Article

Identifying Urban Heritage Facility Management Support Services Considering World Heritage Sites

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Abstract: Whether public sectors or private institutions, in-house or outsourced, building-level or urban-scale, the critical role of facility management (FM) is to support the core business activities of an organization in accomplishing its objectives. Through the services it manages and provides, FM impacts people's health, well-being, and quality of life. While there is no difficulty in defining a corporation, organization, or institution's core business, defining the core business of a city as an institution is not widely discussed in the urban-scale facility management literature. By using a narrative research approach from the available literature, this study seeks to shed light on potential justifications for a city's "core business" and its possible support services. The context of the World Heritage site is used to provide a sharper perspective on the possible urban-scale support services customized for urban heritage areas. This study suggests that a city's primary objective is to maintain and possibly attract new "desirable" citizens through the provision of excellent services, a quality-built environment, a sense of well-being, health, safety and security, and economic growth. Consequently, the integration of urban-scale support services must be aligned with the purpose of the city, or the World Heritage site, to be specific.

Keywords: urban FM; facility management; world heritage; support services; conservation

1. Introduction

The city as an artificial habitat is an intriguing phenomenon since it provides a location for human civilization to reside. Cities are dynamic, complex, and multifaceted entities that are constantly evolving. The scientific study of cities has emerged as an essential area of research in recent years. One specific aspect of this field is examining urban heritage conservation, which is a system and process within urban development. Urban heritage refers to the cultural and historical value of cities. It encompasses both tangible and intangible aspects, including architectural heritage, historic landscapes, traditional practices, social customs, and cultural expressions. Urban heritage, which can also be addressed using the systems theory of urbanism, is essential in understanding the evolution of cities, as it reflects the cultural, economic, and social history of the communities that reside within them [1]. Therefore, urban development, as a complex and on-going process that is shaped by various factors, needs to consider urban heritage as one of its key components.

Some cities are brand-new and purposely built, while others are hundreds or thousands of years old with a volatile past. There are other cities that eventually perish and are abandoned for a variety of reasons. The evolutionary history of cities around the globe demonstrates that a city is also a complex megastructure [2–6] comparable to a large institution [7–12] that occupies a massively built environment and must be managed effectively to function. Nevertheless, we must always remember that a city is not only a tangible structure but also a complex system comprising various subsystems, including the social, economic, political, environmental, and physical subsystems [1,13]. Over time, the

proto cities that initially arose from a group of humans who worked in a simple hierarchy evolved into a hub for vast numbers of individuals with diverse characteristics, interests, and needs, which the early founders may not have anticipated. As the complexity grew, it became unavoidable to employ stakeholders who were appointed as regulating authorities, as well as to manage the complicated daily tasks of a city. Today's urban areas must be managed with exceptional discipline and precision to avoid chaos and long-term urban problems in the foreseeable future.

Cities also require enormous infrastructure and facilities, which must be designed, constructed, monitored, and maintained on an on-going basis to ensure the well-being and quality of life of the citizens. To decrease unnecessary costs and environmental impact, city facilities management must be implemented systematically and effectively. The International Facility Management Association (IFMA) defines facility management (FM) as a field dedicated to supporting people by assuring the functioning, well-being, efficiency, productivity, and sustainability of the built environment, which includes the buildings, the neighborhood, the city, and the infrastructures surrounding them [14–16]. FM is readily justifiable at the urban scale given that the city is intrinsically a physically built environment, consists of people with diverse interests and aims, and is arguable, to some extent, as a form of mega-organization or institution.

As a function responsible for ensuring that all supporting services run properly, FM requires the institution's primary objectives or "core business" to be specified early in the strategic planning process. Within a building level, it is apparent that recognizing the core business of the institution which operates and dwells in the building is not problematic. Moreover, without neglecting demographic, social, cultural, geographical, and other factors, the clarity of the core business will significantly influence the nature and type of supporting services that must be provided to achieve the organization's primary goal effectively [17]. Knowledge of the "core business" in which the FM operates is necessary to forecast expenses, maximize service levels, and provide the requisite proactivity so that the organization's goals are aligned with those who are in charge of the facility management in strategical, tactical, and operational level [17]. One of the problematic issues is that there is a lack of consensus on the fundamental question of what constitutes a city's "core business". Consequently, if the primary objective of developing a massive and complex community called a city has not been determined, it will become uncertain to decide what support services are essential for achieving a successful and efficient urban-scale FM, especially in managing the World Heritage (WH) site as a real case of urban-scale heritage preservation. Furthermore, managing urban-scale WH sites presents numerous challenges and dilemmas, such as balancing conservation and urban development, tourism and visitor management, lack of resources, and climate change.

This study contributes to developing urban-scale FM (Urban FM) as a field within the scope of FM discipline that is still in the establishment process [18]. This article also attempts to consolidate pieces of the puzzle of urban-scale FM, scattered in various journals, into a single article to spark academic debate and argument regarding Urban FM by using WH context as the best practice example of urban heritage facility management (UHFM) [19]. The heritage authorities and the WH caretakers will also reap the benefit of understanding the possible support services that could be provided to ensure the well-being of the people and the preservation of authenticity, visual quality, significance, and the outstanding universal value (OUV) of the protected sites from the FM point of view. The concept of UHFM, urban-scale support services, and Urban FM within historic towns and world heritage sites can benefit a wide range of other stakeholders, including local communities, tourists, and property owners. UHFM can also potentially improve administration by providing a framework for the efficient management of facilities within historic towns and WH sites. This can help to overcome silos and ensure that various technical departments and agencies collaborate to achieve common objectives. In addition, these services can contribute to the improvement of training and capacity building for urban managers at the strategical, tactical, and operational levels by providing specialized training programs

and resources that are tailored to the specific requirements of historic towns and world heritage sites.

Academics and urban observers have examined the connection and comparison between the city and the building for a considerable amount of time. One of the earliest academic sources which discussed the subject matter defined a city in its comparison as a "building" in a book titled *The Elusive City: Five Centuries of Design, Ambition, and Miscalculation* [20]. Several other researchers describe a city as a megacomplex of structures [2,4–6,21,22]. Furthermore, one of the authors [22] concurred with the notion that cities and buildings can be compared directly by proposing a comparison between urban design and building facility design. The author investigated whether various design approaches in building and urban facilities are related and whether there is a relevant intersection of research areas of interest for developing the urban-scale FM. Moreover, the urban-scale FM principles should be engaged in the beginning phase of urban design to capitalize on the crossovers and new research [22], such as how facility managers with architectural backgrounds should be involved in the designing phase of a building. Therefore, the strategical and tactical planning of urban heritage facility management within WH sites should also be incorporated into the urban planning within municipality and county levels. Given that this paper is addressing urban heritage areas, with WH sites as the context, the implications for urban planning are immense. In contrast to a protected single building, which is also considered in urban planning, its impact is not as significant as that of urban-scale WH sites, which are required both from a conservation management perspective and a city-scale facility management perspective that oversees everything outside the scope of the cultural heritage caretakers tasks [23].

To fully comprehend urban-scale facility management, we should also view the city as a structure comparable to a building. This enables us to identify the support services of an urban area that must be prepared by directly associating them with the practice at the building-level facility management. The management of energy, water, sanitation, transportation, and communication are easily comparable between a city and a building. However, it is expected that there will be several variations and differences between facility management at the building level and facility management at the urban scale, particularly at WH sites with embedded local, national, and international heritage regulation. However, every attempt to bring this subject up in academic discourse will contribute to establishing the Urban FM field. This study is more of an experimentation designed to address the technical issues and components of urban-scale FM within a protected heritage area such as WH sites. The United Nations Educational, Scientific and Cultural Organization (UNESCO) acknowledges WH sites as places of outstanding universal value, and as such, they must be preserved for future generations. Proper urban-scale FM support services are essential to preserving these sites, as the services take care of everything besides the daily tasks of heritage conservators [23]. FM services can help ensure that the sites are well-maintained, that their cultural and historical significance is preserved, and that they remain accessible to visitors. In addition, the fact that WH sites are regulated by binding local, national, and international regulations makes the identification of the potential support services of WH sites more consistent and less biased.

The World Heritage Convention, which was adopted by the UNESCO in 1972, aims to protect and preserve significant cultural and natural heritage sites of universal value [24]. The Convention recognizes the importance of these sites for present and future generations and emphasizes the need for effective management and conservation. Furthermore, the UNESCO recommendation on the Historic Urban Landscape (HUL) approach emphasizes the need for a holistic and integrated approach to the management of historic urban environments [19,24,25]. Consequently, urban-scale FM and the World Heritage Convention are conceptually connected due to the role of Urban FM in achieving the goals of the World Heritage Convention by providing a framework for the effective management of facilities and services within historic cities and towns. This includes the management of buildings, infrastructure, public spaces, and other urban amenities that contribute to the site's cultural

and historical significance. Moreover, urban-scale facility management contributes to the preservation and protection of these sites' cultural heritage for future generations.

To strengthen the argument that a city acts as an entity that should be managed, Dickerson [26] argued that the city, to some extent, is an organization. This argument is also confirmed by a number of other scholars [27–29]. Organization refers to a systematically organized group of individuals having a shared objective and identity associated with an external environment. It is frequently confused with the institution, which refers to an entity with a high level of sustainability that can be viewed as an integral part of a big society or community. Nevertheless, a city is also associated with an institution [7–12].

The fact that a city is an institution that grows within the built environment can be related to the definition of FM in ISO 41011:2017, which is also adopted by IFMA, as an organizational function that integrates people, place, and process within the built environment intending to improve the quality of life of people and the productivity of the core business of the institution [16]. In other words, the fundamental purpose of FM is to support an organization's primary business activities and facilitate the creation of an environment suitable for achieving its goals. Consequently, the absence of studies about the "core business" of a city from an FM perspective has led to a lack of clarity regarding the support services that an urban-scale FM may provide to meet a city's primary objective.

This study formulated two research questions that will be discussed in the discussion: (RQ1) what is the primary goal or "core business" of a city, and (RQ2) what are the possible support services that could be observed to enable a city, therefore including the urban heritage area such as WH sites, to serve its purposes. These research questions were addressed by comparing a city and urban-scale WH sites to a building in terms of its capacity to support the daily life of its inhabitants from the FM point of view.

The "core business" of a city is one of the most crucial unaddressed topics from an urban-scale facility management perspective. This study functioned as preliminary research that simplifies the more significant challenge of urban facility management, which aims to identify features that might be suggested as the "core business" and possible support services of a city that are acceptable for different types of cities, including the urban areas that are listed as WH sites.

2. Theory and Background

2.1. The Definition and Origin of Cities

Essentially, a city is a sufficiently large town with its own governance. The expression is derived from the French word "cité," which is derived from the Latin word "civitatum," which means "citizenship" [30]. In the context of ancient Greece, citizenship refers to the involvement of individuals in the social and political life of small-scale communities [12]. According to the Degree of Urbanization approved by the United Nations Statistical Commission, a city is proportionately more prominent than a town [31,32]. The expansion of agriculture is intimately related to the emergence of the earliest cities. Later, the greater the population of the community, the safer it was from attack by other tribes. Through time, villages developed in size and eventually transformed into towns and cities [33]. The food surplus from the successful agricultural productions enabled both the specialization of work and the formation of a class structure that can provide the leadership and workforce to build and operate even more complex agricultural systems, which in turn makes possible further increases in the food supply [33,34]. Numerous craftspeople, who were not working as farmers, such as masons, carpenters, jewelers, potters, etc., lived and worked at a considerable distance from the urban center. Through time, the division of labor and professions grew to be more specialized due to the increasing complexity of society [34]. The concentration of a large number of specialists in a small area stimulated creativity, not only in technology but also in religious, philosophical, and scientific ideas [33]. Moreover, some representatives among the citizens and certain specialists were appointed to manage the city's routine tasks in order to prevent social disorder. These citizens might have acted as the predecessors of the current support service providers or even facility managers.

However, a city is not merely a structure. A city is also a complex system with multiple layers of subsystems. The theory of what a city is, and its subsystems, has been the subject of much debate and discussion among urban theorists and scholars. One influential theory is the systems theory of urbanism, which is a theoretical approach that views cities as complex and dynamic systems made up of interconnected and interdependent parts [1,13]. According to this theory, a city is not just a physical structure but also a system that consists of different interconnected subsystems [1] that interact with each other in a complex and dynamic way creating a web of relationships that shape the urban environment [13]. As a structure, a city refers to the physical form and built environment, such as buildings, streets, and public spaces. As a system, a city refers to the processes and activities that take place within the urban environment, such as economic activities, social interactions, and political decision-making. The system theory of urbanism highlights the importance of understanding the complexity and interdependence of different subsystems within a city to effectively manage urban development, one of which is through urban-scale facility management.

2.2. Urban-Scale FM

Virtually everything must be managed, from simple tasks to complex tasks such as daily city operations. Management is the act or art of managing, planning, developing, directing, or supervising anything to attain a particular objective [35,36]. The management discipline has evolved into many branches, each of which has its character and specialization field, one of which is facility management. Salaj and Lindkvist [18] recommended expanding the FM discipline into an urban-scale practice after Alexander and Brown [37] had earlier proposed a similar concept for community-based facility management (CbFM).

FM services in the building level are exemplified by users' experience when entering the main entrance, feeling comfortable in the lobby, using a luxurious escalator, meeting in a well-equipped meeting room, and having excellent toilet facilities. The satisfaction due to the pleasant and productive experience is the work of the facility managers operating behind the scenes. It is identical to how the dwellers perceived the city as a lively and productive environment due to the excellent work of the urban facility managers. Arguably, FM support services act as the avant-garde to ensure the efficiency and daily operation of the facilities of built environments, including cities and the infrastructures needed for the dynamic and productive urban environment to be achieved to maintain citizens' fulfillment. Urban FM, or UFM, as an expansion of building level's FM, has been discussed by multidisciplinary scholars globally from various perspectives and vantage points. Nevertheless, the FM stakeholders and academics have not yet agreed on a solid Urban FM framework. The idea of enhancing public participation [38], PPPP [39], sustainable neighborhood refurbishment [40], health-directed design interventions in cities [22], urban heritage facility management [19], and place-making [41], among others, are contributing to the development and establishment of Urban FM as an emerging discipline branch of FM. These pieces of knowledge are scattered throughout the intellectual discourses and academic debates. While most urban caretakers have performed urban-scale facility management as part of their day-to-day tasks, the research community has not seemed to structure it in one comprehensive model or framework. This situation, to some extent, resembles the same phenomenon that has occurred in the building-scale FM discipline in its early development. However, nowadays, many institutions and businesses are specializing in the FM industry to improve the organization's efficiency, cost savings, and flawless operation. Thus, incorporating FM is becoming common practice in society. The same shift is expected to happen with Urban FM in managing urban-scale facilities in the near future. Contextualizing urban-scale FM within WH sites will contribute to establishing Urban FM as a discipline and provide a distinctly new perspective and management approach for WH site preservation through the provision of urban-scale support services tailored for heritage districts and historic towns.

2.3. World Heritage Sites as a Protected Urban Area

The concept of "World Heritage" is innovative when it was introduced for the first time. Traditionally, inherited cultural assets were restricted to specific people or communities [42]. With the relatively new terminology of "World Heritage," a cultural item is deemed universal, has a broader reach, and is incorporated into global human history. During the completion of the Aswan Dam in Egypt in 1959, the Ramses II temple at Abu Simbel was in danger of being demolished. This resulted in the establishment of the WH movement [43,44]. The UNESCO launched an international campaign to salvage the critical heritage asset, which sparked a debate about the necessity of a worldwide treaty to protect the most significant cultural and natural heritage sites all over the globe. In 1972, UNESCO came up with an agreement that included natural and cultural assets worldwide. The agreement's purpose is to protect areas of worldwide significance that also contain outstanding universal values and belong to all of humanity [45]. Therefore, the permanent protection of this asset is of the utmost importance to the global society and is becoming the defined terminology of WH that we know today.

The concept of WH also represents a shift in thinking about cultural heritage from a narrow focus on individual buildings or monuments to a broader understanding of cultural landscapes and the complex relationships between people and their environment. The notion of WH has helped to encourage a more holistic approach to heritage management, one that seeks to balance conservation with sustainable development and community involvement [19].

To be listed as an urban-scale WH, a site must meet at least one of the following criteria: (1) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning, or landscape design; (2) bear a unique or exceptional testimony to a cultural tradition or to a civilization that is living or that has disappeared; (3) be an outstanding example of a type of building, architectural, or technological ensemble or landscape, which illustrates a significant stage(s) in human history; (4) be an outstanding example of a traditional human settlement, land-use, or sea-use, which is representative of a culture (or cultures), especially when it has become vulnerable under the impact of irreversible change; and (5) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance [24]. Sites must also meet the conditions of integrity and authenticity, meaning they must be intact and genuine representations of their cultural heritage values. Additionally, they should be well-preserved and have adequate management and protection systems in place. Furthermore, failure to maintain the outstanding universal value(s) will result in the delisting of the sites from WH status, such as the Arabian Oryx Sanctuary, Oman (2007), Elbe Valley in Dresden, Germany (2009), and the Liverpool Maritime Mercantile City in Liverpool, United Kingdom (2021).

Heritage has extended to include groups of structures, historical urban centers, parks, and nonphysical heritage such as surroundings, social characteristics, and, more recently, intangible attributes [46–48]. The phrase "tangible" describes the physical objects that have been developed, conserved, and handed down through the generations of a community. It consists of creative accomplishments, built legacies such as structures and monuments, and other artifacts of human innovation instilled with cultural significance. In contrast, the "intangible" terminology refers to the expressions, rituals, symbols, knowledge, and abilities that individuals, groups, and communities acknowledge as being representative of their collective memory [25,49]. However, most tangible heritage can only be interpreted and comprehended through reference to the intangible. Consequently, society and values in the WH site context are intricately interconnected [49] and progressively becoming relevant for urban-scale FM as a people-oriented discipline.

Depending on how it is managed and valued, heritage can be both an asset and an incumbrance to urban development. Heritage can be a significant asset to urban development because it provides a city with a distinct and valuable sense of identity,

history, and culture. Heritage sites can attract tourists, stimulate economic growth, and increase property values. Additionally, preserving and supporting heritage can foster a sense of community pride and cohesion and contribute to a city's social and cultural fabric. Managing an urban-scale WH site requires finding the right balance between the need for preservation and the necessity for urban development to meet contemporary living standards and urban facility management services. This can be challenging to achieve, as urban development and the preservation of cultural and historical values can sometimes be in conflict [19,50]. Historic preservation may limit the ability of developers to build new buildings or make alterations to existing protected building, resulting in conflicts between preservationists and developers. Urban WH sites, which frequently attract large numbers of visitors, can also potentially introduce management challenges for the site and its surrounding communities. Managing WH visitors is being further complicated by overtourism, inappropriate visitor behavior, and the damage of heritage sites [51]. Many urban WH sites are located in developing nations or areas with limited resources, which can present additional challenges in terms of conservation funding and management resources [52,53]. This does not even take into account the existence of facts regarding climate change and natural disasters, which can pose significant threats to WH sites, which are sometimes located in areas prone to earthquakes, flooding, and other natural disasters [54,55]. In Røros, Rjukan, and Notodden, three WH preserved towns of Norway, climate change has resulted in unusually wet winters over the past several decades, which has increased the difficulty of preserving the wooden materials on the facades and structures of the protected buildings. Providing heritage-oriented urban facility management support services could also be a potential approach for achieving the optimal balance in the management of WH sites.

Heritage preservation and urban development are closely related to urban-scale facility management (Urban FM) because they both aim to improve the quality of life for urban residents. Urban FM plays a crucial role in ensuring the preservation of historic buildings and sites, as well as fostering urban development through the efficient and sustainable management of urban-scale support services. In this way, Urban FM acts as a link between the past and the present, preserving the history of cities while ensuring their continued growth and development. Effective urban facilities management can ensure that historic structures and sites are maintained to the highest standards and can be utilized for a variety of purposes. This requires close collaboration between different technical departments of the governing authorities and stakeholders to ensure that urban facilities are efficiently maintained and managed, and that any necessary repairs and upgrades are performed promptly. Urban FM can also play a significant role in promoting sustainable urban development by ensuring that urban-scale support services are managed to reach optimum efficiency while retaining historical significance. Heritage preservation, urban development, and Urban FM have a complex and multifaceted relationship. By collaborating, these distinct disciplines can contribute to the development of thriving urban areas that are rich in heritage and history while also meeting the needs of a growing and changing population.

2.4. The Dynamics between Urban Heritage Protection and Urban Planning

Urban heritage and WH sites play crucial roles in urban planning, as they can make better informed decisions regarding the preservation and development of urban historic and cultural resources [56,57]. Urban heritage sites are areas or locations within a city that have historical or cultural significance, such as old neighborhoods, historic buildings, monuments, and public spaces. These locations can contribute to the identity and unique character of a city and are commonly major tourist attractions. Integrating the preservation of urban heritage sites in urban planning can help maintain a sense of continuity with the past, increase the cultural value of the city, and attract visitors and investment. When making decisions about zoning, land use, and development regulations, urban planners should consider the historic significance and outstanding universal values of these WH sites, as they are typically accorded special protection and conservation status in urban

planning. As a result, urban planners may impose stricter restrictions on development near WH sites, or work to establish buffer zones that protect the site from undesirable and uncontrolled development [58,59]. Thus, the preservation and management of WH sites can contribute to the protection of a city's cultural and historic identity and to the promotion of sustainable development that respects and enhances the value of these vital resources.

The inscription and listing of a site as a UNESCO WH site can bring various social and economic benefits while also imposing certain urban planning restrictions for future development. WH sites attract a large number of tourists, who can contribute to the local economy by creating jobs, generating revenue from ticket sales, and increasing demand for local goods. The increased attention and visitation can also heighten awareness of the cultural and natural significance of the site. UNESCO promotes sustainable tourism practices that prioritize responsible and eco-friendly tourism [51]. This can lead to a more balanced economic development that considers the site's conservation requirements and local communities. WH sites are also eligible for funding and technical assistance from the World Heritage Fund, which can support conservation efforts and promote sustainable development. Furthermore, the process of the inscription as a world heritage includes a rigorous evaluation of the site's value, authenticity, and integrity, as well as ongoing monitoring to ensure the site's outstanding universal value is maintained. This may result in increased oversight and scrutiny of planning and development decisions in the area.

2.5. Projected Nature of Heritage Values

The projected nature of heritage values refers to how the values attributed to a particular heritage site or object are projected onto the surrounding community. In other words, how people in a community view a particular heritage site or object can significantly impact its preservation and conservation. One key factor influencing the projected nature of heritage values is the community's values and beliefs [60,61]. Various factors can shape these values and beliefs, including cultural traditions, historical events, and socio-economic factors. For example, a community that places a high value on the preservation of historic buildings may be more likely to support the conservation of an old, dilapidated structure than a community that places a lower value on historic preservation.

Another factor influencing the projected nature of heritage values is how heritage sites and objects are managed and promoted by city officials and other stakeholders [60]. Effective management and promotion can help enhance the perceived value of a heritage site or object, increasing community support for its conservation and preservation. For example, suppose a city invests in restoring and promoting a historic neighborhood; in that case, residents and visitors may view the area as a valuable cultural asset, which can help sustain community support for its preservation [61].

In addition to these factors, the projected nature of heritage values can also be influenced by the actions of individual community members. For example, a local historian who writes a book or talks about the history of a particular heritage site may help increase awareness and appreciation of its value among community members. The famous Norwegian artist and painter Harald Sohlberg played a significant role in creating awareness of Røros, a remote area in Norway, which is now a protected WH site.

Shifting baselines can impact the reliability of heritage studies, as personal knowledge and value-driven observer bias can lead to the incorrect exclusion of properties [62]. To minimize observer bias, Spennemann (2022) [62] argued that community heritage studies should involve local professionals, a representative sample of community members, and a formal community-wide survey, which should include questions designed to elicit memories of locations cherished by previous generations. Once a property is listed, its values remain fixed, whereas the projected values are subject to change. This means that listed properties may lose or gain significance and value over time. The planning regulations associated with listing can limit the freedom of action of property owners, and development actions may no longer be directly proportionate with the increased significance [62].

Therefore, the projected nature of heritage values is a complex and dynamic phenomenon shaped by various factors, including community values, management strategies, and individual actions. To successfully conserve and preserve urban heritage, it is essential for city officials and other stakeholders to understand and work with the projected nature of heritage values to build and sustain community support for heritage conservation and preservation efforts.

2.6. Motivations of Managing Urban Heritage and Being Listed as World Heritage Sites

Diverse motivations exist for designating and inscribing a site as a WH site and for managing urban heritage areas, which can influence the priorities for urban-scale facility management. In the typical heritage planning trajectory of identification, nomination, evaluation, listing, and preservation, the epistemological basis of nominations and evaluations is infrequently examined; therefore, understanding this theory of knowledge, along with the motivations behind nominations and listings, enables us to evaluate whether the heritage-listed properties are representative of the cultural, social, and economic realities of a community as revealed by their historic trajectories [63].

Furthermore, preserving and managing urban heritage areas can contribute to sustainable development by encouraging the reuse of existing buildings and infrastructure, decreasing the need for new construction, and preserving the embodied energy and cultural value of existing resources. Nevertheless, the management and acknowledgment of cultural heritage are subject to both moral and physical ownership, which extends not only to the physical manifestation of a heritage asset but also to its intangible characteristics [63].

The motivations mentioned above can influence the priorities of urban-scale facility management, which may include maintenance, repair, and the preservation of historic buildings, public spaces, and other cultural and historic resources. In addition, facility management priorities may include promoting sustainable development, improving the tourist experience, and preserving cultural and historical resources for future generations. Urban planners and facility managers can develop effective management strategies for these important resources by providing heritage-oriented urban planning and support services by understanding the motivations for inscription as WH list assets and managing urban heritage areas.

2.7. The Authority of the Municipality in Managing Urban-Scale Heritage Assets

The authority and power of a city administration to manage heritage assets can vary depending on the laws and regulations in a particular jurisdiction. City administrations generally have a certain degree of authority to manage heritage assets within their boundaries, but legal and practical constraints often limit this authority.

The municipalities usually exercise their authority to manage heritage assets by using land use planning and zoning [57], heritage designation and protection [64], and building codes and standards [65]. City administrations have the power to regulate land use and zoning within their boundaries. This can include the designation of heritage districts or zones, which can provide some degree of protection for heritage assets located within those areas. In many jurisdictions, municipalities have the authority to designate heritage properties and structures, which can provide a degree of protection against demolition, alteration, or other forms of damage or destruction. Municipalities also may impose and establish building codes and standards that apply to all structures within their jurisdiction, including heritage assets. These codes and standards may require that owners of heritage properties adhere to certain preservation standards or obtain permits before making any changes to the property [65].

However, many heritage assets are in private hands, and owners of these assets generally have a great deal of control over how they are managed and maintained [66]. Municipalities often have limited authority over the actions of private owners and may need to rely on education, incentives, and partnerships with heritage organizations and advocacy groups to encourage owners to preserve and protect heritage assets. In some

cases, city administrations may be able to use legal tools such as heritage easements, expropriation, or financial incentives such as tax credits to encourage owners to preserve heritage assets. However, these tools can be challenging to use and may not always be practical. While city administrations have some power and authority to manage heritage assets within their jurisdiction, they must often work within legal and practical constraints and rely on a range of partnerships and incentives to encourage private owners to preserve and protect these critical resources [66].

2.8. Knowledge Gap: Support Services within the World Heritage Sites

There has been no extensive research to date that defines and describes urban-scale support services at WH sites. Urban FM is in the midst of establishing itself, and the research on support services in the context of WH sites has the potential to contribute to the intensification of discussions aimed at strengthening Urban FM as the expansion of building-level FM. The research on support services in the context of WH as a gap in knowledge also highlights the need for further research in developing effective strategies for the sustainable management of WH sites as protected urban areas. Therefore, filling this knowledge gap will help to enhance our understanding of urban-scale FM and its critical role in preserving and promoting the cultural and historical significance of WH sites. Urban heritage facility management integrated both public (government-owned) and private (individual and corporate-owned) heritage assets within the core and buffer zone of the World Heritage site, with different level of flexibility and authority in managing such assets.

By elaborating on the scope and description of hard-FM and soft-FM provided by RICS and IFMA [67], a set of comparison tables was made to foresee possible comparable support services between building-level and urban-level facility management. Hard-FM mainly includes the maintenance and supervision of the built environment's physical assets, whereas soft-FM mostly encompasses the management of additional services. The infrastructures, air quality, structural aspects, plumbing, water supply, electricity, lighting, and telecommunication systems, fall under the hard-FM domain. The second category, soft-FM, comprises services such as catering, cleaning, waste management, gardening, security, and so on [68]. Managing a WH site requires a more specific approach because the provided urban-scale support services affect both private and public heritage assets, while at the same time must be oriented toward preserving authenticity, visual quality, and, most importantly, the outstanding universal values that distinguish WH sites from other urban heritages and historical cities.

3. Methods and Research Design

This study attempted to create a narration of what a "core business" of a city actually is in order to be able to propose urban scale supporting services needed to be delivered, especially within the WH sites, to ensure the preservation of outstanding universal values (OUV), authenticity and visual quality as a heritage asset. The term "city" is used extensively in this study since it is considered to be a universal terminology in expressing other terms, such as urban and town, in a more contextualized manner when describing urban-scale facility management. In order to do that, a literature review and a narrative approach were conducted. A desk review was conducted by reviewing literature related to the purpose of a city, the city as an organization, and the city as an institution to determine the general concept of the core business of a city. A narrative approach is needed to be carried out due to the lack of intensive academic discussion regarding urban-scale support services due to the unclear core business of what a city should achieve. Several opinions from urban experts, historians, scholars, etc., are summarized in a narrative to simplify and justify the concept of the "core business" of a city, which will later provide a way to answer what support services are needed to achieve the primary goal of establishing the city. Using a literature review and narrative research approach from the experts and available journal articles and books, this study seeks to shed light on potential explanations for a city's "core business". A narrative is a method of writing that depicts an event sequence

that has significance for the narrator or the audience [69,70]. Moen [69] argued that the narrative method is a "frame of reference," which is a form of presenting the research work. The narrative approach is situated within the qualitative or interpretive research method (Gudmundsdottir in [69]). Such a qualitative methodology to the subject of study entails that scholars examine subjects in their normal daily contexts, aiming to understand some things based on the interpretations that the narrative speakers described [69,71].

While a narrative approach has the strength to (1) provide a deeper understanding of the experiences and perspectives of different respective narrators that might not be possible to accomplish using other methods, (2) provide valuable context to help explain certain unformulated concepts, (3) recognize the individuality of narrators and allow them to share their unique perspective on the subject matter in their own words, (4) identify patterns, themes, and meanings that interacted across narrators, and (5) identify patterns, themes, and meanings that may not be apparent through other research methods, the selected approach also has several weaknesses, such as the subjective nature of interpreting the narrators' statements and the limited generalizability of the results [69]. Furthermore, we acknowledge that some degree of simplification is considered necessary within this study in order to make the comparison feasible and understandable, while avoiding oversimplification by using IFMA's parameters as the basis argument to construct the comparison table.

Defining the "core business" of a city, thereby describing its support services, required such approaches to enhance a broader audience's comprehension across many disciplines, thus stimulating more in-depth inter-disciplinary discussions. In addressing the second research question, several sets of side-by-side comparison matrixes are created between building-level FM and urban-scale FM support services to make it easier for the audience to understand the context and to facilitate a more structured discussion of potential urban-scale supporting services. Another category is being added to elaborate the possible supporting services within the WH sites context. Utilizing prior knowledge and data obtained from the Norwegian WH sites' caretakers, this study attempts to minimize bias and interpretation of the possible support services within the urban level and WH sites' frame of reference in comparison with the building level FM. However, the comparison conducted is not claimed to represent established support services framework in the field; rather, it acts as a preliminary study that requires and will undergo additional development.

4. Results

This study indicated that a city is, to some extent, comparable to a single building or complex of buildings in terms of managing its facilities (Table 1).

Table 1. Justification of the comparability between a building and a city.

Narration	Author(s)	Reference(s)
City as a building or megastructure	Barnet (1986), Caffaroni (2016), Chizzoniti (2018), Koehler (2019), Bettman (2019), Vermeulen (2020)	[2,4–6,20,21]
A city is not a building, although it is acknowledged that the minimalist design of urban plazas has its origins in the architectural interior design of buildings	Lenzholzer (2008)	[46]
City as an organization	Lang (2000), Dickerson (2003), Knox (2010), Shade (2020)	[26–29]
City as an institution	Richard (2011), Canniffe (2016), Ruwet (2017), Ismard (2018), Kornberger (2021), Duplouy (2022)	[7–12]
The analogy between urban design and (building-level) facility design	Nijkamp (2020)	[22]

It is evident that a city is indeed a physically built environment that requires organizational function that integrates people, places, and processes within its boundary. The core business of a city should then be placed at the central point of the realm of urban-scale facility management. To achieve the city's primary goal, the in-house teams and the outsourced task forces should deliver excellent hard-FM and soft-FM services. The users and the stakeholders simultaneously act as the "owner" of the facility within the domain of co-governance, co-ownership, and civic engagement (Figure 1).
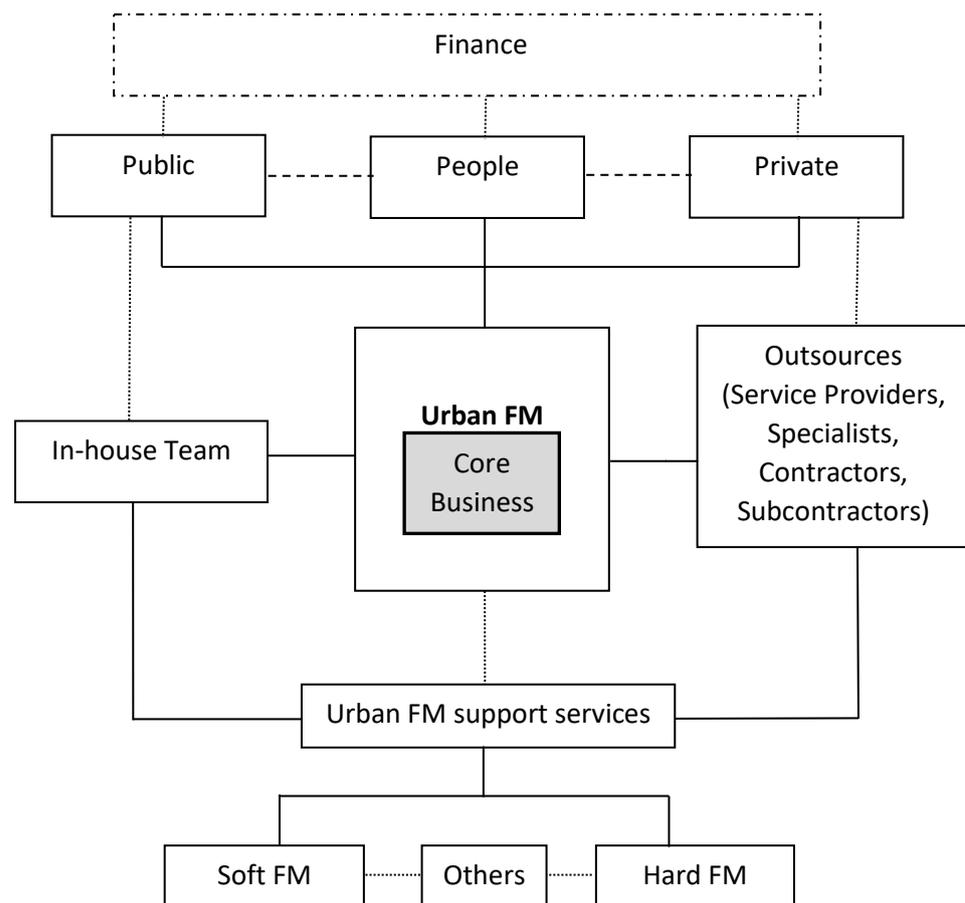

Figure 1. The position of the city's core business and the support services of Urban FM. Source: Adapted from the UFM organization model [72].

The term "public" refers to the governing and heritage authorities, whereas "private" refers to business entities, corporations, businesses, and private sectors. Meanwhile, "people" refers to the inhabitants, residents, citizens, and other stakeholders outside of the "public" and "private" stakeholder categories. The financing system for urban development may involve public, private, and community partners, among others. Public–private partnership (PPP) and public–private–people partnership (PPPP) are means of bringing these partners together to share the costs and benefits of urban development projects. In a PPPP, the public, private, and community sectors work together to develop and finance projects that serve the public interest. This may include the development of infrastructure, social housing, public transportation, and other urban amenities. Typically, the public sector finances PPPPs through direct financing or by providing incentives to private sector partners. Private sector partners, such as developers and investors, contribute capital and expertise to the undertaking. Community groups can also play an important role by providing local expertise and support, as well as by contributing financially. The specific financing arrangements for a PPPP will vary based on the project and participating partners. In some instances, the public sector may provide the majority of funding, whereas private

sector partners may contribute more to other aspects. PPPPs can be an effective method of financing urban development projects because they combine the resources and expertise of multiple partners to create community-beneficial public goods. However, it is essential to ensure that PPPPs are transparent, accountable, and serve the public interest, not just the private sector partners' interests.

The quality of the individuals that a city intends to attract is considered crucial because the positive qualities such as skills, assets, and values of the people who will become the new citizens will be directly linked to the improvement of the society. The city is implicitly not interested in attracting "low-quality" newcomers, which will burden the municipality and taxpayers. This study then suggests that a city's primary objective is to maintain and possibly attract new "desirable" citizens through the provision of excellent services, a quality-built environment, a sense of well-being, health, safety, security, and economic growth (Table 2). Therefore, the integration of urban-scale support services must be aligned with the "core business" of the city.

Table 2. Collection of narratives to emphasize the common purpose of a city.

Purpose of a City	Author(s)	Reference(s)
A city should be in the business of caring for and nurturing human beings	Gilliam (1967)	[73]
A city is a place for humans to dwell, with primary functions to provide housing and boost productivity by actively providing citizens with food, clean water, sanitation, and other essentials	Davis (1973), Harper (1992)	[74,75]
How important it is for a city to produce responsibility-seeking citizens	Kemmis (1995)	[76]
The purpose of why a city exists is to create citizens	White (2010)	[77]
A city is a community/social structure with distinctive social qualities and uniqueness that promotes work and occupations by enabling labor, production, and commodity circulation and consumption	Morshed (2019)	[78]

For example, the "core business" of a historical city or urban heritage area would be to maintain its inhabitant to dwell, and probably attract new dwellers who are interested in living in, and thus contributing to, the heritage conservation by providing support services that ensure the preservation of the heritage significance, value, and authenticity [23]. Meanwhile, the "core business" of an industrial city would probably be in maintaining the existence of laborers, workforces, business owners, and investors as the stakeholders by providing support services such as integrated infrastructures, power, access to capital, transport, and market to enhance efficiency.

5. Discussion

5.1. Purpose of a City

Kemmis [76] highlighted how essential it was for cities to generate a few responsibility-seeking citizens. Regarding the existence of citizens in connection to the sustainability of the city and the need for the city to be organized and governed, Otis White, an urban expert, shares a similar viewpoint. It appears that the urbanist was influenced by Peter Drucker's views on the fundamental concept of the corporation, in which Drucker argued that the only valid definition of corporate business purpose is customer creation [77,79]. Other things, such as profit, employment, etc., are the byproducts of creating customers, not the objectives. Customers are the reason for the existence of a business because, without them, there would be no profits, jobs, or social value. Therefore, the primary focus of every business entity should be on generating customers [79]. Otis White then proposed that the purpose of why cities exist is to create, and thus maintain, citizens [77]. Because without

citizens, there would be no economic growth, arts, entertainment, or educational facilities. It is argued that the actual purpose of cities is to generate a group of individuals who will bear responsibility for their community, whether through direct participation in city management or other means [76,77]. In other words, citizenship is described as a form of "participation" rather than "membership" [12]. The citizens' primary characteristics are the commitment to participate and take on responsibility.

In the past, when cities were surrounded by vast amounts of unmanaged territory and where predators were prevalent, life was dangerous and frequently brief. Once they established urban settlements, they frequently discovered that the predators had followed, and life continued being threatened like before. The possibility of invasions and wars from other outsider parties was also enormous. At this point, the creation of actual citizens emerged. The people sacrificed some individuals' freedoms in exchange for greater freedom from threats. The inhabitants then collaborated to establish a sense of community safety and security. Cities are governed by explicit regulations, which are agreed to by their citizens. Economic benefits are the result of collective action. Still, such activity is only achievable with the collaboration and a sense of safety and security provided by themselves toward common goals for the benefit of all.

Lewis Mumford (in [73]) proposed that a city should be in the business of caring and nurturing human beings. This statement is strongly aligned with urban-scale facility management, which is a people-oriented discipline. This condition becomes unique when the protected urban heritage area is considered a living artifact, with living people and activities inside, not merely lifeless monuments or archaeological artifacts. Historic cities, urban heritage areas, and WH sites such as Røros, Rjukan, and Notodden, in Norway, for example, must continue to operate and function for caring and nurturing the citizens in their daily lives while continuously maintaining the significance, visual qualities, authenticity, and OUV, with the technological advancements, and physical development to ensure the highest quality of life for the citizens. Therefore, Gilliam [73] also argued that a city charter needed to be established to enable the citizens of a particular community to manage their public affairs, conduct their corporate business, and develop their well-being.

Harper [75] makes an additional critical point on the real purpose of a city, namely as a place for humans to dwell. Otis White has denied that the purpose of the city is to provide a location for people to be organized, educated, and entertained [77]. Still, Harper [75] did not rule out this possibility. Additionally, Morshed [78] attempts to distinguish a city as a community through its distinctive social qualities and uniqueness. The definition of a city as a "concentration of numerous people positioned near together for residential and productive purposes" includes several objective characteristics, such as population density and number of residents [74]. However, more importantly, Davis [74] emphasized that the primary function of a city is to provide housing and boost the productivity of its citizens. The city then employs resources and generates outputs to achieve its goals. Thus, consequently required to be appropriately managed.

5.2. Tackling the Challenges in Urban-Scale World Heritage Sites Conservation

In order to preserve urban-scale heritage assets while at the same time developing cities to meet current living standards and urban facility management services, it is essential to adopt a comprehensive and integrated approach involving multiple stakeholders, such as government agencies, urban planners, heritage professionals, local communities, and private sector actors [39]. Based on the Historic Urban Landscape (HUL) approach, recommended by UNESCO, several strategies can be used to preserve urban-scale WH in the face of development pressures, such as integrating WH conservation management into the urban planning, engaging the local communities in the preservation, implementing the sustainable tourism strategy, using the technology to monitor and manage WH sites and develop partnerships among the stakeholders.

Heritage conservation should be integrated into urban planning, so that heritage sites are not viewed as isolated entities but as part of the urban fabric. This approach

can help balance preservation with development. Local communities should be involved in heritage management, decision-making, and planning to ensure that their values and needs are taken into account [23]. Empowering local communities can also help build support for conservation efforts [38]. Sustainable tourism strategies should be developed to manage visitor numbers and mitigate the impact of tourism on heritage sites and local communities [38]. Technology such as sensors and the Heritage Building Information Modelling (HBIM) can be used to monitor and manage heritage sites and to identify potential risks or threats [80].

5.3. Urban-Scale FM and Its Supporting Services

The variety of support services for facilities is so extensive that it is frequently split into soft-FM and hard-FM services. Some services, such as cleanliness and trash management, are conducted daily, while others, such as maintenance services, may be performed less frequently. Other types of services can be planned based on the urgency of the situation. The key role of urban-scale FM in public sectors is to support the core business activities of the institution in accomplishing its objectives by reassuring end-user expectations, optimizing budgets and expenses, providing business continuity, ensuring legal and regulatory compliance, and so on [18]. The definition of FM as an integrated management of all non-core business services for buildings, space, and people, to operate and maintain the built environment introduced the emphasis on non-core activities, which refers to all the additional characteristics required to achieve an institution's core business [81]. The non-core services, although often not seen on the surface, serve a supporting role in achieving the institution's objectives.

The non-core services can be categorized as (1) utility services, (2) technical services, (3) application services, (4) financial services, (5) property or real estate services, and (6) auxiliary services [82]. All of them belong to the spectrums of hard-FM and soft-FM. However, depending on the organizational structure and building needs, not all FM services might be relevant to the core activities of the organization or city as the subject of this study [83].

FM is an essential aspect of building operations, and its principles and practices have been increasingly adopted by cities and municipalities as they seek to manage and maintain their urban infrastructure and services. The transformation of FM to the urban level, known as Urban FM, involves applying FM principles and practices to the management and maintenance of urban-scale assets, such as public buildings, transportation systems, public spaces, and utilities. Urban FM requires a holistic approach to urban management that takes into account the interdependencies between different systems and services, and the need to manage these assets in a coordinated and integrated manner. Urban FM is closely related to urban governance, which refers to the structures, processes, and actors involved in the management of urban areas. Effective urban governance requires collaboration and coordination between different departments and stakeholders, as well as a shared vision and goals for urban development. Urban FM can contribute to effective urban governance by providing a framework for the management and maintenance of urban infrastructure and services, and by promoting collaboration and coordination between different departments and stakeholders.

Within Urban FM's scope, the urban scale support services, which are dispersed within various in-housed technical departments and outsourced third parties, were then defined after the domain of the core business of a city was determined. Urban-scale facility managers will organize the various services within different technical departments/bodies using a comprehensive and coordinated approach. This study argues that the main purpose of the existence of a city is to maintain the existing citizens and attract newcomers who possess positive traits such as skills, assets, and values to contribute further to the collective well-being of the overall dwellers of the city. In other words, a city prefers to attract new citizens with "desirable" characteristics. This terminology is unrelated to concepts of exclusion and discrimination. Rather, it refers to the fact that every city and country

expects "high-quality" citizens who are non-violent and non-criminal, bring resources, and exhibit good behavior [84,85]. This study did not suggest excluding refugees, the elderly, the poor, or potential new citizens with other non-inadmissible characteristics, which are the "undesirable" type of newcomers with criminal records, insufficient funds, and security concerns [86]. However, despite a city's desire to attract "desirable" citizens, it is difficult to prevent the arrival and urbanization of people who wish to enter and reside in a city, as opposed to the crossing of a nation's border, where security measures are in place to prevent "undesirable" newcomers.

The "byproducts" of maintaining responsibility-seekers citizens and other "desirable" type of inhabitants are providing housing, food, water, electricity, and all other basic need and luxurious things only found in an urban area for the citizens. They are becoming consequences and necessities for the city to keep the citizens satisfied. Several crucial factors in maintaining the population to stay, such as economic, social, environmental, and cultural factors, can be planned, executed, evaluated, and improved. However, there are other factors, such as natural disasters, that can only be mitigated and not eliminated. The negative effects of global warming are also a unique phenomenon since they cannot be resolved at the municipal level alone; rather, they require global action. However, cities that fail to retain the existence of their residents as significant actors in the urban ecosystem will inevitably be abandoned and cease to exist.

The preference for urban living can be linked to the concept of basic needs, which generally are provided by cities. Maslow's hierarchy of needs theory suggests that individuals have a hierarchy of needs, starting with basic physiological needs such as food and shelter and progressing to higher-level needs such as self-actualization [87]. Urban areas often provide greater access to these basic level needs, making them attractive to individuals seeking to fulfill their basic needs. Additionally, cities' social and cultural amenities can help individuals fulfill their higher-level needs for social interaction, creativity, and personal growth. Furthermore, cities offer greater access to job opportunities, a wider range of social and cultural activities, and better infrastructure and public services. Cities also attract people due to their diversity and vibrancy of urban life, which can provide a sense of excitement and energy that is not easily found in rural areas.

Several established theories support the idea that people prefer to live in cities compared to rural areas. One of the most well-known theories is the "pull" theory of urbanization, which suggests that people are attracted to urban areas due to the economic opportunities and higher standard of living that cities offer [88]. According to this theory, people are drawn to cities because of the availability of jobs, higher wages, better healthcare, education, and cultural amenities. Another theory is the "human ecology" theory, which emphasizes the role of environmental factors in shaping human behavior and social organization. According to this theory, cities provide a more favorable environment for human habitation than rural areas, as they offer greater access to resources, services, and social networks [89]. Furthermore, the "social exchange" theory suggests that people are attracted to cities because of the social and cultural benefits that cities offer. Cities provide a diverse range of social opportunities, such as access to a wider range of leisure activities, cultural events, and social networks [90]. These factors can contribute to a higher quality of life and a sense of belonging for city dwellers.

The provision of these basic needs is important for cities to retain their residents and maintain a sustainable urban ecosystem. The reason for this is that individuals are more likely to stay and thrive in cities that provide for their basic needs. However, what is considered as basic needs may vary based on different contexts and communities. For example, in some regions, access to electricity or the internet may be considered a basic need, whereas, in others, it may not be as essential. It is crucial for urban planners and policymakers to consider the specific needs and priorities of different communities when defining what is considered as basic needs.

5.4. Possible Support Services

Although RICS and IFMA emphasized that the distinction between soft-FM and hard-FM services is arbitrary and often generates confusion and the risk of impeding good practice in the integration of services and the formation of a customer-focused FM delivery team, both "hard" and "soft" services are necessary for effective asset management outcomes, which is not the least of the problems with this division [67,83].

The hard-FM supporting services within building-level FM provide insight into recognizing similar services within urban-scale FM (Table 3). The plumbing system within a building, including the clean, grey, and black water management, for example, resembles similar urban infrastructure such as a clean water distribution system, sewage system, and the management of urban industrial and black water. The municipality will almost certainly have its inhouse-team to manage some particular aspects, but the other municipalities would likely outsource the design, construction, and maintenance of such infrastructures. Similar services such as lighting, electricity and energy management, and telecommunication infrastructures are comparable in building-level and urban-scale FM. Heating, ventilation, and air conditioning (HVAC) as one of the important hard-FM supporting services were rather difficult to find the urban-level comparison, but it is argued that urban heat management could be suitable to be considered [91–93]. Several WH sites outsourced the district heating, electricity, energy management, and telecommunication infrastructures to private companies, while their technical departments managed most of the other hard-FM support services. However, the design, construction, and maintenance of the provided support services must comply with the heritage regulation and UNESCO's World Heritage guidelines.

Table 3. The possible hard-FM support services.

Building Level	Urban Level	World Heritage Sites *
HVAC systems	Urban heat management	District heating and cooling, district heat management
Electrical power supply	Power provider/plantation	Power provider
Energy management	Energy management	Energy management
Water supply	Raw water/clean water production	Water supply
Plumbing system—clean water	Clean water/drinking water system	Clean water/drinking water system
Plumbing system—grey water and sewage disposal	Urban sewerage system	District sewerage system
Plumbing system—black water and septic tank	Industrial waste and black water system	Black water system
Drainage system	City drainage and flood control system	Neighborhood/district drainage and flood control system
Building structures	Urban structures	Urban heritage structures
Building partitioning	Urban partition/division	Core zone and buffer zone
Building fabric	Urban fabrics	Urban heritage visual quality
Fixtures and fittings	Urban furniture and street furniture	Urban heritage furniture and street furniture
Lighting	Public lighting	Indoor, outdoor, and public lighting
Telecommunication and data cabling	Telecommunication infrastructures	Telecommunication infrastructures

* Comply with the conservation regulations.

Soft-FM encompasses service aspects that promptly affect customers and other service users. This vast scope typically covers the services mentioned in Table 4. These building-level support services are then expanded to the urban level to open up new possibilities and start an academic discussion. Meanwhile, managing soft-FM support services in urban-

scale WH sites involves several unique challenges, including maintaining the authenticity of the heritage site, meeting the needs of visitors and residents, ensuring sustainability, and managing the resources effectively. Unlike FM and Urban FM, the urban heritage facility management (UHFM) practices at WH sites tend to prioritize authenticity over efficiency.

Table 4. The possible soft-FM support services.

Building Level	Urban Level	World Heritage Sites *
Building cleaning and janitorial services	Urban/city cleaning	Neighborhood/district cleaning/hidden trash containers
Catering and retail services	[Traditional] market and urban scale retailer	The traditional seasonal market, tourist-oriented shop/retailer
Guarding and security	Police department	Conservation law, enforcement task force, municipal police, public-order enforcers, enforcement agent
Mail room, courier service, and logistics	Post office and city logistic management	Post office (optional)
Receptionist, lobby	City hall	The main square
Conference services and command center	City command center	District command center
Switchboard (electrical distribution system)	Electricity distribution system/power-grid	Hidden electrical panel/equipment, underground electricity distribution
Facilities helpdesk/service desk	City hotline/helpdesk	Conservation helpdesk
Internal horticulture, garden, yard, pot, vase	Park, garden, city forest, urban farming	Protected heritage park, garden, void, cemetery
Vehicle fleet management	Transportation system	Connection with the general transportation system
In-building transport (elevator, escalator, etc.)	Inner city transportation	District sustainable transportation system, in-building transport
Inter-building transportation	Intercity/inter-regional transportation	Heritage funicular, travelator, shuttle/site transportation
Garage and parking	Public parking	Preservation-oriented parking lot

* Comply with the conservation regulations.

Furthermore, RICS and IFMA [67] pointed out that several other characteristics of FM, nevertheless, do not fall into this dichotomy between "hard"-FM and "soft"-FM services (Table 5). These characteristics are particularly relevant in the context of managing urban-scale WH sites, especially concerning strategic planning, sustainability, health and safety, and smart urban heritage concepts. FM's "other" support services are essential to consider in managing urban-scale WH sites. By considering these characteristics, urban-scale facility managers can ensure that the heritage site is managed in a way that supports its cultural and historical significance, promotes sustainability, protects the health and safety of visitors and employees, and embraces the smart city concept in managing historic districts.

Table 5. The "other" possible support services.

Building Level	Urban Level	World Heritage Sites *
Environmental management	Urban environmental management	Heritage environmental management
Health and Safety	Urban health and safety	Urban heritage health and safety
Document archiving	Municipality/regional archiving	Heritage documentation, archiving, digitization, digitalization
New construction and maintenance	Urban development and maintenance	Preservation, Restoration, Reconstruction, Adaptation
Moves, relocation, and renovation	Urban regeneration	Urban heritage refurbishment

Table 5. *Cont.*

Building Level	Urban Level	World Heritage Sites *
Workplace design	City planning (general/detail city-spatial/layout plan)	Urban heritage design/development guidelines comply to the historic urban landscape (HUL) approach
Real estate management	Land use and public asset management	Strategic heritage plan (SHP)
Small works project management	Urban project management	Heritage project management
Grounds maintenance/landscaping	Urban-scale ground maintenance/ urban landscaping	Heritage landscaping
Pest control	Urban-scale pest control	Pest control
Waste management and recycling	Urban-scale waste management and recycling	Heritage-friendly (and tourist-friendly) waste management system
IT, information system (BIM) application software, license, service provider	IT, urban information system (UIM/CIM) service provider	HBIM, UHIM, HCIM
Smart building	Smart city	Smart Urban Heritage

* Comply with the conservation regulations.

There are more categories and possible services to ponder (Table 6) that might trigger discussion among the professionals and academics in the facility management field regarding the possible support service that could be provided to safeguard the "core business" of a city to maintain its citizens. In the context of urban-scale WH sites, communication and stakeholder engagement are essential to ensure that visitors, residents, and local authorities are engaged in managing the protected heritage sites. UHFM also involves managing the financial resources associated with managing urban heritage facilities, such as budgeting, forecasting, and monitoring financial performance to ensure the protection of the WH status of the sites.

Table 6. The extended possible support services to consider.

Building Level	Urban Level	World Heritage Sites *
Procurement	Public procurement	Public procurement
Finance and budgets	Urban-level finance and budgets	Heritage cost management
Public facility (restroom, nursing room, praying room, smoking area, etc.)	Public facilities	Heritage-friendly public facilities
Universal design and accessibilities	Universal design and accessibilities	Customized universal design and accessibilities
Corporate social responsibility (CSR) and public–private partnership (PPP)	Urban-scale CSR, PPP, and public–private–people partnership (PPPP)	Urban heritage-related CSR, PPP, and PPPP

* Comply with the conservation regulations.

Instead of making an issue out of the "hard"-FM or "soft"-FM dichotomy, urban-scale facility managers should put more effort into combining supporting services based on the specific situations they confront. The most important factors to explore are the capacity to integrate the outsourcing service providers, professional positions, and specialists, increase employee and equipment utilization, and lower management overhead expenses. The WH coordinator will have to work closely to make sure that all of the possible support services in the WH sites are conducted in compliance with the heritage preservation regulations to maintain the outstanding universal values (OUV) embedded within the sites.

6. Conclusions

In conclusion, a city, which is to some extent comparable to a single or complex building in terms of managing its facilities, belongs to the scope of urban-scale FM. The integration of the urban-scale support services must then be aligned with the "core business" of the city, which is to maintain and attract "desirable" citizens, by providing a livable and functional environment for its inhabitants, visitors, and businesses. The urban-scale facility management of WH sites is crucial in achieving this purpose. Effective management FM requires all hard-FM, soft-FM, and other possible support services concerning strategic planning, sustainability, health and safety, stakeholder engagement, and financial management. Hard-FM support services, including building maintenance, utility management, and technical support, are required to maintain the WH site's physical infrastructure to a high standard. Soft-FM support services, such as cleaning, security, waste management, and landscaping, are necessary for the site to be safe, clean, and appealing to visitors. Soft-FM support services, such as cleaning, security, waste management, and landscaping, are necessary for the site to be safe, clean, and appealing to visitors.

By considering all of the aforementioned factors, urban-scale facility managers can ensure that the WH sites are being managed in a manner that safeguards the preservation of the authenticity, visual quality, outstanding universal values (OUV), and cultural and historical significance while also meeting the needs and demands of the stakeholders. Effective management of WH sites can contribute to the success and livability of a city while also providing future generations with unique and valuable cultural resources.

The findings suggest that cities act as governmental, economic, social, and cultural centers for their larger neighboring territories, with the primary goal of ensuring the well-being of their citizens; a group of individuals who are taking responsibility for making their community inhabitable. In WH context, the users and all of the stakeholders simultaneously act as the "owner" of the facility within the domain of co-governance, co-ownership, and civic engagement. However, different level of interventions should be applied carefully in managing private and public heritage assets within WH sites.

The suggested answer to the question of what is the "core business of a city," which led to the description of the possible urban-scale possible support services to be provided, is expected to trigger further academic discussion on this topic, since this study does not claim that the results, findings, and conclusions presented in this article are irrefutable. In order to obtain a more comprehensive understanding, this article invites stakeholders and academics to critique, develop, revise, and amend the definition of the city's "core business" and its possible supporting services mentioned in this study from different points of view or by going into the detailed aspects of the discussed possible support services.

The urban heritage conservations and urban-scale FM practitioners, experts, and academics will benefit from this study by understanding the importance of maintaining and attracting citizens, thus integrating and delivering excellent urban-scale support services tailor-made for the specified type of urban areas, especially the World Heritage sites.

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