

Accounting and power: evidence from the fourteenth century

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Abstract

During the past few years research on cultural, behavioural and social aspects of organizational activities and interactions have proliferated considerably in the accounting literature, thereby emphasizing the role played by accounting practices in shaping and/or balancing power relations in modern organizations. A relevant contribution to understanding the origins of the power of accounting can be found in accounting history. The present article examines a fourteenth-century case, that of the Opera della Metropolitana di Siena, an institution in charge of the construction and maintenance of the cathedral of the city of Siena, Italy, to explore the potential role played by accounting systems in influencing power relations. By analysing institutional and organizational change as well as the evolution of accounting practices within the Opera, this article shows that, since the medieval age, accounting data has played an important role not only in recording operational activities but also in managing power relationships.

Keywords: *Accounting practices; power relations; ecclesiastical institutions; religious activities; control systems; Middle Ages; Italian City State.*

1. Introduction

The significant role played by accounting in documenting different aspects of organizational activities and interactions has been widely addressed by the literature. Accounting systems are often portrayed as being able to provide firms with a common language, translating everyday operations into financial measurements. Such measures allow organizations to communicate through time and space, by recording past events and documenting the overall history of the firm and of its members. Accounting systems provide not only quantitative information but they also have the potential to document the economic, social, and institutional context in which they have occurred.

During the past few years, several researchers have highlighted the role of accounting systems in managing internal and external interdependencies (Otley, 1994; Kloot, 1997; Euske & Riccaboni, 1999). These studies have drawn from material beyond the technical aspects in order to interpret the way in which accounting systems are involved in the construction of organizational order, and how they interact within the wider social context in which the organization operates. Significant attention has also been given to possible links between accounting and power relations within organizations (Hopwood, 1990; Macintosh & Scapens, 1990; Dent, 1991; Hopwood and Miller, 1994; Burns & Scapens, 2000; Catturi & Riccaboni, 2001; Busco et al., 2002). Accounting has been interpreted as part of the framework of meaning used to set values and ideals about what ought to count, what ought to happen, and what is thought to be important; moreover, it has the potential for providing the moral underpinnings for power structures and relationships of dependence and autonomy within organization, as well as for facilitating the exercise of power by some groups over others, while giving legitimacy to the actions and interactions of managers throughout the organization (Roberts & Scapens, 1985; Macintosh & Scapens, 1990; Busco et al., 2002).

The behavioural and cultural implications of accounting are also becoming increasingly relevant because of some recent events involving corporate failures and managerial misconduct, which have placed the links between accounting and power under scrutiny. Accordingly, research on corporate governance, power relations, authority and trust have proliferated hugely within the accounting literature, exploring the role played by accounting practices in shaping activities and interactions within modern organizations (Pfeffer, 1992; Sloan, 2001; Bushman & Smith, 2001; Demirag et al., 2000). A relevant contribution to understanding how accounting may influence power relations can be found in accounting history.

The present contribution aims to explore if and how accounting systems were

able to affect power relations in the past, and also if and how the interpretation of a historical case can be used to understand the “modern power” of accounting. To achieve these objectives, this article examines the case of the institution that was in charge of the construction and maintenance of the *duomo* (cathedral) of Siena, the *Opera della Metropolitana di Siena* (“Opera Sancte Marie”). The study has been developed through the analysis of documents, statutes and account books concerning the administration of the *Opera* in the thirteenth and fourteenth centuries. The account books are currently preserved in the archives of the *Opera*. By relying upon those sources of information, institutional and organizational change as well as the evolution of accounting practices can be described and analysed. It emerges that in different periods of time, specific accounting systems were implemented to record the operational activities and the financial transactions of distinct areas of the *Opera*. Importantly, a specific accounting system for recording the transactions of the sacristy (that is, the organization in charge of the management of the religious rituals and services pertaining to the cathedral) was implemented in 1364. By analysing such reform and its subsequent modifications, the study shows that since the Middle Ages accounting data has played an important role not only in recording operational activities but also in managing power relationships.

The structure of the article is as follows: the potential role of accounting in shaping power relations is discussed in section two, through a review of some key contributions in recent accounting literature. Section three introduces the case of *Opera della Metropolitana di Siena*, by giving some key insights into its organizational structure and its functions in the fourteenth century. The different roles, interests and perspectives involved in the management of the *Opera* are also outlined, in order to clarify power structures and relationships of dependence and autonomy. Section four builds on the theoretical insights outlined in section two to illustrate the role played by the accounting system in the administration of the sacristy in the fourteenth century. Finally, section five summarizes the key features of the analysis.

2. The role of accounting in balancing power relations

Over the past few years, several studies have taken accounting research beyond its technical aspects, in order to interpret the way in which management accounting practices are involved in the construction of organizational order (see, for example, Hopwood, 1990; Dent, 1991; Ahrens & Dent, 1998). The active role of accounting systems within their organizational contexts has been highlighted by several researchers, who have emphasized that accounting is no longer to be regarded as a neutral subject that objectively reports economic events or facts (see, among the others, Argyris, 1990; Hopwood, 1990; Otley, 1994; Kloot, 1997). Hopwood (1983, pp.300–301) suggests that:

Although accounting plays a role in mapping into the organization . . . it also has the power to shape and influence organizational life on its own accord . . . Modes of organizational decentralization are defined in terms of cost, profit and investment centres; organizational units have accounting as well as managerial boundaries; and accounting mechanisms for the monitoring of sub-unit performance help to make real the powerful potential that is reflected within the organization chart.

Accounting systems have the potential for documenting not only the financial aspects of organizational activities but also their “cultural dimension”. By translating everyday operations into financial measurements, such systems are able to record past events, documenting the history of a firm along with the cultural, social and institutional context in which they have occurred (Catturi, 1989, 1992). In particular, accounting practices act as the carriers of organizational knowledge through both time and space (Catturi & Riccaboni, 2001).

Along these lines, Roberts and Scapens (1985) discuss the concept of accounting as a “language” that provides organizations with a set of categories to make sense of activities, to anticipate the future and to assess and plan actions. It involves much more than the production and reproduction of meanings, as it embodies a moral order by institutionalizing reciprocal rights and obligations. In this way, accounting practices involve the communication of a set of values and ideals of expected behaviour regarding what is approved or disapproved.

Macintosh and Scapens (1990, 1991) draw on Giddens’ structuration theory to discuss three main dimensions of accounting: signification, legitimation and domination. According to Giddens (1984), signification structures involve semantic rules which are drawn upon to produce meaning; legitimation structures include norms and values involved in the production of morality; domination structures involve resources which are used to produce power. As highlighted by Macintosh and Scapens (1990, p.457), these three dimensions of social systems are inextricably linked and they can be used to interpret the potential role of accounting practices:

For instance, the domination structure which comprises the rules and resources drawn upon in relations of power are closely linked to the significant and legitimation structures. Command over the management accounting process, for example, is a resource which can be used in the exercise of power in organizations. Drawing on the domination structure certain organizational participants hold others accountable for particular activities. Management accounting is a key element in the process of accountability. However, the notion of accountability in management accounting terms makes sense only in the context of the signification and legitimation involved in management accounting practices. Organizational participants make sense of actions and events by drawing upon meanings embedded in management accounting concepts and theories. Furthermore, management accounting gives legitimacy to certain actions of organizational participants.

In particular, the concept of “domination” is strongly related to that of “power”. While in a broad sense power is defined as “the ability to get things done and to make a difference in the world” (Macintosh & Scapens, 1990, p.461), its narrower meaning entails “domination” (see also Busco et al., 2002). The role of accounting in the production and perpetuation of power has been highlighted within historical research as well. For instance, Miller and O’Leary (1994) explore the construction of theories of standard costing and budgeting in the first three decades of the twentieth century to describe accounting techniques as calculative practices which are part of a much wider modern apparatus of power, while acting as a governance instrument for controlling workers at a distance. Hoskin and Macve (1994, p.67) describe accounting as “an ancient practice with a distinctive modern power”. Following Foucault’s work, they emphasize how accounting history can be approached as a problem of “power-knowledge” relations:

... accounting functions simultaneously, to an ultimately undecidable limit, as a form of both power and knowledge: it disciplines behaviourally even while it provides expert disciplinary information, and it does both by the way as a practice it turns events into writing and subjects them to examination” (Hoskin & Macve, 1994, pp.67–68).

The theoretical contributions reviewed in this section highlight how accounting systems can play an active role in shaping organizational activities and interactions, as well as in the production and maintenance of power. Building on the theoretical insights outlined in this section, the case of *Opera della Metropolitana di Siena* is introduced and analysed in the following sections. While exploring the patterns of interactions among the various entities involved in the management of the *Opera*, it emerges that, at different periods of time, specific accounting systems were implemented, the aim of which was to record the operational activities and the financial transactions of distinct areas of the *Opera*. The institutional and organizational changes, along with the evolution of accounting practices, raise some relevant questions about the eventual role that accounting systems played in influencing power structures in relation to the *Opera*.

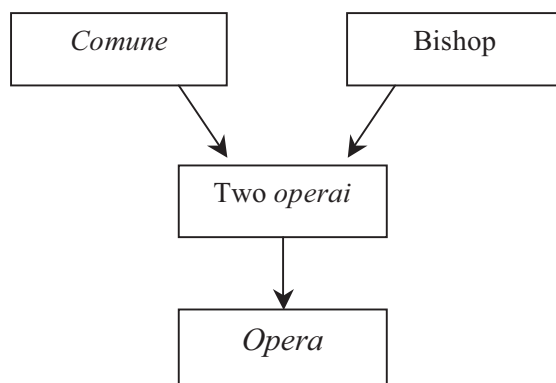
3. The case of *Opera della Metropolitana di Siena*

The historical, artistic and architectural aspects of the cathedral (*duomo*) of Siena have long been the subject of numerous studies. Scholars have thereby rendered a precise analysis of the various phases of the construction of the cathedral, which was interwoven with the history of the city of Siena, one of the most important trading centres of medieval Italy. More recently, growing attention has been paid to the investigation of the institution that was in charge of the construction of the cathedral, the *Opera della Metropolitana* (Moscadelli, 1995; Giorgi & Moscadelli, 2001; Giorgi & Moscadelli, 2002). According to this research, the first mention of

the existence of an “Opus Sancte Marie” – which was specifically in charge of overseeing the construction, ornamentation and maintenance of the *duomo* – dates back to the end of the twelfth century (see Appendix 1 for a list of the main phases of the construction of the cathedral). In this period, the *Comune* of Siena (one of the most important mediaeval City States) was consolidating its political and institutional structure, creating the basis for the social and cultural development which characterized the decades to follow, along with the expansion of the local commercial and banking activities in an international context.

In the first half of the thirteenth century the organizational structure of the *Opera* was mainly centred around the building site, whose two heads (the so-called “*operai*”, one merchant and one mason) answered to both lay (the *Comune*) and ecclesiastical (the bishop) authorities (see Figure 1). For instance, in 1262 a statute of the *Comune* established that the two *operai* had to deliver the cash inflows of the *Opera* to three *homines de penitentia*, nominated and controlled by both lay and ecclesiastical institutions. In spite of the diarchy between the lay and ecclesiastical power and the lack of a bureaucratic institutional body, notable interference by the *Comune* was already evident in that period. In this context, the main source of funding was derived from money allotted by the government and, afterwards, from the sales of the wax that the citizens and the villages of the countryside owed to the cathedral every year, as required by the statutes of the *Comune* (Giorgi & Moscadelli, 2001).

Figure 1: The organizational structure of the *Opera* in the first half of the thirteenth century

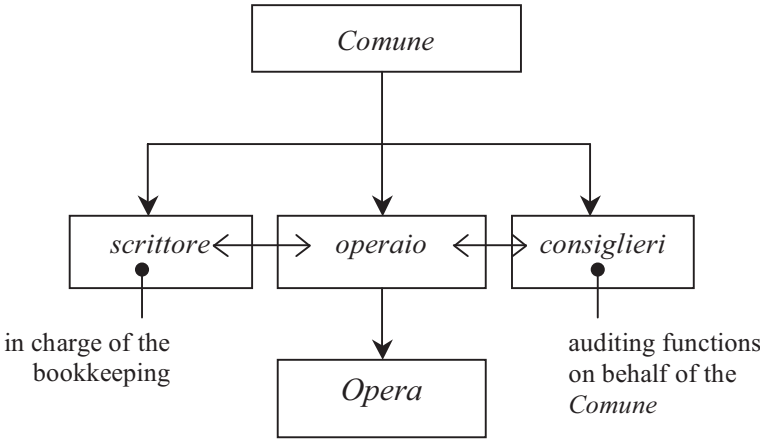


Importantly, from the second half of the thirteenth century onwards, the management of the *Opera* was regulated by statutes of the *Comune* and in 1258 it was placed under the charge of a single head, the “*operaio*”. Contrary to past

practice, he was an ecclesiastic nominated directly by the *Comune*, as was the head of the main financial office of the City State (the *camarlengo* of the *Biccherna*). During this period, important works were carried out within the cathedral, such as the large cupola and the pulpit, both built under the supervision of Nicola Pisano, and the eastern entrances of the cathedral (Guerrini, 2003; see also Appendix 1).

As the diarchy between the lay and ecclesiastical powers (which had characterized the beginning of the thirteenth century) waned, a bureaucratic apparatus began to take shape around the *Opera* (see Figure 2). Around 1260, the *Opera* was characterized by a well-defined institutional structure, following the acquisition of real estate as well as the rise in funding provided to the *Opera*, which increased the need for overseeing the overall administration more closely.

Figure 2: The organizational structure of the *Opera* in the second half of the thirteenth century



In the second half of the thirteenth century, the *operaio*, who answered directly to the *Comune*, was assisted by a small council and a scribe (*scrittore*), who was a layman in charge of the bookkeeping. The *operaio* was granted a generous amount of autonomy in carrying out the statutory instructions and in the management of funds received. However, he was obliged to meet with the council members (*consiglieri*), who were also auditors for the *Comune*, at least once a month in order to delineate the general plan of action, the work schedule and the number and the tasks of the workers to be employed on the building site.

In the first half of the fourteenth century, the fortunes of the *Opera* were intimately linked with one of the most important governments ever in medieval Siena: the so called “Government of the Nine” (1287–1355), which was a committee of

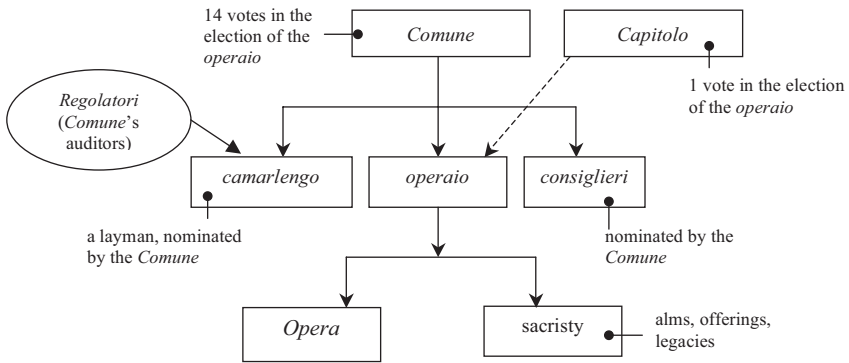
magistrates selected from the upper-middle class mercantile community who served a two-month term. Several other committees worked hand-in-hand with the Nine thereby constituting the political and bureaucratic structure of the City State (General Council, *Biccherna*, *Gabella*, *Mercanzia*, and so on; see Bowsky, 1970, 1981; Waley, 1991). This government, furthermore, also exerted considerable pressure on some of the main industries of the city. In addition to the project for the city walls, the network of underground aqueducts (*bottini*) and the city hall (*palazzo pubblico*), there was the ambitious project of the new *duomo* (*duomo nuovo*): the grandiose cathedral proposed in the first half of the 1300s and destined to remain incomplete after mid-century (Balestracci & Piccinni, 1977; Carli, 1979; Giorgi & Moscadelli, 2005).

In 1339, a new statute codified the organizational structure of the *Opera*, whereby the role of the *operaio* was reinforced. He was henceforth to be elected by the General Council of the *Comune* from a group of three selected by the Nine and the Consuls of *Mercanzia*. Additionally, his stay in office was extended to one year. Most importantly, his duties were more well-defined regarding the overseeing of the workers and the custody of the workshop and main storehouse. At the same time, the role of the *consiglieri* was also reinforced. They were to meet once a week and were placed in charge of defining the plan of action, and of verifying their management. Under these conditions, no new work could be taken on without the express authorisation of the *operaio* and the *consiglieri*.

In the decades that followed, the statute underwent numerous modifications. In particular, in 1362, the position of scribe was superseded by that of *camarlengo*, an actual treasurer who was in charge of keeping the accounts and of managing funds. The *camarlengo* was a layman and he was nominated by the *Comune*. Importantly, in 1358, a single office of three *Riveditori* (auditors) was created in order to review the accounts of all the *camarlenghi* of the city of Siena. Afterwards, the *Riveditori* were substituted by the *Regolatori* (Catoni, 1975; Moscadelli, 1982). It is interesting to note that the *camarlengo*'s records were also among the more than three-hundred records that the *Regolatori* had checked between the Sixties and the Seventies. In 1364, the *operaio* was also given the responsibility of administering the sacristy (as described in section four). From 1364 onwards, the *Capitolo* (Chapter) of the priests of the cathedral was allowed a single vote (out of 15) in the election of the *operaio* as he was the sacristan (see Figure 3).

The simultaneous presence of the various institutions involved in the management of the *Opera* and the sacristy of the cathedral (see Figure 3) made balancing the power between these institutions critical, above all between the *operaio* and the *canonici* (priests) of the Chapter. Of note is the confirmation of new duties upon the *operaio* in the mid-fourteenth century: in 1361 the *operaio* was placed in charge of managing the building site of the *Cappella del Campo* (Chapel of the Campo); in 1364, as a consequence of a series of pacts stipulated

Figure 3: The organizational structure of the *Opera* in the fourteenth century



between the *Comune* and the Chapter, the *operaio* was placed in charge of the sacristy of the *duomo*, which however remained a separate administration under the supervision of the *Opera* and, specifically, of the *operaio*.

4. The role of accounting in the management of the sacristy

As early as the thirteenth century, the *operaio* and his collaborators were called on to keep records of the monetary transactions and the decisions made in the management of the *duomo*. To that end, in the first half of the 1300s there were at least five series of accounting books (Moscadelli, 1995):

- the inflows and outflows of the *operaio*;
- the inflows and outflows of the scribe;
- the registration of the *preste e d'altre cose* (loans and other things);
- the payment of the transporters and the labourers; and
- the *memoranda* of the *operaio*.

Already at that time, the management of the *Opera* was relying upon a rather complex system of bookkeeping. This was due to the fact that at different times, separate systems of bookkeeping were used for specific sectors of the administration. The register of the scribe, for example, shows cash inflows related to specific activities. After 1297, in order to guarantee more accurate bookkeeping and to allow for cross-checking, the *operaio* was held responsible, in addition to the scribe, for the bookkeeping. The account books of the *operaio* therefore had to conform to that of the scribe. At the end of every six month period, and then

again at the end of the year, the *operaio* had to give an account of his activities. There was, of course, no lack of poor administrative skills, as is affirmed in the General Councils 1362 act creating the office of the nominated official referred to as the *camarlengo*: “*E puossi a vedere per li tempi passati come li operai anno tractato l’Uopera* [it is easy to see how badly some *operai* managed the *Opera* in the past]” (Archivio di Stato di Siena, *Consiglio generale* 169, cc. 20v-21r).

The first example of systematic separate bookkeeping dates back to the registration of payments of salaries to those employed in the *Opera* and of compensations for those who worked occasionally. These registrations included the payment to both the labourers engaged in the construction and maintenance of the *duomo* and those related to religious activities. From at least the second half of the thirteenth century onward, a separate accounting system was also used for the wax owed to the *Opera* by local communities. Afterwards, it was deemed necessary to introduce separate bookkeeping for the transactions pertaining to the administration of the wax, the agricultural holdings and the supply of foodstuffs (Moscadelli, 1995).

Highly revealing is the introduction in 1364 of a specific accounting system for recording the transactions pertaining only to the sacristy of the *duomo*. The sacristy was the organization in charge of the management of the religious rituals and services pertaining to the cathedral. The related activities were essentially concerned with the management of alms, offerings and legacies which represented a sizable part of the *duomo*’s cash inflows. While the inflows from alms given in cash by the public (which were destined to the building site) were modest (about 1.1 per cent), as well as that from money left through last will and testaments (this also was around 1 per cent), the inflows from the offerings made in the cathedral and destined for the maintenance of the sacristy were higher. Their amount was nearly that of the coeval inflows of the *Opera* (Giorgi & Moscadelli, 2001). In spite of this, in the second half of the fourteenth century, the cash outflows of the sacristy were high as well.

Given the substantial inflows and outflows of financial resources with respect to the sacristy, additional monitoring and a methodical approach to recording activities pertaining to it became necessary. In 1364, a series of agreements (*Pacta et capitula vetera*), aimed at improving the management of the sacristy, were approved. The purpose of these agreements was to bring the administration of the sacristy into the managerial sphere of the complex of the *Opera*, and as such, under the control of the *operaio*. The latter, in fact, was in line for the nomination and eventually the revocation of the sacristan, who was directly dependent on the *operaio* and had custody of all of the assets of the sacristy. In a similar context, a separate system of bookkeeping concerning the financial transactions of the sacristy was introduced. From that moment on, the transactions were subjected to increased scrutiny; these included the

transactions pertaining to the management of the activities of the sacristy, its maintenance, the alms, the legacies but, above all, the offerings made in the cathedral and destined to the sacristy itself.

Based on these new mandates, the *operaio* collected the cash from donations, a task previously carried out by the priests. These operations were scrupulously recorded by the *operaio* who had to refer the monetary transactions to both the Chapter and his own *consiglieri*. The *operaio* had to set aside a portion of the income for the bishop, while the priests and other ecclesiastics were rewarded with a certain amount of wax. The *operaio* also had to provide lodgings for the chaplains, a cook and whatever else was needed in the sacristy. He was obliged to invest the *Opera*'s residual funds in the sacristy and to cover its debts with funds of the *Opera*. The components of the Chapter and the chaplains could regardless manage their property autonomously as well as their ecclesiastic life while respecting certain obligations. If they happened to be found lacking in their duties, they would be fined. In this phase, the accounting books of the sacristy mainly included:

- *memoranda* on debtors and creditors (remained until 1390);
- general registers of inflows and outflows (remained until 1553) recording all the transactions pertaining to the management of the *Opera*; and
- specific registers of inflows and outflows (remained until 1525), recording specific activities (such as the supplying of raw materials, transports, payments to labourers, the supplying of wax), periodically reported in the general registers (Moscadelli, 1995).

The introduction of the new bookkeeping system chiefly fulfilled specific cognitive and decision-making needs. Given the relevance of both the inflows and outflows of financial resources, it was necessary to know the origins of those resources and how they were used with the aim of improving their management. Secondly, the innovations pertaining to the bookkeeping system and the role played by the *operaio* in the management of the sacristy can be read in light of the growing need to record and check, which in that period was required by the *Comune* for anyone who was granted the management of public funds. The new bookkeeping system pertaining to the sacristy followed the *Comune*'s need for "controlling at a distance", while reinforcing the supervisory role of the *Comune* itself. The implementation of a separate bookkeeping system concerning the sacristy can therefore be viewed in the wake of a growing necessity to administer the management of public funds. It played a relevant role in supporting the power structures and relations among the *Comune*, the *operaio* and the sacristy.

As discussed in section two, accounting systems can be interpreted as a means for legitimating and giving meaning to organizational activities and interactions, thereby supporting the exercise of power of some groups over others (Roberts &

Scapens, 1985; Macintosh & Scapens, 1990, 1991). Accounting practices play a key role in the process of accountability (Hopwood, 1990) and they can be used by organizational leaders as tools for controlling workers at a distance (Hoskin & Macve, 1994). Furthermore, they act as carriers of information and knowledge among organizational participants (Catturi & Riccaboni, 2001). In the case of the sacristy, the accounting system fulfilled specific information needs concerning the management of the funds pertaining to the sacristy. The new system followed the growing need of the *Comune* for “controlling at a distance” the management of public funds, and legitimated the *operaio*’s major role in controlling the activities pertaining to the sacristy (he was in charge of the bookkeeping). The new accounting practices also enabled the *Comune* to monitor the *operaio*’s activities within the sacristy. Finally, the new system made the *operaio* accountable for his activities, but it also gave legitimacy to the activities of the *operaio* who could demonstrate having fulfilled his duties.

In 1367, further innovative mandates perfected the regulation of the relationship between the *operaio* and the clergy with reference to the management of the sacristy (*Pacta et capitula nova*). While the central role of the *operaio* and his *consiglieri* in the mechanism that regulated the tasks of the ecclesiastics was confirmed, the innovations handed over a large part of their authority to the Chapter. The new rules required the *operaio* and his *consiglieri* to meet at least three times a month with the chaplains to discuss decisions regarding the decorating and maintenance of the cathedral. In addition, the Chapter had the right to nominate a chaplain as their representative, who, together with the chaplain chosen by the *operaio* and his counsellors, was responsible for defining the sanctions which would be enacted in the event of a default on the part of a chaplain or cleric. The *operaio* would then be the one to withhold the sanctions from the salary, money which was then divided evenly at the end of the year between the *Opera* and the Chapter. The part that went to the Chapter, however, had to be reinvested in ornamentation chosen by the priests. In particular, in 1383, the register titled *Riepiloghi di entrata per puntature ai cappellani* (recap of incoming sums for punitive measures against chaplains) was added to the account books of the sacristy, thereby allowing for closer monitoring of the sanctions paid by the chaplains. Later mandates limited the power of the *Opera* over certain real estate around the cathedral grounds and passed those privileges on to the Chapter.

The innovations in the accounting system of the sacristy can be read in the light of the changing regulations between the *operaio* and the clergy. As emphasized by several scholars, accounting systems can be interpreted as sets of practices that both shape and are shaped by the organizational institutions, that is, assumptions that are taken for granted and embodied in organizational rules and routines (see, among the others, Barley & Tolbert, 1997; Burns & Scapens, 2000; Catturi &

Riccaboni, 2001; Busco et al., 2002). Moreover, management accounting change can be viewed as a process that both influences and is influenced by the evolution of organizational structures (Burns & Scapens, 2000). In the case of the sacristy, the changes in the accounting system followed the evolution of the power structures and relationships between the Chapter and the *Comune*, by providing the Chapter with the necessary information for controlling the activities within the sacristy, along with the punishments applied to chaplains.

5. Closing remarks

The case of the *Opera della Metropolitana di Siena* shows that in the fourteenth century accounting played a fundamental role in managing power relationships among organizational participants.

The introduction in 1364 of a separate bookkeeping system pertaining to the sacristy came as a response to the specific needs to reinforce the responsibilities and the power of the *operaio*. The inflows and outflows involving the sacristy were prominent with respect to the general administration of the *Opera*. As such, they warranted closer managerial control. The separate accounting system allowed for more precise record keeping of the transactions resulting from the cash inflows which accrued from alms collections, offerings and legacies, while answering to specific monitoring needs.

Fund collection and recording the various operations were the duties of the *operaio*, who could thereby directly supervise financial transactions and the activities of the various ecclesiastics involved in the management of the sacristy. This information allowed the *operaio* to fine those who transgressed, thereby strengthening his position. The *operaio* did, however, have to report to the Chapter, the counsellors and the *Comune*, on whom he was directly dependent, as well as to provide the *Regulatori* with a copy of his records. Therefore, in addition to fulfilling specific needs for monitoring and control over the inflows and outflows concerning the sacristy, the separate accounting system legitimized the *operaio*'s activities by demonstrating to the Chapter and to the *consiglieri* that he was above board and he had fulfilled his obligations.

Afterwards, the need to curtail the *operaio*'s power was felt, and new mandates were issued which gave more authority to the Chapter. The latter was given the right to control the punitive sanctions applied to the chaplains and clerics and the related monetary transactions. As such, the document titled *Riepiloghi di entrata per puntature ai cappellani* (recap of incoming sums for punitive measures against chaplains) was added to the accounting books of the sacristy in order to keep track of monetary sanctions.

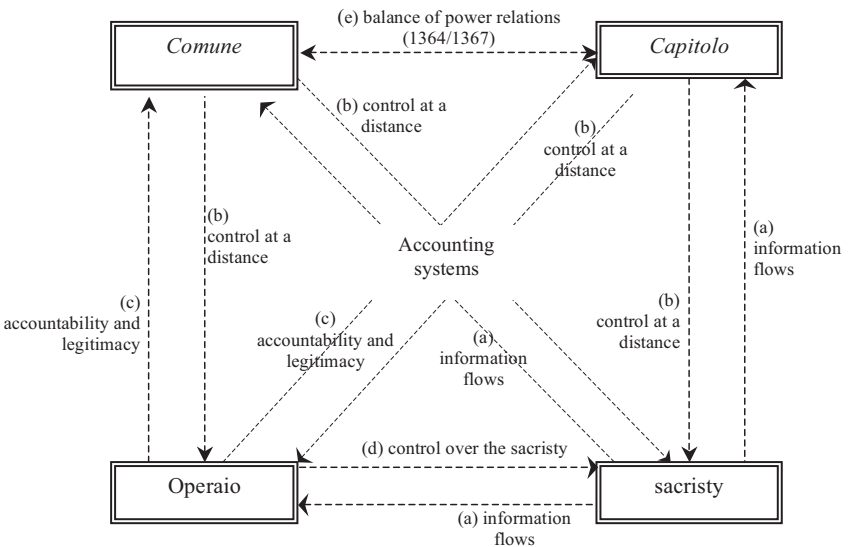
Therefore, the bookkeeping system grew out of the necessity to control, and at the same time played an important role in the balance of power between the

various categories of interests involved. During this historical period, governmental and citizen intervention in matters involving the management of the *Opera* and the sacristy increased. Additionally the need for monitoring financial transactions grew significantly.

By combining theoretical with empirical insights, the present research shows that command over the accounting process could be used as a resource in the exercise of power in the management of the organization, while playing a key role in the process of accountability and in legitimating each other's rights and obligations. From this point of view, institutionalized accounting practices can become part of the framework of meaning used "to make sense" of activities. Accounting practices can set values and ideals about what ought to count, and what is thought to be important and they provide the moral underpinnings for power structures and relationships of dependence and autonomy within the organization. Moreover, accounting practices can give legitimacy to the actions and interactions of managers throughout an organization, by institutionalizing the reciprocal obligations and rights of managers. Finally, accounting systems can facilitate the exercise of power by some groups over others, by giving particular meaning to organizational activities (see Roberts & Scapens, 1985; Macintosh & Scapens, 1991; Catturi & Riccaboni 2001; Busco et al., 2002).

As portrayed in Figure 4, the new accounting system pertaining to the sacristy

Figure 4: Interpreting the role of accounting in balancing power relations in the fourteenth century



played an important role not only in recording operational activities but also in managing power relationships. In particular, the new system improved the informational flow between the sacristy and both the *Comune* (as well as the *operaio*) and the Chapter, providing them with the necessary information for controlling the inflows and outflows of funds (arrow “a”). The accounting system also allowed the *Comune* and the Chapter to monitor the *operaio*’s activities at a distance, as well as the transactions pertaining to the sacristy (arrow “b”). In addition, the new system made the *operaio* accountable to the Chapter and to the *Comune* for his actions and decisions concerning the management of the sacristy (arrow “c”). The new accounting practices also allowed the *operaio* to legitimate his activities, by demonstrating to the *Comune* and to the Chapter that he was above board and he had fulfilled his obligations (arrow “c”). Moreover, the accounting system reinforced (while giving legitimacy to) the power of the *operaio* in managing the transactions pertaining to the sacristy as well as in monitoring the priest’s activities, as he was in charge of the bookkeeping (arrow “d”). Finally, in 1367 the new rules allowed for increased control over the Chapter concerning the activities within the sacristy (arrow “e”).

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Appendix 1: Main phases of construction of the cathedral of Siena (see Giorgi and Moscadelli, 2005)

Dates	The Cathedral and the <i>Opus Sancte Marie</i>	Historical Events
1189–1215		Bono bishop of Siena
1190	attestation of an <i>opera ecclesie</i>	Enrico VI emperor (1190–1197)
1193	attestation of an <i>opus operis ecclesie Sancte Marie</i>	
1196	attestation of an <i>opus Sancte Marie</i>	Innocenzo III pope (1198–1216)
		Ottone IV emperor (1198–1218)
1199		Orlandino Malapresa from Lucca, first <i>podestà</i> of the <i>Comune</i> of Siena
1216–1252		Bonfiglio bishop of Siena
		Federico II emperor (1220–1250)
1226		(December) first entries in the oldest city account ledger, preserved in the <i>Biccherna</i>
1227	attestation of the existence of two <i>operai</i> of Santa Maria	Gregorio IX pope (1227–1241)
		Innocenzo IV pope (1243–1254)
1250s	stipulation of the pact between the bishop and the <i>Comune</i> for the demolition of part of the Episcopal palace in order to enlarge the cathedral	
1253–1273		Tommaso bishop of Siena
		Alessandro IV pope (1254–1261)
1256	attestation of the cathedral bell tower (<i>turris et campanile</i>)	
1258–1259	friar Vernaccio, a lay brother (<i>converso</i>) of San Galgano, the first single <i>operaio</i>	Ugo, monk of San Galgano, <i>camarlengo</i> of the <i>Biccherna</i> , depicted in the oldest preserved tablet
		Manfredi, King of Sicily and Naples (1258–1266)
1259	(April) most likely the first attestation in Siena of Nicola Pisano	
	(November) attestation of the three doors of the cathedral's eastern façade	
1259–1260	elaboration of the roofing project situated under the eastern portion of the choir of the cathedral	
1260–1275	friar Melano di Renaldo, lay brother (<i>converso</i>) of San Galgano, <i>operaio</i>	(4 September) Battle of Montaperti
		Urbano IV pope (1261–1264)
1262	(September) purchase of the house of Tebaldo di Orlandino, destined to house the <i>Opera</i>	city statute compilation
1263	completion of the cupola (<i>meta</i>) of the cathedral	
		Clemente IV pope (1264–1268)
1265–1268	execution of the pulpit of the cathedral, the work of Nicola Pisano and his assistants	

Appendix 1: (continued)

Dates	The Cathedral and the <i>Opus Sancte Marie</i>	Historical Events
		Battle of Benevento, Manfredi dies (1266) Carlo d'Angiò, King of Sicily and Naples (1266–1282) King of Naples (1282–1285) Battle of Tagliacozzo, Corradino dies (1268)
1268	fire in the Episcopal palace	
1273–1281		Bernardo bishop of Siena
1274	the establishment of the quantity of wax owed yearly to the <i>Opera</i> by the peasant community with regards to their tax assessments (<i>alliramento</i>)	city statute compilation
1277	petition presented to the general council of the <i>Comune</i> by the bishop Bernardo to request financing for the reconstruction of the Episcopal palace, <i>quod est speciale palatium Communis Senarum</i>	anti-magnate legislation
1280		(29 September) general truce between the Guelf and Ghibelline factions of Siena Renaldo Malavolti bishop of Siena
1282–1307		
1284–1310 ca.	works done on the western façade of the cathedral	
[1285–1286]	norms and regulations related to the construction of the sacristy of the cathedral	
1287–1355		Government of the Nine
1287		city statute compilation
post 1287		the <i>camarlengo</i> of the <i>Biccherna</i> and all of the city officials could not reside in the branch of the <i>Opera</i>
1287–1288	construction of Duccio's windows behind the main altar of the cathedral	
1290	attestation of Giovanni Pisano as the Master builder (<i>capomaestro</i>) on the <i>Opera</i>	
ante 1296	demolition project of the old baptistery of San Giovanni and Giovanni Pisano's project for rebuilding in the <i>Piano di Santa Maria</i>	
1296	(May) bureaucratic and organizational restructuring of the <i>Opera</i>	
[1296–1297] post 1296	Giovanni Pisano's departure from Siena construction of the main nave of the cathedral	
1298–1310 ca.		edification of the <i>Palazzo Pubblico</i> on <i>Piazza del Campo</i>
[1301–1304]	demolition of the old baptistery of San Giovanni	
1307–1316		Ruggero da Casole bishop of Siena

Appendix 1: (continued)

Dates	The Cathedral and the <i>Opus Sancte Marie</i>	Historical Events
1308	(April) bureaucratic and organizational restructuring of the <i>Opera</i>	
1308–1311	execution of the <i>Maestà</i> by Duccio di Boninsegna	
1315	(15 July) the general Council deliberates <i>pro ecclesia Sancti Iohannis reponenda</i> ; Tino di Camaino is present in the building site of the cathedral attested as Master builder in 1320	
1316–1319	bureaucratic and organizational restructuring of the <i>Opera</i>	
1316–1350		Donusdeo Malavolti bishop of Siena
1317	work begins on the extension towards Vallepiana, including the new baptistery of San Giovanni and the cathedral's new overhanging choir, attached to a single façade	
1325–1348 ca.		edification of the <i>Torre del Mangia</i> (tower of <i>Mangia</i>)
1337–1339		city statute compilation
1339	(July) the office of the <i>operaio</i> is extended to one year	
	(23 August) the General Council deliberate the questions regarding the edification of the new <i>Duomo</i>	
1340	(March) Giovanni d'Agostino is granted a five-year contract as Master builder (<i>capomaestro</i>)	
1348	likely date of death of Giovanni d'Agostino	Sieneſe plague epidemic
1351–1371		Azzolino Malavolti bishop of Siena
1355	opinions regarding the demolition and necessary work for attaching the structure of the new <i>Duomo</i> to the pre-existing one	Emperor Carlo IV's first visit to Siena; the Government of the Nine falls and the Government of the Twelve is instituted
1355–1368		Government of the Twelve
1357	(end May–June) momentary work interruption following the demolition or perhaps the collapse of the new <i>Duomo</i> ; Domenico d'Agostino is temporarily relieved of his post	
1359–1360	construction of the new sacristy	
1361–1362	demolition of the vaults in the area beneath the old choir of the cathedral and partial filling of this area	
1363		Sieneſe plague epidemic
1364	closing of the <i>occhio della rota</i> holding the Duccio's windows and of the last windows of the new choir of the cathedral;	

Appendix 1: (continued)

Dates	The Cathedral and the <i>Opus Sancte Marie</i>	Historical Events
1367	<p>pact between the <i>Comune</i> and the <i>Capitolo</i> for the management of the cathedral sacristy by the <i>operaio</i> of Santa Maria (<i>Pacta et capitula vetera</i>)</p> <p>new pact between the <i>Comune</i> and the <i>Capitolo</i> for the management of the cathedral sacristy by the <i>operaio</i> of Santa Maria (<i>Pacta et capitula nova</i>)</p>	<p>Emperor Carlo IV's second visit to Siena; the Government of Twelve falls and the Government of Reformers (<i>Governo dei Riformatori</i>) is instituted</p>