

The Economic Impact of Universal Design on Cultural Heritage Contribution to SDGs: Evidence from Italian Museums

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Abstract. United Nations' Agenda 2030 highlights the need to "make cities and human settlements inclusive, safe, resilient and sustainable" (SDG 11) and reduce inequalities (SDG 10) for the good health and well-being (SDG 3) of the citizens. Although most Italian museums have been forced to comply with the rules for accessibility in public spaces since 1971 following Law 30/3/1971 n. 118 and, more recently, Legislative Decree 81/2008, in this context, Universal Design can contribute to the achievement of these goals by improving accessibility to spaces, services, and the community's well-being on the one hand, along with providing a deeper comprehension and awareness of the informational processes on the other hand. In this regard, museum organizations play a critical role in enhancing the quality of life and society's education by preserving and distributing cultural heritage over time. Despite the large number of studies focused on museum organizations, there is little research that takes into account Universal Design and its macro-and firm-level economic benefits on museum institutions (not-for-profit, public, and private). Considering this research gap, this study's aim is twofold: 1) to explore how some Italian museums have actually improved their facilities and services according to Universal Design principles and 2) to assess the economic museum accessibility. A qualitative methodology was applied using a questionnaire delivered to eight Italian museums, and collected data was compared. The findings underline how museums' investments in Universal Design may produce relevant economic benefits, both on the macroeconomic and firm levels, providing guidelines for public policies concerning welfare, transport, environment, education, and well-being. Universal Design principles can lead museums to an increasing convergence toward Sustainable Development Goals, improving their overall economic performance as well as strengthening their role in a more aware and participative society. This study has several relevant implications in terms of both policy and management. Policymakers should promote Universal Design investments in museums in order to ensure accessibility to a greater number of visitors, and cultural institutions should consider accessibility as a specific key management dimension to be monitored and improved.

Keywords. Cultural heritage, Universal Design, economic benefits, museum, Sustainable Development Goals.

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1. Introduction

The 2030 Agenda for Sustainable Development Goals underlines the need to “make cities and human settlements inclusive, safe, resilient and sustainable” (SDG 11) and reduce inequalities (SDG10) for the good health and well-being of the citizens (SDG 3).

In detail, by investing in accessibility, museums can enhance the community’s well-being and the improvement of their quality of life, especially for all those segments of population that – for different reasons – have some difficulties in enjoying museum’s services (i.e. elderly people, disabled, pregnant women, children).

In this regard, the Universal Design principles may orient museums’ activity toward a wide range of potential visitors, according to inclusion, active participation, non-discrimination, and cultural sharing. This approach requires museums to spend money and effort to improve accessibility while expecting some economic return. The analysis of the relationship between museums’ accessibility goals, short- and long-term investments, and economic implications has received limited attention by scholars. Thus, this paper’s aim is twofold: 1) to explore how some Italian museums, that might be considered benchmarks, have actually improved their facilities and services according to Universal Design principles and 2) to assess the economic impact of broader museum accessibility.

2. Accessibility regulations in museums

In 2007 the Italian Ministry for Culture gave birth to a Commission on Accessibility² aiming at collecting and analyzing good practices worldwide to establish and foster policies on the increased usability of cultural sites by overcoming all kinds of accessibility barriers, including both physical and cognitive ones. It started out with specific requirements to include people with various types of disabilities and all those people who might be temporarily disempowered. The Commission produced the *Guideline for overcoming architectural barriers*³, which made it clear that the removal of physical and cognitive barriers in secluded ambiances might play a major role in the design of audience development and engagement strategies and policies.

The broader approach of the Culture Accessible Commission of the MiC followed the 2006 *Convention on the Rights of Persons with Disabilities*⁴ whose Art. 2 introduced the concept and principles of Universal Design. One of the first actions that the Commission subdued, however, was the reactivation of an Implementing Decree⁵ of the articles 71-bis and 71-quinquies of Law no. 633-April 22, 1941, on the matter of granting copyright in favor of people with sensorial disabilities, followed by a series of training courses for superintendents and regional directors to sensitize them to the theme.⁶ The

² Decreto dirigenziale 27 giugno 2017

³ Decreto 28 marzo 2008 - GU n. 114 del 16.05.2008 Supplemento Ordinario n. 127

⁴ The United Nations Convention on the Rights of Persons with Disabilities and its Optional Protocol (A/RES/61/106) was adopted on 13 December 2006 and was opened for signature on 30 March 2007.

⁵ This action gave birth to the Decreto Ministero, Beni e attività culturali 14/11/2007 n° 239, G.U. 20/12/2007, which was circulated among managers and officials of the Ministry to sensitize in the work of the Commission.

⁶ An initial class took place on 27 and 28 September 2007 under the direction of the late Prof. Arch. Fabrizio Vescovo of La Sapienza, Roma. The topics were particular concerned with the following: the design criteria for extended users, the legislation on architectural barriers, the compatibility between the protection of

Decree also promoted the *Service Quality Charter* within cultural institutions as a tool visitors could use to verify the compliance of the promised quality levels offered by services with what was actually provided: an embryonal CRM that was, for the first time supported, at the central level. Doing so, Italian legislation paid its undivided attention to inclusion in the cultural heritage field. In fact, some 15 years earlier, legislation on safety in the workplaces⁷ had already partially taken into consideration some macro-aspects related to the removal of barriers connected to safety within working spaces. Cultural sector workspaces were included, albeit not in a specific and dedicated way. At the time, visitors could partake in the improvements after the workers first reap the benefits.

Another important antecedent for the Commission on Cultural Accessibility was the *Guidelines on technical-scientific criteria and on the operating and development standards of museums*.⁸ In addition to the implementation of the museum's safety regulations (Area V), the concept of usability was introduced for the first time in a distinct and compulsory manner. Although the *Guidelines* were not converted into national law, their impact on regional and local levels is still important; hence, they served as the basis of the Sistema Museale Nazionale Decree,⁹ which nurtures the centrality of inclusion, usability, and visitor engagement.

The Commission on Cultural Accessibility concluded its work in 2018 with the internal publication of the *Guidelines for the preparation of the Plan for the elimination of architectural barriers (P.E.B.A.) in museums, museum complexes, archaeological areas and parks*. The application of national legislation or the implementation of ministerial decrees at the regional level¹⁰ has not always been possible: following the results of an ISTAT survey in 2018, only 53% of museums, monuments, archaeological areas, and state and non-state parks improved their structures by removing physical barriers. Furthermore, only 12% addressed the issue of perceptual, cultural, and cognitive barriers.

Mission 1 of the *National Recovery and Resilience Plan (N.R.R.P.) (Digitization, innovation, competitiveness, culture, and tourism)* foresees the allocation of a conspicuous budget to overcome the residual barriers in cultural spaces and sites as indicated by the Minister of Infrastructure and Sustainable Mobility, the Minister for Disabilities, and the aims of the new Study Commission for resilience, social integration, and the rights of disabled people, in line with the goals of the UN 2030 Agenda.

cultural heritage and interventions to overcome architectural barriers, and specific aspects relating to architectural barriers in protected buildings and places (i.e., examples of good practice). A second class took place from 8 to 10 October 2007 under the direction of Dr. Antonella Fusco, then-Director of the Center for Educational Services of the MiBAC, and was attended by 300 MiBAC officials.

⁷ Legislative Decree 19 September 1994, 626: Implementation of the EEC directives concerning the improvement of the safety and health of workers in the workplace

⁸ *Atto di indirizzo sui criteri tecnico-scientifici e sugli standard di funzionamento e sviluppo dei musei* (D. Lgs. n.112/98 art. 150 comma 6) - GU Serie Generale n.244 del 19-10-2001 - Suppl. Ordinario n. 238

⁹ Decreto ministeriale del 21 febbraio 2018 (DM 113/2018), *Adozione dei livelli minimi uniformi di qualità per i musei e i luoghi della cultura di appartenenza pubblica e attivazione del Sistema museale nazionale* - GU della Repubblica Italiana n.78 del 04 aprile 2018, followed by the Decreto 20 giugno 2018 – *Prime modalità di organizzazione e funzionamento del Sistema museale nazionale*.

¹⁰ The 2001 *Guidelines on the standards of museums*, for instance, was not converted to law, as mentioned, but has been implemented in several regional legislation on cultural heritage with light modifications and not always consistently. The regions that have adopted the *Guidelines* were entitled to choose the standards that best fit their museum's situation.

3. Universal Design and 2030 Agenda for Sustainable Development Goals in museums

The 2030 Agenda for Sustainable Development Goals is mainly linked to the enhancement of social and environmental dimensions. In this regard, attention has been progressively paid to non-economic driven organizations, which include museums that traditionally play a relevant role within non-profit organizations in terms of promoting cultural diffusion. Indeed, they contribute to the improvements of the well-being and quality of life of communities through the enhancement and sharing of cultural heritage and facilitating the achievement of sustainability [2, 7, 8].

The museums' activities can contribute—directly or indirectly—to the achievement of specific United Nations sustainable development goals, such as SDG 3 (good health and well-being), SDG 10 (reduced inequalities), and SDG 11 (sustainable cities and communities). In this regard, Target 11.4 recommends making cities and human settlements inclusive, safe, resilient, and sustainable by “strengthening efforts to protect and safeguard the world’s cultural and natural heritage.” Similarly, the New Urban Agenda identifies cultural heritage as a fundamental component for achieving sustainable development conditions through the enhancement and sharing of all cultural resources with the community [12].

In this context, museums' contribution to the achievement of Sustainable Development Goals finds in Universal Design's approach a potential supporting condition in terms of higher accessibility of spaces, delivered services, and information. Indeed, museums' choice to make their strategic, managerial, and operational decisions compliant to Universal Design principles confers museums inclusivity, ensuring the equality of rights and culture accessibility for each individual. In this regard, Universal Design enables the orientation toward both 2030 Agenda SDGs and the improvement of the community's well-being.

However, scholars have paid little attention to the analysis of the role played by museums in achieving 2030 Agenda's goals, and there are almost no studies about the Universal Design implementation in museums. On the one hand, the majority of studies refer to cultural heritage and sustainability issues without analyzing this topic according to the Universal Design economic implications [8, 10]. On the other hand, the literature about Universal Design in museums is focused mainly on building structural aspects or on the opportunity to ensure greater accessibility for disabled people, focusing mainly on digitization [3, 6, 11].

4. The economic benefits of Universal Design in museums

The implementation of Universal Design principles enables museums to make available to visitors certain services, products, messages and spaces, according to specific conditions such as accessibility, active participation, equal opportunities, inclusion, and removal of any barriers that could impede access to the museum experience.

However, Universal Design not only has social and cultural implications, but also economic ones. The extant literature has not addressed the analysis of the economic benefits of Universal Design investments with specific reference to museums; rather, it has employed a mostly general approach. Scholars have mainly focused on the assessment process of Universal Design economic implications [1, 4, 5, 9] and on the key actors involved, specifically, firms and public administration [1].

In particular, the main economic benefits implied by Universal Design can be explored according to two main perspectives: the intra-organizational one and the one related to products and services delivered, as well as to available spaces. With reference to the former perspective, Universal Design principles facilitate the inclusion in the workplace of all individuals by enabling the improvement of innovation capabilities, the increase of productivity rate, and the reduction of obsolescence of firms' assets [1].

At the same time, the offer of highly accessible products and services enables firms to gain technological, competitive, and reputational advantages [1]. In general, the economic benefits include the reduction of additional costs, which are required to accommodate products in order to make them more accessible, as well as the so-called social costs that burden the community (i.e. reduction of consumption, increase of legal and insurance costs for injuries due to low accessible spaces).

With reference to museums, the economic benefits of Universal Design cannot be easily identified and appraised; they are mainly indirect advantages that require, first of all, investments in order to make spaces and services more accessible. These benefits may occur in terms of direct potential advantages (higher revenues due to a larger number of disempowered visitors and accompanying people, sale of services and goods within and between museums, such books, food, training courses, Edu labs etc.; the possibility to access public and private funds) and indirect advantages (reputation and brand improvement).

Universal Design principles can lead to the creation of positive externalities by generating benefits for the museum's communities and for the public administration in terms of services delivered to public (i.e. public transport, social care and assistance and the participation to a more widely shared culture) and to other institutions and organizations (i.e. Centers for Care Innovation and start-ups hubs).

As to museums, to our knowledge there are no studies about the analysis of the potential economic benefits implied by investments in higher spaces and services' accessibility and inclusion.

5. Methodology and data

This research has been carried out according to the qualitative case-study approach, which is recommended when the research's aim is to answer "why" and "how" questions [13]. To do so, a questionnaire was formulated and delivered to selected museums. The paper is based on the replies to a questionnaire distributed to four institutions: one State Museum representing the benchmark for accessibility at the national level, one autonomous participatory foundation of a national museum, one municipal participatory foundation managing a system of complex assets including museums, and a system of eight municipal museums. In total, the research sample includes 10 museums.

Three out of four of the chosen institutions are based in Northern Italy, two are in Lombardy, one in Piedmont, and the final one is in Le Marche. Additionally, the geographical locations of the respondents may represent a sort of benchmark since the regions in which they are situated have been pioneers in adopting quality museum standards. All but one of the respondents were located in historic buildings. This may represent a limitation or weakness in the conformation to the requirements not only for physical accessibility. To some extent, ancient building structures might also limit the infrastructural adaptation needed to develop technologies in support of cognitive and perceptual accessibility.

The questionnaire was structured to investigate, through time: awareness of the topic, interest in the application of the principle of Universal Design, willingness to comply with the requirements, actual conformation to the requirements, and the economic weight of complying with the undertaken actions. Fallouts on staff training and development of sustainable economics for the institutions and potential impact on audience development and on policy-making drive have also been explored.

6. Results and discussion

The analysis of the questionnaires delivered to the selected museums enables the underlying of some preliminary conclusions with reference to the level of implementation of Universal Design principles.

In this regard, the answers point out that more than half of the selected museums have declared a good knowledge of Universal Design principles, while the remaining museums are characterized by a low level of knowledge. Thus, there is a need to promote a greater understanding of the Universal Design approach in order to facilitate its implementation.

With reference to the level of implementation of Universal Design principles, there is only one museum that attained the maximum score, while the other two museums had average scores over 4. Three museums are characterized by values that range between 3 and 4, while the remaining four museums underline a low level of implementation (average values under 2 and 3) (Table 1). In general, the level of implementation of Universal Design is moderate and should be improved. The main weaknesses refer to the “flexibility in use” principle; this might depend on the little structural and infrastructural flexibility of historical buildings where museums are located.

Table 1. The extent of Universal Design principles’ implementation.

Museum	1	2	3	4	5	6	7	8	9	10
Equitable use	5	2	5	4	3	nd*	4	4	1	1
Flexibility in use	5	2	4	4	2	2	3	4	1	1
Simple and intuitive use	5	2	5	3	nd*	5	2	4	1	1
Perceptible information	5	1	5	3	nd*	4	2	3	1	1
Tolerance for error	5	2	4	3	nd*	5	4	3	1	1
Low physical effort	5	2	4	4	nd*	5	4	4	1	1
Appropriate size and space for approach and use	5	1	4	4	3	5	4	4	1	1
Mean	5	1.71	4.43	3.57	2.67	4.33	3.29	3.71	1	1

*nd: not disclosed

With reference to the potential Universal Design’s benefits, nine museums out of ten believe that higher accessibility may create advantages for the museum, its community, and the public administration. In detail, the main positive effects (both

economic and non-economic) for the museums involve the improvement of their reputation and an increase of the number of general public, since it is not possible, with the present methodology of ticketing, to have a clear repartition of the kind of reductions or free entrances granted to disabled visitors. On the other hand, the museum's community and public administration may benefit in terms of higher awareness about the issue of inclusion and in terms of greater closeness to the citizens.

In general, the collected information about the museums' awareness of potential returns on accessibility investments is unclear and sometimes inconsistent, especially with reference to the economic implications. In this regard, only seven museums out of 10 show awareness of this relationship, while three museums believe that there are no relationships at all between investments in accessibility (i.e. building adjustments, new infrastructures, establishment of sensory itineraries, purchase of special lifts for people with disabilities) and economic advantages. Besides, those museums that believe in a direct relationship between accessibility and economic advantage do not provide details in terms of identification of benefits. This evidence underlines a wide lack of accessibility culture, meaning that generally, museums invest in accessibility only to comply with mandatory regulation; there is no real awareness of the correspondence between accessibility and increased appreciation by visitors; and there is a lack in understanding of the relationships between investment and returns. Findings underline that there is a lack of an effective managerial approach in addressing the accessibility issue. Despite the medium level of implementation of Universal Design principles, selected museums show clear weaknesses in terms of management, organization, and reporting of their activities, hampering their ability to translate potential investments in accessibility into better performance. In particular, with reference to the organizational dimension, only two museums have declared their willingness to bear the training costs associated with improved accessibility, while only one museum has established an organizational structure including people specifically dedicated to accessibility issues (i.e. an accessibility manager). As to reporting and assessing performance processes, only one museum out of 10, draws up an integrated report; thus, in general, they have neglected the opportunity to report potential activities aimed at improving accessibility and assessing related economic benefits.

The above-underlined weaknesses—referring to the three main corporate dimensions (management, organization, and reporting)—lead to a low-developed managerial approach that is not suitable for the clear identification and effective assessment of the economic effects of investments on accessibility.

Regarding the costs and investments required for ensuring higher accessibility according to Universal Design principles, only a few of the selected museums identify specific areas to focus on. They are as follows: the establishment of special visiting itineraries according to cognitive, sensory, and physical accessibility; special training courses for personnel; and adjustment of the buildings.

7. Concluding remarks, limitations, and research implications

This research's aim is twofold: 1) to explore how some Italian museums have actually improved their facilities and services according to Universal Design principles and 2) to assess the economic impact of broader museum accessibility.

In order to achieve the above stated goals, a questionnaire has been delivered to 10 Italian museums, of which nine are located in Northern Italy and one in Central Italy.

The analysis of the answers has underlined a medium level of implementation of Universal Design principles, even if the same can be improved. The findings also highlight a low awareness of economic implications, implying the risk of jeopardizing value creation over the long run. In general, this research underlines a strong and consistent missing link between the willingness to invest in accessibility and the development of a managerial approach aimed at ensuring satisfying economic returns on these investments. The above-stated evidence has several relevant implications; first, research findings underline the opportunity to develop public policies to support the implementation of Universal Design principles in museums and, additionally, through specific contributions aimed at covering, for example, the lack of income from the free tickets for people with disabilities. Second, museums should develop specific managerial capabilities based on the understanding that investments should generate profitable returns. This second implication requires museums to establish effective reporting and management control systems to appraise the museum's economic and non-economic performance. This study can contribute by enhancing the literature about sustainability, Universal Design's economic benefits, and cultural heritage; however, there are some limitations that mainly refer to the selected sample. Thus, further research should study a higher number of museums.

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