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Performance management system components and the role of the management accountant

Abstract

Purpose

While extant research does mention performance management systems as antecedent to a management accountant's role, and that there is tension between both, there is little detailed research. Thus, this paper investigates the extent to which a performance management system interacts with the role of a management accountant.

Design/methodology/approach

The study is a cross-sectional field study, using interviews with paired management accountants and operative managers in sixteen multinational organisations in Germany. The perspectives of both management accountants and operative managers are analysed separately. The role episode model theoretically informs the study.

Findings

The findings reveal management accountants distinguish various roles, similar to prior literature. In contrast, operating managers are concerned with the (non)value-adding character of activities and support a dichotomy of management accountants' roles. Using the role episode model, the finding elucidate the interplay between performance management systems and roles of management accountants, encompassing role-taking and role-making dynamics. Additionally, this study operationalises the components of a performance management system framework, linking them to the role of management accountants as proposed by role antecedents in previous literature. Factors influencing role-taking and role-making are also revealed as are repercussions of role consensus or conflict.

Originality

An updated role episode model is presented, highlighting further performance management systems' components. The study also reveals factors enabling and/or inhibiting the management accountants' business support role and the impact of role consensus/conflict.

Keywords: Performance Management Systems; management accountants' roles; role episode model.

Performance management system components and the role of the management accountant

1. Introduction

The role of a management accountant (MA) has been widely investigated in both academic and practitioner literature. In a general sense, the term role refers to a social and functional group role in the sense of role theory (see Section 2.3) in the following, i.e. a “comprehensive pattern of behaviour and attitudes” (Turner, 1990, p.87). For an MA, one recurring role in the literature is the role of “strategic business partner” or “business support”, which is often used as a referential role (Granlund and Lukka, 1998; Järvenpää, 2007; Schaeffer and Schuermann, 2010). However, the definition of this role is quite heterogeneous – both across different countries and different business functions. It varies from a dichotomy of roles (Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007; Friedman and Lyne, 1997; Morales and Lambert, 2013; Siegel, 2000) to further role distinctions (Chapman, 1997; Järvenpää, 2009; Kuepper et al., 1990; Lambert and Sponem, 2012). In particular, an MA and an operating manager (OM) do not seem to have the same interpretation of the role of the MA (Byrne and Pierce, 2007).

Despite plentiful research on the role of the MA, the extent to which a performance management system (PMS) interacts with this role has not been widely researched. Ferreira and Otley (2009) with their extended PMS framework did not explicitly refer to the MA as involved. Building on the work of Hopper (1980), Byrne and Pierce (2007) identified a variety of factors which influenced the roles of the MA, noting a PMS as one antecedent, i.e. a cause explain for the role of the MA. However, they did not investigate how and why in detail, which is a key driver of this research. They did not analyse the interdependencies between the role of an MA and a PMS for example. The interdependencies of PMS components and the role of the MA suggest a tension (Byrne and Pierce, 2007; Ferreira and Otley, 2009; Järvenpää, 2007) that MAs consider themselves in a business support role (Byrne and Pierce, 2007; Granlund and Lukka, 1998) but do not appear to play a role in the wider PMS context (Ferreira and Otley, 2009; Henri, 2006). Based on this apparent tension, the core research objective of this paper draws on Parker (2012) who explicitly states that performance management remains an area of continuing importance. However, “[...] questions of [how the] organisational control systems, management accounting and performance measurement and management interact, remain outstanding” (Parker, 2012, p. 66).

Thus, this paper has an overall objective of determining how a PMS interacts with the role of an MA. To analyse the interdependencies, and operationalise the objective, four research sub-questions (rSQ) are posed – thereof the first two being contextual:

- rSQ1 What are the perceived roles of the MA?
- rSQ2 What are the perceived key components of a contemporary PMS?
- rSQ3 How do the components of a PMS interact with the role of the MA?

- rSQ4 What are the influential factors in the interdependencies between a PMS and the role of the MA?

These rSQ are further detailed and explained in Section 3.1. Based on them, this study aims to contribute to the literature in two ways. First, research on PMS and its components – see Ferreira and Otley (2009) – asks for further operationalisation approaches which is targeted by rSQ2. Second, drawing on Parker (2012, p.66), who claimed that the dependencies between organisational control systems, management accounting and performance management need more investigation, this study – as is operationalised by rSQ3 and rSQ4 and supported by the role episode model (Katz and Kahn, 1978) – contributes to this prior call for research.

To address the study's objective, data was collected by means of a cross-sectional field study, conceptualising PMS components as a surrounding factor and drawing on Katz and Kahn's (1978) role episode model. Data was collected and analysed based on 32 interviews with 16 MAs and 16 OMs working as dyads in multinational companies. The paper offers an updated role episode model (see Section 4), providing nuanced insights into the interdependencies of PMS components with the role of the MA. This study also applies, supports and adds to the role episode model as used in management accounting research by qualitatively investigating and developing new aspects from this context.

The remainder of the paper is organised as follows. The next section provides a review of literature on the roles of the MA, performance management systems and role theory. This is followed in Section 3 by the research framework and the methods used for this study. Section 4 analyses and discusses the empirical findings. The final section reflects on the contributions offered by this paper, as well as setting out the study limitations and some avenues for future research.

2. Literature review

This section first provides a brief overview of extant literature of roles of the MA and PMS. This sets the context for this paper, and it is not intended as an extensive review. Then, literature on role theory in general, and its use in studies of MA roles is outlined.

2.1 Roles of the MA

Even though analysis of a MA role has increased over time, definitions remain heterogeneous. While a multitude of roles and synonyms can be noted (Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007; Chapman, 1997; Friedman and Lyne, 1997; Järvenpää, 2009; Kuepper et al., 1990; Lambert and Sponem, 2012; Morales and Lambert, 2013; Siegel, 2000), this study focuses

on three main concepts of an MA's role as per Järvenpää (2007) – namely scorekeeper, controller and business support. .

Järvenpää (2007) defined scorekeeping as gathering and registering data/information and the preparation and dissemination of routine reports. The main role of the scorekeeping MA is to evaluate the information needs of information recipients (mainly managers) and to attain user-friendly data transfer and processing. Another synonym of the scorekeeping role of the MA is the discrete role described by Lambert and Sponem (2012), although they suggest this role can be marginalised by other functions. The controlling role of the MA comprises producing and using surveillance mechanisms, producing control information and looking after managers. This role is similar to the decision support and the coordination-based role summarised by Guenther (2013). The MA's role in this instance is mostly seen as an influencer, partner, guide, recommender or referee and not as a decision-maker (Byrne and Pierce, 2007). As will be revealed later, the decision support function is a very essential role for the decision-maker (Sprinkle, 2003) or, in this study, an OM. The business support role comprises managerially active duties such as being an advisor and participating in the management activities (Järvenpää, 2007). Järvenpää (2007) concluded that this role shift in management accounting implied a transition from being oriented around number-crunching and maintaining the overall function of the accounting systems, to an increasingly business-oriented role. Another function of this role is that MAs support management in the function of promoting “economic awareness” and to restrain managers in their activities, if necessary.

A synonym of the business support function is the role of a business partner. It stresses a more collaborative, forward-looking, and strategic orientation (Granlund and Lukka, 1998). Byrne and Pierce (2007) described the role of a business partner as acting as a guide or support to senior management decision-making which typically involved preparing financial analyses. They found that the business partner role of the MA was still ambiguous for both the MA themselves as well as for the OM. Their findings suggested that a combined control and partnership role is most common, supporting Granlund and Lukka's (1998) findings of enlarging roles and the notion of hybrid roles (Burns and Baldvinsdottir, 2005). These hybrid roles require a strength of character and can be referred to as “strong” controllers (Sathe, 1983) and thus tensions can emerge due to role conflicts between MAs and managers about the degree of business involvement (Byrne and Pierce, 2007). Lambert and Sponem (2012, p. 579) also called this role the partner function. The MA as a partner holds authority and serves mainly local management, but also investors and head office. For the MA to partner with an OM, knowledge must be shared between both groups and operative activities need to be understandable. MAs generally enjoy being integrated into the action, as this is not frequently the case working in a support function. However, the partner role can also lead to a drift of governance with the risk of losing internal control (Lambert and Sponem, 2012). According to Guenther (2013), the business support role of the MA integrates the other roles discussed previously and can be considered as the most

comprehensive role. Other research considered roles being exclusive (Maas and Matějka, 2009) rather than complementary (Chang et al., 2014).

Finally, given the Germanic context of the research (see Section 3.2), some brief comment of MA roles in this context is useful. The controlling role presented by Järvenpää (2007) is more frequently described as the coordination-based approach as per Horváth (1978), as augmented by Horváth (2011). Within this role, a limited and comprehensive coordination approach can be distinguished. The limited coordination role (see Horváth, 2011) includes the coordination of planning, monitoring and information support and is limited in that it does not include interfaces within the management control framework. Schmidt (1986) and Kuepper et al. (2013) expand the limited coordination approach to include the coordination of the entire management system itself to assure target-oriented management control of the company. Consequently, this approach also includes the establishment of adequate organisational structures and the design of targets and incentive systems (Guenther, 2013). The coordination-oriented role is often criticised for its describing instead of explaining character. Here however, the focus of the study remains on the MA roles as captured in the literature noted above.

2.2. Management control, PMS and the role of the MA.

During the 1980s, management scholars argued for a shift in focus from MCS based on financial aspects towards performance measures based on drivers of long-term success (Peters and Waterman, 1982). An agreed definition of the term *performance* proved difficult for management control scholars. Simons (1995, p. 5) asserted that performance measurement and control systems are “formal, information-based routines and procedures managers use to maintain or alter patterns in organisational activities”. In this sense, scholars developed components to distinguish between different performance measures and performance measurement systems, such as at a local and global level (Clivillé et al., 2007). Performance measures facilitate decision-making, either to choose or start actions for improvement or to adjust objectives; whereas performance measurement systems are a multi-criteria framework consisting of performance measures supporting the objectives of the organisation. In this context, the Balanced Scorecard (BSC) of Kaplan and Norton (1992) extended the meaning of performance measurement, representing it as “a comprehensive framework that can translate a company’s vision and strategy into a coherent and linked set of performance measures” (Kaplan and Norton, 1996, p. 55). Others such as Tuomela (2005) also acknowledged the need for a balanced approach in performance measurement systems, defining them as “collections of financial and/or non-financial performance indicators that managers use to evaluate their own or their unit’s performance or the performance of their subordinates” (Tuomela, 2005, p. 297).

There is a link between performance measurement and performance management. Some definitions attempt to clarify the difference between performance measurement systems and PMS,

although research on the former is more comprehensive (Broadbent and Laughlin, 2009). In the management control literature, “PMS are concerned with defining, controlling and managing both the achievement of outcomes or ends as well as the means used to achieve these results at a societal and organisational, rather than individual, level” (Broadbent and Laughlin, 2009, p. 283). Other definitions are given by Otley (1999, p. 367), who defines a PMS as “a major mechanism that can be used to make explicit the set of means-end relationships that the organisation has developed as the methods it will use to implement its strategic intent”. In a later work, Otley (2001, p. 250) stated that a PMS “provides an umbrella under which we can study the more formal processes that organisations use in attempting to implement their strategic intent, and to adapt to the circumstances in which they have to operate”. Ittner et al. (2003) discussed strategic performance measurement systems that (1) provide information for firms to identify strategies to achieve the firm’s objectives, and (2) align management processes with the achievement of the chosen strategic objectives. In this study, performance management is chosen instead of performance measurement, as it promises to build a more comprehensive framework of management control mechanisms. Thus, this research utilises a developed definition of a PMS given by Ferreira and Otley (2009, p. 264), where a PMS represents “the evolving formal and informal mechanisms, processes, systems, and networks used by organisations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organisational learning and change”. Ferreira and Otley (2009) also name 12 PMS components, which are not elaborated on here. The first eight (mission and vision, key success factors, structure, strategies and plans, key performance measures, target setting, performance evaluation and reward systems) are typically referred to as core components, with the final four (information flows/systems/networks, PMS use, PMS change and strength and coherence) referred to as second level components. The latter constitute a second level because they “pervade the whole PMS and have been explicitly included to help provide a more holistic perspective” (Ferreira and Otley 2009, p.277). The component information flow has been considered as “enabling mechanism” by Ferreira and Otley (2009) themselves. Within this qualitative study, all four second level components, when considered as pervasive elements, tend to function as enabling mechanisms facilitating the overall process (see Section 4.1). The third level components are context and culture, but are not focused on in this study (see limitations in Section 5).

Euske et al. (2011) noted outstanding topics within the management control literature, including some management accounting topics. Parker (2012, p. 66) stated that “[...] questions of [how the] organisational control systems, management accounting and performance measurement and management interact, remain outstanding” and this includes “the identity and role of the management accountant”. He also acknowledged that performance management remains an area of continuing importance. Also, having observed the scope for greater involvement of the MA in business processes, Chenhall and Langfield-Smith (1998, p. 383) called

for more research on “ensuring effective interaction between operational personnel and accountants” while Schleicher et al. (2018) stipulated further research on the examination of interdependencies between the individuals with multiple roles in the PMS and the examination of multiple PMS components. More recently, Pfister et al. (2022) provided a detailed framework to support the creation of theoretical explanations in performance management research. While extensive, it does not directly address the roles of an MA and interdependencies with a PMS.

In the context of the calls above and the apparent lack of research, Byrne and Pierce (2007) are two of the few authors who partly linked both strands of literature. Their study identified a comprehensive set of antecedents and components with respect to the roles of MA and explored the consequences of how these roles are discharged. According to Byrne and Pierce (2007), the roles of the MA are perceived by both the MA and OM as being influenced by performance management systems. These systems operate on an individual level (personal goals and objectives) and on an organisational level (annual budget and forecasting processes). The role itself can be explained based on role theory (see next section). However, they identify performance management as only one antecedent among others and do not investigate the comprehensive question of how and why PMS interact with the role of the MA in more detail – which is the focus of the present study (see Section 1).

2.3 Role theory

Katz and Kahn’s (1978) role episode model is used to understand how PMS components may be interdependent with the role of the MA. While this will be elaborated later, here the role episode model and prior literature on management accounting and PMS using it are briefly outlined.

The role episode model consists of a complete cycle of role-sending, response by the focal person/role and the effects of this response on the role senders (Kahn et al., 1964, p. 26). As role expectations are communicated (or sent) to the person (here the MA), Kahn and his colleagues refer to such expectations as the sent role and the person transmitting the role expectations as the role sender. The cycle begins with a set of role expectations (e.g., of a managerial position), held by role senders (e.g., an OM) about a focal role (e.g., an MA) and associated behaviours of the focal role. Katz and Kahn (1978, pp. 190–192) use the term focal person or focal role for any person who is exposed to role senders’ expectations. These expectations are based on perceptual (how a role is perceived), cognitive (how a role should be performed) and evaluative components (how well a role is performed) (Kahn et al., 1964), as well as the role sender’s own perceptions of the focal role. Organisational factors (e.g. size, products, authority levels, financial security per Kahn et al., 1964, p. 31) may influence role expectations. In a general sense, role expectations can be defined as “beliefs concerning the qualities, behaviours, and characteristics suitable to a specific role” (Sam, 2013). Thus, for example, an MA may have a perception of having a bean counter

role, or cognitively conceive an MA as focussing only on financial aspects of decisions or organisational issues.

Sent roles involve communications sent to influence the focal role, embodying both expectations and perceptions. Given expectations and perceptions may vary across individuals, a sent role may be perceived differently (Katz and Kahn, 1978). Then, role behaviour corresponds to the response of the focal role, considering influencing factors such as the objective (as opposed to psychological) environment (Kahn et al., 1964, p. 12), role clarity or pressures and perceptions from the role sender. Any subsequent role sending depends on the evaluation of the response, and then a new role episode starts. Role-taking and role-making are further terms associated with sent roles. Role-taking signifies that the focal person takes the expected role of the role sender. Successful role-taking depends on the accuracy of attributed role expectations. That is, the role-taker assumes that others hold expectations that “map the thoughts and actions of other persons” (Biddle, 1986, p. 84). Role-making can be described as an option where the occupant of a focal role can choose with respect to methods, activities and style to elaborate the role (Katz and Kahn, 1978). Given the many variables in any one role episode, role dissent can occur. Generally, overall there is only a degree of role *consensus*, as dissent or consensus are end points on a scale. Thus, role conflict can occur. Katz and Kahn (1978, p. 204) define role conflict “as the simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult”. Briefly here, role conflict can occur for many reasons e.g. when a person holds a position in different organisational systems which cannot be easily combined, when a role sender has contradictory claims or where the focal person cannot cope with a multitude of tasks and expectations in the available time with the required quality (see Katz and Kahn (1978) for more detail).

Managers’ role stress has been revealed to be a central topic of several management accounting studies built on role theory (Abernethy and Stoelwinder, 1995; Decoster and Fertakis, 1968; Dunk, 1993; Hirst, 1981; Hopwood, 1972; Otley, 1978; Ross, 1994). Apart from role stress, some studies have used role theory in a more holistic way (Collins, 1982; Jönsson, 1998; Marginson and Ogden, 2005; Marginson, 2006). According to Collins (1982), for example, it has been applied as a platform to elaborate on the relative importance of MCS in clarifying job requirements and prescribing normative role behaviours in organisations. Other studies have adopted role theory to the work of financial accountants, auditors, and management accountants (Byrne and Pierce, 2007; Byrne and Pierce, 2018; Hopper, 1980; Maas and Matějka, 2009; Rebele and Michaels, 1990; Senatra, 1980). A comprehensive and relevant study of antecedents, characteristics, and consequences of the roles of the MA is provided by Byrne and Pierce (2007). They, drawing on role theory and the role episode model, consider OMs as role senders who communicate their role expectations toward MAs. Some managers are reported to be comfortable with a narrower management accounting role which mainly focuses on information provision, while others expect the MA to occupy a broader partnering role which includes participation in

decision-making. Additionally, Byrne and Pierce's (2007) findings illustrate that an MA is an important driver in the design of their own roles. The work of Byrne and Pierce (2007) thus helps to understand the interdependencies of perceived roles, normative role expectations, role-taking and role-making and actual role behaviours. The research here similarly studied roles of the MA and interdependencies with an OM and based this analysis on the role episode model.

3. Research framework and methods

3.1 Research framework

The theoretical approach of the role episode model is supported by a constructive ontology (Crotty, 2015) and interpretive epistemology (Bryman, 2016; Creswell, 2014; Saunders et al., 2009). That is, interaction is a socially constructed phenomenon between role senders and receivers – here, an OM and an MA respectively. Similarly, the organisational factors (context), personal attributes and interpersonal factors in Katz and Kahn's (1978) role episode model are interpreted relative to actors. Thus, for this study, an interpretive paradigm supports the qualitative methodology leaning on the role episode model to investigate the how and why of the interdependencies of PMS components with the role of the MA.

In the present study's context, role change can be caused by two parties. First, change can arise via the role set who act on the identity of the MA. According to Merton (1957, p.110), a role set is a “complement of role-relationships in which persons are involved by virtue of occupying a particular social status” (Merton, 1957, p. 110). A role set is not the same “multiple roles” which refer to various social statuses in which individuals find themselves (Merton, 1957, p. 111). A role set in an organisation typically includes supervisor(s), subordinates and various members of the same or other departments with whom the focal person ought to work together (Katz and Kahn, 1978, p. 189). Second, the MA themselves can change their role according to their perception of their identity. The role episode model provides a considerable explanatory power by taking external factors as well as human behaviour into consideration – it thus, for example, captures concepts such as embedded agency (Hiebl, 2018). Generally, too, the present authors suggest that the application of the role episode model to management accounting has further potential, as it is not (yet) frequently applied in qualitative management accounting research.

The research framework here, based on the role episode model, is represented in Figure 1. As mentioned in Section 2.3, the role episode model is a cycle beginning with a set of role expectations, held by role senders about a focal role – the expected role as sent by an OM to the MA, arrow 1 in Figure 1. These expectations are based on perceptual, cognitive, and evaluative components (Kahn et al., 1964), as well as the role sender's own perceptions of the focal role (here, that of the MA). Thus, an OM could expect the MA to be a bean counter and only consider expectations and perceptions of this bookkeeping-oriented role. Then, role behaviour of the MA

primarily constitutes a response to this role expectation (arrow 2, Figure 1), considering influencing factors such as the objective environment (e.g. training, studies, prior experience), role clarity or pressures and perceptions from the role sender (i.e. the OM). Interpersonal factors between the MA and the OM as well as personal attributes of the MA may also come into play. This first circuit is called role episode and may generate further role episodes as a response. This role episode model has been applied in prior management accounting literature (e.g. Byrne and Pierce, 2007; Hall, 2008; Maas and Matějka, 2009). Here, the base model (Figure 1) was developed based on Byrne and Pierce (2007) and the original role episode model. The labels “PMS components” (based on Ferreira and Otley, 2009) and dotted arrows (arrows 3 and 4) are new elements added here, depicting the potential impact of the PMS components on the role of the MA. The core actors of the role episode model are represented by the boxes with the OM (role sender) and MA (focal person), linked by arrow 1. Role expectations are standards the role sender (the OM) applies to the behaviour of the focal role (the MA role). Based on these role expectations, sent roles consist of communications sent by members of the role set, here the OM (arrow 1) – although these expectations may not be expressed explicitly. The concept of the received role comprises the MA’s perception of the role-sending, the auto-expectation of the MA and further inputs. Role behaviour corresponds to the response of the MA. These concepts are influenced by motivations, cognitions and behaviour of the OM and of the MA (Katz and Kahn, 1978, p. 195). Being cyclic, a feedback loop follows from the MA to the OM (arrow 2).

[insert Figure 1 about here]

The links between the research framework and the rSQs are now detailed. To begin, rSQ1 and rSQ2 are contextual questions, necessary for a comprehensive understanding among the study participants. RSQ2 was posed to find hints where to place the PMS components in the role episode. Furthermore, the PMS components operationalised by rSQ2 feed into rSQ3. Potential role-taking (starting at arrow 1) or role-making (starting at arrow 2) mechanisms can potentially be relevant for rSQ1 but also for other rSQs. Arrows 3 and 4 then represent two potential interdependencies of PMS components with the role of the MA (rSQ3). Influential factors (organisational factors, interpersonal factors, and attributes of the person) are within rSQ4 and are potentially expanded by this research – as the relationship between the PMS components and the role of the MA are relatively unknown (Parker, 2012) – the role episode model can help determine and understand such interdependencies. The PMS components might interact with the role sender (OM, arrow 3), organisational factors, the MA etc. On the other hand, the role of the MA might interact with the PMS components in a feedback loop (arrow 4). Thus, in the present authors’ view, the role episode model serves as a useful overall research framework for this paper’s objective.

3.2 Research Methods

For data collection and analysis, a cross-sectional field study with a qualitative focus was adopted. To structure the empirical data analysis, a case study analysis was considered most appropriate. Case study research is particularly useful in answering “how” and “why” questions (Yin, 2018), and is thus in line with the overall research objective (Section 1). Consequently, the nature of underlying evidence needed to answer the research objective determines the method (Creswell, 2007). The “what” or contextual rSQ (rSQ1 and rSQ2) are of a descriptive nature and could be answered by a variety of methods. The two main “how” and “why” rSQ (rSQ3 and rSQ4) and the overall research objective clearly favour the use of a case study design for data analysis. A cross sectional field study method was used (see Byrne and Pierce, 2007, who followed Lillis and Mundy, 2005) as it is considered more robust in terms of case research findings (Yin, 2018). In this study, each unit of analysis, and thus each case, is defined as two sets of occupational groups/functions, namely sets of MAs and OMs who work together as dyads. Similar to Anthony (1988) and Lambert and Sponem (2012), the MA function or set of MAs is chosen rather than the individual. This is in line with role theory where a role set is typically analysed (Katz and Kahn, 1978).

When comparing the methodology applied by Byrne and Pierce (2007) to this study, several similarities and differences emerge. Both studies utilise OMs and MAs as distinct groups and employ cross-sectional field study designs. Additionally, both studies allocate similar durations for interviews, with each session lasting approximately one hour. Also the number of companies is comparable (16 dyads in this study vs. 16 companies). In contrast, this study introduces several new elements. It focuses on German multinationals rather than Irish companies, explicitly pairing MAs with OMs. Furthermore, it extends its scope beyond the manufacturing sector to include other industries and incorporates concept maps as a form of triangulation. Further points of divergence include the exclusive adoption of a role theory perspective in this study, omitting the exploration of contingency theory. Additionally, the study concentrates solely on a singular antecedent of the role of management accountants, namely a PMS.

Primary data was collected using semi-structured interviews, following interview guide steps recommended by Helfferich (2009). Parallel to the interviews, the interview content was complemented by triangulation to ensure that conclusions drawn showed a comprehensive view of the interdependencies between the MA and the OM. Triangulation was considered necessary due to the short time available with the interviewees and thus addressed using concept maps (Groeben, 2002; Helfferich, 2009). A visual representation as methodical triangulation was considered useful as most interviewees were managers and used to graphical representations. As separate meetings with the interviewees for the discussion of concept maps were unlikely, the present authors developed a concept map visualisation format for the end of the interview to sum up and visualise the discussions (Wheeldon and Faubert, 2009). Interviewees themselves

visualised the interdependencies between the OM, the MA, and the components of a PMS with arrows on a sheet of paper (Bruesch and Quinn, 2022).

The volume of primary data collection for any study depends on the level of data saturation. Guest et al. (2006) propose that 12 in-depth interviews should suffice for research, where the target is to explain a shared perception or belief within a homogeneous group (here an occupational group). For this study, a group of 16 organisations from different sectors was derived, resulting in 32 interviewees (i.e., 16 MAs and 16 OMs being interviewed separately but working daily together as dyads). The list of interviewees is represented in Table 1 below. On realising after approximately eight interviews within the manufacturing sector that themes were being repeated, a focus was set on other sectors in the second recruitment wave of interviews.

[insert Table 1 about here]

The interviews were conducted between October 2016 and early 2019. The length of the interviews ranged from 37 to 117 minutes, the average length being 64 minutes, giving a total of approximately 35 hours. For accessibility reasons, multinational organisations in Germany were chosen and interviews were on-site, except for four interviews held by remote means. All but one of the interviews were audio-taped and transcribed. For the non-audio-taped interview notes were taken and summarised directly after the interview. The interviews were transcribed and subsequently analysed with the help of QSR Nvivo software. Short interview memos and field notes additionally described the setting of the interview and further observations by the researcher. Data analysis with QSR Nvivo and Excel followed the process recommended by Creswell (2014) and was an iterative process going back and forth between the data, first revolving themes identified, then to the literature and to the role episode model. Based on this data analysis process, within-case and cross-case analysis was performed subsequently. In addition, as noted above, concept maps were used at the end of the interview to visualise the interdependencies from another perspective and allow for data triangulation (Bruesch and Quinn, 2022). These concept maps were particularly helpful in the iterative process of going back and forth in the data by visualising the interdependencies from the point of view of the interviewee and the researchers (Bruesch and Quinn, 2022). The results of the data analysis are discussed next.

4. Results and discussion of how PMS components influence the role of the MA

The following sections first analyse the four rSQs based on a within-case analysis, teasing out common themes and topics within the two occupational groups i.e. MAs and OMs. This is followed by a cross-case analysis, which reviews data inter-organisationally. In this latter section, the researchers avoid repetition and report on differences and exceptions. As noted in Section 3.2 this typical case study approach provides a helpful structure for data analysis within a cross-sectional field study.

4.1 Within-case analysis

Concerning the role perceptions of the MA (rSQ1), a set of patterns and themes for each of the three functions of the MA based on the structure of Järvenpää (2007) can be identified for MAs. The OMs however rather follow a dichotomy view (bean counter vs. business partner, see Section 2.1) of the role of the MA. With regard to key components of a PMS (rSQ2), the main patterns and themes based on Ferreira and Otley's (2009) model can be complemented further with more contemporary aspects by both MAs and OMs. Relating to the other two rSQs and the interdependencies of components of a PMS with the role of the MA (rSQ3), Figure 2 develops the most salient findings and is the focus of this section. Influential factors for this interdependency are also detailed (rSQ4).

[insert Figure 2 about here]

To condense the analysis, the following interdependencies between components of PMS and the role of the MA are taken from the analysis of the case group of MAs. First, the role episode starts when the OM has a role expectation and sends a role to the MA, who receives it and translates it into role behaviour (Figure 2, arrow 1a). This is the role-taking process which is also observed in the empirical data below. According to some MAs, this process might concern issues about target setting or target break-down (MA5), to PMS design or PMS implementation (MA9), to KPIs (MA3), to strategy (MA12) or to exchange on commercial decisions (MA11,12). Interestingly, the examples given concern primarily expectations about the controlling and business support function and less to the scorekeeping function. Focussing on the process, this is illustrated from an MA's point of view in the following quote:

Generally, our sales department is very chaotic and they think about so many things how to gain money [...]. and we are [...] then aligning the people and define clear processes which structure the whole company. [...] What I wanted to describe is that in my view the MA is the one who is responsible for such a PMS, who places and edits the requirements of the management, of the OM. (MA11)

In parallel, or alternatively at any stage later in the role episode, the OM may directly influence the components of the PMS (Figure 2, arrow 1b) or feedback to the PMS. This input into the PMS may directly concern different components such as target setting, reward systems or general requirements. This input is illuminated by the following quote:

And then feedback is necessary from the OM to the target system to stay realistic. Otherwise we end up with fairy tales. (MA1)

Second, the MA could give feedback to the OM on the one hand (Figure 2, arrow 2a), and to the components of the PMS on the other (Figure 2, arrow 2b). Arrows 2a and 2b of Figure 2 can

run parallel, in a sequence or as alternatives. The feedback of the MA to the OM (Figure 2, arrow 2a) can be activities directly referring to the role or beyond. This part can be attributed to the role-making process and is also found in the empirical data. The feedback here includes strategy and ongoing management, measures and efficiency evaluation, requests on the development of reporting KPIs, result discussion, discussion of measures for target achievement, coordination of operative planning etc. This is illustrated by the following quote:

If we are not on budget for a key account, the target is to check with the sales director how we can get back on track. So how can we generate additional volumes if volumes are missing. (MA13)

The following quotes illustrate direct feedback of the MA into the PMS (Figure 2, arrow 2b). This feedback may concern the 12 key components as given by Ferreira and Otley (2009) keeping in mind the “means-end relationships” (Otley, 1999, p. 367). First, is the feedback to core components e.g., strategies and plans, key performance measures, target setting and performance evaluation (see also Section 2.2):

We were discussing that the MA is very important for the topic target definition: what exactly do you want to achieve with it? What would be the right indicator? What is calculable, what not? [...] He would do the calculation [...] And in the sense of control, what are the measures that we deduce. (MA8)

So, this concerns the more long-term-oriented financial goals that we support here from finance together with HQ and where we deliver the input to fix the strategy [...]. (MA13)

Second, feedback into the second level components (see Section 2.2) of a PMS – e.g., PMS change and information flow – is captured in the following quotes:

This is what I would consider an ideal or a vision [...]: [the MA] indicates the need for change. (MA4)

And if you do not communicate that constantly and try to change it in the heads: this switch, that euros pay our salary and not tonnage [...]. By discussing it in reviews [...] you can show the people [...] what is more important for the organisation. (MA13)

Before looking at the next steps, the impact of organisational factors should be analysed. Based on the interview data of MAs, potential reorganisation of the structure, age of the organisation, economic situation, variety of sectors, strength of hierarchies and alignment of

steering structure with reporting structure comprise the main organisational factors. Particularly, age of the organisation and strong hierarchies are illustrated by the following quotes:

It is a little difficult because you intervene in a structure which is 40 years old.
(MA12)

But we were not capable yet as we were so split, and everybody had their small empire. (MA15)

Thus, organisational factors have an overall impact on the updated role episode model and are part of the influential factors as depicted in Figure 2, to the left. The representation of organisational factors with two boxes is deliberate, as the white inner box represents the initial position of the organisational factors according to the Katz and Kahn (1978) role episode model (see Section 2.3). The outer grey box represents the PMS components as per Ferreira and Otley (2009) where organisational factors can be considered as one of the components of their framework (see Section 2.2) – here integrating into one framework.

Third, the components of the PMS may have influenced the OM (Figure 2, arrow 3a). Both core and second level components (see Section 2.2) of the PMS can be a source of interdependency. The following quotes illustrate the core components as reward systems, target setting and performance evaluation as a such a source:

The problem was that sales focused too much on volumes. And this meant that there was zero result responsibility by the sales department. [...] Currently sales are more involved in result responsibility through this system and we feel an improvement because they are directly measured with incentives based on the result of this system.
(MA2)

And when it comes to deduce operative issues from this PMS [...] then I consider it as a task of [...] the OM to break them down on a doing level. (MA9)

The above three core components appear key in this study – this does not imply the other components given by Ferreira and Otley (2009) are invalid. The findings also illustrate second level components as a source of interdependency, developing an “enabling” character. Particularly strength and coherence, information flows and PMS change were mentioned by the MAs. This is represented by the following quote:

If something went wrong, we see it based on the indicator. And if something was good, we also see it based on the indicator. And through the daily scheduled shop-

floor discussions [...] the employees learn [...] which measure makes them advance [...] and which are not so efficient. (MA5)

Alternatively, running parallel or in sequence, the components of the PMS may directly impact on the role of the MA (Figure 2, arrow 3b). Again, both core and second level components of the PMS can be a source of interdependency. The following example illustrates the core components where performance evaluation, strategies and plans and key performance measures can be a source of interdependency:

For me, if this here [the manual reporting] is omitted, the MA has much more time to use the MIS and to check: are we on track? Does the strategy fit? Where do we need to assess [...] measures? (MA3)

On the other hand, the findings for the MA role also illustrate second level components of a PMS as a source of interdependency. This concerns the pervading components such as information flows, organisational factors or strength and coherence of the PMS which is partly illustrated by the following examples:

It changed in terms of steering the business more operationally with a set of available organisational meetings [...] where the MA is represented. [...] Before the MA was the killjoy because he criticised budgets or because he did not approve investments because of payback periods etc. We have a much stronger outcome orientation now. (MA4)

Today I strongly work on the topic big data, we generate 20% of our business online. There is a lot of data to analyse. I also work a lot with logistics. (MA10)

Particularly interesting is the re-categorisation of organisational factors from a core component as per Ferreira and Otley (2009) to a second level component (as per this study). This different categorisation is based on the idea of rather being a surrounding factor pervading the performance management system and its interdependencies rather than constituting its core structure (see Section 2.2). Essentially, these pervading components can be considered as enabling or inhibiting components which - in the case of the enabling impact - remove obstacles or barriers, empowering the overall system or process to operate more efficiently and successfully. The above mainly describes the first round of the role episode. It runs in a loop and takes some time to be effective on the MA focal role. Also, the acceptance of the PMS in the iterating role episode may take some time. This overall process is shown by the following quotes:

It was not a process which happened over night, but it took some time. It actually took a few years until the sales colleagues internalised it [the result orientation]. (MA2)

At the beginning we were not highly welcome because we slightly stepped on the toes of the people [...]. After a few months it changed. They suddenly asked for reasons why we had to cancel a meeting [...]. (MA12)

The order of the above-described arrows is the order of the classical role episode – Figure 2, arrows 1a, 2a and 3a. Alternatively, the order can change and may, for example, also start with an impetus coming from the MA (i.e. active role-making). Most of the modifications suggested by the MA were with the role episode starting at Figure 2, arrow 2b. Also, the further overall order may change slightly. These changes are illustrated by the following quotes by way of example:

What directly comes to my mind is the [...] manually established [...] comparison: result of a customer order or customer project with regard to a long-term goal direction. [...] And since we have this closed system and we discuss it regularly there is a new bindingness in this topic. [...]. And this was an internal impetus. We did of course not manage to introduce it overnight. [...] With this decision I know the impact for my future. (MA4) [Figure 2, arrow 2b as a starting point]

Now there are two cases: either it is within the defined conditions or it is out of range. Within the conditions it runs through, this means within target price [...]. Then there is no interaction with me, but the interaction is with the system. The interaction with me starts if the target price is [below planning ...]. Then there is a request. (MA6) [Figure 2, starting with 1b and following with 3a, then taking up 1a etc.]

There were also three MAs who considered the role episode – arrows 1a, 2a and 3a – between the OM and the MA as basic interdependency. According to their view, the PMS components frame the interdependency. The following quotes illustrate this view:

We as an MA [...] are part of the target definition and operative support [...] and are in permanent exchange with the OM. [And the PMS is] the permanent status exchange. (MA2)

This would be my picture. [...] In the middle I have the components of a PMS and everybody agreed on [that]. And then OM and MA around. [...] This is the specification [PMS] and they [OM, MA] buzz around this specification. And for the daily exchange it is an exchange on equal terms. (MA7)

The sales target is given, the strategy is given. You just have to make it happen. [...] You will do this [work] where these two [OM, MA] are involved. [...] They are peers. (MA16)

Interestingly, concept maps (see Section 3.2) developed at the end of the interview permitted further analysis for elements of the interdependencies described above which were only partly mentioned during the interviews. From an MA's point of view, the impact of further stakeholders (e.g., headquarters (HQ), the board of management (BoM), the CFO, the supervisory board¹ etc.) were revealed as additional influential factors. These stakeholders can be considered as additional role senders and thus situated parallel to the OM. Figure 2 portrays these additional stakeholders in the updated role episode model.

A further enabling factor for role-making of the MA was engagement of third parties. Involving the OMs in particular implied their support in the shaping of the PMS and increased acceptance. In turn, this led to a higher role consensus in the interdependency of the PMS components with the role of the MA. This engagement is exemplified in the following quote:

I also involved people around me that somehow needed the information etc. We made like a bigger case of this. So of course, this increased the acceptance. (MA16)

A final enabling influential factor of role-making revealed by MAs' data was the inner or intrinsic motivation of the MA combined with future job perspectives considered by the MA (e.g. the measure tracking instead of manual reporting as for MA3). According to the MAs and OMs, this motivation of the MA potentially shapes the role positively and thus enables role consensus. This is exemplarily illustrated by the following quotes:

And for me, if this step is cancelled [manual reporting], the MA has much more time to use the systems and to check: are we on track, is the strategy fine, where do we need measures [...]? If you take away the current operative activity of the MA [...] he needs to have a future perspective. And this is what it is. (MA3)

So the MA will also be a guardian of the system, of this big data pool and front-end [...] together with the IT. [...] And there will still be analyses, but more for me and this can support me and my work much better. (OM3)

On the other hand, there were also inhibiting factors of role-making – thus the interaction of the characteristics of a PMS with the role of the MA was on the basis of role conflict. This was

¹ In some countries – including Germany – the supervisory board is a group of people who meet regularly to approve the decisions of the company's board of directors.

the case for the influential factor of lack of resources, which was represented in the empirical data by contradictory prioritisation. OM15 himself suggests role conflict based on the prioritisation done by the “holding company” (i.e. stakeholder). Also, other sources for lack of resources were stated by the following quotes:

We don't have much time to think strategically because there are so [...] diverse operative tasks. (MA2)

We will work on a shared service idea [...] to have more capacity [...]. (MA12)

The findings thus far can be summarised as follows. According to both case groups, MAs define their roles according to the three roles of scorekeeping, controlling and business support (Järvenpää, 2007). Both case groups consider the roles to be complementary rather than exclusive (rSQ1). The analysis of the two occupational groups can be summarised as follows. According to the OM, the MA role could be described as having value-adding and non-value-adding activities. Thus, the OM offers a dichotomy of the role whereas the MA tends to offer further distinctions of their role. That is, the MA engages in role-making. Examples of role-making from the quotes noted above include “it actually took a few years until the sales colleagues internalised it [the result orientation] (MA2)” and “at the beginning we were not highly welcome because we slightly stepped on the toes of the people. After a few months it changed. They suddenly asked for reasons why we had to cancel a meeting”. Both quotes reflect how the MA seemed to elaborate their role around the PMS (rSQ1). MAs and OMs views on a PMS can be attributed to the 12 key PMS components of Ferreira and Otley (2009). Both add further factors to the Ferreira and Otley (2009) view of a PMS (rSQ2). According to both occupational groups, the interdependencies of the PMS components with the role of the MA is based on six core arrows (1a-3b) of the updated role episode model (see Figure 2 - rSQ3). Influential factors for the interdependencies constitute the contingent factors of a PMS, with culture and context (Ferreira and Otley, 2009); these are equivalent to the surrounding factors of the role episode model – organisational factors, attributes of the person, and interpersonal factors (rSQ4) – per Katz and Kahn (1978). Further aspects are discussed in the next section.

4.2 Cross-case analysis

This section analyses and discusses data inter-organisationally (organisation X vs. organisation Y) and intra-organisationally (MA_x vs. OM_x). A case comparison view of the MA roles (rSQ1) reveals generally the same view as outlined in Section 4.1 and is not repeated in detail here. That is, the roles of the MA are more closely related to a dichotomy of roles in the OMs view (Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007; Friedman and Lyne, 1997; Morales and Lambert, 2013; Siegel, 2000) in the sense of value-adding or non-value-adding activities – as

opposed to the MA role being viewed as having three elements as per Järvenpää (2007). However, it was observed that the MA's role tends to be more exclusive as viewed by the OM (Maas and Matějka, 2009) whereas the MA view tends to be more complementary (Chang et al., 2014). This diverging view may be an origin of role conflict, even if not explicitly stated by all interviewees. On the other hand, limiting potential role conflicts frees resources for the MA to concentrate on key activities as less effort is required to resolve role conflicts. Thus, this study presents some potentially new insights on the aspects of dichotomy vs. further roles and exclusivity vs. complementarity.

On the key components of a PMS (rSQ2), the cross-case analysis generally supports the 12 components of Ferreira and Otley's (2009, p. 268) PMS framework. However, the empirical data reveal some subtleties. The component "organisation structure" per Ferreira and Otley (2009) appears quite broad per the following quote:

We need to take out all the brakes and smash the organisation. The organisation slows us down. The organisation structure was a little complicated for a retailer. A holding company. [...] Many hierarchies. [...] The autonomy of the countries was very low. [...] And then they said that this organisation is all over. [...] We are now a union of autonomous countries. There is no more worldwide board of management. [...] So each country can take autonomous decisions up to €15m. Play the game. (MA10)

Interestingly, participants appear to consider organisational structure and organisational factors as a second level (i.e. pervading component) of a PMS, not a core factor as suggested by Ferreira and Otley (2009). It is either mentioned incidentally or as a circumstance for the other PMS components. Expressions like organisational change rather being "a reaction than a part of the system" (MA4) and the organisation being a "brake" (MA10) exemplify this and point out the potential inhibiting or accelerating impact of organisational factors.

Regarding the impact of the PMS components, indications from the empirical data are that the second level (i.e. pervading or enabling) components appear to be more relevant for both the PMS and for the business support role of the MA than the core components. Thus, for example, OM8 and OM10 recalled how that PMS use and strength and coherence impacts on the business support role of the MA in their organisation:

And they [the MAs] are more in the process to link the normal activities of the P&L with the products and to have the link [...] cause and effect. [...] They [the MAs] are supporting [...] the mind in the future and anticipate what can happen. (OM10)

It is not the case, [...] that we cannot live without this tool [BSC] but we use it situationally. And this is how we experienced all the variants. Because first of all you are enthusiastic. Then you bring all the actions into the tool, then they are not really updated or there are many shifts in the projects [...]. So you really need to put a lot of effort in the regular update. (OM8)

OM15 however considered continuous performance evaluation of the hierarchical organisation to be the origin of the strong scorekeeping role:

This [management accounting activity] is more reporting than controlling or support of the operative [departments]. [...] This is due to headquarters. I think that we take 80% of our time just to report figures to the hierarchy. (OM15)

In contrast, OM11 described how the management accounting department mainly prepared “reports for the shareholders and the BoM” and that the reports are not sufficiently detailed in order for a country manager to steer the business. From a global OM’s perspective, reporting and providing information represents the scorekeeping function of the MA described by Järvenpää (2007) and thus supports the “scorekeeping” role literature from an OM’s point of view.

This is in line with Pulakos and O’Leary (2011) who suggested further research on the importance of informal aspects of a PMS in contrast to formal aspects. It might be sufficient for the OM to follow the second level components based on the PMS models if there are no further strong stakeholders influencing role-sending. The alignment and integration of an MA into the PMS appear to be a supporting issue for the attainment of the business support role of the MA, as revealed by the following quote:

My MAs are involved in all the details [of the business] and can estimate precise gaps and work out measures. (MA3)

Role-making also appears to be a main driver for the business support role. This implies MAs and their mindset and motivation (see Section 4.1) also plays an important part in taking on the business support role in an organisation as supported by the following quotes:

In the past we focused much more on monthly reporting and [...] variance analysis. This has changed. Now we are more supporting the strategy process based on all the commercial questions [...]. (MA4)

My main task is to ensure [profitable] growth. (MA10)

On rSQ3, based on the findings, Byrne and Pierce's (2007) internal antecedents of the MA's roles as PMS components can be re-categorised, primarily structuring the organisational factors. Integrating the PMS components together with the organisational factors into the role episode model leads to an updated role episode model and in addition, further stakeholders appear to be an additional influential factor according to both the MA and the OM (as presented in Figure 2). Furthermore, role consensus/conflict was identified as relevant in the interdependency. In contrast to Byrne and Pierce (2007) where tension was observed regarding budgets, role conflict could be observed in terms of the weighting of activities (OMs require more support whereas MAs are stuck in scorekeeping) as exemplified by the following quote:

We don't have much time to think strategically because there are so many [...] diverse operative tasks. (MA2)

This role conflict can be confronted with a coping strategy by installing other departments who do the required services for the OM. In this case the replacing department is integrated into the PMS components and the updated role episode, and takes over the business support role, leaving the MA aside (organisations 11 and 13). In organisation 13, OM13 stated:

Management accounting tasks are rather reporting-oriented [...] and mainly tasks from Italy [i.e. headquarters] are processed here. [...] If you ask a key account manager what management accounting does, they do not even know. [...] Steering is impossible like that [...]. (OM13)

Thus, for example, organisation 11 and 13 introduced a sales support department which fulfilled a business support function for the operative department. From an overall company perspective, this was only possible if the MA and new sales support department did not compete and especially if the PMS components relevant to the MA (in cooperation with further stakeholders) and the PMS components relevant to the OM harmonised.

Finally, to rSQ4, this study reveals seven influential factors with an enabling and inhibiting dimension for interdependencies. Some of these factors have been mentioned in prior research (see Figure 2), others have been added (dark grey box in Figure 2). Interestingly, the cross-case analysis reveals a difference between the MA's and OM's case in that the enabling/inhibiting factors of gaps (explicitly) or role consensus/conflict (implicitly) are only mentioned by the MAs (MA1, MA3, MA4, MA6, MA14, MA16), as per the following representative quotes:

These guys were really stupid. [...] The only thing they knew was Excel. [...] This was their right to exist. (MA1 talking about former managerial accounting)

There is a gap in relation to the information also that is available. (MA16)

Gaps here refer to the lack of tools for simulation planning or to the lack of value added in the current accounting processes according to the OMs. This is, for example, supported by the following quote:

In January, a new system was introduced. And now for example most of the time is invested in the development of new processes and procedures. And this is how they [the MAs] spend less time with sales. (OM11)

The reason for this unilateral explicit consideration of the factors may be that the minor gaps (lack of tools, value added) were not strongly perceived by the OMs. Amendment of the MA roles might have led to a role consensus before the OMs could perceive the gap as tentatively suggested by the following quote, which highlights dependencies between the MA and others:

The issue is that I am not all alone. [...] But others are dependent on me and I depend on them. (MA6)

Another reason may be that role consensus/conflict are more implicit factors which will only become obvious if very sensitive to the process or if an implicit conflict becomes more explicit. Thus, major gaps between the role expectations of the OM and the role behaviour of the MA can lead to role conflict as is the case for organisation 15. OM15 commented:

[...] virtually speaking we have more work [with the reporting/management accounting] than facilitates our work. (OM15)

Another more implicit influential factor revealed from the role conflict is further stakeholders. In organisation 15 “the holding company” (OM15) as a stakeholder with a lack of common interests intervenes strongly. Thus, further stakeholders have been revealed as being part of the role episode model and as being influential particularly if not aligned with the OM.

Bringing the discussion thus far together, Figure 3 depicts an updated role episode model. The key additions in comparison to Figure 2 are the seven influential factors depicted by dark-shaded numbers one to seven. These influential factors encompass the relevant literature with the second level (i.e. enabling) PMS components (including organisational factors), attributes of the person and interpersonal factors (Katz and Kahn, 1978) as well as context and culture (Ferreira and Otley, 2009) – #4 and #5 per Figure 3. As Byrne and Pierce (2007) name sub-categories of the above-named factors as antecedents, this study underpins Byrne and Pierce’s (2007) findings about the antecedents of roles of the MAs and complements them further. Based on this study, two further influential factors were identified, further stakeholders (#6 in Figure 3) and role consensus/conflict (#7 in Figure 3). In addition, the enabling or inhibiting category (#1 in Figure 3) can be added to

the analysis of influential factors. However, in order to further analyse the enabling or inhibiting impact, further research would be needed with a potential quantitative focus. This leaves room for the final comments including contributions, limitations and avenues for further research in the next Section.

[insert Figure 3 about here]

5. Final comments

The findings of this study are consistent with some existing literature, contradict some and address some areas previously lacking focus in the literature. The findings are in line with heterogeneous discourse about the roles of the MA (rSQ1) and consistent with Ferreira and Otley's (2009) definition of a PMS (rSQ2). It adds to extant management accounting and management control literature by detailing the interdependencies of the components of a PMS with the role of the MA (rSQ3), highlighting the importance of the second level (i.e. enabling) PMS components for the business support role of the MA and proposes an updated role episode model in this context (see Figure 3).

This paper offers several incremental theoretical contributions. First, by conceptualising PMS components as a surrounding factor, the study develops Katz and Kahn's model (1978) by providing an enhanced insight into the interdependencies of PMS components with the MA role. Parker's (2012) suggestion to investigate how management accounting and performance management interact is partly theorised by this study and further influential factors are identified. An updated role episode model describing the interdependencies is developed (see Figures 2 and 3). By operationalising Ferreira and Otley's (2009) PMS components, this study integrates the PMS components and management accounting into the role episode model. In addition, the role-taking and role-making process, the concept of role consensus/conflict are supported by the empirical data in a management accounting context (Section 4). To conclude, this study applies, supports and adds to the use of the role episode model in management accounting research by qualitatively investigating and developing new aspects for this context. Second, this study develops interdisciplinary research by integrating management control, management accounting and PMS as called for by, for example, Euske et al. (2011) and Parker (2012). Third, regarding the context this study adds to the contexts of existing studies – Byrne and Pierce (2007) investigate multinational companies based in Ireland; Pierce and O'Dea (2003) investigate indigenous and multinational companies in the UK. Thus, this study adds multinational companies in Germany to this research. Other studies mainly focus on comparative contextual studies (Ahrens, 1999) or on unbalanced mixed panels between MAs and managers (Ahrens, 1997). In addition, this study develops the context of typical studies based on primarily MAs' views or mixed views (Lambert and Sponem, 2012) to a context of equal parity of both views.

There are limitations of this study. First are the inherent limitations of the methodology and method (i.e., a cross-sectional field study), implying generalisations from the research are limited. It is thus not possible to determine the exact extent to which such findings would be replicated elsewhere. However, the objective of the study is not to offer empirical generalisations, but to develop an in-depth understanding of the interdependencies of a PMS and the role of MA. Second, it could be argued that Katz and Kahn's (1978) role episode model is dated. It is however well suited to this study and is acknowledged in management accounting literature (see Section 2.3). Third, the study lacks a deep analysis of the intercultural context of multinational organisations in Germany – although distinctive traits of this geographic characteristic were not salient. However, cultural aspects, while acknowledged (e.g., Goretzki & Strauss, 2017), are not part of the research objective, but could be considered in future studies.

There are several avenues of future research. First, the findings here do not explore in detail the organisational and personal characteristics of an MA. Future research could investigate, in detail, how OMs deal with the enhanced role of MAs. This could also include the study of impact of contextual factors and particularly the influence of culture and subcultures (see Section 4). Second, to complement this study and Ferreira and Otley's (2009) PMS framework, further operationalisation of the components of a PMS could be done. Ferreira and Otley (2009) themselves acknowledged the need for further operationalisation. Third, it would be particularly interesting to follow an organisation with role conflict or a strong role change between the OM and the MA over a longer period in a longitudinal in-depth case study. This could, for example, complement the findings here to include further stakeholders or the total role set. Such future studies could also operationalise and further explore the updated role episode model presented here (see Figures 2 and 3). Also, a quantitative analysis of the enabling and inhibiting impact of the interdependencies of PMS components with the role of the MA could be a potential further interesting avenue of research for the future.

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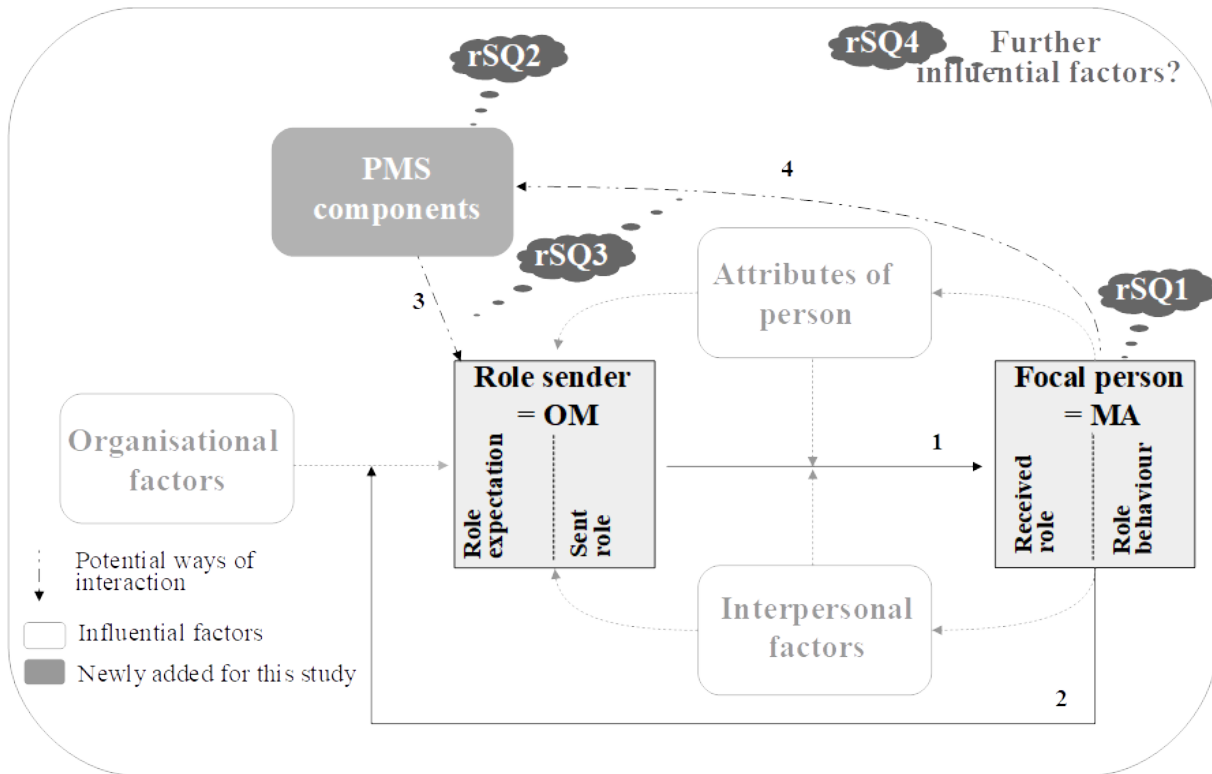


Figure 1: research sub-questions and the role episode model used (Katz and Kahn, 1978, p. 196)

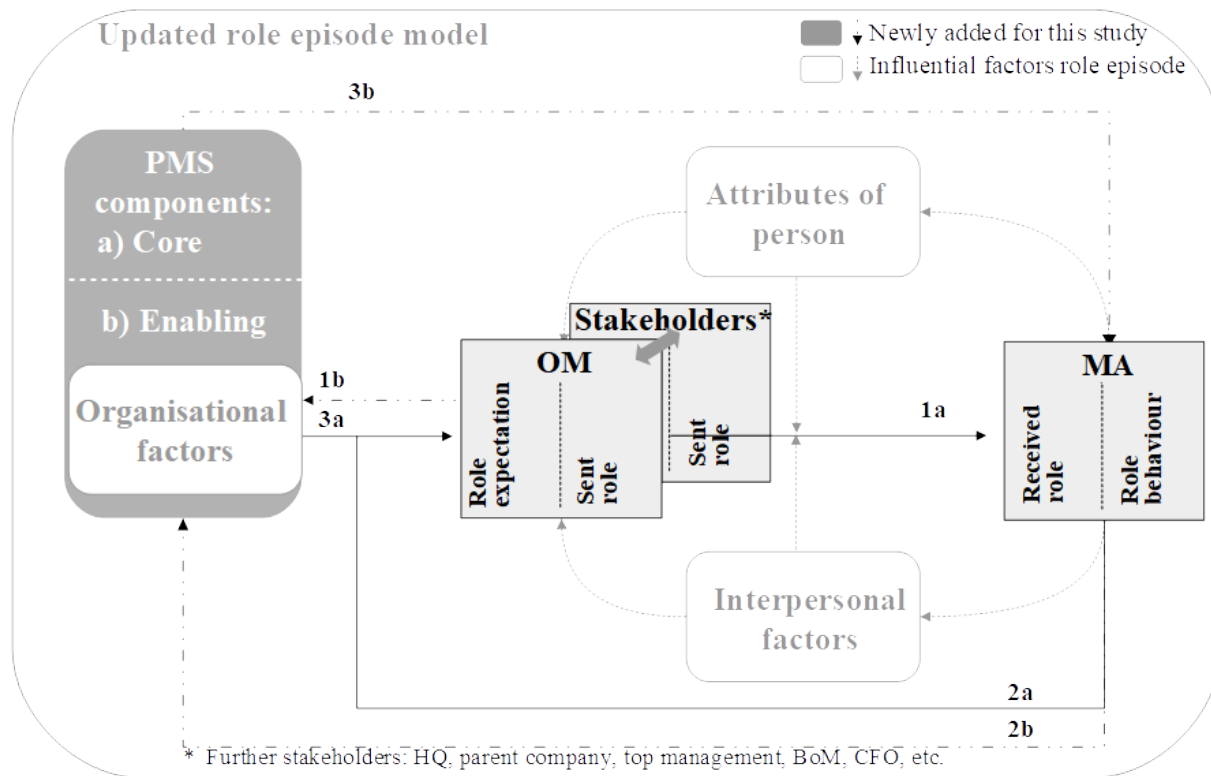


Figure 2: updated role episode model

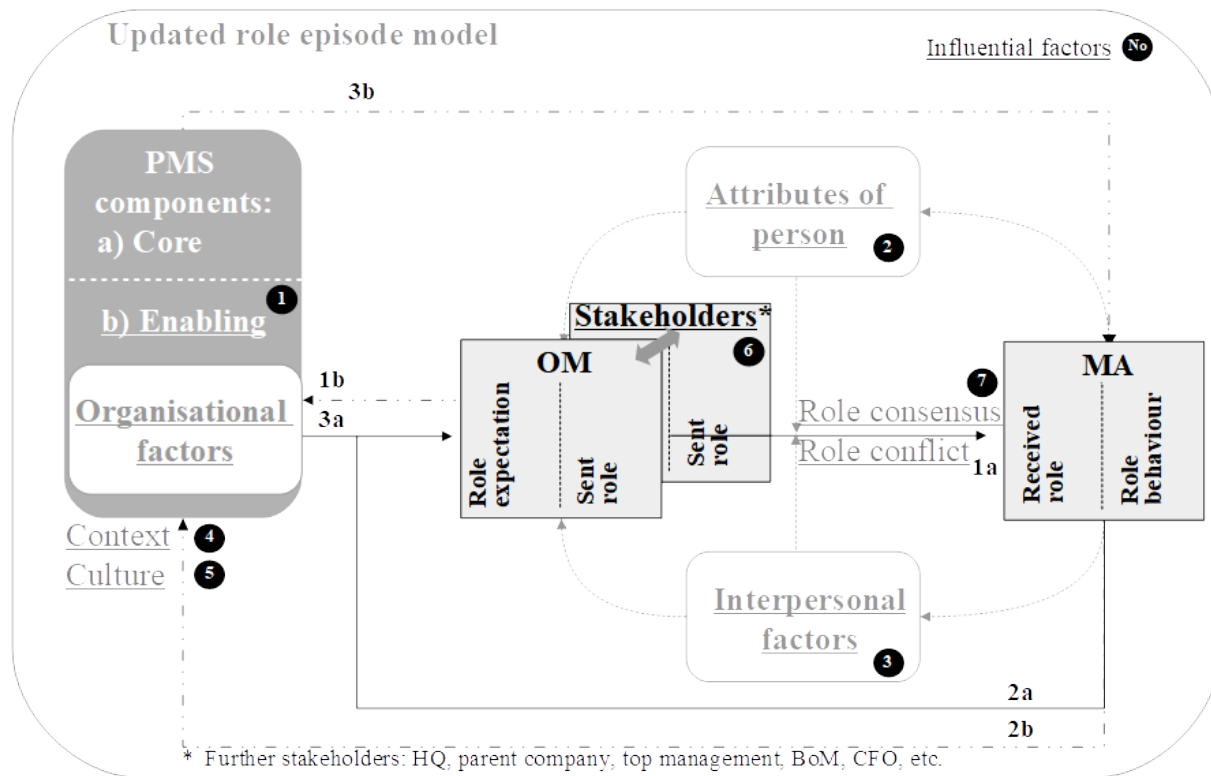


Figure 3: updated role episode model - including seven main influential factors

No	Sector of activity	Function of MA	Function of OM
1	Transport services	MA BU	BU general manager
2	Automotive	MA sales	Sales manager
3	Automotive	MA division	Divisional general manager
4	Automotive, industrial technology	MA BU	BU manager operations
5	Tooling	MA operations	Operations manager
6	Automotive	MA sales	Sales manager
7	Automotive	MA division	Divisional marketing manager
8	Sensor technologies	MA division	Divisional general manager
9	Tooling	MA sales subsidiaries	Sales manager
10	Retail	Chief financial officer (CFO) subsidiary	Chief commercial officer (CCO) subsidiary
11	Marketing services	MA corporate	Sales manager
12	Automotive	MA operations	Operations manager
13	Fast moving consumer goods (FMCG)	CFO subsidiary	Sales manager subsidiary
14	Aviation	MA operations	Operations manager
15	Maintenance services	MA division	Divisional sales manager
16	Chemical	MA sales	Sales manager

Table 1: study participants with sectors of activity and function