, I8)

Ally reported that the relationship with the IT function, today, is clear and well defined by describing their relationship as a "synergy":

"Now there is a synergy" (Ally, I2)

"The relationship is good and collaborative. We often work with four hands on the construction of the dashboards. So, we are … I do not tell you that we are a sort of unique office, but there is a strong collaboration and a relationship of mutual help, so we often support each other to convey certain concepts" (Ally, I5)

Ally's perception is confirmed by Bob:

> *"Management accountants analyse the information and from this data they take information out or analyse the information coming from the system to identify the advantages and disadvantages at a given moment. The task of the IT is to facilitate this research and try to understand what the purposes are, share them and then find a solution. With my colleague Ally, we did a lot of work together, we do not always have the same ideas…far from it… but in the end if there is respect, having different ideas means getting richer. So, if I understand what she needs to do, I can identify an appropriate or, even better, I can put her in such conditions to use data without asking me… that is the best"* (Bob, I8)

Nowadays, the management accounting function designs the contents of the information systems, e.g. the BI, and the IT function support Ally's work on technical issues. In this concern, the IT specialists are no longer allowed to make changes within systems without previously asking for Ally's consensus:

> *"the IT department before making a decision to implement a new procedure often asks us what the impacts are [...] so there are a lot of activities in which we come to support them. When they are asked to make changes on systems by others, they previously come to us, to understand if this can then have an impact on information..."* (Ally, I2)

> *"This collaboration has always been improved, has increased, most likely because in recent years we have faced transformation processes that have involved the management accounting area a lot. For example, in the SAP project, the management accounting area is always present.*

So, having dealt with these projects has meant more assiduous and better collaboration" (Bob, I8)

Yet, those operational managers, who perceive the management accountant as a policeman, have tried to find a stratagem to bypass the management accountant's "controls". This stratagem consists of referring to the IT function for the extraction of information. However, Ally knows that certain operational managers have tried to enact an alternative routine. Indeed, she has a "*tacit agreement*" with Bob, according to which IT specialists must communicate to management accountants what requests from operational managers they receive. In doing so, despite the management accountant's aspirational identity of being perceived as an internal consultant is rejected by some operational managers, the IT people reinforce Ally's identity against them:

"For some activities we are almost interchangeable […] There are some invasions of field, in the sense that can happen that a manager instead of coming to us, asks for an information extraction directly to the IT […] sometimes it is done to circumvent constraints (laughs). If I am a manager and I ask for a data extraction to management accountants, and we say "yes… but… look if you use this, be careful that..."; instead, if managers go to the IT function, they do the extraction and then ... (laughs...) they don't ask "what do you need these data for? what do you do with these?" […] And so often this is a way to get around and have the information […] but, here, this is a declared invasion of field, in the sense that they often call us, saying "He asked for this information… Can I give it to him?". It is a

relationship of collaboration. And with the new systems, the fields often intertwine... [...] we cooperate, between us there is this sort of tacit agreement, also because if I notice that they have provided data and those are used somewhere, I get angry..." (Ally, I5)

From a theoretical point of view, operational managers who do not welcome the new routines enacted by the systems recognize IT experts as information providers. In doing so, those managers may nourish the intra-occupational competition among management accountants and IT experts. In this concern, the IT manager, engaged in his identity work, would have been supported by those operational managers if his aspiration were to be recognized as information provider. However, the IT manager decided not to support operational managers' new routine because, from the identity work perspective, it would have situated him in a negative position towards the CEO whose formal identity is fundamental for him. A discussion of the findings follows.

4.5. Discussion and concluding remarks

Findings so far achieved stimulate some reflections. From an identity work perspective, Ally's professional growth is strongly entrenched with her relationship with the IT function and the evolution of IT tools. Particularly, artefacts which contribute to the management accountant's construction of coherent representations of herself are also the "tools of the trade" of another occupational group, namely the IT function. In this concern, the management accountant spontaneously made

sense of herself by entrenching her identity work also with IT systems and the IT function. This intertwining among the management accountant's identity work, IT systems and the IT function can be understood as consequence of the hybridization of the occupational positions within organizations (Caglio, 2003) which enables the fall of specific domains of expertise. Particularly, within Alpha, the management accounting and IT domains have always strongly intermingled because the management accounting function was born as a "spine" of the IT function. Moreover, Ally, the management accountant, has always recognized the great value of IT tools for carrying out her tasks.

At the early stages of her career, the focus of the company was on the production of information and, in this regard, IT experts had the competencies for producing and elaborating large amount of data. Hence, the responsibility over the production of information was of the IT function and the IT manager felt as the "owner" of IT tools. So, Ally's main activities related to the production of accounting information by using the data extracted from the ERP and inputting them on Excel. The strong identity of the IT manager was a source of dissatisfaction for Ally who, in turn, aimed at analysing data, instead of producing them. In those years, several situations highlighted the intra-occupational competition which arose among management accountants and the IT function for the control over information systems.

On the one hand, the IT manager exerted his power over the software selection meetings about accounting software and, then, did not allow management accountants to directly use the software because he felt as the "owner". On the other hand, Ally, tired of engaging in "dirty work", challenged the IT manager's identity work. By bringing to light the need of promptly providing managers with information, as should do an internal consultant, Ally asked the CEO to directly use the system. Moreover, Ally stated that the IT experts were very technical-oriented, to the detriment of promptly providing the right information. This aspect was also raised by Hyvönen *et al*. (2015) who illustrated that IT experts were technology-oriented and lacking in accounting knowledge.

The arrival of the newcomer CEO can be understood as a "breaking point" in terms of organizational routines. The ostensive aspect he developed about how routines concerning the production and communication of information should be performed have implied several changes within Alpha by giving a new identity to management accountants. This result is in line with previous research which highlighted the important role played by the CEO or the CFO in promoting a new management accountant's identity (Goretzki *et al*., 2013; Hyvönen *et al*., 2015; Janin, 2017). Particularly, the CEO only accepted information produced or verified by the management accounting function to overcome that managers produced their own information; in this regard, Ally challenged operational managers' production

of local knowledge by bringing to light what happened (Burns and Vaivio, 2001; Vaivio, 2004) in the industrial side of the company.

In this scenario, the acquisition by a private equity and the idea of entering in the stock market were important conditions which enabled the CEO to support Ally's claims. Firstly, the adoption of a Business Intelligence as the official reporting system of Alpha and, then, the decision of introducing an ERP SAP were key resources for Ally's identity work. Information systems have been helping her to "form, repair, maintain, strengthen or revise" (Sveningsson and Alvesson, 2003, p. 1165) her positioning within the organization. On the one hand, these artefacts support the CEO and Ally' ideas (ostensive aspect of the routine) about how certain routines should be performed (performative aspect of the routine). On the other hand, they challenged operational managers' usual routines: each organizational actor, engaged in his/her own identity work project, may decide to what extent welcome the artefacts and, consequently, review her/his routines or, by contrast, reject the artefact.

Therefore, operational managers, who want to reach their business goals and situate in a rewarding position against the CEO, support Ally's identity work and recognize her as a consultant. Besides, the IT manager established a good relationship with Ally by ensuring that the IT infrastructure works. This allowed him to positively position himself in the CEO's eyes. Thus, there appears that there

is no more competition among them today. Instead, those managers who perceive Ally as a "policeman" try to enact an alternative routine, based on their own idea (ostensive aspect) about how the routine should be performed. In particular they recognize the IT experts as their information providers. In this concern, they may nourish the occupational competition between the two functions, but the IT manager, whose aspirational identity does not relate to positions of information provider, prefer not to support this alternative routine and maintain his positive representation of the self against the CEO.

Thus, it is possible to observe that artefacts, namely IT systems, contributed to the management accountant's identity work. Their characteristics have triggered new organizational routines which, in turn, have established new relationships among organizational actors involved. Management accountants can influence the design and use of those systems in a way that follows their own understandings. Findings achieved confirms that IT tools can be defined quasi-generic artefacts, as proposed in the theoretical analysis (chapter 3). Particularly, empirical evidence has showed that, nowadays, within Alpha, the management accountant can control the content and the flow of IT tools. As an example, the management accountant decides the content and the flow of the Business Intelligence dashboards and, thanks to her panoramic knowledge (Mack and Goretzki, 2017), she adds different and

new information on the dashboards that can be useful for operational managers'
decision-making processes.

However, findings also highlighted that those operational managers who did not
welcome the Business Intelligence, and the routine that it triggers, may refer to the
other information provider: the IT function. In a previous work, Pierce and O'Dea
(2003) found that operational managers may prefer referring to IT specialists if
management accountants lack in IT competencies. By contrast, the analysis
suggests that operational managers recognize IT specialists as information
providers when they perceive management accountants as "policemen". In doing
so, operational managers have the power to trigger the intra-occupational
competition among IT specialists and management accountants if both aim to be
perceived as information providers.

5. CONCLUSIONS OF THE THESIS

5.1. Contribution of the thesis

5.1.1. Implications for research

This thesis contributes to the stream of research regarding the management accountant's identity (Ahrens and Chapman; 2000; Goretzki, Strauss and Weber, 2013; Goretzki and Messner, *in press*; Heinzelmann, 2018; Horton and de Araujo Wanderley, 2018; Järvinen, 2009; Morales and Lambert, 2013; Tailor and Scapens, 2016) and, specifically, the management accountant's identity work (Goretzki and Messner, *in press*; Horton de Araujo Wanderley, 2018; Morales and Lambert, 2013) by exploring the following research questions, which emerged from the literature review carried out in chapter 2:

i) **If and how do the design and use of artefacts contribute to the management accountant's identity work?**

ii) **How do the design and use of artefacts, contributing to the management accountant's identity work, influence organizational routines?**

The theoretical analysis and the empirical investigation presented, respectively, in chapters 3 and 4, have allowed to answer the research questions and to develop the following contributions.

Firstly, the design and use of artefacts contribute to the management accountant's identity work because they give to the management accountant the possibility to present her/himself and entrench her/his values within organizational routines by expressing her/his meanings and logics to the other organizational actors. Particularly, the theoretical analysis suggested that various configurations of artefacts, namely specific, "genuinely" generic and "quasi"-generic, differently contribute to the management accountant's identity work, depending on the characteristics of the artefacts themselves, the development of the design process and the degree of use of the artefacts. In doing so, artefacts pertaining to the management accountant's realm are not "neutral" representations (D'Adderio, 2011) but they are imbued with meanings, logics and values which have the power to influence organizational routines.

Specially, in the theoretical analysis has emerged that the design phase plays a pivotal role for the management accountant's identity project. The constraining way through which specific artefacts, such as financial accounting systems, are designed contributes to the recognition of the management accountant as a "financial and accounting expert", within and beyond the management accounting realm because they allow her/him to show her/his technical accounting knowledge. Particularly, it

has been proposed that if those artefacts allow the management accountant to reach rewarding positions within the function, s/he can be understood as a *primus inter pares*". "Genuinely" generic artefacts, such as the Balanced Scorecard, contribute to the management accountant's identity work because, the enabling idea behind the design process, i.e. the involvement of all actors supposed to work with the artefact, give her/him the chance to present as "business partner" by understanding and supporting other actors' interests. Interestingly, by designing artefacts in a way that also support operational managers' logics, the contribution of these artefacts to the management accountant's identity work is twofold. On the one hand, it allows the management accountant to be perceived as a "business partner" by managers; on the other hand, s/he can maintain the control over the artefact and be perceived as a "reliable reporter" and a "corporate watchdog" by the top management. Finally, quasi-generic artefacts, such as reports, allow the management accountant to subtly gain control over the design of the artefacts, in terms of content and flow. Their main characteristic is the "quasi-participation" of the design process because those artefacts are supposed to be co-designed, but often the presence of some of them is just "formal. Thanks to her/his "panoramic knowledge" (Mack and Goretzki, 2017), the management accountant can subtly suggest something important for him/her, e.g. the introduction of a new indicator in a report, and, in doing so, can also support managers' understanding and identity work.

To sum up the design and use of artefacts, in terms of management accounting tools, support the management accountant's identity work because they allow her/him to express her/his strong accounting knowledge, but also her/his knwoledge of the business and her/his comprehension of managers' business needs.

IT tools, understood as "quasi"-generic artefacts, allow the management accountant to reinforce her/his position within the organization by giving her/him the possibility to be perceived as a reliable gatekeeper. By taking influence on IT artefacts, the management accountant also strengths her/his position over the IT realm by gaining control, as well as power, over artefacts that, supposedly, are specific to the IT occupation.

In this regard, the case study showed that the management accountant, whose main aspiration was being recognized as an internal consultant within the organization, was able to make sense of her/himself also thanks to artefacts pertaining to the IT realm. As examples, at the beginning of the management accountant's career, Excel was a source of dissatisfaction because it provoked "dirty work" whereas she considered the ERP as a management accounting tool because it allowed her to find data for analysing the business. This finding can be understood as a result of the process of hybridization of occupational positions (Caglio, 2003): due the increasingly intermingling among professional expertise, organizational actors construct coherent representations of themselves by also referring to traditional "tools of the trade" of "adjacent" occupational groups

(Cacciatori, 2012). What has emerged from the case study is that, nowadays, the management accountant's identity work is strongly influenced by IT tools. Thus, the empirical case allows to suggest that IT tools not only play a role in enlarging the management accountant's competencies and role towards the IT realm but are also "identity resources" (Beech *et al.*, 2008) for the management accountant's identity work. This raises several consequences in terms of organizational routines.

In this scenario, aiming at investigating the second research question, this work suggests that artefacts supporting the management accountant's identity work deeply influence organizational routines in which many organizational actors are involved. The management accountant's identity work, supported by the design and use of artefacts, is a "relational phenomenon" (Karreman and Alvesson, 2001, p. 65) because many organizational actors, i.e. adjacent occupations, participate in those routines and have the power to accept or reject to use the designed artefacts, if they do not serve their needs and, even, bother their usual patterns of actions.

Thus, the theoretical analysis suggests that, to enable managers' acceptance and use of the artefact, during the design process, management accountant should emphasise local needs, instead of the technicalities of the artefact (e.g. genuinely generic artefacts). Regarding specific artefacts, if the technical knowledge imbued into them is perceived as useless and complicated by operational managers, the management accountant should communicate accounting information in a way that embrace managers' business logics in order to be perceived as business-oriented.

Besides, the analysis contributes to the literature by suggesting that the distinction among artefacts strictly depends on organizational actors' agency. The same artefact can act as a "genuinely" generic artefact in a specific time and situation, whereas as a "quasi"-generic artefact in another one because there can be certain "contingency factors" which guide organizational actors' choices, e.g. the presence of the CEO or the CFO during the design of the artefact or interests to be safeguarded in a specific meeting. This suggests that there can be settings where participants prefer to "symbolically" accept the artefact, even though they do not approve it, because for example they are safeguarding certain other interests. Therefore, it follows that management accountants could experience the materialization of multiple representations of the self through the design and use of artefacts.

In this concern, the case study allows to highlight that the management accountant's relations with the CEO, the IT function and operational managers strongly influenced the management accountant's identity work, in those situations of design and use of artefacts. Particularly, by illustrating the competition which arose between management accountants and IT experts over the control of IT systems, which represented source for the professional identification (Rom and Rohde, 2007) for IT experts and the management accountant as well, the analysis suggests that organizational actors, i.e. operational managers, engaged in their own identity work, may nourish the competition between them, to safeguard their

individual goals. This is because, despite the introduction of IT systems which, as quasi-generic artefacts, influence certain behaviours towards a direction, e.g. avoiding the production of local information, operational managers who feel forced in a routine, try to circumvent the constraints and enact an alternative organizational routine, which better fit for their own goals. Specifically, they continue recognizing IT experts as information providers: this means that, if both IT experts and management accountants aim to be recognized as information providers within organizations, operational managers may subtly fuel the competition between them. Thus, what emerged from the analysis is that IT artefacts are source of identification for both IT staff and management accountants. Besides their contribution to the IT experts' identity work since IT tools are their "tools of the trade", the case organization showed that IT tools strongly play a role in the management accountant's identity work.

Finally, the role of the newcomer CEO is to be highlighted since he can be understood as a "breaking point" in terms of organizational routines by giving a new identity to the management accountant. This result is in line with previous research about the role that the CEO or the CFO can play in promoting a new management accountant's identity (Goretzki *et al*., 2013; Hyvönen *et al*., 2015; Janin, 2017).

By answering the two research questions, the thesis contributes to the literature in the following ways. Firstly, this work adds to the stream of research devoted to the identity work concept. Sveningsson and Alvesson (2003, p. 1164) stated that "the understanding of specific processes and situations of identity construction in and around work and organizations is thus somewhat poor". Particularly, the analysis revolved around the identity work carried out by a specific actor, the management accountant who, due to her/his position between top management and operational managers, struggles for gaining rewarding positions within organizational boundaries. In doing so, the management accountant found in IT tools an identity resource and it provoked the rise of the occupational competition with IT experts. Hence, the thesis also extends our knowledge about the occupational competition among different actors (Burns and Vaivio, 2001; Ezzamel and Burns, 2005) by showing that IT artefacts can be source for the professional identification for both IT experts and management accountants.

Then, this thesis answers to Hartmann and Maas's call (2011, p. 454) for "theoretical progress with regard to both the role of control systems and controllers" by providing a theoretical framework to empirically investigate the contribution of artefacts in the positioning of management accountants within organizations. Particularly, this was done by using Sveningsson and Alvesson's (2003) concept of identity work, Cacciatori's (2012) description of specific and generic artefacts and

Pentland and Feldman's (2008) definition of organizational routines. Then, by using Cacciatori's (2012) definition of generic artefacts, the distinction between "genuinely" generic and "quasi"-generic artefacts was introduced to provide a more detailed understanding about the contribution of artefacts to the management accountant's identity work, at technical as well as social levels. In this regard, the thesis provides insights about the role of artefacts as devices that actors use in their identity work (Bechky, 2003a; 2003b). The thesis also expands Järvenpää (2007) because it illustrates that artefacts not only can symbolize and materialize the accounting culture and values but also can support management accountant's identity work and symbolize individual identities. Particularly, artefacts can be devices able to convey goals and influence organizational routines, within and beyond the management accounting realm.

Finally, this study adds to Quattrone and Hopper (2006) who stated that information systems not only constrain certain behaviours, but also prevent users to do whatever they wish. This study shows that information systems, also in their absence, may challenge certain behaviours by enacting new routines. Particularly, in the case organization, operational managers perceived that the introduction of the ERP SAP would have strongly intertwined their routines with management accounting practices and, thus, they decided to involve management accountants in their meetings even if the ERP SAP is not still in use.

5.1.2. Implications for practice

This work may provide some indications for management accountants who would like to positively present themselves towards the top management and operational managers by following their aspirations, within and beyond the management accounting realm, by means of management accounting tools and IT tools.

Some theoretical propositions that may provide management accountants with a "list" of indications for achieving rewarding positions through the design and use of artefacts have been introduced (see figure 1, p. 88). Depending on their individual inclination towards business-oriented or financial-oriented positions, management accountants may find some levers for both managing responsibilities and creating positive and coherent representations of the self.

Particularly, design processes of artefacts represent fruitful contexts for management accountants. On the one hand, during the design of a tools, management accountants can present themselves to other organizational groups and show their competencies; on the other hand, during these processes, management accountants have the opportunity to understand others' interests and values. A collaborative design process allows to develop artefacts that may encompass different perspectives which, in turn, enhance the possibility of the use of the artefacts themselves.

In this scenario, the expertise needed by the management accountant builds on a strong accounting knowledge. However, that knowledge should be "tailored" on business needs to be effective. To achieve this purpose, management accountants need to be able to translate the accounting knowledge into formats and template that foster operational managers' comprehension.

Moreover, nowadays, management accounting and IT domains of expertise have been increasingly intermingling due to the introduction of integrated information systems. Thus, to reach rewarding positions, management accountants could enlarge their competencies towards the IT field, since it is likely that Excel-based systems will not be soon able to support accounting needs and, even more, compete with the characteristics of accounting software. In this concern, professional associations and universities can have a role in training management accountants in this direction.

5.2. Limitations

This thesis has some limitations. Firstly, the contribution of artefacts to the management accountant's identity work and their influence over organizational routines has been explored. In doing so, it strongly focused on the design and use of artefacts, which involve occupational groups, that are part of the organization. However, due to the diffusion of external systems providers, the analysis does not

take account of the power that consultants from consulting firms (see Qu and Cooper, 2011) can exert over those routines and on the management accountant's identity work.

Secondly, despite the theoretical analysis offers theoretical propositions on how artefacts can contribute to the management accountant's identity work and influence organizational routines, this work does not claim to provide an exhaustive overview of the levers that the management accountant can employ to reach rewarding positions.

Thirdly, since the empirical investigation was aimed at exploring the management accountant's identity work, the focus was on the perspective of the management accountant. This implies that findings are strongly dependent on her point of view. In order to overcome this issue, an interview to the IT manager was conducted. However, deeper investigations are required by also including interviews to the CEO and operational managers in order to embrace their perspectives, enrich our understanding and triangulate findings (Eisenhardt and Graebner, 2007).

5.3. Future research directions

This thesis suggests some future avenues of research.

Regarding the analysis conducted in the third chapter, it provides the ground for empirical studies by suggesting further investigation on how artefacts entrench with the management accountant's identity work and organizational routines. To date, little is known about the contribution of tools to the management accountant's identity work.

Then, the analysis focused on artefacts having an operational role. Yet, the management accountant is also equipped with artefacts that perform a symbolic function, such as certificates which testify their competencies and skills in accounting released by Universities and certificates of participation in workshops and/or gadgets, such as pens and notebook, where logos of associations are clearly visible released by associations and professional bodies. By labelling them "status symbol" artefacts, this work calls for further (theoretical as well as empirical) investigations on the role that these artefacts may play in the management accountant's identity work.

Moreover, aware that the management accountant's identity work is a social phenomenon, further research could strongly explore perceptions of other organizational groups, such as operational managers and IT experts. As competing groups of the management accountant, their interpretation of such phenomenon would enrich our understanding. In this concern, built on third limitation of this

thesis, interviews to the CEO and operational managers of Alpha will be planned in order to collect their perspectives about the phenomenon and enrich our understanding.

Finally, the thesis strongly focused on tools. Further research would enrich the literature by exploring if and how other resources may contribute to the management accountant's identity work and influence organizational routines.

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APPENDICES

Interviews

N.	CODE	HH:MM	ROLE	NAME
1	I1	00:52	Management accountant	Ally
2	I2	01:00	Management accountant	Ally
3	I3	01:15	Management accountant	Ally
4	I4	00:35	Management accountant	Ally
5	I5	00:53	Management accountant	Ally
6	I6	00:49	Management accountant	Ally
7	I7	00:35	Management accountant	Ally
8	I8	00:47	IT manager	Bob

Interviews with the management accountant

1. Describe your educational background and your professional career.
2. Describe your current position, your main tasks and responsibilities.
3. Describe how the management accounting department, in which you work, is organized.
4. Describe a typical work-week: tasks and interactions.
5. Why did you decide to become a management accountant? Are there particular reasons related to this choice?
6. What is your view about the management accountant's role and how would you define your role as a management accountant?
    a. Why do you have that understanding of the management accountant's role?
    b. Has it changed over time or it has been always the same?
        i. In case it has been changing, do you remember why? Have any specific events occur?
7. Do the other management accountants of your company share your view on the management accountant's role?
8. How do you think that the CEO perceives your role?
9. How do you think that the CFO perceives your role?

10. How do you think that managers perceive your role?
    a. Do they share the same perception of your role or do you observe some differences?
    b. From your point of view, how is the widespread understanding about your role among those perceptions?
    c. Is that understanding similar to your or different? If different, do you understand the reason why they develop it?
    d. Do you remember a situation in which you felt that others shared your understanding of the role of the management accountant?
    e. Do you remember a situation in which you felt that others did not share your understanding of the role of the management accountant?
        i. Why did they have another view?
        ii. Did you try to change their views? If yes, what did you do to change their views? If not, why?
11. What are, in your opinion, the central characteristics that define a management accountant?
12. From your point of view, what differentiates a management accountant from an operational manager?
13. From your point of view, what differentiates a management accountant from a HR person?
14. From your point of view, what differentiates a management accountant from an IT person?
15. From your point of view, what differentiates a management accountant from R&D people?
16. From your point of view, what differentiates a management accountant from sales managers?
17. How does your specific way of understanding your role as a management accountant influence your way of working?
18. Do you think that you can act according to your understanding of your role? Or, do you perceive that you must act differently in some situations? If yes, how do you cope with these different representations of yourself?
19. When performing your role, which are the main goals you have in mind that you aim to achieve?
20. Which management accounting tools do you usually use?
21. Which of those tools remain inside the accounting function and which ones do not?
22. To what extent does your own definition of your role within the organization affect how you design tools?

23. Are there any tools you designed by yourself that support and spread your specific idea of the role of the management accountant?
24. Did you ever design by yourself tools that invite other actors to act in a desired way?
25. Do you use strategies or tactics to make managers accept and work with the tool you design? If yes, what kind of those do you use?
26. Are there any tools you co-designed that support your idea of the role of the management accountant?
27. Did you ever experienced situation in which managers support your understanding during the co-designing of specific tools? Why?
28. On the other hand, did you ever experience situation of conflicts when you were co-designing specific tools together with e.g. managers? Why?
29. Do you use strategies or tactics to make managers accept and work with the tool you co- designed? If yes, what kind of those do you use?
30. Can you say that the co-designed tool was tailored on your expectations or is it the output of a series of compromises with other designers?
31. Among the above-mentioned tools, if and why did you experience situations where managers welcomed the tool?
32. Did the tool influence managers' actions? How? Why?
33. If and how did this affect your role as management accountant or others' perceptions of it?
34. Did you ever experience situations where managers did not welcome the tool?
35. Did you try to understand their reasons?
36. How did this rejection influence you as management accountant and others' perceptions of your role?
37. How did you manage the situation? Did you re-design the tool or did you try to convince them that the tool could also help them? if you tried to convince them, how?
38. If re-designed, how did it influence you as management accountant and others' perceptions of your role?
39. Otherwise, if you convinced them, how did it influence you as management accountant and others' perceptions of your role?
40. Did you ever experience situations where managers did not agree with the tool, but accepted it?
41. Do you know why? Did they tell you explicitly or did you understand that?
42. How did you feel in these situations?

43. How did this situation influence you as management accountant and others' perceptions of your role?

Interview with the IT manager

1. Describe your educational background and your professional career.
2. Describe your current position, your main tasks and responsibilities.
3. Describe how the IT department is organized.
4. Describe a typical work-week: tasks and interactions.
5. What are, from your point of view, the central characteristics that define you as an IT person?
6. When performing your role, which are the main goals you have in mind that you aim to achieve?
7. Regarding IT systems, there are different departments within organizations that may be responsible for the management of the IT systems and for the provision of information. In your opinion, what differentiates an IT person from others who provide managers with information?
8. How does your specific way of understanding your role as an IT manager influence your way of working or how you work on different tasks or projects? How does this view affect the way you interact with others?
9. Do the other IT colleagues understand their role differently from you? Why have different IT people developed different understandings? How does their views affect the way they work and interact with others?
10. To what extent do you think that you can act according to your understanding of your role in different situations or in interactions with different people? Or, do you have experienced situations where you could not perform your role in a way that you consider proper? How do you feel in these situations?

Relation with management accountants
11. In which situations or in which contexts do you interact with the management accountants? What are these interactions usually about? From your point of view, if and how has the relationship between IT and management accounting functions changed over time? Why?
12. Have you experienced situations where your responsibilities (of IT and management accounting) have overlapped? How have you dealt with such situations?
13. Do you experience that management accountants deal differently with IT tools compared to you? Why? Which are the consequences of that?
14. How do you think management accountants perceive your role?

15. What is for you the management accountant's role?

Relation with managers
16. In which situations or in which contexts do you interact with operational managers? What are these interactions usually about?
17. From your point of view, if and how has the relationship between the IT staff and operational managers evolved over time?
18. How do you think that other managers perceive your role?

Relation with the CEO
19. Who does the CEO usually contact when he needs information about something? Why? In which situations or in which contexts does the CEO ask you for information? What are your interactions usually about?
20. From your point of view, if and how has the relationship between the IT staff and the CEO evolved over time?
21. How do you think that the CEO perceives your role?