BENEFITS, ADVANTAGES, AND USEFULNESS OF MUSEUM NETWORKS

The case of Fondazione Musei Senesi in Tuscany

Figure 1

Student Name: Alice Benassi
Student Number: 539808

Supervisor: Trilce Navarrete Hernandez

MA Cultural Economics and Entrepreneurship
Erasmus School of History, Culture and Communication
Erasmus University Rotterdam

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ABSTRACT

This thesis presents a case of network analysis applied to the cultural sector. In particular, it investigates a network of 45 museums in the Lands of Siena, unified in 2003 under Fondazione Musei Senesi. The aim of this research is to investigate to what extent is it useful for museums to be part of a network, assuming a threefold perspective according to the main points of view on the subject: that of the Foundation itself, as the "head" of the network, the museums within the system, and the visitors.

Results have revealed that, as expected, networking in the museum sector has a massive potential. However, the case of Fondazione Musei Senesi has also pointed out the complexities of networking and the limitation to properly exploit this potential. Nonetheless, data has also shown that, by taking into account different stakeholders' perspectives together, some useful insights on the benefits of networking can still be reached. This because each specific point of view allows a different perspective on the subject and, when compared, they can provide an extensive overview of the usefulness of networking for all the stakeholders of the network itself.

The evidence obtained from interviews and surveys lead me to conclude that, although the difficulties, it is still useful for Sienese museums to be part of the network. In the end indeed, the social and cultural mission of these museums is more easily pursuable by joining together rather than by acting individually and this is emphasized by social media followers and museums' visitors, especially in critical situations such as the spread of Covid-19.

KEYWORDS: socio-economic networks, network organization, networking strategies, museums, multi-perspective analysis.

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*"Many products have little or no value in isolation,
but generate values when combined with others"*

M. L. Katz (1994, p. 93)

1. Introduction

The present thesis aims to investigate the field of networking strategies for museums and specifically, to what extent is it useful for museums to be part of a network.

In order to address this question, I decided to rely upon a practical example. I therefore analyzed a specific case study: a network of 45 museums in the Lands of Siena (Tuscany - Italy), unified in 2003 under a Foundation called Fondazione Musei Senesi (FMS). To have a multiple perspective on the utility provided by networking, I investigated the subject comparing three different point of views, accordingly to the main groups of stakeholders at stake: the Foundation, the museums within the network, and the visitors.

The network of Sienese museums was, in fact, recently brought to the center of media attention when, in 2019, the province of Siena decided to leave the board of trustees of FMS, bringing two important cultural institutions out of the network. The new city council, indeed, considered that the cost of participation was too high compared to the benefits obtained (Ronchi G., 2019). For this reason, among many examples of museum networks in Italy, I decided to choose this one in order to investigate when may it be useful to implement networking strategies, and to whom.

Network analysis, as the one undertaken in this study, is often considered indeed as "*a powerful means of describing and analyzing sets of units by focusing explicitly on their interrelationships*" (C.J. Fombrun, 1882, p. 280). This type of study has become almost essential in recent years since, as Grandori and Soda (1995) pointed out, companies and institutions in general have become increasingly interdependent, and inter-firm networking plays a major role today in regulating these complex transactional and cooperative connections. This is especially the case of the set of museums in question, as it is composed by a large number of strictly interconnected small museums, located

close to each other, and which together constitute a single thread in the understanding of the artistic and cultural heritage of the Lands of Siena.

In addition to the recent newsworthiness of this specific case study, the interest that push me towards this research arises from some general considerations regarding the size and location of Italian museums, together with the whole body of research aimed to analyze which types of management and organization are best suited to this context.

In general, indeed, the specificity of the Italian historical and geographical context has led the country's cultural sector to be considerably ahead of its time with respect to the formation of museum networks and systems because of the strong level of interconnection among museums and cultural institutions.

In this regard, in 2015, a research on museums and similar institutions carried out by ISTAT (the Italian national institute of research) made it possible to underline that one Italian museum out of three (33%) is part of a cultural network or a museum systems, with the aim of sharing similar human, technological and/or financial resources with other institutions. The spatial links that hold together the smaller realities are, in fact, those that most easily give rise to the creation of cooperative networks, in order to pursue advantages that can only be seized achieving a sufficiently consistent critical mass.

However, as emphasized by this case study, the utility of networking is not so obvious to everyone and requires specific case-by-case analysis. For this reason, this study aims to compare theoretical benefits of networking with a practical example, assuming different perspectives on the subject and exploiting the specificities of this unique period.

The present analysis was indeed undertaken during the outbreak of Coronavirus emergency. Although I was not able to contact any of the groups of stakeholders in person, what at the beginning might have seemed as obstacle for my research turned into an extremely interesting challenge to investigate the digital social network of FMS. In this way, I discovered, for instance, that the vast majority of social media followers of the foundation also physically visited at least one of the museums within the network and can therefore be realigned with the above-mentioned group of stakeholders, i.e. the visitors.

As for the structure of this thesis, firstly, the specific juridical and historical context of Fondazione Musei Senesi will be presented. Then, in chapter 3, the theory about networking will be confronted to constitute the framework for this analysis. In addition, some indication about Performance

Indicators and measures of efficiency for museums will also be presented in the chapter, as they contribute to explain how networking can be eventually useful in increasing museums' performance, efficiency and effectiveness. Chapter 4 will introduce the methodology and dataset of this analysis, while results will be shown in chapter 5. In chapter 6, then, results will be analyzed according to the four main classes of advantages provided by networking that have been identified. Chapter 7 will instead focus on linking results back to the theoretical framework, answering the sub-questions raised during the analysis:

- What's FMS' strategic approach towards networking?
- What are, in practice, the benefits of networking according to the threefold perspective assumed?
- To what extent does networking increase individual museums' performance, efficiency and effectiveness?

Finally, chapter 8 will presents the conclusions reached, answering the main research question and presenting some policy implications, as well as the limitation of this analysis and avenues for future research.

2. Juridical and historical context

In an attempt to clarify the historical and normative context in which museum systems fit into, it is necessary to look at two deeply interconnected aspects. The first concerns the historical and geographic context in which Italian museums are inserted, especially those in the Region of Tuscany. This can be identified as the very initial input for the establishment of museums network, since the extremely peculiar distribution of museums in the country represents the underlying rationale behind the need to establish inter-institutional connections. The second aspect is represented by the regulatory framework that led to the creation and evolution of these networks in Italy between the 1990s and today. This, indeed, defines the legislative boost to the implementation of museum networks.

The last triennial investigation carried out in 2018 by ISTAT on Italian museums surveyed the presence of 4.908 museums and similar institutions active in Italy, either public and private, state-owned and not. These structures are widespread throughout the whole national territory, and a high percentage of them is set in sub-urban areas. Surveys have shown that one out of three Italian municipalities has at least one museum structure, and that there is approximately one museum every 50 square kilometers, one every 12 thousand inhabitants (ISTAT, 2018). Although metropolitan cities such as Rome, Florence and Venice have, as a whole, the greatest number of artistic and cultural testimonies and attract the vast majority of visitors, in Italy there is no lack of places of cultural interest even in the smallest municipalities. Research has, in fact, revealed that 16% of the museum structures are present in municipalities with less than 2.000 inhabitants, some of which can count up to 6 cultural institutions. A further 30% is located instead in municipalities with a few more inhabitants, and in any case less than 10.000 souls. Together, these non-urban cultural basins collect more than 45% of the Italian cultural offer and yet attract less than 15% of the tourist flows in the country. While the urban centers absorb three fourths of the visitors, 32% of Italian museums have no more than 1.000 visitors per year.

These national-structural features are reflected on a smaller scale in the territory of Siena, where the historical city center attracts the vast majority of cultural tourists, while the surrounding countryside, rich in hidden and precious cultural treasures, has little attractive power on international and national tourists.

For this reason, at the end of the 1980s, the desire to distribute tourist flows more equally throughout the territory, gave rise to the idea of creating the Sienese Museum System, aiming at creating cultural

itineraries that would also contribute to the economic development of the province. In the same period, also the legislative incentive of Tuscany region, with the regional law 89/1980, provided for the establishment of museum networks in the area. As a result of the increasing demands expressed by the museums of the Lands of Siena, province and region have therefore begun to work on the construction of the system.

At the beginning of the 1990s, the project was operationalized with the enactment of Law 142/1990, according to which the provinces had the task of enhancing the cultural and artistic heritage. A team of experts was then set up to define the structure of the Museum System and, in 1993 the project was approved with a resolution of the provincial council and with an allocation of 5.7 billion lire (equivalent to about 3 million euros today). A further element of fundamental importance concerns the fact that both the province and the municipality of Siena were, at the time, recipients of the profits of a rich foundation of banking origin (Fondazione Monte Dei Paschi di Siena) by virtue of the bank statute itself.

This context of economic prosperity allowed the opening of 16 museums in the municipalities of the territory, and the re-arrangement of another 9. In total, the Museum System already had 25 members at the moment of its constitutions and 6 more were under construction.

As for the strategic purpose, the three main initial objectives of the system concerned the enhancement of the entire artistic and cultural heritage of the province, the fulfilment of minimum standards of accessibility for museums, and the creation of more employment opportunities in the area through the development of new professional figures (Interview with FMS's Scientific Director, Elisa Bruttini).

In this first phase of the network, the coordinating role was entrusted to the Region, while the museums had the possibility to directly participate in the definition of the guidelines and strategic objectives of the system. A few years after the implementation of the network, the idea of transforming the initial program agreement into a foundation began to be considered and, in 2003, Fondazione Musei Senesi was established. Fondazione Musei Senesi (FMS) is therefore a private non-profit institution, which assists the municipal administrations of the province of Siena in their work of enhancing their artistic and cultural heritage.

Today, Fondazione Musei Senesi coordinates and brings together 45 museums, located in 25 villages in the Lands of Siena. The primary value of the foundation is that of seeking integration between the museum collections, the territory and the local communities, operating according to the model of a *widespread museum*. The heterogeneity and variety of the network's cultural offers make it truly

unique, as it brings together 13 art museums, 11 archaeological collections, 11 scientific institutions, and 10 ethnographic museums. The heterogeneity of the system is not limited to the type and different kind of ownership, but also extends to the extremely diverse size of the museums, with an audience ranging from 90 visitors a year to over 300.000 (Regione Toscana Database, 2018).

Nonetheless, many things have changed in the last few years, so that the Foundation itself is wondering about the benefits and usefulness of such a network. There are three main changes challenging the role of the network today. First, the downsizing of the financial role of the Monte dei Paschi di Siena Foundation and the bank itself, with a consequent sharp reduction in the funds available to FMS. Second, the legislative shock concerning the role of the provinces in the cultural sphere. If, in fact, the province of Siena had been one of the promoters for the creation of both the initial system and the Foundation, following Law 124/2015 (known as *Law Madia*, on the Reform of the Public Administration) it no longer has any competence in the field of enhancement and conservation of the artistic and cultural heritage. Third, the political decision of the municipality of Siena to divest all the shares it owned in the various foundations of which it was a member, including FMS.

In such a different context from the origin, the role of Fondazione Musei Senesi seems to be undermined. For this reason, the aim of this thesis is to analyze when may it be useful to implement networking strategies and to whom .

3. Theoretical framework

3.1. Network analysis

Well before the emergence of digital social networks, economic scholars identified in networking a specific field for their studies. Human and social connections, indeed, represent the pillar of economics as a social science, and the study of networking strategies moves from this central column as an arch, in order to connect different organizations with each other.

Although network economics has become a very popular subject in the last three decades, many other disciplines have previously approached and analyzed this phenomenon. Research regarding network's structures, features, and effects have a long history within the field of sociology and mathematics, and they have also been extensively studied in statistics, physics, computer science, business strategy, geography, and organization theory (Goyal, 2007).

The analysis of networks within the cultural sector instead is a much more recent and still evolving area of study. Nevertheless, important political changes and pervasive social transformations require special attention to be paid on this phenomenon.

3.1.1. Definitions

Within the field of economics studies, networks are generally defined as *"a collection of nodes and the links between them"* (Goyal, 2007, p.2). Following this definition, simply two different types of elements compose a network: nodes and links.

> *The notion of nodes is fairly general: they may be individuals or firms or countries, or even collections of such entities. A link between two nodes signifies a direct relation between them; for instance, in a social context a link could be a friendship tie, while in the context of countries a link may be a free trade agreement or a mutual defense pact.*
>
> (Goyal, 2007, p.2)

Before delving into the subject, it must be clarified that the present study aims to analyze social and economic networks, that should not be confused with neither network industries – such as airlines, telecommunications, electricity etc. - or digital social networks.

The analysis of network industries deals in fact with profit-maximizing firms which own and control the functioning of other organizations (Goyal, 2007). Network in this case assumes the connotation of a holding, which legally owns the other nodes within the system.

On the contrary, in social and economic networks there is no single entity who owns the network. Rather, the nodes that constitute it remain autonomous even if they are connected with each other by different types of link.

As a practical example within the museum industry, the analysis of the Guggenheim's international expansion, for instance, would represent a case of network industry. *Fondazione Musei Senesi*, instead, represents a case of a social-economic network, as the Foundation does not own or manage the museums within the network. Its role is rather that of assisting the members of the network, helping them to obtain important benefits and advantages linked to systemic organization.

Digital social networks, as well, differ from social-economic networks for many reasons. Firstly, because the type of connections created are – at least initially – virtual, as they are conveyed through digital channels. Secondly, because digital network theory argues that the "*value of connecting to a network depends on the number of other people already connected to it*" (Shapiro and Varian, 1999, p.174 in Navarrete, 2015). This is not exactly true for social economic network, whose value is given by the strength of the links rather than the number of nodes connected. For social economic network, on the contrary, as the number of nodes and links increases, so does the complexity of the network and not necessarily the benefit to its members.

This paper, instead, aims to analyze cultural networks, and museums systems in particular, where the autonomy of the constituting nodes and the strength of the social bonds that unite them are assumed as a key prerogative to the constitution of the network itself. As T. Pencarelli (1992) points out, a network can be said to be fully evolved only when it includes formally autonomous economic actors, who identify themselves as open systems and that are mutually linked by non-causal relationships. M. Bianchi (1996), instead, defines a network as an organizational structure in which several independent elements are interconnected according to strong bonds - contractual and bureaucratic - or weak links - i.e. informal social links between the members of the different organizations.

Therefore, before delving in any analysis about networks, it is also essential to distinguish whether the nature of the links is strong enough to constitute a unified system, or rather if it is simply a matter of outsourcing relations.

In this regard, Baker (1993), in addition to emphasizing the issue of nodes' autonomy, defines a network as a group that uses "*various methods of coordinating and controlling their interaction in order to appear like a larger entity*". This means that the external perception of the network should be that of a unified entity, rather than a set of individual organizations. Likewise, for the purpose of

this research it was of primary importance to test the external perception of the 45 museums of the Lands of Siena, and weather they assume the appearance of a single, larger entity, ideally unified under the Foundation's identity.

Furthermore, as Goyal (2007) points out:

> *Individual behavior is shaped by others who are "close by"; these "close by" others are referred to as neighbors. However, the behavior of these neighbors is in turn affected by the actions of their neighbors, whose actions are in turn affected by the actions of their neighbors, and so on. This line of reasoning led to the view that the overall pattern of ties between individuals plays a role in shaping individual behavior and aggregate social outcomes.*

(Goyal, 2007, p.53)

The relevance of this consideration lays in its capacity to underline how the strong level of interconnection between the constituting nodes of a network has an impact on both individual and group's behavior and general outcome. This reflection will be taken up later, as it is an important prerequisite for analyzing the overall performance and therefore efficiency of a group of organizations.

Another specification in relation to cultural systems is the one provided by S. Bagdadli (2001). According to the author, all those systems made up of museums belonging to a single owner (e.g. civic museums) are not classifiable as networks, since from an organizational point of view they are rather configured as divisions of the same company. Heterogeneity is therefore considered as another defining feature of a network of museums. By bringing together private, public and ecclesiastical museums, *Fondazione Musei Senesi* perfectly fits also with this specification.

So far, thus, four main features of a network have been pointed out. Firstly, the legal autonomy of the constituting nodes; secondly, the unified perception of the group; then, the strong interconnection and therefore reciprocal influence of each node's behavior on others, and finally, the intrinsic heterogeneity of the ownership. In the next paragraph, the strategic perspective of networking will be analyzed.

3.1.2.   Strategic perspective

As Srakar and Verbic (2018, p.3) underline, "*a strategic view of networks considers them as long term purposeful arrangements among distinct but related organizations that allow those firms in them to gain or sustain competitive advantage*".

The use of networking as a strategic tool to gain a competitive advantage is one of the main determinants of network formation. Although the relevance of network creation for coping with high level of competitiveness will be discussed in the section dedicated to network's determinants and effects, it is easy to predict that the higher the level of competitiveness of a sector, the greater the need and the recourse to this organizational and strategic structure.

Regarding the network's strategic relevance, Goyal (2007) underlines that the sharing of information within the network facilitates the adoption of optimal solution, therefore increasing the level of social welfare. In order to rationally evaluate different options, indeed, individual nodes not only refer to their own previous experience, but also on the other nodes' previous experiences. This permits them to accumulate more complete information that, in turn, allows better decisions to be made. Information asymmetry is indeed reduced, not only thanks to a process of *learning from experience*, but also to a process that may be called *learning from connections*.

Within the field of networks strategic management, A. Ruelas-Gossi and D. Sull (2006, 2010) developed the cutting-edge theory of strategy orchestration. According to the authors, the key to success in modern economic system is to create and coordinate networks to seize opportunities that others, individually, do not see. By orchestrating a network of heterogenous firms, indeed, organizations are able to "*create value by assembling novel combinations of resources […]. Resources include both tangible assets, such as real estate, distribution networks or machinery, as well as intangible ones, such as expertise, technology or brand*" (A. Ruelas-Gossi & D. Sull, 2006, p.4). Gossi's consideration is extremely relevant because it underlines one of the main advantages of networking, i.e. the possibility of assembling together complementary resources, owned by different organizations. As pointed out by many studies on museum networks, the possibility of sharing complementary resources is considered as extremely valuable indeed, especially for small realities.

The theory of strategic orchestration has been empirically deducted, thanks to the analysis of successful firms in emerging countries. These companies have to face a high cost of capital, limited availability of funding and heated competition. Also, "*they lack resources such as technology and*

brand at the scale afforded by established leaders in developed economies" (A. Ruelas-Gossi & D. Sull, 2006, p.3).

The resemblance with the museum field is clear. As well as enterprises in developing countries, museum institutions are also burdened with enormous constraints and high levels of competitiveness within the field of leisure time activities (see Basso et al, 2017). Local small museums in particular, lack the popularity and the visibility of well-established urban museums. Nonetheless, according to the theory of strategic orchestration, small organizations would be able to succeed in the modern cultural scene by combining their resources, while maintaining the flexibility and agility that small size allows. Similarly, in S. Bagdadli (1997), inter-organizational relationships are the key for the creation of stable and yet flexible and agile networks. As in the theory of strategic orchestration, this type of relationship exists when one or more organizations exchange resources of all kinds (money, equipment and materials, customers and suppliers, know-how) to accomplish objectives that cannot be achieved by each separately.

Furthermore, two central features of orchestration are particularly relevant for museum networks and will be here tested and analyzed by observing the the case of *Fondazione Musei Senesi*: the allocentric approach and the absence of centralized power.

> *Most existing strategy theory is egocentric: Its starting point is the individual firm that exists to create, capture and sustain economic value. The firm focuses solely on opportunities it can seize alone. The allocentric orientation, by contrast, allows managers to seize a whole range of opportunities that can only be pursued by a network. This requires a shift in how managers establish relationships. In the traditional view, the egocentric firm maximizes its own value, often at the expense of other players in the value chain. The orchestration approach, by contrast, assumes that there are unlimited opportunities to create new value, as long as there is cooperation between the network nodes and the pie is carved up in a manner that will make it worthwhile for everyone to participate*"

<div align="right">(A. Ruelas-Gossi & D. Sull, 2006, p.5)</div>

In other words, to orchestrate means to assume a win-win logic. The orchestrating node is not overhead compared to the others and does not impose its own objective on the network. Rather, it is the "first among equals", the one that diplomatically pushes the other nodes to pursue a common opportunity. Within the field of museum networks, this feature becomes essential. Since none of the constituting nodes, not even the central one, can exercise a centralized power upon the others,

diplomacy, trust, and transparency are key ingredients to push the network towards its goals. As we will see, FMS is a perfect example of this. The foundation indeed, does not own, control or either manage the museums within the network. Therefore, it cannot exercise any power over them in this regard and it is rather asked to diplomatically push all these different organization towards a common strategic goal.

3.1.3. Determinants and effects of networking

Over the past three decades, an important trend has been identified in the increasingly collaborative approach of firms (see Goyal, 2007), including museums and cultural institutions. Therefore, this section is intended to investigate the reasons for this unbridled development.

According to Goyal (2007, p.44), "*this collaboration takes a variety of forms and is aimed at both lowering costs of production and improving product quality and introducing entirely new products*". By analyzing this trend, the author identifies two different types of networks, respectively created for achieving two different purposes. In the first case, firms collaborate with similar companies within their market sector, with the aim of diminishing competition thanks to cooperation. In the second case instead, firms organize heterogenous networks with nonoverlapping companies, combining different know-hows, resources and activities.

> *Firms compete in a market, and having lower costs is advantageous, as it leads to larger market share and profits. Collaboration between firms is a way to share knowledge and skills and this lower cost of production, thus, a collaboration between two firms makes them relatively more competitive vis-à-vis other firms. On the other hand, collaboration with other firms involves resources and is costly. So, a firm compares the costs and returns from collaboration when deciding on how many links to form.*

> (Goyal, 2007, p.245-246)

In other words, as previously noted, companies strategically decide to connect with other firms in order to improve their competitive position and when it is believed that this decision can bring benefits and advantages higher than the costs of collaboration. Similarly, in the museum sector, networks are formed in order to improve their position within the cultural market and, ideally, to reduce the operating cost thanks to economies of scale. According to S. Bagdadli (2001), networking cooperation between cultural institutions is a theme that is born and based on the need to improve the quality and increase the quantity of cultural services. The author, who pioneered the study of museum

networks in Italy, identifies four key determinants to the creation of networks and five different classes of advantages derived from networking strategies.

The need to conform with a shift in regulation and to improve economic efficiency, isomorphism (meant as similarity and proximity), and sharing of complementarity of resources, are the main determinants for the creation of strategic alliances in the museum sector. When one or more of them occur, the creation of a network represents the best strategic and organizational solution.

Similarly, according to Gossi (2006), four main sources of external volatility create new opportunities for orchestration and network creation: technological changes, regulatory changes, demographic trends and macroeconomic shifts. These sources are all quite evident in the case of the creation of museum's networks, especially in Italy and, in particular, for the present case study. First, technological innovations in museum's visit have been persistent in the last decades (e.g. digital tour guides, digitization of the collection, AR technologies etc.). Small realities, individually, cannot properly exploit this opportunity, while together they are able to use and offer to the public these expensive technologies. Secondly, as S. Bagdadli (1997,2001) points out, the last decade of the 20th century has been characterized by various shift in regulation that pushed Italian cultural institutions toward the creation of several museum networks. The network of museums in Siena is an example of a system created on this wake. Then, the increase in people's leisure time and the consequent growth of cultural consumption, represents a huge demographic trend of this millennium that, increasing the level of competition within the cultural sector, asked small museums to assume a more managerial and strategic approach. Finally, macroeconomic shifts such as the global crisis in 2008, have led to a sharp cut in public funding for museums, demanding profound changes in their organizational and cost structure.

As for the advantages gained by networking activities, six classes of benefits have been empirically deducted by the observation of museum networks in Italy (see S. Bagdadli 1997, 2001; M. Montanella 2014):

1. From a cultural point of view, the networks are decisive in explaining the significant historical connections between the collections of different museums and between them and the local territory;

2. Networking leads to the creation of more qualified projects, such as vast exhibitions, educational programs or publications, hardly accessible to individual museums;

3. The network allows to access more funding and to reduce the uncertainty regarding their allocation;

4. Although difficult to measure, interviews to museums expert revealed that, by being part of a network where different institutions can exchange their information and personal know-how, better decisions are reached, and demand uncertainty is therefore reduced;

5. Networking is also proven to improve the image and prestige of each participant. By coordinating marketing and advertising campaigns, the network provides indeed greater coherence and visibility of the communication and promotion of the system, with respect to the individual entities;

6. Networks are also essential to overcome the financial, organizational and productive constraints due to the reduced number of users that burden small local museums. The network allows to reach a consistent critical mass to exploit economies of scale, saturation, specialization, and learning, in each of the three macro-areas of the characteristic activities of museums: scientific-cultural, administrative, technical;

Furthermore, regarding the advantages achieved by museums thanks to networking, a research undertaken by IULM university in 2013 investigated these benefits for 13 Italians networks, including that of the Sienese museums. The study, thanks to surveys and interviews, ranks the main drivers for the creation of a network as follow:

1. Increase the visibility of individual museums

2. Share complementary resources

3. Seeking efficiency through cost reduction

4. Increase the legitimacy of individual museums in the institutions

5. Increase the prestige of individual museums

6. Conform with the rules

7. Seeking efficiency through increased revenues

For the purpose of the present analysis, the benefit classes will be reduced to four main categories: economic benefits, image benefits, cultural benefits and learning benefits. Economic benefits include the reduction of costs, the increase in revenues and public and private funding, the possibility of exploiting economies of scale and sharing complementary resources. Image benefits, instead, are linked to the increased prestige and legitimacy of the organizations due to the amplified visibility of the system and its consistent unity. Cultural benefits group all the advantages linked with the qualitative and quantitative improvement of the cultural offer. On the other hand, learning benefits include the opportunity to exchange information and know-how as well as the possibility to reach a substantial critical mass in order to be perceived as a valid and authoritative source of information

and knowledge. Each of these four categories will be covered in dept in the analysis as a specific theme of the case study.

Among the class of economic benefits, one of the recurrent advantages in all the research regarding museum networks is the possibility of exploiting economies of scale. General economic theory identifies the presence of economies of scale when the number of units produced increases while average unit costs decrease. Economies of scale are also accessible when it is possible to spread the cost of an investment over several units or when a function can serve several divisions within of the same company or separate companies (Bagdadli, 1997).

According to S. Bagdadli (1997), economists who have addressed the issue of economies of scale in museums have first of all had to deal with the identification of a measure of museum production. Without this measure, indeed, it is not possible to estimate a cost function that allows to identify the presence of economies of scale.

Since museums are multiple inputs-outputs, non-for-profit firms, whose mission is to achieve social and cultural goals providing services for prices not directly correlated to their cost of production, finding a measure of productivity for museums is extremely complex. Therefore, research that tried to determine the existence of economies of scale in museums has mostly used the number of visitors as a proxy-measure of production. For example, S. Bagdadli (1997) mentions the case of a French study that analyzes a sample of almost 300 museums. The research verifyies the existence of economies of scale, as total expenditure grows less than proportionally to the number of visitors. This phenomenon, in the case of museums, is mainly explained by the existence of high fixed costs, which therefore remain relatively stable as production, i.e. the number of visitors, increases. Moreover, according to S.Bagdadli (1997,2001), economies of scale are more easily exploitable by a system of museums than by a single institution, thanks to the achievement of a consistent critical mass and the sharing of resources, functions and activities.

Another line of research into the reasons for networking identifies in the small size of most Italian museums the main determinants for the creation of networks. A research conducted by C. Fuortes (1994) on the economic efficiency, of museums, for instance, estimates the number of visitors needed to reach the break-even point for the National Gallery of Modern and Contemporary Art in Rome (GNAM) and the Civic Museum of Lecce. Respectively, 1.500.000 visitors are needed in the first case and 700.000 in the second. However, the author concludes that if this goal is realistic for GNAM in Rome, for the museum of Lecce this number is absolutely unreasonable. It follows that, as noted

by S. Bagdadli (1997), some strategies for improvement and diversification of the offer and promotion of the museum are effective for some museums of medium/large size and with a high potential of attraction while for others it is necessary to think about strategies of reduction of costs that can be implemented only through network connections. According to the author, indeed, the organizational discipline has for many years highlighted how network organization can present important advantages in all those cases where the integrated enterprise (e.g. a single large museum) or the market (i.e. museums competing with each other) is neither desirable nor pursuable. Similarly, M. Montanella (2014) affirms that networks are the most suited organizational solution for the post-modern context, able to optimize museum's efficiency and effectiveness. This, according to the author, is especially true for the Italian context, characterized by the presence of a large number of small museums, widely distributed throughout the country and burdened by heavy internal financial, organizational and productive constraints.

Therefore, according to this argument, Italy, with its four thousand museums located very close to each other and mostly small and peripheral (ISTAT, 2018), seems to be the country where networks can find an ideal application.

3.2. Performance indicators for museums

In general terms, it can easily be deducted that, being part of a network is useful for a museum as long as it helps it to improve its performance. In other words, a museum will strategically decide to be part of a network when this participation will provide it with some advantages and benefits that it could not achieve individually. For this reason, the present section focuses on how to evaluate museum's performance, in order to provide a theoretical explanation for introducing why networking should increase museums' performances and therefore their efficiency and effectiveness. Some definitions of efficiency for museums will instead be provided in the following section.

Firstly, it is important to underline that the definition of performance for the museum sector is extremely complex. Although, in general terms, performance is defined as the set of actions, processes, and behaviors that lead to a certain output (Treccani vocabulary), within the museums field this explanation assumes several different facets.

From an economic point of view, the museum is an institution set up and run for cultural purposes and which, in its daily activities, manifests important structures and economic phenomena. According

to S. Bagdadli (1997), the museum carries out an economic activity as it uses scarce inputs in order to produce scarce outputs, such as the services it offers to the public. However, an economic analysis to evaluate the museum's performance through the monetary meter is not feasible. This is because the typical museum activities – to *acquire, conserve, research, communicate and exhibit (ICOM)* - are not measurable through market exchanges. For instance, the price of admission and services related to the visit are generally not directly related to the cost of production of the service itself and neither to the positive externalities generated.

Although the primary mission of a museum is not economic, and therefore cannot be measured by economic performance indicators based on profit analysis, periodic performance controls and measurements are essential for a more accurate management of resources. As Basso and Funari (2004) point out, only by optimizing the way of using their scarce resources, museums can be efficient and effective in achieving their objectives. In the same way, S. Bagdadli (1997) speaks of economic instruments at the service of cultural activities and focuses on economic means that, by improving the use of resources and therefore the efficiency of museum activities, make the organization more effective in offering cultural services.

The pressure for periodic performance measurement also comes from the political sphere, which is increasingly pressing cultural institutions to use public funding more efficiently. As Basso and Funari (2004, p.195) affirm: "*the more efficient and deserving of funding the institutions appear to be, the more likely they are to qualify for grants and therefore feel confident enough to aspire to long-term programs and projects*".

As a consequence, several Performance Indicators are therefore used in order to support decision making on the allocation of resources (T. Navarrete, 2020) within different cultural institutions or different DMU of the same organization. Furthermore, the evaluation of museums' efficiency allows the identification of efficient benchmarks and the dissemination of the best practices in the museum network of reference (Basso et al, 2017, p. 67).

To this regard, as Basso et al (2017) points out, also museums' sponsors and donors are nowadays asking for a more precise and proactive assessment of the actual returns that can be achieved with their cultural investments. Moreover, as previously underlined, museums are coping with increasingly competitive environments. Cultural institutions compete not only with other industries within the field of leisure time activities but also with other cultural institutions in order to attract visitors, donors, and sponsors. Therefore, "*performance measurement systems aim at providing*

synthetic information about the efficiency and effectiveness of services and at enabling comparative assessments which are transparent, simplified and standardized" (Basso et al, 2017, p. 67).

However, as Barrio and Herrero (2017) underline, the evaluation and measurement of museums' performance is an extremely tricky and complicated task. According to the authors, this may be due to three specificities of the sector.

> *Firstly, because museum involve a wide range of resources, many of which are not easy to measure due to their qualitative and disperse nature; secondly, because museums' ultimate purpose is to provide a complex and multiple product that is not always tangible or commercial in nature; and thirdly, because these institutions are frequently public or non-profit entities that do not often follow cost minimization behavior.*

> (Barrio and Herrero, 2017, p. 488-489)

In other words, the creation of positive externality, the public good nature of cultural goods and the lack of a unique, economic purpose such as profit, all contribute to increase the challenge of measuring the ability of museums to achieve their goals, i.e. their performance.

Fondazione Musei Senesi's mission is, for instance, "*to help museums to become more and more welcoming spaces, where the cultural heritage and the stories of the people who have contributed to its creation and preservation are valued, where active citizenship is exercised, and where one can feel good, at home*" (www.museisenesi.org). But how to measure their ability to achieve this objective, i.e. their effectiveness? How to measure their efficiency in organizing their inputs to obtain their set outputs? These questions are not easy, because the outcome itself is extremely difficult to measure. How to measure the audience feeling of being at "home"? How to measure the museum's ability to transmit the value of Sienese cultural heritage?

In order to answer this type of questions, specific PIs can be built, and "*used in relation to concepts for which a direct measure is not always observable when monitoring development towards a desired goal*" (Navarrete, 2020, p.408). Therefore, for each specific goal a different PI should be considered, in order to relate the outcome desired and obtained.

To this regard, it is important to point out that, PIs only provide a quantitative measure on the area to be evaluated and are never an exhaustive representation of an arts and culture organization (Navarrete 2020; Pignataro 2011, p.336). Therefore, PIs should not be interpreted in a binding way but rather

serve as input for a more in-depth analysis. In this sense, the major utility of PIs is the possibility to check whether the organization is going in the right direction, following their strategically set goals in an efficient manner.

In general, and as previously discussed, networking can increase museums' performance in several ways: by providing economic advantages, the network increases each member economic and financial performance; and by offering image, cultural, and learning benefits, the network improves museums' effectiveness in reaching their social mission. In light of this, then, the aim of this analysis is to test whether these considerations are true in the case of Fondazione Musei Senesi's network.

3.3. Efficiency measures for Museums

As affirmed by Coupet and Berrett (2018, p.299): "*Nonprofit scholars, managers, and donors should move away from concepts and measures of efficiency based on financial ratios, and toward ones that embrace maximizing what nonprofits are able to make and do*". Specific measures of efficiency should therefore be built and used, so as to take into account the social nature of the outcomes produced by museums activity.

In general, managerial efficiency considers the ability to turn input into outputs (Luksetich & Hughes, 1997). Likewise, as Coupet and Berrett (2018) underlines, nonprofit efficiency indicators should measure the degree to which non-profits are able to turn inputs into outputs.

> *Being efficient means managing resources such that no further welfare improvements can be made without increasing resources or making someone else worse off.*
>
> (Coupet and Berrett, 2018, p.300)

However, the efficiency of organizations such as museums can be evaluated according to different perspectives:

- Transactional efficiency, where organizations behave in a way that minimizes the frictions inherent in economic activity (Coupet & McWilliams, 2017; Valentinov, 2008);
- Distributive efficiency, concerned with maximizing the equitable distribution of social benefits (Zerbe, 2002);

- Allocative efficiency, concerned with expenditure of resources in vectors that maximize their productivity (Callen & Falk, 1993);
- Technical (or productive) efficiency, represents the ability to maximize the amount of output given the input available or to use smaller quantities of input to produce the same amount of output (Basso and Funari, 2004).

In conclusion, the hypothesis that this paper aims to verify, is that, given the advantages mentioned above, the creation and implementation of museums' networks is useful as it improves museums' individual efficiency and performance. Therefore, the networks would serve museums as an organizational and strategic tool for improving their management and technical efficiency, as well as their effectiveness in achieving their social and cultural mission.

4. Methodology

As anticipated, the present analysis aims to study to what extent is it useful for museums to be part of a network. So far, an extensive portrayal of the benefits of networking has been provided, as well as the definitions of performance and efficiency within the field of museums. Through the analysis of Fondazione Musei Senesi as a case study, this thesis will investigate whether the creation of collaborations between museums can represent an efficient way of responding to the management challenges that smaller museums in particular have to face, and therefore provide some useful advantages to the museums within the network and their visitors.

To do so, a triple perspective has been applied in order to analyze whether and how theoretically anticipated benefits of networking are felt by three main classes of stakeholders in consideration: the Foundation itself, the museums within the network, and the visitors. In order to collect data and opinions directly from these groups of stakeholders, I surveyed museums' staff members, Social Media followers of FMS, and I interviewed the Foundation's Scientific Director and President.

As previously pointed out, the choice of this specific case study is motivated by its recent newsworthiness. In particular, its extreme heterogeneity, both in terms of type of museums and type of management and ownership, has recently put the role of the Foundation and the very existence of a network so built to the test. In 2019, the municipality of Siena, one of the main founders and partner of the foundation, has decided to exit the network with its two cultural institutions (Torre del Mangia and Museo Civico), rising the specific research question for this thesis: to what extent is it useful for museums to be part of a network? And, consequently, when are collaboration and networking useful for a museum? To what extent are the benefits provided by the network higher than the ones achievable individually?

For this reason, among many examples of museums systems in Italy, I chose the one of Fondazione Musei Senesi as a critical case able to illustrate benefits but also difficulties of networking. As previously noted, the features of this network perfectly fit with the theoretical definition provided so far. Moreover, its high level of heterogeneity as well as the choice of the Foundation as a legal form, make it an extremely prominent and interesting case to analyze.

As for the methodology, this qualitative analysis moves from the previous study undertaken by IULM university in 2013, although, instead of assuming a comparative approach between different networks, it focuses on one case study and analyze it from a triple perspective. This approach therefore aims to investigate how benefits of networking are perceived by the main classes of

stakeholders, comparing these different points of view and underlining differences and similarities among them. Results will prove that just by analyzing the present case study by, at least, these three different perspectives, some useful insights on the benefits provided by the network can be achieved.

Furthermore, the absolutely unique period in which this thesis has been undertaken represented both a source of some quite big difficulties, as well as a font of interesting and stimulating challenges. I therefore decided to delve my analysis in order to take into account the specificities of this period, asking myself if and how being part of FMS's network influenced individual museum's emergency management and how the visitors coped with the forced closure of all the 45 museums. I therefore include this type of questions in the surveys to both museums' staff members and Social Media Followers of FMS. I also directly asked to the Foundation's Director and President how they reacted to this crisis.

The original method for this thesis was meant to be quantitative. At the beginning indeed, my objective was to study the increase in technical efficiency of museums provided by their decision of joining a network. To do so, I would have used the Data Envelopment Analysis (DEA) technique as suggested by many scholars of efficiency measures for the non-profit sector (see, for instance, Barrio and Herrero, 2019; Basso and Funari, 2004). However, as I was delving into my analysis, I understood that a quantitative study would not have been able to grasp some defining features of this case study. For this reason, I opted for a qualitative analysis, and I interviewed and surveyed different stakeholders of the Sienese network to develop a multi-perspective analysis on the subject.

4.1. IULM university analysis on Italian museums Systems: 2.0

By replicating the analysis undertaken by IULM university in 2013, this study aims to verify whether the Foundation's consideration about some critical issues, such as determinants, benefits, and effects, of networking remained stable or rather changed over the time. In addition, by considering different classes of stakeholders together rather than FMS only opinion, more articulated results will be achieved in relation to this specific case study.

On the one hand, to collect the opinion of Fondazione Musei Senesi, in depth interviews with the Scientific Director Elisa Bruttini and the President Alessandro Ricceri have been conducted. On the other hand, to gather the perception of both the individual museums and visitors, two different surveys have been run.

About one museum out of three within the network participated in the survey, for a total of 14 museums. In order to collect a more specific opinion, I also contacted Alessandro Marchini, the head

of the astronomical observatory of the University of Siena, and conduced with him a more accurate interview.

As for the visitors, given the terrible situation caused by the spread of COVID-19 that forced many countries and Italy included to a compete lockdown, I decided to broadly interpret the concept of Social Media followers and assume that many of these people may also have physically visited some of the museums within the network. The results of the survey conducted among 66 followers of both the Instagram and Facebook pages of Fondazione Musei Senesi proved that almost all of them visited at least one museum of the system, therefore realigning the concept of social followers with the one of physical visitors.

The table below sums up the data sources for this thesis, as well as the number of respondents and a brief overview of the data that have been gathered.

Table 1. Methodology

Data source	Number	Key data gathered
Interviews	3 interviews (4hours)	By interviewing FMS's President and Director, I collected the Foundation's opinion on the network: its purpose, organization, and management. I also gathered some information on how the way they reacted to the crisis and their fundraising activities. The interview with the director of the Astronomic Observatory, instead, provided me with a useful insight on the difficulties that the vast heterogeneity of the network causes on each member.
Survey to Social Media Followers Of FMS	66 responses	The survey to FMS social media followers had a double purpose. The first, was to collect visitors' perspective on the network and the benefits they have from the systemic management. The second, was to see their opinion about the activities proposed by FMS Social Pages during this time of lockdown.
Survey to museums	14 responses	The survey run by museums' staff members had the scope to gather an opposite perspective compared to the Foundation's one. Do they share the same opinion on the network, or do they have a different perception? What are the benefits that they obtained by being part of the network?
Regione Toscana Database – *Schede Museo*	45 museums	Thanks to this useful tool, I was able to collect data about each participant of the network. Specifically, each "sheet" contains a description of the museum, the year in which it was funded, the types of facilities it offers, the number of items in the collection (on display and in the museum's warehouse), the ticket price and discounts available, the educative activities proposed to the public. As well as providing me with an overview of all the museums within the network, this data also was proved very useful during the analysis phase, where I compared them with the results of the surveys.

5. Results

5.1. Social Media Followers survey

The questionnaire addressed to the Foundation's social media followers was conducted between March and April 2020 through Instagram and Facebook. Thanks to this survey, I was able to grasp some interesting findings about the system's external perception.

The survey was divided in two sections. The first focused on the activities proposed on Social Media by Fondazione Musei Senesi during the period of lockdown caused by the spread of COVID-19. The second, instead, was about their perception and opinion of the network. In general, both sections were useful to collect some interesting insights about their perceived benefits, i.e. the way the advantages of networking are reflected on the visitors – alias social media followers – of the network itself.

5.1.1.   General overview of participants

In totality I collected 66 replies to the questionnaire, contacting the followers of the Foundation's Facebook and Instagram pages in chat. About 75% of the respondents were women, underlining a greater participation of the female population. As can be seen from the table, the variability by age group was greater and almost equally distributed among the first three age groups, although with a dominance of the central one, between 27 and 39 years old. In line with the general population on social networks, the population over 60 is much less represented (see Table 2). This is, however, in contrast to the data on museum visitors, who generally belong to the more "mature" age groups (ISTAT) and therefore could be assumed as a limitation of the sample, considering that the greatest group of visitors is, unfortunately, the less represented. Nonetheless, it must be argued that 95% of the respondents visited at least one museum of the network, therefore realigning the concept of social media followers with the one of physical visitor, at least for this specific case study. Another feature of the sample regards the level of education. All participants have, at least, obtained their high school diploma, 63% of them have a master's degree and 14.5% a PHD. In general, thus, Social Media followers of FMS pages are highly educated, in line with the statistics concerning the museum audience (ISTAT 2018). It is also interesting to notice the distribution by place of residence, as shown in Table 2. About a half of the sample lives in Siena and the towns around it, while the others live in the rest of Tuscany and Italy, indicating the attractiveness of the museums of the network both for national tourists and local communities.

Table 2. Respondents characteristics

Respondents characteristics	*Percentage*
Gender	
Male	23.81%
Female	76.19%
Age group	
18-26	23.81%
27-39	39.68%
40-59	33.33%
60+	3.17%
Education Level	
Elementary school	0.00%
High school diploma	11.11%
Bachelor's degree	25.40%
Master's degree	49.21%
PHD	14.29%
Place of residence	
City of Siena	17.46%
Province of Siena	20.63%
Tuscany	28.57%
Rest of Italy	33.33%

5.1.2.   FMS social media activity during Covid-19 emergency

Probably one of the most interesting findings of this survey regards the percentage of the sample that started following FMS's social media pages after the spread of Coronavirus. About 21% of the sample, indeed, affirmed they started to follow the foundation on social networks after the emergency broke out. This is a valuable proof of the good level of "entertainment" provided by the Foundation during these hard times and of its perception as a valuable source of information. For this reason, this data will be taken up later in the analysis section, in order to tackle possible causes and effects of this finding. This is also supported by the fact that the average response to the question *'how active do you consider the social network foundation to be during this period, on a scale of 1 to 5?'* was a high 3.9/5.

Furthermore, 19 respondents to the survey also participated in the activities proposed by the Foundation on Social Media and judged these activities with a positive grade of 4/5. The low value assumed by the standard deviation of the distribution (0.87) also indicates that the votes were concentrated very close to the average (4.13).

In order to analyze the connection between the rate of appreciation of the digital content offered on social media and the propensity to physically visit museums, I asked participants whether this content enticed them to visit the museums of the network at the end of the lockdown. 92% responded positively, and 46% extremely enthusiastically ('*Yes, a lot*').

5.1.3.   Network perception: the visitors' perspective

The second section of the survey to FMS's social media followers was composed of 6 questions and focused on their perception as visitors. For this reason, the first question was built as a sort of gate to select those followers that also visited at least one museum of the network. As shown in the graph below (Graph 1), 95% of respondents have crossed this gate and many of them affirmed to have visited several museums of the network.

Graph 1 - Museum visitors
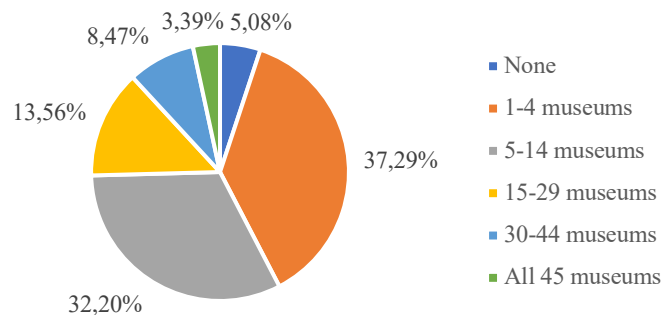
The second question of this section asked the respondents if they were planning to visit other museums of the system once they would be reopened at the end of the emergency. 73% of them replied '*Yes, for sure*', while the remaining 27% answered '*Maybe, in the future*'. None of the respondents replied negatively.

To the question '*Do you think that being part of a network has helped individual museums*?' 44% of the respondents replied '*Yes, absolutely*' and 36% '*Yes, in part*'. The remaining stated either that they could not express an opinion about it, or that networking did not particularly help museums. However, none of the respondents affirmed that, in their opinion, networking did not help individual museums at all. The following question asked whether, from the visitors' perspective, the system has favored

the visit of more museums within the network of FMS. Again, replies have been fairly positive. 41% answered '*Yes, absolutely*' and 44% 'Y*es, in part*'. Only 8% replied '*not a lot*', while the rest declared to not have a clear opinion on the matter. None of the respondents affirmed that the network has not favored at all the visit of more museums. I therefore asked in which ways the network has favored this, suggesting some possibilities, leaving the option to tick more than one and the space to indicate others. Below, in table 1, are the motivations and the relative percentages.

Table 3. Visitors' motivations

Visitors' motivation	*Percentage*
Because I learned about the other museums through FMS's promotional material	39,53%
Because I was motivated to visit more museums in order to have an overall and complete vision of the cultural heritage of the Lands of Siena	26,74%
Because thanks to the systemic organization it was cheaper to visit more than one museum	12,79%
Because the activities promoted by the system are wider, more varied and interesting than those promoted individually by museums	16,28%
Others: - *"I know the territory";* - *"because you create a network that is not only related to the issue of the single ticket, but you create a historical, artistic and archaeological thread that allows you to better understand our cultural heritage";* - *"because systemic management creates an overview that the individual museum fails to promote".*	4,65%

Finally, I concluded the survey by asking how the visitors perceived the network "united" under Fondazione Musei Senesi. 23% of them perceive it as a completely compact and cohesive group, while 66% perceive it as fairly compact and cohesive. 12%, however, do not perceive the network as cohesive but rather as many distinct museums.

5.2. Museums' staff survey

The survey run among the museums of the network had the purpose to investigate the motivation that prompted them to enter the system, the resources and activities they share, the benefits they have

gained from systemic management and possible complications. The questionnaire also asked if and how being part of a system helped them to manage the Covid-19 emergency. In addition, I asked museums' staff members for some general data in order to better frame each museum (see Appendix 1). I concluded the questionnaire by asking museums to indicate with a grade from 1 to 10 their general level of satisfaction with the system and FMS.

5.2.1. General overview of the participants

First of all, it is worth pointing out that I contacted the 45 museums of the network in an extremely unfortunate period. At the time of this study, indeed, all institutions were shut down, and staff was mainly unavailable. Nonetheless, 14 of them participated with interest to this study, allowing me to collect the opinion of almost one third of the network. In the table below, I have listed the participating museums, specifying some of their essential characteristics.

Table 4. Survey Participants

	Participants	*Type*	*Ownership*	*Opening year*	*Year of entrance in FMS*	*N. of visitors (2018)*
1	**Museo civico archeologico e d'arte sacra Palazzo Corboli**	Art	Civic *	1952 (new building in 2002)	2002	4.421
2	**Museo d'arte sacra della val d'Arbia**	Art	Ecclesiastic	1979	2003	1.068
3	**Museo civico Pinacoteca Crociani**	Art	Civic*	1905	2002	4.950
4	**Oratorio di San Bernardino e museo diocesano d'arte sacra**	Art	Ecclesiastic	1999	2002	333.054
5	**Museo archeologico del chianti senese**	Archeology	Civic*	2006	2006	9.804
6	**Museo civico "La città sotterranea"**	Archeology	Civic*	2004	2006	5.616
7	**Museo botanico**	Science	University	1856	2004	13.551
8	**Museo di scienza della terra**	Science	University	2013	2017	1.386
9	**Museo nazionale dell'antartide "Felice Ippolito"**	Science	National	1997	2007	1.498
10	**Museo di strumentaria medica**	Science	University	2017	2017	597
11	**Osservatorio astronomico**	Science	University	2004	2017	4.379
12	**Museo della mezzadria senese**	Ethnographic	Civic*	2002	2003	1.488
13	**Archivio e percorso storico di ateneo**	Memory	University	2003	2003	570
14	**Stanze della memoria. Percorso museale di storia del Novecento senese**	Memory	Private Non-Profit	2007	2016	3.904

* In Italy, a civic museum is a museum owned by the municipality.

5.2.2. Reasons for joining the network

First of all, it should be highlight that, especially with regard to civic museums, adhesion to Fondazione Musei Senesi was established by the municipality to which they belong. In fact, the municipalities in the province of Siena are the members of the Foundation, and not the museums themselves. Despite this, individual museums certainty had specific reasons and perspectives at the time of joining and the aim of this research was to analyze their point of view.

For the vast majority of the respondents, the main reasons for joining the network were to increase the visibility, the prestige, and the legitimacy of the museum. Another important factor was the possibility of sharing complementary resources with other museums, although, as we will see, this possibility is still lacking in concreteness. Conforming to standards and regulation is another important reason, aligned with the fact that the decision was indeed taken by the municipality. Minor drivers, instead, relate to economic factors such as the possibility of increasing efficiency through cost reduction and/or increased revenues.

5.2.3. Resources and activities shared

I asked the participants to grade to what extent they share a certain resource with the other museums of the network in a scale from 0 to 4, where 0 represents a resource not shared at all and 4 a resource that is fully shared with the others. The same for shared activities, although in this case, museums could also indicate when one of the activities listed is entirely delegated to the Foundation. Below, a table of the results.

Table 5. Resource sharing

Resource	Unshared resource				Resource Fully shared
Financial resources	**41.67%**	25.00%	16.67%	0.00%	16.67%
Hr	**75.00%**	8.33%	0.00%	0.00%	16.67%
Promotional / advertising material	16.67%	16.67%	**41.67%**	0.00%	25.00%
Information and know-how	**25.00%**	25.00%	8.33%	25.00%	**16.67%**
Collection	**91.67%**	0.00%	0.00%	8.33%	0.00%

A general overview of these results underlines a low level of resource sharing. Only 17% of respondents affirms to fully share with the network their financial and human resources. Promotional and advertising material are slightly more shared (25%). The sharing of information and know-how,

which represents the basis of any cooperation and networking activity, is quite high, although lower than my expectations. 17% of respondents state that they fully share this resource with others, and another 25% claim to share it almost completely and therefore have a good level of exchange and sharing of information and specific knowledge with the other museums in the network. A half of respondents, however, stated that they do not share this important resource at all, or almost. The collection instead, is considered as an unshared resource for 92% of respondents.

With regard to museum activities, the level of cooperation and sharing is rather low, as can be seen in the table below.

Table 6. Shared Activities

Activity	Unshared activity	Partly shared activity	Fully shared activity	Activity delegated to FMS
External communication	15.38%	**46.15%**	7.69%	**30.77%**
Private fundraising	**91.67%**	8.33%	0.00%	0.00%
Public fundraising	33.33%	25.00%	16.67%	**25.00%**
Exhibition activities (complementary exhibitions or exhibitions organized in collaboration with the other museums of the system)	0.00%	**83.33%**	0.00%	16.67%
Cataloguing and acquisition of cataloguing tools	**90.91%**	0.00%	0.00%	9.09%
Study and research	**76.92%**	23.08%	0.00%	0.00%
Conservation of collections	**91.67%**	0.00%	8.33%	0.00%
Staff training	**41.67%**	33.33%	0.00%	**25.00%**
Educational services	33.33%	**41.67%**	16.67%	8.33%
Planning and development	**53.85%**	15.38%	7.69%	23.08%
Website and social activities	25.00%	**33.33%**	25.00%	16.67%
Administration and auditing	**83.33%**	8.33%	0.00%	8.33%

5.2.4. Effects of joining the system

In many cases, according to the opinion of the respondents, the expected benefits were not granted with the benefits actually realized. In terms of the effects encountered, indeed, there is a great deal of dissatisfaction emerging from museum responses. I will simply report the results below, which will be then analyzed in the next chapter.

Table 7. Effects of joining the system

Effects	Unintended effect				Most noticeable effect	I don't know / can't verify this effect
Improved adequacy of management tools	50.00%	0.00%	8.33%	16.67%	25.00%	0.00%
Improved staff adequacy	33.33%	25.00%	8.33%	8.33%	16.67%	8.33%
More security	41.67%	0.00%	25.00%	0.00%	25.00%	8.33%
Better activities and cataloguing tools	83.33%	0.00%	8.33%	0.00%	8.33%	0.00%
Greater support in the conservation of collections	66.67%	16.67%	8.33%	0.00%	8.33%	0.00%
Greater completeness of collections (more loans between them/ complementarity of collections with other museums)	75.00%	16.67%	0.00%	0.00%	8.33%	0.00%
Improvement of the offer in terms of events realized	0.00%	16.67%	50.00%	16.67%	16.67%	0.00%
More exhibitions organized	16.67%	50.00%	0.00%	8.33%	25.00%	0.00%
Improvement of educational activities	41.67%	16.67%	0.00%	16.67%	25.00%	0.00%
Realization of ancillary services (bookshop, cafeteria, online reservations, etc.)	50.00%	8.33%	16.67%	8.33%	8.33%	8.33%
Improvement of cultural services (guides, info., multimedia tools, etc.)	8.33%	25.00%	33.33%	0.00%	33.33%	0.00%
Increased museum accessibility (opening time and accessibility)	58.33%	8.33%	8.33%	0.00%	16.67%	8.33%
Increased visitor satisfaction	16.67%	0.00%	16.67%	8.33%	8.33%	50.00%
More variety of visitors	8.33%	16.67%	8.33%	0.00%	8.33%	58.33%
Increase in the number of visitors	16.67%	16.67%	8.33%	0.00%	16.67%	41.67%
Improving relations with voluntary associations	33.33%	8.33%	8.33%	8.33%	8.33%	8.33%
Improvement of the relationship with the municipality	36.36%	18.18%	0.00%	0.00%	9.09%	36.36%
Improvement of the relationship with the province	8.33%	8.33%	8.33%	16.67%	16.67%	41.67%

Improvement of the relationship with the region	16.67%	8.33%	0.00%	33.33%	25.00%	16.67%

Table 8. Economic effects

Economic effects	Unintended effect				Most noticeable effect	I don't know / can't verify this effect
Reduction of costs for heritage conservation (research, restoration, security, etc.)	72.73%	0.00%	9.09%	0.00%	0.00%	18.18%
Reduction of costs for the valorization of the heritage (marketing, didactics, events, services, etc.)	25.00%	16.67%	33.33	8.33%	8.33%	8.33%
Reduction of personnel costs	75.00%	0.00%	0.00%	8.33%	8.33%	8.33%
Increase in public contributions	33.33%	25.00%	8.33%	8.33%	16.67%	8.33%
Increase in private contributions in the form of donations	91.67%	0.00%	0.00%	0.00%	0.00%	8.33%
Increase in private contributions in the form of sponsorship	83.33%	0.00%	0.00%	0.00%	8.33%	8.33%
Increase in other revenues (e.g. Merchandising)	58.33%	16.67%	0.00%	16.67%	0.00%	8.33%
Increase in ticket revenues	50.00%	8.33%	8.33%	0.00%	8.33%	25.00%
Increased influx of tourists	25.00%	8.33%	25.00%	0.00%	8.33%	33.33%

5.2.5. Networking and COVID-19 emergency management

In addition, I asked museums if they felt that being part of a network helped them cope with the Covid-19 emergency. The vast majority of responders replied it was indifferent to them, since the Italian Government forced all museums to shut down. Someone instead, replied that being part of a network helped the museum "*for the exchange of experience and for joint actions decided by the System in emergency management*". Some other specified that "*for management purposes, participation in the System did not affect the management methods or activities during the emergency. Participation in the System has allowed for coordinated communication and therefore greater*

visibility, although numbers are objectively limited". Others instead, stated that emergency management has not yet taken place, and that the biggest challenge will be to plan and organize the reopening and post-emergency management.

5.2.6. Criticalities of networking

The questionnaire also made it possible to gather important opinions on the critical issues that being part of the system has brought about. In this regard, it is important to notice that the cost of participating in the network of FMS, i.e. the membership fee, is not equal for all museums and neither proportional. While municipalities, as members of the Foundation, have to pay to get their museums into the system, for ecclesiastic and university museums membership is free. This of course influences the perception of network's benefits, effects and criticalities. Museums who pays to be part of the network have higher level of complain than those who do not pay. This is evident from the answers to the question: "*What do you think are the critical issues and difficulties encountered more in systemic management than in individual management?*". While museums who do not pay a membership fee replied that there are no difficulties in networking, those who pay it emphasized some important critiques. Here are some of their answers:

> "*There is a lack of basic organization, an essential basic dialogue, for example, to avoid overlapping events between the different museums; at times participation in the calls for proposals has not been managed collectively. The strength of the system is not currently visible. Personally, I don't perceive it. There would be many potentialities, but they are not exploited (I believe unintentionally, for economic reasons, and perhaps because of the laxity of the different museums)*".

> "*In an institution such as the Fondazione Musei Senesi, the main criticality and challenge is probably represented by the high number of museums that are part of it, dealing with very different themes and with very different management and organization situations, which make it difficult to create a truly unified system*".

> "*In the past, membership of the System had given resources and greater collaboration. In recent years everything has been diluted and we only collaborate for a few activities*".

> "*The main difficulty is to balance the interests and strategies of a national museum with those of a local system that is particularly attentive to territorial characteristics*".

5.2.7. Level of general satisfaction

As stated above, I asked participants to grade in a scale from 1 to 10 their general level of satisfaction with the network and Fondazione Musei Senesi. On average, results are sufficient (6.38) although the high level of variance indicates strongly divergent responses. Analyzing the single answers, indeed, it can be seen that while some museums have a very high level of satisfaction, others have pointed out a general dissatisfaction. Once again, this distinction aligns with that of paying and non-paying museums, pointing out that at higher cost of participation, benefits are expected to be higher than those actually experienced.

6. Analysis

6.1. Economic benefits

As noted in the theoretical framework, economic benefits include all those financial and economic benefits directly or indirectly produced by networking. Economies of scale is surely one of the most visible effects, however, many empirical observations also show an increase in public and private funding; the achievement of a higher level of management efficiency, that allows to reduce operating costs; the accomplishment of economies of scope and saturation of production capacity; as well as the possibility of reducing costs by pooling human and material resources. Furthermore, when generated, economic benefits not only reflect on the museums of the network, but also on their visitors. One example is the offer of a common card for visiting all museums that is cheaper than the sum of the single tickets price. This service is made possible thanks to cost savings and higher earnings resulting from the network. Therefore, it represents a direct benefit for museums that is indirectly reflected on visitors. In the case of FMS network, a common museums-card is still under discussion even though, as the president Ricceri said, it is certainly a key element of the Foundation's future strategy. For this reason, when I asked the visitors whether they obtained any economic benefit from the network their response was rather negative, although it must be taken into account that the cost of the ticket to visit individual museums within the system is already quite low when compared to other museums in the area, or especially to the price of museums in countries such as the Netherlands.

I expected, however, more positive results when I asked museums which types of economic benefits they obtained from joining the network. Their reply, instead, was rather unsatisfactory compared to my hypothesis, showing a low level of economic advantage provided by FMS to the museums. As reported in *table 8*, 72% of respondents said they did not see any benefit in reducing heritage conservation costs, and another 18% affirmed they could not verify this effect. More benefits, although slight, are reported with regard to the reduction of valorization costs (marketing, didactics, etc.), as they are partly delegated to the foundation. While also with regard to the increase in public benefits some positive results can be seen from museum responses, as all respondents affirmed that they have not observed any benefit with regard to the increase in private funding in the form of donations (92%) or that they cannot verify this effect (8%). Almost the same can be said about private funding in the form of sponsorship, where only 8% of respondents say they have largely found this benefit.

On a theoretical level, the reason why scholars link an increase in private funding to networking strategies is simply due to the increased visibility that the system provides to private donors and sponsors. However, both aspects lack practical evidence in the case of FMS network. As can be seen from the results of the survey, museums complain about a measly increase in visibility provided by the system and are not benefiting by this advantage so that they can present a higher visibility plan to both private individuals and companies. From the perspective of the foundation, however, as President Ricceri affirmed in the interview, the economic structure of the territory of Siena can represent an important resource for the evolution and consolidation of the network. The lands of Siena are in fact the headquarters of agri-food consortia that represent the highest level of Italian eno-gastronomic excellence, and that are deeply rooted in the territory and its culture. A network built with such an attention to the territory and local communities cannot fail to take into account such an important class of stakeholders. On the contrary, local businesses should be considered as important partners of the foundation in an inter-connection which can provide mutual benefits. On the one hand, this might benefit the foundation, both from an economic and social inclusion point of view. On the other hand, this might be an advantage for the companies, with regards to the visibility obtained and the link with the social values that they also share.

Another benefit commonly reported by the networks is the increase in public funds. In this regard as well, the visions of individual museums with respect to that of the foundation are in contrast. In fact, while museums rarely perceive the usefulness of the system in accessing more public funding, the foundation's director emphasizes their important role in allowing museums to access regional, national and European grants. In fact, for instance, of the two annual calls launched by the region, one is specifically reserved for networks and systems, so that individual museums could not access them individually. It is true that, strangely enough, in Italy museums can associate with others both thematically and locally. This means that each museum can be part of a local system of museums, but also of one or more thematic systems, therefore participating in the call with many different projects, and also competing with other museums of FMS's network within the same call.

Within this section, it is also good to point out that, as both the foundation and the individual museums have stressed, it is necessary to distinguish the network before and after the downsizing of the Monte dei Paschi di Siena foundation (FMPS). Fondazione Monte dei Paschi di Siena is the non-profit organization created in 1995 by the division of *Monte dei Paschi di Siena* institute into a banking corporation (*Banca Monte dei Paschi di Siena SpA*) and a foundation. While the financial institution carries out savings collection and lending activities for profit, the foundation's mission is to "*promote*

and support the social-economic development of the territory and the local community in a perspective of widespread and sustainable well-being" (www.fondazionemps.it).

At the time of the creation of the Sienese Museum System, a few years before the creation of FMS, the province and the municipality of Siena were in fact recipients of the profits of *Monte dei Paschi di Siena Foundation*, by virtue of the statute of the bank itself. This had guaranteed a period of extreme economic prosperity for the museums, allowing, at the turn of the '90s and 2000, the opening of 16 museums in the municipalities of the territory, the re-arrangement of another 9 and the construction of a further 6 museums.

However, the contributions devolved by the Monte dei Paschi di Siena foundation and the bank itself have decreased considerably over time. In fact, while originally FMPS donated almost 2 million euros a year to Fondazione Musei Senesi (Scientific Director Elisa Bruttini), in order to support the museums in the area, these contributions have been reduced to just 38.000 euros (www.museisenesi.org, Contributi FMS anno 2019) and are expected to decrease even further, since, in 2019, the bank has left the Foundation's board of trustees.

Such a reduction in institutional funds requires the Foundation on the one hand, to adopt a different and more careful approach to alternative financing strategies and, on the other hand, to implement a more efficient management able to exploit economies of scale by sharing resources and activities.

6.2. Image benefits

The achievement of higher visibility, prestige, and legitimacy for individual museums was one of the major determinants that pushed museums to form or join the system. However, as it can be seen from the results of the survey, museums often complain about the limited visibility provided by the network. Analyzing the issue from a triple perspective, it seemed to me that this was, at least in part, a misperception of museums.

Firstly, because FMS has made considerable efforts over the years in the field of communication to ensure maximum visibility for the museums of the network, especially in the digital field. The foundation has indeed developed not only an articulated website able to link to each museum providing precise and detailed information, but also five smartphone applications that guarantee visitors a unique experience of the museums and their territory. Such a complex and expensive digital instrument would never have been able to arise from the resources of individual museums. On the contrart, it would have had a significantly reduced significance and usability for visitors. The value of these applications is instead to provide tourists with an overview of all the museums, their treasures

and their territory through interactive options, AR tools and the proposal of various itineraries to retrace the artistic and landscape beauty of this unique land. As in the orchestration theory, the main value of this type of collaboration is precisely that of allowing the network to seize opportunities that museums could not pursue individually, due to the individual lack of resources, but mainly for the limited usability from the customer's side. While a museum as the Uffizi in Florence alone possesses a critical mass and strong visibility to act individually, museums like those in the Lands of Siena need to pool their energies, resources and skills to be "competitive", increasing their overall visibility and image, both as a system and as individuals.

This is also confirmed by FMS' social media followers. Two data collected through the questionnaire are relevant in this respect. First, the number of people who believe that the system has encouraged visits to more museums, as they have learned about it through the foundation's promotional material. Second, their perception about the network level of cohesion. The first result proves the successful communication strategy of the foundation. About 40% of respondents, indeed, was encouraged to visit more museums of the network thanks to the foundation promotional material. This means that, not only the foundation has an effective communication strategy, but that this strategy increases the image of individual museums, encouraging citizens and tourists to visit them. The second data demonstrates that 88% of respondents perceive the system as compact and cohesive, underlining the high value of the network image as a whole. Together, these two data show that networking has allowed the image and visibility of the individual museums to be enhanced and to obtain a prestigious *brand* for the network as in its entirety.

6.3. Cultural benefits

Cultural benefits regard all those cultural advantages provided by networking. They include the qualitative-quantitative improvement of the cultural offer of museums through common and shared activities, but also the possibility to create an overview of complementary collections related to the history and culture of a territory. Furthermore, through the so-called economies of scope, the variety of the offer is also increased by networking and collaboration activities. As pointed out in the literature review, networks are decisive in explaining the significant historical connections between the collections of different museums and between them and the local territory. They also lead to the creation of more qualified projects, such as vast exhibitions, educational programs or publications, inaccessible to individual small museums. In the case of the FMS network these benefits are important, from both the museums' and visitors' perspective.

As for the museums, 84% of those that participated in the survey affirmed that they had observed a good -or very good- improvement of the offer in terms of events realized. A prominent example is

certainly that of the *Science Museum Festival*, created by Fondazione Musei Senesi in collaboration with the museums of the University of Siena (SIMUS). On the occasion of the festival, the network's science museums organize thematic exhibitions, workshops, concerts and various events attracting a large number of visitors every year.

The level of quantitative improvement in exhibitions is much lower, although it should be kept in mind that most museums rely on a permanent collection and temporary exhibitions are rarely organized. Furthermore, straddling cultural and learning benefits, there is the improvement of educational activities. 42% of respondents affirmed that this was one of the major effects of networking for them, although another 42% disagreed and claimed not to have achieved this benefit. Such a stark contrast seems to actually leave the individual museums with the ability to exploit this advantage provided by the network, or not.

As for the visitors' perspective instead, very positive conclusions can be drawn from their responses regarding the improvement of the cultural offer, as well as those regarding social activities during Covid-19 emergency. The activities proposed by the social pages of FMS during this terrible pandemic can, indeed, be considered as part of the cultural offer of the network as a whole. As noted in the results section, these activities were very successful and many of the survey respondents actively participated. In addition, these online activities carried out during the period of lockdown also played an important indirect role, motivating most followers to physically visit museums at their upcoming reopening. Furthermore, in accordance with the benefits listed above, 17% of respondents affirmed that the activities promoted by the system are wider, more varied and interesting than those promoted individually by museums.

6.4. Learning benefits

The category of learning benefits also has several facets. From museums' perspective, learning benefits of networking are linked to the opportunity of sharing important information and specific know-how with the other nodes. From visitors and social media followers' perspective, these benefits are linked to the possibility of relying on a single, broad and authoritative source of information and news.

As it is clear from the survey responses, however, many museum operators complain about poor communication between themselves and often also between them and the foundation. In this regard, it is important to point out that the very structure of the network does not favor such an exchange, by distancing the various nodes through different intermediaries. In fact, if we consider FMS at the center of this network, the first circle of relations that is established around it is the one with the museum

owners, i.e. the 26 participating municipalities. Only on a second level are included the museums. The other way around, the foundation, also reiterates this difficulty in communicating directly with the museums. An interesting case is that of university museums. These museums, 8 in total, belong first and foremost to the university museum system (SIMUS) and, as a system, are part of the network of the Fondazione Musei Senesi. This makes direct communication between the operators of these museums and the foundation particularly complex, despite the excellent relations between the university and FMS.

Furthermore, a structure so built also disfavors direct communication and information exchange between operators of different museums. As a possible solution, the idea of thematic committee has been analyzed by the foundation, but it hasn't been realized yet. Certainly, the implementation of the moments and channel of communication and exchange between different museums is a key and extremely urgent issue in order to increase the perceived usefulness of the system in the eyes of museums operators and to make the network more compact and cohesive.

Analyzing the topic of learning benefits from the visitors' point of view, instead, the results are much more positive. The beneficial effect of networking with regards to learning advantage indeed, can be indirectly verified by the number of people who started following their page during covid-19 emergency. This number (about 20% of the survey sample) indicates that FMS is largely perceived as a valid source of information and news, as well as a channel of knowledge and cultural entertainment.

7. Discussion

The analysis of Fondazione Musei Senesi's network has allowed to emphasize and underline the main features of cultural networks, the benefits and utility provided to museums and visitors, as well as the complexity brought by collaboration.

Therefore, this section aims to link the results achieved through the triple observation of FMS with the theoretical framework of reference. First, the theoretical characteristics of the network and their relevance in the case of FMS will be discussed. Secondly, the strategic approach to networking in the case of FMS will be analyzed. Thirdly, the benefits cited by scholars of networking practices will be compared with those actually found in this case. Finally, taking into account the specificities of PIs and the concepts of efficiency and effectiveness in the case of cultural organizations, we will try to understand if and how systemic management has implemented the performance of individual museums.

7.1. Social-economic network. The case of Fondazione Musei Senesi

The characteristics of Fondazione Musei Senesi network almost perfectly reflect those listed by scholars. First of all, with regard to the legal autonomy of nodes, FMS network includes public museums belonging to different municipalities, but also university, private and ecclesiastical museums. Secondly, in terms of the heterogeneity of the nodes, this is evident from the many types of museums that FMS collects: art and archaeology museums, but also ethnographic and scientific. Such a variety, both in terms of ownership and typology, certainly represents a source of considerable complications but also the enormous value of this network. In fact, it favors cooperation between different institutions and dialogue between museums of different sizes and types, which, all together, share a social and cultural mission as well as a strong rootedness in the history and art of the Lands of Siena.

About the appearance as a larger entity, that Baker (1993) claimed to be the main feature of social-economic networks, there is still a lot of work that can be done in the case of FMS. As a network indeed, according to the theory of strategic orchestration (Gossi and Sull, 2010), museums should learn to play as an orchestra rather than individual players. The basis is already quite good, as underlined by social media followers, and the forthcoming approval of the statute by all members will probably allow to increase this aspect.

An extremely relevant element that needs to be more emphasized in the case of Sienese museums is also the possibility of learning from connections (Goyal, 2007), through the sharing of resources and the continuous exchange of information and know-how. This is an essential characteristic and also strategic key of networking, which, if properly exploited, brings important competitive advantages for the network and its individual members.

7.2. Strategic approach to networking: does FMS orchestrate?

The strategic approach considers a network as an economic tool to obtain substantial competitive advantages (Srakar and Verbic, 2018; Goyal, 2007). According to the theory of strategic orchestration, networking means to assemble together complementary resources, owned by different institutions, with the purpose of seizing opportunities that can only be pursue by a set of organizations (Gossi and Sull, 2006). In the case of Fondazione Musei Senesi, the strategic approach and willingness to orchestrate are evident from the purpose and structure of the organization although, in practice, the limitations are evident. First of all because, as can be seen from the results obtained, each member of the network is still thinking in an ego-centric way, mainly looking at objectives that can be pursued individually. Secondly, and almost consequentially, because the benefits which the theory of strategic orchestration refers to can only be pursued if resources are properly assembled and shared within the network, and this rarely happen in the case of FMS. What surely links Fondazione Musei Senesi with Gossi and Sull's theory, instead, are the absence of centralized power and the sources of discontinuity, i.e. the determinants for the creation of a network and its strategic management. As previously noted, indeed, FMS does not own and neither manage the museums within the network. Rather, its mission to diplomatically push them towards common objectives, reducing mutual competition and increasing common heritage valorization. This mission, however, requires all members to stop thinking individually and to take an allocentric approach and a win-win logic, in order to increase social welfare (Goyal, 2007). Furthermore, as noted in the theoretical framework, the need to orchestrate is also emphasized by the presence of the four main sources of discontinuity pointed out by Gossi and Sull (2010): technological changes and drives for digitization of museums, regulatory changes, demographic changes concerning people leisure time, and macroeconomic shifts such as the crisis of 2008. These sources of discontinuity, together with the specificity of the Sienese geographic context, urgently ask for a strategic approach towards networking for museums.

7.3.   Benefits of networking: theory vs practice

As underlined in the theoretical framework, many scholars focus on empirically deducing the benefits of networking. Some examples include S. Bagdadli (2001), that analyzes seven case studies to deduce what are the main determinants and advantages of network creation in Italy and abroad. Similarly, M. Montanella (2014), in addition to stressing the beneficial and strategic aspects of networking for Italian museums, analyzes one of the largest network of museums in Italy to create a model of the phases of network creation. The study undertaken by IULM university in 2013, instead, highlights the determinants, benefits and objects of collaboration through the analysis of 13 Italian museum networks.

In this analysis, I have decided to group all the benefits that previous research has highlighted into 4 categories:

1. Economic benefits;
2. Image benefits;
3. Cultural benefits;
4. Learning benefits.

As noted in the Analysis, not all of them are completely verified in the case of Fondazione Musei Senesi, although an essential contribute to this study was represented by the threefold perspective on networking benefits of museums, visitors and the foundation itself. Many studies in fact, tend to focus on the benefits that the network brings to its institutional members, ignoring the benefits reflected on other stakeholders, such as local communities and visitors. Although with several limitations, this study has instead tried to analyze the benefits of networking on different stakeholders in order to obtain a broader analysis of the usefulness of systemic management.

The table below summarizes the benefits derived from the three different perspectives.

Table 9. Networking benefits

	FMS perspective	*Museums perspective*	*Visitor's perspective*
Economic benefits	- Greater access to public grants; - Greater attractiveness for local sponsors; - Potential for exploiting economies of scale.	- Great initial benefits for the opening, restoration and construction of new museums; - Slight increase in public funds.	- Reduced, but still present, economic savings.
Image benefits	- Higher visibility provided to local museums (especially on digital platforms); - Greater recognition by the institutions.	- Slight increase in visibility.	- Fairly compact and cohesive image of the system; - Wider spectrum of museum visibility (up to the entire national context).
Cultural benefits	- Enhancement of the entire cultural heritage of the Lands of Siena.	- Increase in cultural offer; - More activities realized.	- Greater cultural offer; - More complete view of the Sienese heritage.
Learning benefits	- Possibility to exchange information and know-how; - Increased educational offer.	- Increase in educational activities; - Possibility of exchange of information and know-how among the staff of the different museums, although still at a low level.	- Unified learning platform (social pages and foundation website).

7.4. PIs: does networking increase individual museums' performance, efficiency and effectiveness?

Given the benefits produced by networking, it is almost immediate to deduce that the performance and efficiency of individual museums also tend to improve thanks to systemic management. However, although theoretically this appears to be the most logical deduction, in practice there are some noticeable obstacles that make this syllogism not so obvious.

The main obstacle in this case is represented by the lack of data to compare performance before entering the system and afterwards. Many museums have already been opened within the network, so it would not be possible to say how systemic management has affected their performance. Other museums, instead, even though they were established before the system was created, have not periodically registered PIs.

Although this research did not focus on creating specific PIs for FMS network, it did allow to observe whether and how developments towards the museums' objectives have occurred thanks to systemic management. Some indications of how the performance of museums has changed could be indeed deduced from survey responses, both to museums and visitors.

To this regard, it is interesting to notice, for instance, how the network performed during the period of Coronavirus. The fact that visitors, as Social media Followers, were still participating in the network's activities although museums were shut down, indicates that the overall performance of the network, even in a period of crisis, is able to compensate for individual difficulties. This can also indicate that network performance is higher than the sum of individual museums' performances, with a positive differential generated by network management.

In addition, even if only in limited quantities, the sharing of resources and activities also results in an increase of all nodes' performance. As Goyal (2007) affirms indeed, the strong level of interconnection within a network generates a process of learning from each other that increases social welfare and benefits both individual and general performance. These beneficial effects, in turn, cascade over the "recipients" of the system, i.e. the visitors and local communities, as verified by the survey, demonstrating that networking also increases museums effectiveness in pursuing their social mission.

In general, therefore, the visitor survey made it possible to verify that the foundation is effectively performing its task and that the entire organization is moving in the right direction, so much so that the visitors themselves are positively affected.

Whether this form of management has already reached its efficient frontier or not, some doubts may remain. Technical efficiency, for example, could still be increased with higher level of resources and activities sharing. Transactional efficiency could be increased too, by enhancing communication channels between museums and between the museums and the Foundation. Although quantitative data is not available to demonstrate this, the foundation seems to have moved in the right direction in terms of increasing distribution efficiency. By allowing equal visibility to all museums in the system, it can be presumed that social benefits are also distributed more fairly. This is also in line with one of the three strategic objectives of the foundation cited at the beginning, namely, to redistribute tourist flows in a more balanced way.

8. Conclusions

This thesis presents an example of network analysis applied to an Italian museum network. In particular, the research question that guided the study regarded the advantages of inter-organizational connections and, specifically, to what extent is it useful for museums to be part of a network. In order to answer this question, I decided to tackle the case of Fondazione Musei Senesi from a threefold perspective, taking into account the different points of view of the Foundation, the museums and the visitors.

Results have revealed that, as expected, networking in the museum sector has a massive potential. However, the case of Fondazione Musei Senesi has also pointed out the complexities of networking and the limitation to properly exploit this potential. Nonetheless, data has also shown that, by taking into account different stakeholders' perspectives together, some useful insights on the benefits of networking can still be reached. This because each specific point of view allows a different perspective on the subject and, when compared, they can provide an extensive overview of the usefulness of networking for all the stakeholders of the network itself.

In conclusion, thanks to the comparison between the theory on the subject and the present case study, I have found seven different factors that, when verified, can explain the utility of networking.

1. Networking is useful for museums when it allows organizations to reduce the level of competition, turning rivalries into valuable collaborations. Networking allows for a win-win logic to be assumed, therefore making each participant better off.
2. Networking is useful when geographical characteristics such as the Italian ones are verified. By joining together, indeed, a set of small museums in a sub-urban area can reach a substantial visibility and critical mass.
3. Networking is useful for museums when it allows them to obtain either economic, cultural, image or learning benefits. These advantages can, in turns, increase individual and general performance, efficiency and effectiveness.
4. Networking is useful when it allows museums to share complementary resources and assemble them to create a unique value proposition.
5. Networking is useful when external sources of discontinuity appear, so that joining together to create a network represents the optimal strategic solution to deal with the surrounding context.
6. Networking is useful when museums that face heavy financial constraints can pool together their resources and activities in order to exploit economies of scale and scope.

7. Networking is useful when the market asks for a higher level of cultural offer that small museums, individually, struggle to provide.

The evidence obtained from interviews, surveys and general observations suggests that all these factors are relevant in the case of FMS. This leads me to conclude that, although the difficulties, it is still useful for Sienese museums to be part of the network. In the end indeed, the social and cultural mission of these museums is more easily pursuable by joining together, rather than by acting individually and this is emphasized by social media followers and museums' visitors, especially in critical situations such as the spread of Covid-19.

A variety of policy implications can be deduced from this analysis. First, this case demonstrates that although general direction of Italian cultural policy makers is moving towards network creation and implementation, a case-by-case consideration should always be made. This because the utility provided by networking may differ according to the specificity of the context and the institutional members. Moreover, because the creation of a network without a proper implementation of sharing systems does not represent a strategic approach towards networking and may instead result in unnecessary complications.

About the specific case of Fondazione Musei Senesi, some insight into possible future strategic directions of the network can be here provided. First, surveys have shown that the unequal distribution of membership fees has had a strongly negative impact on perceived utility for the institutional members. This may suggest that a financial reorganization of the network is needed, for two main reasons. Firstly, with the purpose of redistributing more equally the economic cost of the network. Secondly, to relieve municipalities of costs by seeking alternative methods of financing. These alternative fundraising strategies should take into account the local economic and business environment, always assuming a win-win logic of mutual benefits.

Furthermore, in order to strengthen social bonds between nodes, communication channels and sharing moments should be implemented. Thematic committees, for example, could provide a useful opportunity to exchange information and know-how between museums. More common cultural and didactive activities could be organized, to increase the network's educational and cultural offer and therefore increase visitors' perceived utility. Strategic planning indeed, should be guided by the socio-cultural mission of museums and networking represents a useful tool in this sense, as shown by the results of this analysis. Moreover, these meetings could also provide an opportunity to increase museums' participation in the network strategic development, which is now felt to be a major lack and cause for dissatisfaction.

As for the opportunity of exploiting economies of scale, an economic and managerial reorganization of the network would be necessary. In order to take full advantage of this economic advantage, indeed, more resources and activities should be shared between museums and possibly delegated to FMS. The more museums' functions are delegated to FMS, the higher are the economic and image benefits provided to the network and its individual members. By coordinating marketing and advertising activities, for instance, FMS is able to reach a wide and diverse audience, providing greater coherence and visibility. This example suggests that the benefits of networking could be even greater if the foundation also coordinates more activities and if more tasks are delegated to it. Such an expansion of the Foundation would probably require financial restructuring, which would only be sustainable if, as mentioned above, economies of scale were properly exploited, and a more diversified fundraising plan was envisaged.

Future research on the subject may take into account more stakeholders and study how network's benefits reflect on all of them. This study was indeed limited to the comparison of three perspective but failed to take into account the institutional and administrative perspective of the municipalities involved. Since, in many cases, they constitute the connecting-node between the Foundation and the museums, their opinion would have been a valuable source for the analysis. However, due to the spread of Covid-19 and general time constraints, it has not been possible to interview or survey local governments for the present thesis.

Furthermore, since the analysis of FMS is deeply interconnected with the issue of tourist flows in the Sienese territory, an interesting avenue for future research could tackle the relationship between the network and the tourist accommodation system. When I interviewed the President and the Director of FMS, indeed, they cited an inspiring meeting with agritourism owners, who asked the Foundation to provide them with more detailed information about the cultural offerings of the area, which they could then refer back to their guests. Nonetheless, it is also interesting to note that the relation between FMS network of museums and tourism is never meant as a mere economic activity. As President Ricceri affirmed, instead, "*if the theme was tourist attraction, we could easily reduce the number of museums from 45 to 10*". Instead, the question is to create an integrated offer, that allows tourists to stay longer and more consciously and, at the same time, does not undermine the close link between the museums and their local communities.

Despite the limitations of this research, the multi-perspective approach on network analysis could be easily exploit and applied to the study of a variety of cultural networks, in order to analyze perceived utility according to the various classes of stakeholders. Multi-perspective analysis on networking is

indeed fundamental to study the complex interrelationships and cooperative connections on which a network is based.

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Interviews:

- Dr. Elisa Bruttini, Scientific Director of Fondazione Musei Senesi;
- Dr. Alessandro Ricceri, President of Fondazione Musei Senesi;
- Dr. Alessandro Marchini, Director in charge of the Astronomic Observatory of the University of Siena;

Database: Schede Museo (*Museums sheets*)

http://www301.regione.toscana.it/bancadati/sistemacultura/index.xml

Figure 1 – Source:

- iStock by Getty Images (https://www.istockphoto.com/it/vettoriale/running-man-network-connection-turned-into-vector-illustration-gm638085290-114199043)