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One faith for different realities: accounting and management practices of Benedictine monasteries

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Abstract

Purpose – This paper aims to explore how the accounting and management practices of monastic institutions were shaped by their surrounding social, political, geographical and economic environments, as well as religious ideologies, during critical historical periods.

Design/methodology/approach – By applying institutional theory and the comparative international accounting history perspective, this study conducts a comparative analysis of archival records from two monasteries, examining how their accounting and managerial practices were influenced by differing institutional logics. The research relies on systematic archival data collection, complemented by secondary sources, to analyze how religious beliefs shaped the accounting and management practices of these institutions and the degree of convergence between the two.

Findings – This study found that both monasteries adapted their accounting and management practices to their external environments. San Placido demonstrated resilience amidst disruptions such as wars and earthquakes, while Silos showed financial sophistication through diverse income streams. The resilience of these institutions was driven by their ability to align internal operations with external political, economic and social factors. This adaptability, coupled with strategic management, enhanced their capacity to maintain financial stability, illustrating the direct link between external changes, organizational resilience and improved financial health.

Research limitations/implications – This study highlights the historical interplay between religious principles and accounting management practices in Benedictine monasteries by comparing two monasteries. It reveals how external environments shape internal operations, showcasing the resilience and adaptability of these institutions in maintaining financial sustainability through the alignment of external pressures with internal resilience mechanisms, which in turn bolster their financial health.

Originality/value – This research contributes valuable insights to historical managerial and accounting literature, shedding light on the financial resilience and strategies used by Benedictine monasteries. It underscores the enduring respectful legacy of their accounting practices and the unique interplay between spiritual devotion and organizational structure within these institutions.

Keywords Accounting history, Management history, Benedictine monasteries, Comparative analysis, Resilience

Paper type Research paper



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1. Introduction

As deeply influenced by society, religious institutions represent an emblematic context where accounting developed and increased (Cordery, 2015; Quinn *et al.*, 2022).

Indeed, religious institutions, historically grounded in spiritual and doctrinal governance (Pfang, 2015), have increasingly adopted formal accounting and management practices as part of their institutionalization process (Carmona and Ezzamel, 2006). The significance of this shift is multifaceted, extending beyond mere financial transparency. It reflects a broader trend of organizational accountability within these institutions. The adoption of accounting and management practices ensures that religious organizations are better equipped to manage resources, comply with regulatory frameworks and enhance their credibility with stakeholders, including congregants and donors (Jacobs, 2004). As religious institutions often engage in social, educational and charitable functions, the integration of standardized accounting procedures and management systems enables them to efficiently allocate resources and measure their impact, aligning with modern expectations of governance and accountability (Njobvu *et al.*, 2020).

Monasteries were a distinctive part of the religious landscape in Europe. Although not exclusively Christians, they represent, until now, the most durable form of communal life likely to be credited with remarkable achievements in accounting (Ponzetti, 2014). The accounting and managerial practices developed within monastic communities continue to shape modern accounting principles and techniques and “provide an interesting environment to deepen the understanding of governance since they have been successful through time and history” (Rost *et al.*, 2010, p. 91). Accordingly, the enduring presence of Benedictine abbeys could be attributed to an appropriate comprehension and use of financial management and control management accounting (Dobie, 2008). One may argue that these kinds of activities served to network, organize and maintain equilibrium among a variety of intricate territorial interests or accountabilities, which were embodied by the people, groups, organizations and assets that the abbeys were a part of (Bigoni *et al.*, 2021).

Monasteries’ accounting and managerial practices have been influenced by social norms, cultural values and economic contexts, seeking support and legitimacy from external stakeholders (Carmona and Ezzamel, 2009; Payer-Langthaler and Hiebl, 2013; Cordery, 2015). Nevertheless, accounting and management practices are not exempt from ethical content (Aho, 2005) and religious principles that shape the ethical standards upheld in financial and administrative matters (Payer-Langthaler and Hiebl, 2013). The analysis underscores the role of spiritual principles as an ethical framework guiding decision-making and behavior within religious institutions (Bruton and Sheng, 2023). Indeed, practices have also been conditioned by the strong impact that the values evoked in the core guideline for the spirituality and community life of the monk (Masiero *et al.*, 2022), the so-called Rule of St. Benedict (or *Regula Benedicti* in Latin, hereafter abbreviated in RB), epitomized by the motto “ora et labora” (prayer and work) (Feldbauer-Durstmüller *et al.*, 2012; Rost *et al.*, 2010; Ruppenthal, 2020), that not only have significantly shaped the spiritual formation of monks but also have influenced the accounting and management practices of the Order (Masiero *et al.*, 2022). The motto synthesizes the two main perspectives of Benedictine life: spiritual and material. The first refers to prayer as transcendent and continuous contact with God; the second is a duty, the pathway to finance the terrestrial existence (Gehra *et al.*, 2007; Ruppenthal, 2020) and a service to other people within and outside the monastery (Tredget, 2002). The RB exemplifies the main trait that sets Benedictine abbeys apart from other religious communities, such as Mendicant monastic orders, which refuse to pursue property and wealth (Payer-Langthaler and Hiebl, 2013). The RB’s principles of values, such as charity, learning and teamwork, foster a communal approach to problem-solving,

emphasizing education, commitment and the management of team dynamics, particularly among new entrants (Mendenhall *et al.*, 2023). These values serve as motivational drivers and cultivate a sense of responsibility, enabling monasteries to achieve enduring performance and longevity (Wirtz, 2017).

Our study intends to reply to the call launched by Quinn *et al.* (2022) on “detailed accounting practices within the Jesuits or other similar organisations” (p. 278) and how the improved institutionalization of accounting and management practices in the religious institution contributed to the organization’s legitimacy through the implementation of precise accounting activities at the local-global level (Quinn *et al.*, 2022). Indeed, the global management system is not simply reproduced at the local level. Still, it is reshaped and made to work for that specific level (Cruz *et al.*, 2011), showing how much localization is a powerful force deriving from local practices and knowledge.

Many studies have explicitly theorized accounting and managerial practice from a historical perspective in the Benedictine realm (Feldbauer-Durstmüller *et al.*, 2012; Rost *et al.*, 2010; Gomes *et al.*, 2022; Payer-Langthaler and Hiebl, 2013; Ruppenthal, 2020; Wirtz, 2017). However, little historical research has been done on how, at the local level, it was considered, used, interpreted and implemented as a system that “travels” through interconnected times and locations (Cruz *et al.*, 2011).

The present provides a first step regarding the historical process of localization of accounting and management practices in use in the same religious context but in different geographical areas and, therefore, also political, social and economic contexts. Accordingly, the study intends to assist researchers in shedding light on the accounting and managerial practices related to two Italian and Spanish monasteries, providing insights into the two systems regarding monastery characteristics, accounting and managerial rules considered in the contexts in which they operate, recognizing them as “*situated crafts*” (Chua, 2007, p. 487). It argues that this could better explain how “skillful” practices are essentially locally constituted (Malmi and Brown, 2008) and how effective they are, and enhance our understanding not only of formal systems but also of the impact of administrative, cultural, political and social control and whether/how they complement or substitute for each other in different contexts. Although the cultural backgrounds of the two countries can be considered similar because of the long Spanish domination of Sicily and its consequent profound influence on the Sicilian culture (Dendeleit and Marino, 2006), the two analyzed monasteries had different developments strictly linked to the political, social and economic situation of Italy and Spain.

Hence, through the lens of institutional theory, which explains how external pressures influence organizational practices (Ribeiro and Scapens, 2006; Powell and DiMaggio, 2012), this study aims to examine how accounting and management activities of the Monastery of San Placido (Italy) and the Monastery of Silos (Spain) were shaped by their surrounding social, political and economic environments, as well as their religious ideals during critical historical junctures.

The main research questions of this article are:

- RQ1. How and to what extent were the two Benedictine monasteries’ accounting practices and management activities influenced by the social, political, geographical and economic environment?
- RQ2. To what extent have the two monasteries’ accounting and management gathered the requests from their religious ideals?

The research involves a systematic examination and analysis of the historical documents and records related to the monasteries’ operations, administration, financial transactions and

decision-making processes. By studying these archived documents, such as account books, ledgers, correspondence, administrative records and other exciting information, the research allows for the comprehensive reconstruction (Carrard, 2015) of valuable insights into the monasteries management practices, organizational structure and accounting procedures (Brown, 2014; Johnson, 2016; Smith, 2018). The analysis of these primary sources enables a deep understanding of the historical context, institutional dynamics and financial operations of the monasteries.

Expanding on the comparative international accounting history (CIAH) perspective (Carnegie and Napier, 2002; Patuelli and Carungu, 2020), this study analyzes how internal accounting and managerial practices were affected by different institutional logics (Gernon and Wallace, 1995) and the degree of convergence that the religious belief determined on the two managerial and accounting practices of the Monastery of San Placido (Italy) and the Monastery of Silos (Spain). The comparative analysis is based on non-homogeneous and often fragmentary data. The availability of Archival sources mainly refers, on the one hand, to the limited availability of data because of various natural and non-natural events that have prevented their conservation over time; on the other hand, because data have been collected from different nations with different languages and different levels of difficulty in their availability (McWatters and Foreman, 2005).

Given that “history examines ‘the past’ based on sources that have survived” (McWatters, 2020, p. 251), the analysis allows us to highlight aspects relating to the accounting and management systems of the Monastery of San Placido and the Monastery of Silos during a period in which Sicily suffered consequences of the Spanish domination. Despite similar causes operating in both nations, the impact of the turbulence of the period was significantly different on the monasteries because of the highly distinct contextual conditions relevant in each country. Although long-term parallels exist between macroeconomic and social situations, time-specific factors have more influence (McWatters and Foreman, 2005).

The study provides key insights into how Benedictine monasteries have historically balanced religious ideals with financial and managerial practices. By examining the contrasting experiences of the San Placido Monastery in Italy and the Monastery of Silos in Spain, it illustrates how different social, political and economic contexts influence internal accounting and management strategies. This research underscores the monasteries’ ability to adapt and sustain financial health despite external challenges, highlighting the integration of spiritual values with effective financial management (Jacobs, 2004; Irvine, 2004). Additionally, it contributes to the broader understanding of the evolution of accounting and managerial practices within religious institutions (Quinn *et al.*, 2022), emphasizing the enduring influence of these practices on contemporary accounting and organizational governance.

This article is organized into five main sections. Following this introduction, a theoretical framework is presented to examine the complex relationship between accounting and religion regarding religious institutions. Section 3 focuses on the methodology, providing specific details regarding the analyzed documents. Section 4 describes and compares the Monastery of San Placido Calonerò and the Monastery of Silos in their historical context. The conclusions highlight the contribution of this study to historical literature.

2. Theoretical background

2.1 Institutional theory and religious institutions

Institutional theory has been used to explain a wide range of social phenomena, such as organizational behavior and change (Kondra and Hinings, 1998), the diffusion of innovations (Klaas *et al.*, 2010), environmental sustainability and corporate social

responsibility (Larrinaga, 2007; Grob and Benn, 2014; Herold, 2018; Naciti, 2022) and the development of accounting practice norms (Dobie, 2015).

Several studies have delved into the emergence, evolution and transformation of accounting practices using the framework of institutional theory, exploring how external factors and institutional pressures influence the behaviors and practices of organizations and individuals within the accounting field (Ribeiro and Scapens, 2006; Bruton *et al.*, 2010; Powell and DiMaggio, 2012). This perspective offers valuable insights into the sociocultural and political dimensions of accounting, elucidating the factors contributing to variations in accounting methodologies across different nations, sectors and entities. Furthermore, institutional theory has been applied to analyze the accounting practices and management control within religious institutions. Cordery (2015) highlights the pivotal role of accounting in the development of religious organizations, where management accounting techniques were used to enhance productivity and efficiency, alongside the implementation of internal controls. The adoption of double-entry bookkeeping facilitated improved financial management, particularly in larger and more complex institutions. The introduction and evolution of accounting within various institutions were motivated by the belief that it would establish order and facilitate transparent reporting of donation management (Cordery, 2015). Quinn *et al.* (2022) used institutional theory to investigate the evolution of accounting control regulations within the Society of Jesuits (Jesuits) from 1646 to 2005. They found that the Jesuits displayed adaptability, implementing comprehensive accounting control regulations compared to other religious organizations. Similarly, Dobie (2015) examined Benedictine monasteries in England, focusing on regulations concerning accounting, financial and managerial procedures evident in the chapters' records. The establishment of chapters was interpreted as an initiative to create a long-term institutional structure for executing and maintaining amendments. Dobie's studies also explored financial record-keeping practices in monastic structures, including financial administration and control within English monastery institutions and estates (Dobie, 2008), as well as the accounting system of the grantor at Durham Cathedral Priory (Dobie, 2011). These investigations highlighted the importance of accurate record-keeping and accountability in Benedictine monasteries, reflecting a growing emphasis on precision in financial statement preparation, auditing processes and internal controls.

Orelli *et al.* (2013) examined the Franciscan Monte di Pietà credit institution in Italy, revealing significant adjustments in accounting processes because of regulatory measures. These adjustments led to increased organizational complexity and the implementation of advanced internal control methods, emphasizing the institution's pivotal role in adopting meticulous bookkeeping practices. Antonelli *et al.* (2021) explored the role of accounting in the Papal States before Italy's unification in 1870, highlighting the Pope's recognition of accounting's importance in governance. Additionally, studies on Arab-Muslim systems focused on the adoption of waqf accounting by religious institutions (Talib *et al.*, 2020). Waqf involves allocating resources for future use, and Talib *et al.* (2020) analyzed institutional pressures influencing waqf reporting implementation in the State Islamic Religious Council of Malaysia, discussing integration challenges faced in waqf accounting and reporting systems.

Institutional theory offers a comprehensive framework for examining how organizational practices develop and adjust in response to external influences and societal expectations. Nevertheless, according to our knowledge, there is a lack in the existing body of studies concerning the comparative examination of accounting methods inside religious institutions across diverse cultural and geopolitical settings. Although previous research has examined accounting practices within specific religious contexts (Cordery, 2015;

Dobie, 2015; Orelli *et al.*, 2013), studies that compare how similar religious institutions modify their accounting and management practices in different social, political and economic settings do not provide sufficient investigation. In this study, institutional theory is used to examine how the accounting and management practices of two Benedictine monasteries, San Placido (Italy) and Silos (Spain), have been influenced by their respective social, political, geographical and economic contexts.

2.2 Accounting, management and religious institutions

Scholars in both management history (De Vaujany, 2010; Rost *et al.*, 2010; Miller and Power, 2013; Wirtz, 2017; Ruppenthal, 2020; Bowden, 2020) and accounting history (Cordery, 2015) have extensively examined religious organizations. De Vaujany (2010) noted the involvement of monks in developing and disseminating proto-managerial techniques in accounting, often driven by the aim of enhancing economic efficiency within religious organizations. Quinn *et al.* (2022) conducted a comprehensive study on accounting controls within the Society of Jesus from the mid-17th century to the present, revealing consistent stability in regulations, with adjustments influenced by internal dynamics and external factors. They call for further research into detailed accounting practices within the Jesuits and similar organizations, suggesting potential avenues for studying not-for-profit entities, religious or secular, with documented rules and practices. Cooper and Robson (2006) highlighted the influential role of accounting systems in shaping resource creation and allocation, defining organizational and social rationality and value.

Llopis *et al.* (2002) investigated the implementation of an innovative accounting procedure within the Monastery of Guadalupe, a Spanish religious institution. Leardini and Rossi (2013) focused on the Santa Maria della Scala monastery in Verona, Italy, during the Middle Ages, highlighting accounting's role as a tool for power and control. Liyanarachchi (2009) explored accounting and auditing practices in Buddhist monasteries in ancient Sri Lanka, emphasizing their importance in resource management. Cordery's (2015) review identified expanding interests in the intersection of accounting history and religion, noting relatively unexplored topics in the field. Prieto *et al.* (2006) examined the accounting records of the Benedictine Monastery of Silos in 18th-century Spain, demonstrating how these records provided insights into the monastery's patrimony management amidst changing economic conditions. In addition, RW Hiebl and Feldbauer-Durstmüller (2014) discussed the governance of Benedictine monasteries, mainly focusing on the role of the Cellarer as a chief financial officer (CFO) in traditional corporations within the monastery's financial management context.

Bigoni *et al.* (2021) explored the depiction of time and space in an Italian Benedictine priory, while Dobie (2008, 2015) focused on the accounting, management and control practices of the Durham Cathedral Priory's Benedictine corporation. Gomes *et al.* (2022) investigated the relationship between governance and accounting in Benedictine organizations, particularly regarding the role of female leadership in monastic orders. Despite the existing research, the level of studies on monastic accounting remains relatively low compared to the social significance of religious institutions (Quattrone, 2004). Additional research is required to comprehend how accounting documents capture all financial transactions occurring within and between monasteries and external entities (Prieto *et al.*, 2006). Benedict (ca. 480–547 C.E.) wrote the Rule of St. Benedict, a pragmatic manual for structuring and governing Benedictine monasteries, and in 1586, Angelo Pietra proposed a practical treatise called *Indirizzo degli Economi*, specifically for the administration of the Benedictine order.

Furthermore, some studies investigate the internal drivers influencing the accounting and managerial system, such as faith and spirituality (Payer-Langthaler and Hiebl, 2013), governance structure (Wirtz, 2017) and internal governance mechanisms (Keplinger and Feldbauer-Durstmüller, 2023).

Indeed, as Ruppenthal (2020) asserts, the study of the accounting and management system within the Benedictine Order unveils enduring values and ideals that have propelled the Order through time. The interconnectedness of community, business and ethics, as revealed by Inauen *et al.* (2010), underscores the pivotal role of the RB as the guiding force that has steered the Order's journey over time. This enduring nature of the Order, rooted in its values and ideals, is a testament to its continuity and tradition.

The Benedictine community was socially inclusive (Tredget, 2002). No social distinction was permitted between those who came from wealthy families and those who came from poor ones. Entering the Benedictine monastery meant accepting a new way of understanding how individuals can flourish and grow together by embracing religious and spiritual tasks. Nevertheless, the monks lived in cenobite, implying to provide for their economic and social necessities (Ruppenthal, 2020); consequently, considering the responsibility of paying attention to people's interior values implied also making the external form of life consistent with the inner values (Chan *et al.*, 2011). The RB, which guides monks' daily lives, cultivates a lifestyle deeply connected to God, reflecting Christian principles as a common value system (Ruppenthal, 2020). According to Wirtz (2017), the RB comprehends a three-pillar system, two of which regard internal control the embeddedness of the monk in common value and the possibility for monks to express their point of view on crucial decisions and an "external control mechanism emanating from the ecclesiastical hierarchy" (p. 16). The central Values of Obedience (RB Chap. 5), Humility (RB Chap. 7), Stability (RB Chap. 58), Spiritual growth and moral improvement (RB Chap. 4), Prayer and work (RB Chap. 48), Hospitality (RB Chap. 53), Silence and Contemplation (RB Chap. 6), Community life (RB Prologue), Discernment (RB Chap. 3) and Moderation (RB Chap. 39), represent a broader value-based perspective that implies also a sustainability guiding principle (Shrivastava and Kennelly, 2013). According to Ruppenthal (2020, p. 44):

For 1,500 years, Benedictines have lived within their abbeys as a community that owes their existence to previous generations (Feldbauer-Durstmüller *et al.*, 2012) and seek to serve, through the intergenerational contract, future generations (RB 1 and RB 58).

Through the lens of institutional theory, this manuscript provides a comparative analysis of two accounting systems within Benedictine institutions: the Sicilian Monastery of San Placido Calonerò and the Monastery of Silos in Spain. The analysis considers the differing historical and institutional contexts, with San Placido Calonerò operating under Spanish domination and Silos being part of Spain, the dominant nation influencing Sicily. This comparison offers valuable insights into how institutional pressures and historical contexts shape accounting practices in religious institutions.

3. Methodology

3.1 Data collection

Through the lens of institutional theory, this study used a multiple case study of the Monastery of San Placido (Italy) and the Monastery of Silos (Spain) in the span period 1671–1715, aligning with Eisenhardt (1989), Cooper and Morgan (2008) and Yin (2003), to provide in-depth descriptions of the phenomenon. This approach, highlighted by Previts *et al.* (1990), facilitates a holistic view of accounting history issues, considering various variables for comprehensive analysis.

The choice of the Monastery of San Placido in Italy and the Monastery of Silos in Spain for this study was driven by their unique historical and documentary significance. The Monastery of San Placido Calonerò, one of Sicily's oldest Benedictine monasteries, has a tumultuous history marked by wars, disasters and relocations. This rich historical backdrop, coupled with the availability of detailed documentary sources, makes it an exemplary case for examining the interplay between external disruptions and internal management practices.

Similarly, the Monastery of Silos in Spain offers a compelling case study because of its longevity and wealth of documentary sources. Established during the Visigothic era and later restored in the 11th century, Silos has a continuous historical record that includes significant architectural and financial developments.

Constructs were used to organize data and establish connections with existing literature, while Yin's (1994) emphasis on pattern replication strengthened the robustness of findings. Case studies prioritize analytical insights over statistical generalizations, adhering to replication logic for external validation, as per Yin (1984). Each case complemented others, contributing to affirming or negating conclusions.

A deductive approach was used, amalgamating previous field achievements with current study outcomes (Cargan, 2007). Saint Placido Monastery and Silos Monastery were chosen as emblematic cases: the former for its unique history marked by disasters and wars as one of Sicily's oldest Benedictine Monasteries, and the latter for its longevity and wealth of documentary sources. These cases offered insights into organizational norms and values reflected in management practices and the influence of societal changes, especially regarding the long-term use of the charge and discharge method.

The study used two main data collection methods to provide a comprehensive analysis of the accounting and management practices of the Benedictine monasteries. These methods included:

- (1) *Interview*: one significant interview was conducted via telephone with Padre Lorenzo Maté of the Monastery of Silos. He provided interpretations of specific accounting documents, offering valuable firsthand insights into the monastery's financial practices.
- (2) *Archival research*: extensive archival research was performed to gather historical documents, accounting records and other relevant materials. This research provided both qualitative and quantitative data, enabling a detailed analysis of the monasteries' financial management over time. In particular, this study involves the analysis of authentic accounting documents sourced from the State Archives of Messina ASM and Archivo del Monasterio de Silos, as shown in Table 1. The examined reports offer helpful information for outlining the history and understanding the socioeconomic context in which the San Placido Calonerò Monastery and Monastery of Silos evolved (Ciambotti, 2009).

These diverse data collection methods yielded a mix of qualitative and quantitative data, allowing for a robust and nuanced understanding of how external and internal environments influenced the management and accounting practices of the monasteries.

Furthermore, the study used a diverse range of secondary sources, including websites, scientific publications and newspapers, to support its analysis. This variety of sources ensured that the study was thoroughly and reliably reliable. Among them:

- [Moreno et al. \(2004\)](#): This source, "La actividad financiera del Monasterio de Silos en el siglo XVIII a la luz de sus libros de cuentas" was used to analyze the financial activities of the Monastery of Silos in the 18th century. The study leveraged this

Table 1. Main archival sources

Volume's content	Period	
<i>San Placido Calonerò Monastery (Italy)</i>		
<i>Messina State Archival (A.S.M.) Suppressed Religious Corporations Fund</i>		
Wills and donations	XV-XVII	Vol. n. 118
Volume of various <i>instruments</i>	XV-XVII	Vol. n. 119
Subjugation volume	(1557–1816)	Vol. n. 120
Annuity contracts	XVI-XVII	Vol. n. 122
Reconnaissance documents on large estates	1830–1838	Vol. n. 124–125
Journals and ledger	1671–1678	Vol. n. 126
Journals and ledger	1704–1709	Vol. n. 127
Journals and ledger	1709–1715	Vol. n. 128
<i>Censos</i> register	XIX	Vol. n. 138
<i>Ricettario</i>	1851–1866	Vol. n. 139
<i>Monastery of silos (Spain)</i>		
<i>Archival of Monastery of Santo Domingo de Silos</i>		
Libro del Mayordomo (Cellarer's book)	1692–1705	Scheet n. 334
Libro del Mayordomo (Cellarer's book)	1720–1731	Scheet n. 339
Libro del Depósito (deposit book)	1697–1722	Scheet n. 333
Libro del Depósito (deposit book)	1722–1742	Scheet n. 270
Constitutions of the Congregation of our Glorious Father Saint Benedict of Spain and England, printed in Madrid (1671, 1701)		
Additions to the Constitutions approved in the General Chapters between 1701 and 1789		

Source: Authors' elaboration

work to draw on historical accounting records and gain insights into how financial transactions were managed. It provided a foundation for understanding the accumulation and management of the monastery's patrimony and the functioning of its sophisticated accounting system.

- [Maté Sadornil et al. \(2008\)](#): “Contabilidad, información y control en un contexto de actividades económicas diversificadas en la edad moderna”; this source was used to explore the diversified economic activities of the monastery and the role of accounting in managing these activities. It contributed to the discussion on how the accounting system was designed to handle financial and resource management, particularly in contexts of complexity and diversification.
- [Prieto et al. \(2006\)](#): “The accounting records of the Monastery of Silos throughout the eighteenth century: The accumulation and management of its patrimony in the light of its accounts books”; this paper allows us to understand the sophisticated bookkeeping system used by the Benedictine monks of the Monastery of Silos during the 18th century and the procedures for which were set down in the Constitutions of 1701 of the Congregation of Saint Benedict of Valladolid.
- Il Monastero Benedettino di S. Placido di Calonerò', described in [Gazzetta del Sud \(1976\)](#), newspaper was useful to understand historical changes affecting monasteries. This source focused on the upheavals, such as wars and relocations, faced by the Benedictine communities. It helped explain the disruptions in financial records and highlighted the adaptability of the Monastery's financial strategies.

These secondary sources helped provide historical accuracy and depth to the financial practices studied, allowing the research to draw parallels between past and present-day accounting systems.

3.2 Data analysis

Following other comparative studies in the field of accounting and management (Leoni and Florio, 2015; Patuelli and Carungu, 2020; Yuan and Macve, 2024), we adopt a CIAH perspective to provide a framework for understanding how accounting and management practices evolve and differ across countries (Carnegie and Napier, 2002; Antonelli and D'Alessio, 2011).

Within this framework, Carnegie and Napier (2002) introduced a set of seven dimensions to facilitate the comparative analysis of the evolution of accounting systems and practices. They clarified that these dimensions were not intended as a universal model for CIAH research but rather aimed to structure comparisons. Nonetheless, they acknowledged that these dimensions could serve as valuable focal points for subsequent studies:

- *Period*: accounting progress is intricately linked to a specific era's prevailing political, economic and social dynamics.
- *Places*: variations in political, economic and social landscapes across different regions contribute to divergent accounting advancements.
- *People*: the aspirations and leadership of key figures exert significant influence on the trajectory of the evolution of accounting.
- *Practices*: historical and contemporary accounting practices shape the future course of accounting development.
- *Propagation*: effective communication channels are essential for propagating accounting ideas.
- *Products*: the evolution of accounting can yield diverse results, including formal records, reports, service providers and regulatory frameworks.
- *Profession*: advancements in accounting may culminate in establishing professional cohorts and adopting standardized practices.

These seven dimensions will serve as our framework to compare two Benedictine monasteries by examining the evolution of accounting systems in the context of cultural, economic and institutional factors.

Hence, this study emphasizes the shared and contrasting elements between the Monastery of San Placido in Italy and the Monastery of Silos in Spain, both of which are part of the Benedictine order and operated during the 17th and 18th centuries.

The selection of these two monasteries in separate countries is based on their contrasting characteristics. One monastery is marked by instability, resulting in frequent "hot situations" (Callon, 1998), while the other exhibits stability and a broader consensus on the fundamental principles of a specific framework (Christner and Sjögren, 2022). This provides a unique opportunity to explore the impact of institutional logics on internal accounting practices and management control, where the concept of "internal accounting practices" likely refers to the systems and methods used by the monasteries for financial management, resource allocation and recording of economic transactions. In this sense, the study explored whether differences in institutional logic, shaped by factors such as economics and political systems, led to variations in how these monasteries approached accounting and financial management.

4. Different contexts and practices: a comparative study of two monasteries

4.1 Period

Rowlinson *et al.* (2019) underscore the multifaceted significance of dates in historical narratives, highlighting their role as more than mere temporal markers but as symbolic representations of historical contexts and societal experiences. This perspective illuminates a broader understanding of historical events beyond their chronological sequence, urging readers to draw upon their preexisting knowledge for nuanced comprehension. The historical dynamics between Italy and Spain have been characterized by Spanish hegemony over various Italian regions since the 13th century, as evidenced by the control exerted over Sicily through appointed Viceroy's dispatched from Spain (Königsberger, 1946). While differing degrees of oppression were observed across regions such as Naples, Milan and Sicily, historical events such as the Messina rebellion from 1674 to 1678 illustrate the discontent among local populations toward Spanish rule. Such events precipitated Sicily's transition from Spanish to Austrian dominance. Within the Spanish imperial framework, Sicily emerged as a unique case with distinct governance structures, including tight control by Spanish monarchs over the Sicilian Church and significant autonomy granted to the city of Messina, particularly in trade (Villari, 1973; Giarrizzo and D'Alessandro, 1989). However, internal conflicts, economic decline and external pressures contributed to the waning political and economic power of Messina, particularly evident in the early 18th century (Finley *et al.*, 1990). The establishment of a Free Port in Messina by Charles II in 1695 facilitated the city's gradual recovery by alleviating import and export duties and granting various immunities. Despite changes in governance, such as transitions from Spanish to Austrian rule, the Sicilian administration remained largely stagnant, characterized by increasing taxation and centralization of power under viceroys representing the crown (Correnti, 1985). These factors drove discontent among the population, underscoring the intricate interplay of political, economic and social forces in historical narratives.

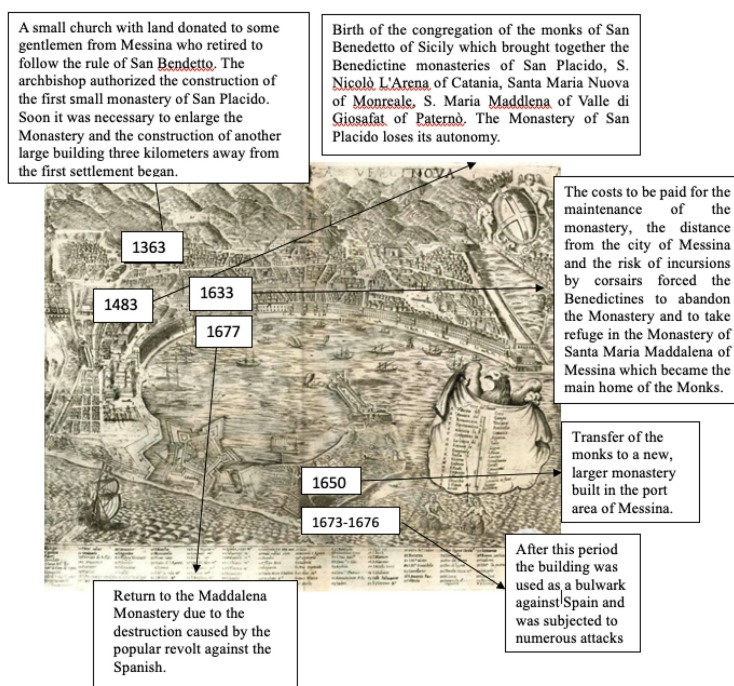
Hence, in the 18th century, Sicily was predominantly agricultural, with peasants cultivating land under contracts. The city of Messina had lost its importance as a port because of the opening of new routes to the East, leading to a decline in trade.

During this period, Sicily emerged as a unique case within the Spanish imperial system, characterized by the tight control of the Spanish monarchs over the Sicilian Church and civil authority. In response to oppressive Spanish governance and fiscal burdens, Messina initiated a revolt in 1674, seeking self-governance and integration with France. The conflict between France and Spain escalated as French forces intervened in Messina, leading to the city declaring loyalty to Louis XIV in 1675. Despite Spanish efforts to quell the rebellion, it persisted until 1678, resulting in a decline in Messina's political and economic power. Subsequent efforts to revitalize Messina's economy, including establishing a Free Port in 1695, proved insufficient as Sicily changed administration. Notwithstanding various rulers, including Spanish, Savoy and Austrian, the Sicilian administration remained outdated, leading to discontent among the population. By the 18th century, Sicily remained predominantly agricultural, with the decline of Messina's importance as a port and primitive agricultural technique contributing to economic stagnation. Despite periodic crises such as the earthquake of 1693 and the war of succession, Sicily relied on the grain and silk trade for income, with a fluctuating population migrating to cities.

4.2 Places and people

4.2.1 *Monastery of San Placido.* The Monastery of San Placido Calonerò in Messina, Italy, boasts a rich history shaped by the city's turbulent past. Established around 536 by San Placido, it faced destruction by Saracens but experienced a resurgence in 1086 under the

Normans. In 1291, Benedictines expelled from Palestine sought refuge, earning the monastery the title of Priory. Despite a decline, in 1363, a group withdrew under St. Benedict's rule, constructing a new monastery dedicated to San Placido with monarchy support. Elevated to an Abbey by Pope Urban V, its growing community necessitated a larger plot, which Count Andrea Vinciguerra granted. In 1483, it joined the Congregation of the Monks of San Benedetto in Sicily, later merging with the Cassinese Congregation, ending its autonomy. Financial constraints and the threat of pirates led Benedictine monks to abandon the monastery in 1633, seeking refuge elsewhere. The Monastery of San Placido experienced significant upheaval and relocation during the popular revolution of 1674–1678. Indeed, from 1673, the monks resided in a large new structure near Messina's port. The area was called the "Scythe area" because of its characteristic sickle-shaped morphology. However, amidst the revolution, the monks returned to the old construction of La Maddalena. The new monastery near the port was demolished to build the *Real Cittadella*, a fortress to control the city after the bloody revolt. The revolution's consequences led to many monks leaving their roles as professors because of the closure of Messina University by the Spanish government. The convent became a center of resistance during the anti-Spanish revolt, resulting in an attack and fire set by Spanish troops. The Monastery of San Placido also suffered damage during clashes between the Spanish and the French. Figure 1 illustrates the various locations and transfers of the Monastery of San Placido Calonerò.



Source: Authors' elaboration

Figure 1. Different locations of the Benedictine in Messina's territory (1600–1700)

In 1765, a new church dedicated to Saints Placido and Maria Maddalena was constructed. The monastery played a significant role in the Messina revolts of 1848 but was eventually destroyed by the Bourbon army. The monks then returned to the Monastery of San Placido until the Monastery of Santa Maria Maddalena was rebuilt and reopened in 1856. In 1866, both monasteries were dissolved, and the Italian state confiscated their assets. The legislation considered religious corporations unnecessary and detrimental to the economy, and the vows taken by the monks conflicted with principles of public order and individual freedoms.

4.2.2 Monastery of Silos. The Santo Domingo de Silos Abbey, situated near Santo Domingo de Silos in the southern region of Burgos Province in northern Spain, traces its roots back to the Visigothic era in the 7th century. Despite experiencing periods of decline, particularly during the Muslim occupation and raids of Almanzor, the monastery resurged during the rule of Count Fernán González in Castile (930–970). In 1041, Santo Domingo, prior to the San Millán de la Cogolla monastery, undertook the mission of restoring the Silos Monastery, resulting in the construction of a Romanesque church and enduring cloister.

Following Santo Domingo's patronage, the monastery thrived and attracted pilgrims, including Juana de Aza, whose son, Domingo de Guzmán, would later find the Dominican Order. In 1512, the monastery joined the Benedictine Congregation of Valladolid, forming a modern monastery adjacent to the medieval one.

In the 18th century, under the direction of architect Ventura Rodríguez, significant reforms were undertaken, including demolishing the original church to make way for a Baroque-style temple with a Greek cross plan inscribed in a square. This structure stands today as the Monastery of Silos in Spain, a testament to its enduring legacy and architectural significance.

The lack of economic resources prevented the cloister from having the same fate as the church (López, 2017). In 1835, the monastic life of Silos was interrupted because of the Mendizábal disentailment, resulting in the loss of part of its artistic and documentary wealth through looting. Finally, in 1880, a new community of Benedictine monks from the French abbey of Ligugé was established.

4.3 Practices and propagation: the benedictine rule

The concepts of organization of religious life aim to establish an order understood as a legal entity placed in a transpersonal way, above all the components, such as the individual monasteries and the central government bodies. Therefore, a unitary representation was necessary to guarantee the execution of regulations, controls and judicial requests. The driving ideas were collected according to a concrete statute perspective line approved by the community. For almost 15 centuries, the Rule of St. Benedict (RB) established by Saint Benedict of Nursia in 530 (Eckert, 2000), has been the basis of the productive and cultural organizational structure of the Benedictine order, the Roman Catholic religious community of confederated congregations of monks, lay brothers and nuns.

Inspired by scripture and the monastic tradition, the Rule contains the essence of the spirituality and community life of the Benedictine monastery and lays the foundations for the development of Western monasticism (Ponzetti, 2014). It includes precepts based on profound knowledge of human nature and structures the monastic life. Beyond its religious significance, the RB articulated a holistic approach to community life, emphasizing individual flourishing within a socially inclusive framework.

Benedict proposed a new system of rules that could be described as systematic, which includes valuable indications to contrast the natural tendency toward entropy. The Regula method is the result of the Western culture of the time, which looked at the concept of community as maximizing the individual's involvement within the limits of common

objectives. It highlights the value system concerning the life of the Benedictines, representing a broader methodological guide suitable for regulating the lives of individuals and communities and a sophisticated system of internal and external control mechanisms that prevented incorrect behavior and abuse by the abbots, who represented the undisputed leaders of each monastery (Prieto *et al.*, 2006).

Besides establishing a framework that governs the community, the Rule can be considered a masterpiece of organizational development and leadership ethics (Ponzetti, 2014).

As mentioned above, the abbot, chosen from among the monastery's monks, is the monastery's highest administrative and spiritual guide and the temporal leader of the community (Tredget, 2002). The monastery's religious authority elected the abbot and required him to possess "holiness of life and spiritual culture" (Chapter 64). In his duties, he was coordinated by the prior, a vice-abbot, who replaced him even in cases of absence or illness. The prior also had to sign the documents already signed by the abbot.

The appointment of deans was based on their wisdom, spiritual formation and conduct of their lives, regardless of their seniority. The division into *decanie* arose from the need to organize the work of the monks more effectively. Each dean coordinated a group of monks who carried out a similar or complementary activity. For example, a *decanie* could deal with the transcription of books or the cultivation of a specific crop.

Another typical Benedictine figure was the cellarer (Fry, 1981; Tredget, 2002; Prieto *et al.*, 2006; RW Hiebl and Feldbauer-Durstmüller, 2014), who oversaw the monastery's finances daily and the economic administration, similar to the CFO in a modern corporation (RW Hiebl and Feldbauer-Durstmüller, 2014).

The RB devotes the entire Chap. thirty-one to this critical function, which indicates the main characteristics for his appointment: sobriety, maturity and wisdom, without a turbulent or proud character, who must strictly obey the abbot. The cellarers constantly operated under the direct supervision of the abbot, to whom he had to account for his work. In addition to supplying the needs of the monks, the cellarer looked after the sick, welcomed the monastery's guests and provided for the care and maintenance of the goods.

According to the Rule, governance of the monastery was directed both to the preservation of the assets owned (RB, Chaps. 31, 32) and to the production aimed at satisfying the needs of the religious (RB, Chaps. 34, 55).

The Rule is crucial to regulating the monastery's relations with the external world. According to its instructions, the gatekeeper's office is significant and delicate. He represents the intermediary between the monastery and the world, the custodian of the peace of the monks and, at the same time, the community model. Given the importance of the monastic tradition to hospitality, crucial instructions are indicated for this issue. Here it is particularly pregnant with the influence of the Christin Gospel, more precisely Matteo 25,35: "For I was hungry, and you gave me food, I was thirsty, and you gave me drink, I was a stranger and you welcomed me."

4.4 Products and profession: ideals-based accountability

4.4.1 *Monastery of San Placido accounting system.* The Monastery of San Placido was examined between 1671 and 1678 and 1704 and 1715. Therefore, observing and analyzing about 20 years from the Journals and the Ledger was possible. As mentioned, the temporary discontinuity of the analyzed documents is because of the various transfers of monks from one location to another and to the earthquakes and wars that destroyed the city of Messina and caused their loss and deterioration. The accounting method used was based on the Tractise "Indirizzo degli economi o sia ordinatissima istruttione da regolamento formare

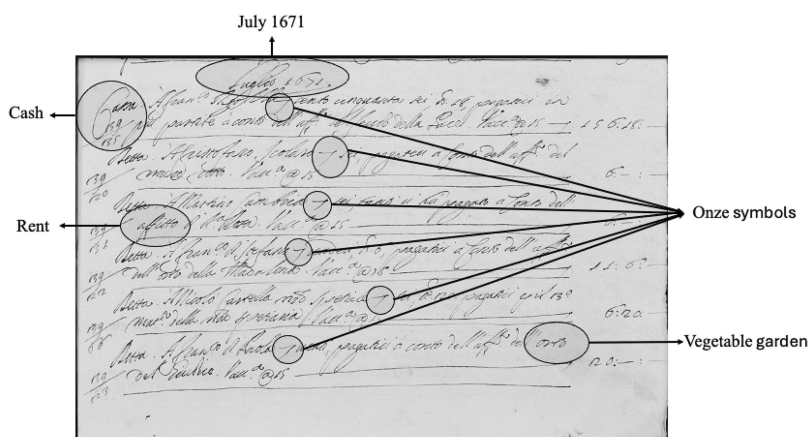
qualunque scrittura in un libro doppio. Aggiuntovi l'esemplare di un Libro nobile Co.'l suo Giornale ad uso della Congregatione Cassinese dell'Ordine in San Benedetto" written explicitly for the administration of the Benedictine by the monk Angelo Pietra in Mantua in 1586. The Tractise gives extensive and stringent instructions on using a double-entry bookkeeping system to prepare yearly financial statements, being the first to extend administrative rules to monastic life. According to [Quattrone \(2009\)](#), Pietra's Tractise, by allowing the fabrication of the accounting books and how they are organized or "imagined," can be considered a step toward understanding the fabrication of knowledge and the organization of the Order. The Tractise instructions allowed the matching of expenses to revenues and thus assigned – the entries, income and wealth of the monastery to each year. The instructions dealt not only with spaces (e.g. profit centers such as farms, vineyards and churches – for the charity received). As the relevant income had to be attributed to each agrarian year ([Quattrone, 2004](#)), it also concerned time, reflecting the main traits of a cyclical conception of time ([Bigoni et al., 2021](#)) highlighted by the Rule that refers to the new conceptual interpretation of time of the Middle Ages ([Adamo et al., 2020](#)). Indeed, annual reporting mirrors the linear understanding of time and allows the identification of limited periods, which helps measure the company's advancement ([Quattrone, 2004](#)). The delineation of cyclical phases of organizational practices, including those related to accounting practices such as budgeting and performance reporting, is also valuable for preserving organizational stability and educating actors on the current and future positions of the organization itself ([Jones and Oldroyd, 2009](#)). Such elaborated financial record-keeping and analysis were crucial for the monastery's organizations' informed decision-making, resource allocation and strategic planning.

The accounting records analyzed in this work refer to two distinct historical periods. However, the analysis will mainly focus on the period 1671–1678, characterized by a series of destabilizing events that better highlighted the monastery's management dynamics.

The following period (1705–1711), characterized by greater political and social stability, consolidated the analysis and confirmed the validity of the monastery's management effectiveness.

The examined Journals began on September 1, 1671. The journal's pages are numbered progressively, and the related registrations are reported monthly. The initial articles are related to the economic accrual of credits and debts each year. The same occurs for the various taxes and *censos* that had to be paid. Articles follow the same sequence every month. They then followed the primary sources of income, which were essentially land acquisition and cultivation. In this respect, the analyzed accounting books (Journals and Ledgers) help to recollect and quantify the economic relationships between the monastery and its stakeholders in the territory. These varied and comprised a dynamic and intricate community of farmers and their families, bound to the land by the inheritance of the monastery's underlying relationship with previous generations. [Figure 2](#), related to the cash account, shows some details of rent accounts for allotments and other landholdings.

Revenues encompassed rents, *censos*, allowances for wheat and barley, and the monastery's tax exemptions on these agricultural products. Primary sources of income included taxes collected from various localities, contributing an average annual income of 300 *onze*, alongside revenue generated from rents. The monastery also derived income from diverse rental fees for properties across different parts of the island. Substantial revenues emanated from mills and fiefdoms under monastery possession. Additional income streams originated from house and shop rentals and a percentage of the silk tax received by the monastery. Further funds were generated through inheritances, alms, tithes and quintuplets. Modest flows came from the novitiate activity for the payments made by three young novices



Source: Courtesy of the Ministry of Culture - State Archives of Messina, Suppressed Religious Corporations Fund, Vol. 126 (Ledger 1671–1676)

Figure 2. Ledger: cash accounting for July 1671

(72 *onze*). Even in tumultuous times, the Benedictine emphasis on study, reading and diffusion of cultural values helped train the monks and profoundly impacted the community. The monastery's influence on the territory was also linked to helping and providing refuge to those in need during the conflict. This capacity made favorable relationships, which have been formed with the governance of the city. Indeed, on special occasions, the city of Messina's senate donated sums to the monastery, which were recorded as "extraordinary" income.

The impact of the rebellion from October 1674–1677 was devastating; evidence can be found in the financial records. Due to its inability to secure ordinary income, the monastery decided to mint silver treasures, such as figurines and silverware, as coins to support the monks during the city's hardships. The sale of silver items further contributed to financial sustenance during this challenging period: "The silver was melted in the miseries of war for the food of the fathers and brothers who had no other way of living" (A.S.M. Suppressed Corporations Fund, p. 225).

The releases highlight aspects of the monks' lives. They refer to the expenses.

Food was based on vegetables, fruit, fish and eggs. Meat and poultry were considered a luxury reserved for the sick. Among the extraordinary expenses, it is worth mentioning those related to the expenses of the snow taken during the winter period in the *Madonie* or on Mount *Etna*. It was preserved, covered with salt and straw in so-called *nivieri*, or dug into the ground. Subsequently, it was sold in unique shops during the summer and used as a cooler or in sorbet preparation.

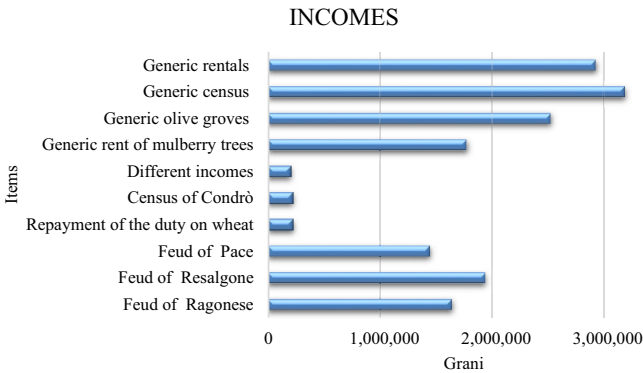
It is interesting to note that the information from the analysis of the books shows a strong alignment with the Benedictine Rule, which encourages balance in all aspects of the monk's life. Even if it does not provide an explicit guide to the modern concepts of wellness or health care, it deals with human wellness considerations by emphasizing moderation, care and balance in all aspects of life, including diet, work and mental well-being for the individual within communal settings. Overall, the critical concern of the Rule is a way to balance and

eventually connect the spiritual grounding of a religious community with its subsistence needs (Kleymann and Malloch, 2010).

In the aftermath of the disturbances, income related to *censos*, fiefdoms and rents declined significantly. Credits owed to the monastery were uncollectible and accounted for as liabilities. The monks relocated from the port area to the old monastery near the city, resulting in additional expenditure reductions. Notably, the tradition of providing byssus cloth as New Year’s gifts to monks was discontinued amid these financial constraints.

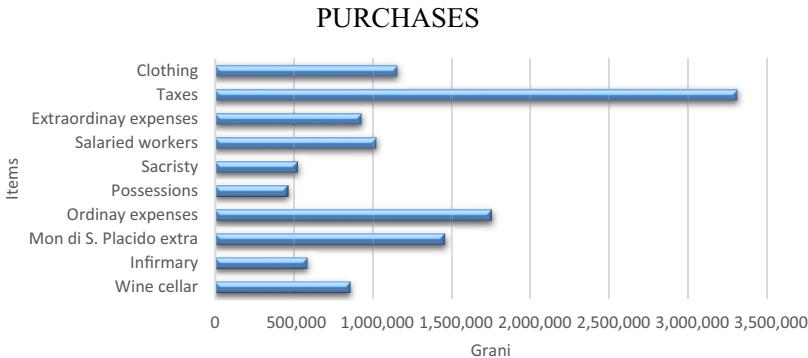
Figures 3 and 4 show the amounts of the most frequent incomes and expenses that result from the analysis of the monastery’s accounting records during the analyzed period.

Concerning charity acts, both direct and indirect activities characterize them. The first was accounted for as a generic *Elemosine* count. The second was linked to the numerous bequests made by benefactors directly to the monastery, which constituted the dowries of orphaned or poor girls (*Maritaggi*). It was often necessary to resort to debt to meet liquidity



Source: Authors’ elaboration

Figure 3. Most frequent incomes expressed in *grani* of San Placido monastery (1671–1715)



Source: Authors’ elaboration

Figure 4. Most frequent expenses expressed in *grani* of San Placido monastery (1671–1715)

needs, deriving from frequent imbalances between income and expenses. In these circumstances, the loans were made by third parties who did not require interest related to the sums transferred. In the period analyzed, owed debts for these transactions amounted to 2,056 ounces.

The fiscal aspect was also crucial because of its heavy impact on the monastery's economy. Indeed, among the expenses, taxes represent the higher value (Figure 4), and consequently, many of the proceeds were destined for the numerous taxes and fees that weighed on them.

At the beginning of the administrative period, the Ledger contains the general *Introito* account (*Capitale Generico*) (Chap. 31), which shows the balances of credits and debits. At the same time, some double-entry articles are recorded in the Journal, which refers to the economic competence of these credits and debits.

On 31 August of every year, in the count, *Esito Generale*, credit and debit balances are reported, and their difference represents equity, which is carried over to the count *Monastero nostro*. In the *Esito Generale*, the amount resulting from the opening of *Introito* is reported as increased by the uncollected or unpaid portion, considering the accrual income recorded in the Journal. The other used counts are *Spesa generale*, in which there are reported all the counts that have generated expenses, and *Entrata generale* for the counts relative to the incomes corresponding to the absolute values related to the analyzed years, expressed in *onze, tari e grani*. Also, the balance is reported in the count *Monastero nostro*. In the monastery, this count is denominated *Monastero nostro del Glorioso Protomartire S. Placido*. The difference between credit and debit is always positive during the analyzed years.

The prevalence of credits was mainly attributable to credits linked to *censos*, which were often not paid, generating a situation of illiquidity. For this reason, the monks frequently resorted to loans that they repaid without interest or sometimes did not repay at all, as it was possible to observe from the analysis of the accounts, which showed an unpaid debt of 2.056 *onze*.

Although the monastery incomes were, in some years, lower than expenses, they helped guarantee that monks maintained their practical and spiritual needs. Indeed, the average percentage of the total expense, 42%, refers to monks' sustainment.

The continuity of the system, which is essentially linked to agricultural activities, land tenures, tithing and *censos*, guaranteed that their objectives were achieved. Furthermore, the analysis of the accounting books demonstrates how the monastery's management is rooted in the history of the Benedictine Order, especially in the ideals and values brought forward by Benedict. They conduct their affairs under the constant influence of the Rule indications in a perfect union between managerial skills and ethical principles, contributing simultaneously to the general wellness of the territory.

4.4.2 Monastery of Silos accounting system. The Constitutions of 1701, as a subsequent addition to the *Regula Benedicti*, governed the Monastery of Silos (Prieto *et al.*, 2006). General chapters promulgate these constitutions, such as parliaments in political institutions. The Constitutions of 1701 incorporated modifications and additions from previous Constitutions of 1671 and 1610 (Prieto *et al.*, 2006). According to it, the monasteries of the Benedictine congregations had to report four-year accounts, which included a detailed account of the monastery's financial operations.

The report constituted a vital control mechanism, representing the primary source of the analysis of the monastery. It reveals an early form of structured financial reporting and accountability. Moreover, given the regular four-year review of the financial performance, it

is a crucial mechanism that supports the monastery's management in the accountability of its financial stewardship.

During the four-year mandate of the retiring Abbot and his predecessor's four-year term of office, the reports provided an overview of the sources of revenue and expenditures for all financial flows inside the monastery, whether monetary or in kind. The "Statement on the Position of the Monastery," which had to be entered into the Deposit Book and signed by each council member, provides an overview of all the account transfers throughout the quadrennial.

The number of accounting books available in the Silos archive allowed an analysis of the four-year reports that highlighted an articulated accounting system. In particular, it has been noted that the standard Charge/Discharge Accounting (CDA) method was applied (Boyd, 1905; Chatfield, 1977; Edwards, 1989; Baxter, 1980; Hernández Esteve, 1996; Jack, 1966; Prieto *et al.*, 2006; Jones 2008a, 2008b; Oldroyd and Dobie, 2009). This approach was founded on the division of capital ownership and management, with a specific emphasis on the concept of accountability (Lemarchand, 1994), to safeguard against financial misconduct and guarantee that all financial choices are made in the organization's best interest.

All operations were categorized under two main headings: the income, receipts or "charges," and the expenditures or "discharges." Where appropriate, these were further separated into pertinent headings:

- All incoming items, whether cash or kind, were recorded as entries under charges in the corresponding accounts book.
- All outgoings, whether in cash or kind, were recorded as discharges of goods or cash received.
- The resulting balance or shortfall was calculated, and in most cases, it showed a positive balance that became the first entry under charges for the subsequent period.

When discharges exceeded charges – a condition that happened less frequently – the person who had received the cash or items in kind was required to make up the difference. Ongoing transactions, however, can potentially record the shortage as the first item under discharge for the subsequent quarter. To ensure that the discharges made by the cellarer always appeared as charges in the depositors' accounts and vice versa, the cellarer, or his helpers, and the depositors' exchanged charges and discharges using this procedure. According to custom, the accounts were linked to the managing individuals, and they settled any disagreements (with the cellarer or other authorities).

The Cellarer's Book, the Book of the Bodega (Cellar), the Granary Book, the Book of Other Kinds of Rents and the Pharmacy all contain entries for the rents the monastery anticipated receiving. These entries are charged and discharged with actual receipts and disbursements in the records for cash movements. Moreover, sums carried over from earlier periods were also recorded adjacent to the opening period amounts under the new balance.

The Daybook was used to track expenditures, while the Expenses Book served as a summary. The discharges showed receipts for incurred costs, whereas the charges related to the cash received from the depositors. The same procedure was used to maintain records for unique situations, such as substantial construction projects under the master builder's control.

Regarding the depositors, they documented cash transactions in the Deposit Book and its companion volumes, which include the Daily Journal, the Book of Particular Accounts and the Book of Usages, when they were not included in the latter. The Abbot may monitor both operations by cross-referencing the bookkeeping records kept by the depositors and those

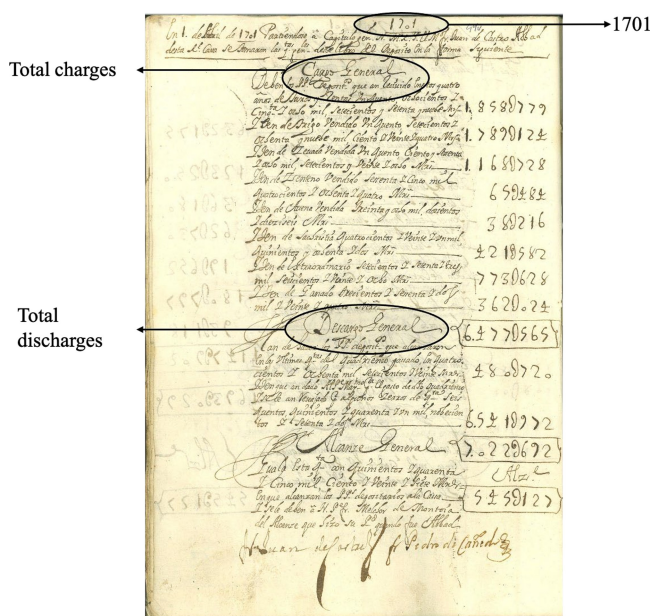
managed by the cellarer. Accounting records at the monastery were primarily kept providing an accounting of the money entrusted to its authorities. The monastery's financial results can be discussed by comparing its revenue and expenses from the quadrennial statement; however, depreciation adjustments are not considered.

In the Silos Monastery throughout the quadrennial, it documented the entire revenues or in-kind payments received (total charges), as well as the total outgoings as in-house consumption and outlay payments in kind of fanegas of wheat, barley, *cántaras* of wine and arrobas of wine (total discharges), both received and spent (Figure 5).

The Constitutions determined the quadrennial format. The initial and final stock levels were disclosed in the quadrennial statement simultaneously. Finally, the cash receipts from sales were reported in the quadrennial statement, as were the remaining incoming cash receipts.

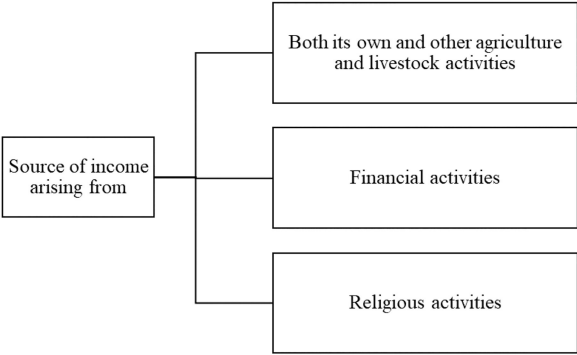
In the Monastery of Silos, according to Prieto *et al.* (2006), it is possible to identify principal sources of income and expenses essentially derived from agricultural, livestock, financial and religious activities. It is worth noting that such economic diversification enhanced financial stability, improving the possibility of facing risk and uncertainty (Figure 6).

The revenue from its operations and those involving cattle and agriculture, including those from its rented-out lands for farming, were often the primary resources in the patrimony that could support the monastery financially. Livestock the monastery directly oversees represents an essential amount, with an average of 334.42 *maravedi* during the analyzed period. This value represents 5.29% of the total average of the most frequent



Source: Historical Archive of Abadía De Santo Domingo De Silos

Figure 5. AMS depositors' accounts, 1697–1701



Source: Authors’ elaboration
Figure 6. The principal source of income of silos monastery

revenues. Other products such as rye (with an average of 45.81 maravedis), barley (with an average of 1,056.74 maravedis) and wheat (with an average of 1,714.48 *maravedi*) constitute a very high percentage of revenues. The sum of their incidence on the total revenues exceeds all the other items: 2,817.03 *maravedi* (44.54%). These results testify to the importance of agricultural activity for the monastery, which could provide for its needs and ensure significant income by exploiting the land and breeding livestock.

As seen above, the *censos* was a financial instrument often used to earn interest income by granting mortgage-guaranteed loans to property owners. During the observed period, they earned an average of 1,276.18 *maravedi* with a percentage of total income of 20.18%. According to [Prieto et al. \(2006\)](#):

we analysed the Book of *censos* and the Book of Usages to examine the role of credit schemes. The latter reveals that around 20% of the loans were granted to local governments, ecclesiastical institutions and guild organizations (for example, the Five Guilds of Madrid). The monks sought out new markets to invest their excess of cash at 3% interest rate. At the same time, they borrowed funds from financial institutions at a 1% interest rate. Therefore, the *censos* represented profitable operations for the monks at Silos (p. 235).

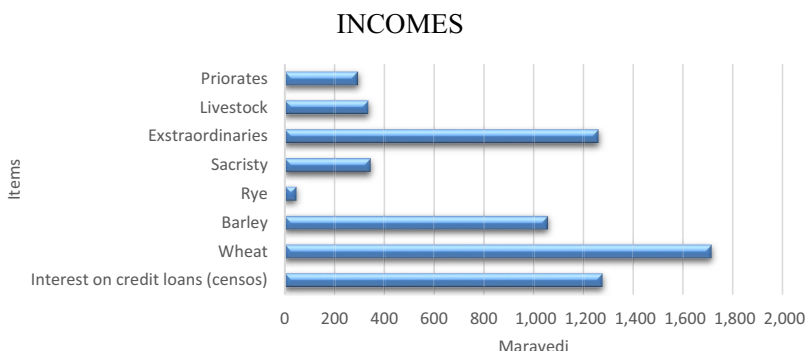
The income from religious activities regarding Sacristy contains records of donations and fees for religious services and revenue from bequests, donations and inheritances (from monks who died *ab intestato*, meaning they did not leave a will). They earned an average of 344,124 *maravedi* with a percentage of the total income of 5.44% ([Figure 7](#)).

Minor entries are classified as Extraordinary. They include those about sales of used goods, contributions, alms offerings and inheritance distribution. They are relevant when considering the mean proportion of total revenue throughout the period.

They show an average of 1,259.80 *maravedi* and a percentage of 19.92%. Monastery’s Priorates represent 4.64% of the total income, averaging 239.36 *maravedi*.

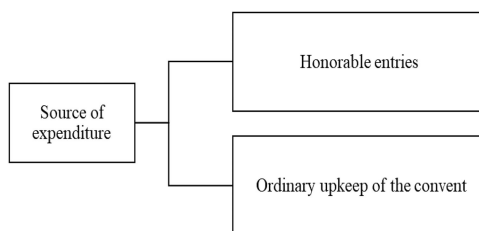
The two principal sources of expenditures regard the “Honorable entries” and the “Ordinary upkeep of the convent” ([Prieto et al., 2006](#), p. 236) ([Figure 8](#)).

Honorable entries included the monastery’s investments (building works, treasury bonds) and various spending items (salaries and stipends, interest payments, disbursements within the order and litigation).



Source: Authors' elaboration

Figure 7. Most frequent incomes expressed in *maravedi* of silos monastery (1697–1713)



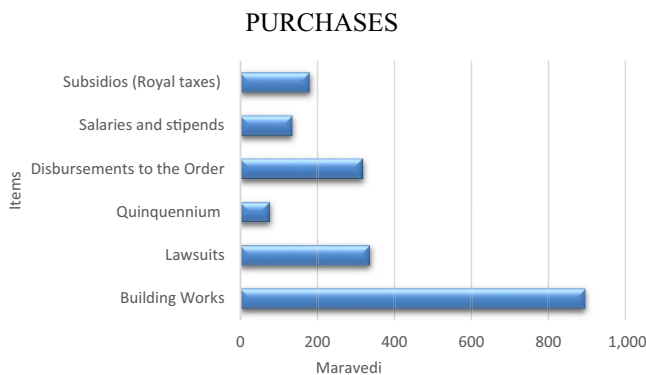
Source: Authors' elaboration

Figure 8. Main sources of expenditures of silos monastery

Regular maintenance of the monastery included the average yearly amount for each person and the amount of money spent on the care and clothing of the monks in each quadrennial statement. The total amount spent on maintenance and clothing was determined by deducting the sum awarded for honorable entries from the overall revenue for the period without accounting for any shortages from the previous quadrennial.

In the analysis, the “honorable entries” demonstrate that investments in fixed assets (Building works) are the primary expenditure of the monastery, with a percentage of 46.23% and a leverage of 895.61 *maravedi*. Additional noteworthy expenses discuss transfers to the congregation’s disbursements with a leverage of 317.82 *maravedi* and a percentage of 16.41% and to the Curia Romana-quinquennium leverage of 75.4 and a percentage of 3.90%. The entries for expenditure on lawsuits have a rate of 17.31% and a leverage of 335.37. Given this expense, while considering it necessary, the Church wished it was essential to commit to its reduction (Prieto *et al.*, 2006, p. 251) (Figure 9).

Royal tax, often referred to as the *subsidio*, or “subsidy,” was the excise of a regular, direct tax paid to the King by members of the clerical classes; it measures leverage of 178.77 and a percentage of 9.23%. Almost 6.92% of the period’s “honorable entries” comprised items related to salaries and daily pay. It describes the costs incurred by the monastery for any work involving permanent or temporary workers, including payments to servants who stay there permanently and payments to other individuals for short-term labor done on the monastery’s behalf.



Source: Authors' elaboration

Figure 9. Most frequent expenses expressed in *maravedi* of silos monastery (1697–1713)

5. Discussion

This study seeks to contribute to historical accounting and management literature by providing insights into the financial practices of Benedictine monasteries: the Monastery of San Placido Calonerò and the Monastery of Silos.

Our research question (1), “How and to what extent were the two Benedictine monasteries’ accounting practices and management activities influenced by the social, political, geographical and economic environment?” prompts a detailed exploration of the adaptive accounting and managerial strategies used by the two monasteries. Indeed, the comparative analysis reveals distinctive accounting and management characteristics, shedding light on the intricate intersection of spirituality, management and socio-economic dynamics (Cordery, 2015). Both monasteries, rooted in the Benedictine tradition, navigated through different historical and socio-economic contexts, using accounting systems that mirrored their respective challenges and strengths.

Nevertheless, the Monastery of San Placido Calonerò, examined from 1671 to 1715, showcased an accounting system deeply intertwined with the monastery’s economic activities. Pietra’s double-entry bookkeeping system allowed for the tracking of income and expenditures, offering insights into the monastery’s financial resilience amid external upheavals such as earthquakes and wars. The analysis reconstructs the monastery’s diverse income streams, ranging from rents and taxes to unique initiatives such as minting silver treasures and reducing clothing expenses during challenging times.

On the other hand, the accounting system of the Monastery of Silos (Prieto *et al.*, 2006), explored from 1697 to 1713, is based on the CDA method and demonstrated a financial landscape shaped by factors such as loans to the Spanish Crown, capital income from *censos* and legal battles. The examination of the accounting records highlighted fluctuations in income over the centuries, influenced by interest rates, legal proceedings and market dynamics. The monastery’s financial challenges, especially in the later part of the century, underscored monastic institutions’ complexities in sustaining their operations.

Despite the contextual differences, both monasteries shared common threads in their financial activities, notably relying on income from lands, rents and loans. Additionally, as highlighted by Ruppenthal (2020), their accounting practices reflected a commitment to ethical principles and monastic values guided by the Benedictine Rule and the Constitution.

The monasteries' accounting records served as pragmatic tools for managing resources and as historical artifacts that unraveled the intricate tapestry of monastic life and its adaptation to changing circumstances. However, on the one hand, the Monastery of San Placido Calonerò operated with a focus on Pietra's accounting manual, emphasizing the use of a double-entry bookkeeping system (Dobie, 2008, 2015): the administrative structure may have been more decentralized compared to Silos. On the other hand, the Monastery of Silos operated under specific Constitutions and laws enacted by general chapters in the 18th century. Indeed, while for the Monastery of San Placido Calonerò we have used data about the period that is based on the monastic year beginning on June 1st, for the accounting analysis of the Silos Monastery, we use the reports of financial operations of the quadrennial periods. This last formalization contributed to a more articulate accounting system based on ensuring compliance with established norms of the Constitution.

Furthermore, according to Previts *et al.* (1990), the comparative analysis also provides insights into the institutional logic that shaped their financial practices. Institutional logic refers to the socially constructed, historical patterns of cultural symbols and practices that provide meaning to organizational activities (Bruton and Sheng, 2023). In the context of monasteries, institutional logic is deeply rooted in religious, cultural and social norms, influencing how these institutions perceive and approach financial matters. The financial entries related to taxes, fees and income sources in the Monastery of San Placido Calonerò also indicate the impact of broader economic policies during the Spanish domination. The use of Pietra's double-entry bookkeeping system enables adaptation to the socio-political instability in Sicily. Indeed, this system facilitated resilience during disruptions, such as wars and natural disasters, by ensuring accurate financial records and accountability (Quattrone, 2004). The financial strategies, as above mentioned, highlight the integration of practical management with religious ethical standards, in alignment with the Benedictine Rule's emphasis on moderation and balance (Kleymann and Malloch, 2010). Silos' accounting system, based on the Charge/Discharge Accounting (CDA) method, demonstrates a structured approach to financial management, ensuring transparency and accountability. This aligns with institutional theory's focus on how organizational practices evolve under institutional pressures (Powell and DiMaggio, 2012). Furthermore, the economic well-being of the monasteries was intertwined with the economic policies implemented by the Spanish authorities. The institutional logic of economic governance under Spanish rule influenced the financial strategies used by the monasteries. On the one hand, the economic hardships faced by regions such as Sicily during this period would have impacted the financial resources available to Benedictine monasteries. Reduced trade, agricultural difficulties and increased taxes could have strained the financial stability of monastic communities, necessitating more prudent financial management and resource allocation. On the other hand, the economic hardships faced by regions such as Sicily during this period would have impacted the financial resources available to Benedictine monasteries. Reduced trade, agricultural difficulties and increased taxes could have strained the financial stability of monastic communities, necessitating more prudent financial management and resource allocation.

The research question (2), "To what extent have the two monasteries' accounting and management gathered requests from their religious ideals?" delves into how closely the Benedictine monasteries of San Placido and Silos aligned their administrative practices with their spiritual principles. The study illustrates that both monasteries successfully integrated their religious ideals into their accounting and management activities, guided by the Rule of St. Benedict's principles. According to scholars (Gehra *et al.*, 2007; Rost *et al.*, 2010; Feldbauer-Durstmüller *et al.*, 2012; Ruppenthal, 2020), these principles, especially the

exhortation “*ora et labora*,” fostered a balanced approach that harmonized spiritual duties with managerial responsibilities.

Indeed, as part of the Benedictine tradition, both monasteries operated within a shared institutional logic emphasizing integrating spiritual values into everyday practices. The BR, attributed to St. Benedict and its sequent constitutions, was a foundational institutional logic guiding monastic life.

[Table 2](#) summarizes the main similarities and differences between the two monasteries.

This comparative analysis deepens our understanding of how monasteries, despite geographical and temporal variations, navigated the delicate balance between spiritual ideals and practical financial management. The study underscores the resilience of these institutions, which, grounded in centuries-old traditions, creatively adapted their financial strategies to confront the challenges of their times. Hence, according to [Wirtz \(2017\)](#), the RB provided a robust ethical and operational framework that harmonized spiritual duties with the necessity of financial management. This alignment between religious principles and administrative practices fostered a stable environment where the monasteries could thrive despite external challenges. Furthermore, managerial resilience in these monasteries was evident in their ability to localize and adapt global monastic practices to their specific contexts ([Gibson and Tarrant, 2010](#); [Atiase et al., 2022](#); [Pradana and Ekowati, 2024](#)). Despite operating under the same broader religious framework, the study highlights how both monasteries tailored their management strategies to fit their unique social, political and economic environments. This localization involved adapting to external conditions and innovating within their traditional frameworks to address contemporary challenges.

The Benedictine monks’ stable accounting system can be seen as a reflection of their desire for social and economic stability. According to the results drawn by [Prieto et al. \(2006\)](#), the monks of the Monastery of Silos were effective in maintaining their status by holding onto historic privileges and entitlements. They made significant financial investments in legal battles to preserve their position. As revealed by the accounting records from the 18th century, it can be observed that the Benedictine monks applied efficient internal control mechanisms to identify fraud instances and manage their assets. Their financial status experienced significant growth, but it was always in alignment with their objectives and the need to adapt depending on their specific circumstances.

The unitary and hierarchical organization of the Order, made possible by the accounting and accountability system, allowed for the coordination of the monasteries under Roman Catholic doctrine. It resulted in a complex and enduring compromise among theological, religious, political, social and institutional pressures evident in the Order’s structure and accounting practices ([Quattrone, 2004](#)). In developing a more general framework that reconnects the findings from the two case studies, it becomes clear that both highlight the critical role of the institutional context in shaping the adoption and implementation of accounting and management practices in religious institutions ([Robson and Ezzamel, 2023](#)).

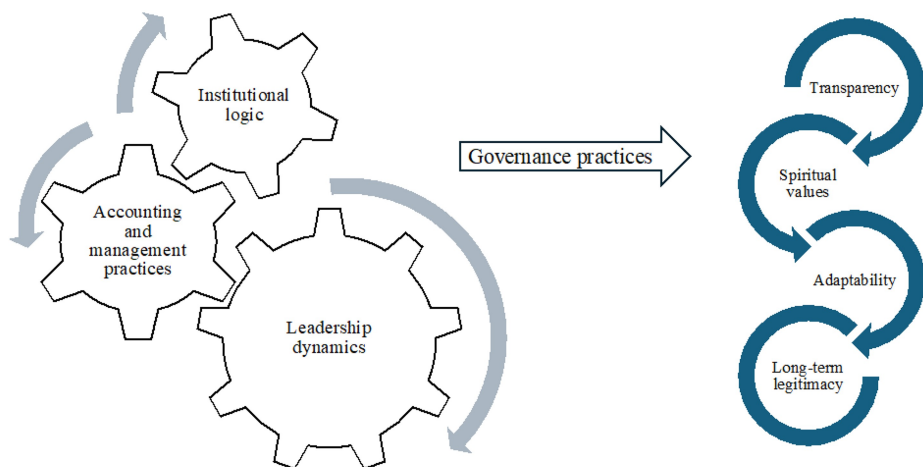
Despite their distinct environments, the two cases share commonalities that reflect broader patterns of how religious organizations institutionalize these practices ([Quattrone, 2015](#)). For instance, both case studies demonstrate how leadership plays a pivotal role in driving the adoption of new systems ([Von Krogh et al., 2012](#)), emphasizing the importance of internal rules in facilitating organizational change ([Quinn et al., 2022](#)). Additionally, the analysis reveals that external pressures, such as societal expectations, donor requirements and regulatory frameworks, serve as catalysts for formalizing management practices, encouraging the institutionalization of transparency as a driver related to the intrinsic values of faith. By integrating the findings from both cases ([Figure 10](#)), this study offers a more holistic understanding of how institutional logic, leadership dynamics and external

Table 2. Main similarities and differences in accounting and management practices between the two monasteries

Similarities	Differences	Differentiating features
Both monasteries engage in credit schemes, with the monastery of silos specifically mentioned to have loans granted to local governments, ecclesiastical institutions and guild organizations	The accounting method of the Monastery of San Placido Calonerò is based on the principles of double-entry bookkeeping (Pietra, 1586), where each transaction involves at least two accounts (debit and credit). While silos uses the charge/discharge accounting (CDA) method, where all operations are categorized under two main headings: “charges” (income, receipts) and “discharges” (expenditures)	Accounting method
Both monasteries derive income from land ownership and agricultural activities. They have farms, mulberry groves, and various properties that contribute to their financial sustainability	For the analysis of San Placido’s accounting system, it was convenient to use the annual accounts starting September 1st. For the analysis of Silos’ accounting, the use of four-yearly reports was considered more suitable	Measure of the accounting period
Both accounting records reflect the impact of external events on the financial status of the monasteries. For example, the monastery of San Placido Calonerò faced financial challenges during revolutionary events, and the monastery of silos had investments in building works and expenses related to litigation	San Placido Calonerò uses <i>introito</i> and <i>esito</i> accounts to summarize assets, liabilities and net wealth at the beginning and end of the year. Silos uses a quadrennial statement, disclosing initial and final stock levels simultaneously	Summary accounts
Both monasteries showcase financial flexibility during challenging times. San Placido Calonerò responds to revolutionary events by minting silver treasures, and silos adapts to shortages through a structured system of reporting and adjustment	San Placido Calonerò uses <i>onze</i> , <i>tari</i> and <i>grani</i> as currencies, while silos uses <i>real</i> and <i>maravedi</i>	Used currency
Both monasteries demonstrate a balance between managerial skills and ethical principles in their financial management. The adherence to benedictine ideals and values is evident in the integration of ethical considerations with practical financial decision-making		

Source: Authors’ elaboration

Monastery of Silos and Monastery of S. Placido Calonerò



Source: Authors' elaboration
Figure 10. The general framework of the two monasteries' integrated implications

influences converge to shape the governance practices of religious organizations, ultimately contributing to their sustainability and long-term legitimacy.

6. Conclusion

The concept of resilience, deeply intertwined with religious belief, cultural vocation and the unique circumstances of each monastery, is a prevailing theme in the comparative analysis of the Monastery of San Placido Calonerò and the Monastery of Silos. This resilience, fostered by the Benedictine Rule and manifested through distinct cultural and economic vocations, showcases an unwavering will to survive in the face of diverse challenges. Both monasteries exemplify the principles of “going concern,” albeit through different means (Sterling, 1968). Despite discontinuity caused by external events, San Placido’s survival is a testament to its ability to maintain financial records and adapt its economic strategies. Silos’s resilience is evident in its reliance on agriculture, showcasing how a steadfast commitment to a specific economic model can ensure sustained existence.

However, the distinctiveness of the Monastery of Calonerò, in comparison to Silos, demonstrated an unwavering determination to persevere in difficult situations, continually reinforced by their religious faith and its cultural vocation, confirmed by their teaching activity at the University of Messina and the presence of a substantial collection of medical literature in their library.

The study carries significant implications for understanding the historical interplay between religious principles and financial management within religious institutions. By comparing the accounting and managerial practices of the San Placido Monastery in Italy and the Monastery of Silos in Spain, the research highlights how external social, political, geographical and economic environments shape internal organizational practices. This comparative analysis underscores the resilience and adaptability of religious institutions in maintaining financial sustainability amidst various external pressures, revealing how

spiritual values can coexist with and influence robust financial management strategies. Furthermore, the study enriches the historical literature on management and accounting by demonstrating the enduring legacy of monastic accounting practices and their influence on modern accounting principles, thus offering valuable insights into the evolution of organizational governance within religious contexts.

The lessons from monastic institutions are precious in modern contexts (Feldbauer-Durstmüller and Keplinger, 2013), particularly for organizations facing volatile environments (Chan *et al.*, 2011). The core principles underpinning monastic resilience, ethical management, adaptability and mission integration with operational goals remain relevant today. Ethical governance, which combines ethical leadership with financial stewardship in monasteries, can serve as a model for modern corporations, especially in sectors such as non-profits, education and health care, aligning with today's emphasis on corporate social responsibility (CSR) (Moir, 2001; Trong Tuan, 2012).

Moreover, monastic institution management is a model for modern organizations striving to balance profitability with environmental, social and governance (ESG) dimensions. This alignment of ethical and financial imperatives promotes trust and legitimacy, key components for any organization aiming to thrive in today's sustainability-conscious market. Thus, the study's findings provide a framework for integrating ethical governance into the core strategy of modern organizations, enhancing both resilience and sustainable success.

Monastic accounting practices have left a lasting impact on modern accounting, mainly through the use of Pietra's double-entry bookkeeping system at San Placido, an early form of the methodology still used today for ensuring transparency and accountability.

Similarly, the monasteries' efficient internal control mechanisms, designed to prevent fraud and manage resources, have influenced the development of modern internal audit systems (Rost *et al.*, 2010).

Additionally, the study demonstrates how a monastic institution such as Benedictine can be observed as an example of the root of the management genealogy. Indeed, in the history of the Benedictine monasteries, it can be found the foundations of what is today considered management according to the leading scientific thinkers as efficiency, organization, control and knowledge (Le Texier, 2013, p. 4).

Finally, using the Benedictine Rule, Pietra's accounting manuals and constitutions play a crucial role in ensuring the long-term sustainability of monastic institutions. Both monasteries, guided by the Rule and subsequent versions, reflect the deep religious Benedictine belief in integrating spiritual and ethical principles with accounting practices. Committing to religious beliefs and ethical financial stewardship creates a harmonious synergy beyond mere survival.

The study is not without limitations. First, it is based on a comparative analysis of two Benedictine monasteries, which, while providing valuable insights, may not capture the diversity of religious institutions across different regions or cultural contexts. Future research should incorporate data from additional monasteries or religious organizations, allowing for a more comprehensive understanding of how diverse external environments, such as varying social, political and economic conditions, shape accounting and management practices. Furthermore, the temporal focus of this study is confined to specific historical periods, limiting the ability to fully trace the long-term evolution and adaptation of these practices. Extending the temporal scope to include a broader range of historical epochs would enable scholars to examine the continuity and changes in institutional practices over time, providing a more nuanced understanding of their historical development and contemporary relevance. Future research should also consider the impact of modern factors, such as globalization and technological advancements, on the evolution of accounting and management within

religious institutions, thus bridging the gap between historical practices and contemporary organizational challenges.

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