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INDUSTRIAL HERITAGE DYNAMICS: PERFORMANCE ASSESSMENT OF THE SAMSUN TOBACCO FACTORY, TURKEY

DINÁMICAS DEL PATRIMONIO INDUSTRIAL: EVALUACIÓN DEL RENDIMIENTO DE LA FÁBRICA DE TABACO DE SAMSUN, TURQUÍA

DINÂMICAS DO PATRIMÔNIO INDUSTRIAL: AVALIAÇÃO DE DESEMPENHO DA FÁBRICA DE TABACO DE SAMSUN, TURQUIA



Figure 0. Original photographs of the complex. Source: Yıldız (2019a); Samsun Yerel Tarih Grubu (n.d.); Yıldız (2019b).

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ABSTRACT

This study aims to evaluate the social sustainability of repurposed industrial heritage using a user-participatory methodology. The goal is to identify the strengths and areas for improvement of industrial heritage that has been repurposed and integrated into the city's current life. Using a mixed-methods approach, this study employs a cross-sectional survey design. In the study, the main and sub-criteria of socio-cultural sustainability were determined, followed by fieldwork involving surveys, on-site observations, and document reviews. Importance-performance analyses (IPA) were conducted using the obtained data, matrices were created, and recommendations were developed. IPA is an effective control and support mechanism in ensuring the social sustainability of reuse and industrial heritage. It was observed that the socio-cultural sustainability of the structure was largely achieved through social participation and the value of architectural identity. On the other hand, safety and access issues, in particular, are critical areas for improvement.

Keywords: heritage buildings, user experience, reuse, sustainability, Turkey

RESUMEN

El objetivo de este estudio es evaluar la sostenibilidad social del patrimonio industrial reconvertido mediante una metodología participativa con los usuarios. Se apunta a identificar los puntos fuertes y las áreas de mejora del patrimonio industrial que ha sido reutilizado e integrado en la vida actual de la ciudad. Con un enfoque de investigación mixto, este estudio utiliza un diseño de encuesta transversal. En el estudio se determinaron los criterios principales y secundarios de la sostenibilidad sociocultural, seguidos de un trabajo de campo que incluyó encuestas, observaciones in situ y revisiones documentales. Se realizaron análisis de importancia-rendimiento (IPA, en inglés) con los datos obtenidos, se crearon matrices y se elaboraron recomendaciones. El IPA es un mecanismo eficaz de control y apoyo para garantizar la sostenibilidad social de la reutilización y el patrimonio industrial. Se observó que la sostenibilidad sociocultural de la estructura se había logrado en gran medida en términos de participación social y valor de identidad arquitectónica. Por otro lado, los temas de seguridad y acceso son, en particular, áreas críticas de mejora.

Palabras clave: edificios patrimoniales, experiencia del usuario, reutilización, sostenibilidad, Turquía

RESUMO

Este estudo tem por objetivo avaliar a sustentabilidade social do patrimônio industrial reconvertido por meio de uma metodologia participativa centrada nos usuários. A finalidade é identificar as potencialidades e os aspectos passíveis de aprimoramento do patrimônio industrial reconvertido e integrado à vida contemporânea da cidade. Adotando uma abordagem de métodos mistos, a pesquisa emprega um delineamento transversal de levantamento. No estudo, foram estabelecidos os critérios principais e os subcritérios de sustentabilidade sociocultural, seguidos de um trabalho de campo que envolveu levantamentos, observações in loco e análise documental. Com os dados obtidos, realizaram-se análises de importância-desempenho (importance-performance analysis — IPA), a partir das quais foram elaboradas matrizes e formuladas recomendações. A IPA constitui um mecanismo eficaz de controle e de apoio à garantia da sustentabilidade social do reuso e do patrimônio industrial. Observou-se que a sustentabilidade sociocultural do edifício foi alcançada, em grande medida, por meio da participação social e do valor da identidade arquitetônica. Por outro lado, as questões de segurança e acessibilidade constituem, em particular, aspectos críticos a serem aprimorados.

Palavras chaves: edifícios patrimoniais, experiência do usuário, reuso, sustentabilidade, Turquia

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INTRODUCTION

Industrial structures and complexes that emerged with the Industrial Revolution are not only production areas but also cultural assets that reflect the social dynamics and architectural heritage of the past. These structures, which have become obsolete due to changes in production technologies and urban transformation, are also important for preserving urban memory. Therefore, repurposing industrial heritage to meet today's needs supports spatial, social, and cultural sustainability (Chen, Judd & Hawken, 2016; De Gregorio et al., 2020).

Several studies have been conducted on the reuse of industrial heritage for conservation purposes. Many have focused on the sustainability of heritage without its disappearance and transfer to future generations, as well as on reducing negative impacts on the carbon footprint and environmental systems (Blagojević & Tufegdžić, 2016; Samadzadehyazdi et al., 2019; Gharaati et al., 2023). Social sustainability is also a key factor in the preservation of industrial heritage. In this context, social sustainability refers to maintaining conditions that support users' quality of life, social interaction, sense of belonging, and satisfaction with their surroundings. In the context of the adaptive reuse of industrial heritage, it ensures that cultural and spatial values are incorporated into modern life. Social sustainability is linked to many variables and indicators that are integral to daily life. These indicators are exemplified by broad perspectives ranging from economics and security to architectural identity and social participation. The infrastructure, approaches, and attitudes aimed at meeting these indicators manifest as experiences in individuals' daily lives. On the other hand, enhancing the comfort of social life and personalizing individuals' experiences positively impact the desirability and appeal of industrial heritage.

The study builds on this idea and aims to evaluate the social sustainability of repurposed industrial heritage using a user-participatory methodology. Within this scope, the goal is to identify the strengths and areas for improvement of industrial heritage that has been integrated into the city's current life with its new function.

CONCEPTUAL FRAMEWORK

The Industrial Revolution began in Europe, primarily in England, in the second half of the 18th century and would gradually spread throughout the world. Over the ensuing years, steam-powered mechanical production systems would be developed, and thus industrialization began. Increased production was followed by major changes in the economic and social life of countries, and urbanization increased as the workforce began to migrate to the urban areas where industrial production was taking place. These social, economic, and technological transformations would give rise to the modern industrial society. This industrial production, which lasted for approximately two centuries, would lead to a service and information technology economy after the second half of the 20th century, and the lifestyles and spatial approaches that developed alongside industrial production were gradually abandoned (Hudson, 2014; Dong & Jin, 2021). However, the physical manifestations of the Industrial Revolution were evident in the urbanization and architecture left behind.

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During this process, as cities developed and became industrial production centers, industrial buildings with large interior spaces suitable for housing heavy machinery were built.

Large-scale factory buildings held a significant place in the period's architectural understanding. These structures not only organized production processes but also played a decisive role in the spatial development of industrial cities (Wu et al., 2022). The speed and scope of industrial developments transformed industrial activities, and the settlements and structures established with large investments lost their function and were left idle. The development of the concept of cultural heritage has brought to the fore the idea that obsolete, unused industrial structures are also heritage values that need to be preserved. Industrial structures, which are the spatial practices of the industrial revolution that influenced human history, bear traces of the historical development of science and technology, social and cultural relations, and economic transformation (Plevoets & Van Cleempoel, 2011). The preservation and transmission of these traces to the future is among the issues that conservation focuses on (Borri & Corradi, 2019). Industrial heritage, which bears witness to the industrial era, must be preserved for its intrinsic value and passed on to future generations as immovable cultural heritage (ICOMOS, 2026).

The first initiatives to preserve old industrial buildings began with individual responses in Britain in the late 1940s and gradually gained an institutional and international dimension. The most important developments in this field have been shaped by the establishment of international standards and principles, with contributions from organizations such as TICCIH (2003) and ICOMOS (1965). The preservation of industrial heritage has become an important cultural heritage policy supported by international structures such as UNESCO, the Council of Europe, and the European Union.

The discussions regarding the preservation of old industrial buildings in Turkey emerged in the early 1990s. The issue of preserving old industrial buildings has gained momentum through academic studies, civil society organizations, and various awareness-raising initiatives of international organizations. In Turkey, the preservation of industrial heritage is carried out under Law No. 2863 on the Protection of Cultural and Natural Heritage, within the scope of cultural heritage status. With Law No. 5226, conservation processes were made more systematic, and restoration and repurposing approaches for industrial buildings gained importance (Resmî Gazete, 2004).

Several studies have examined the heritage value of industrial structures and how they can be intervened in. Reuse has been an important tool in the conservation of abandoned industrial sites (Bekar, Kutlu & Ergün, 2023). The conservation of industrial heritage offers a holistic conservation approach that encompasses elements such as technological and social developments, settlement patterns, existing structures and production facilities, as well as urban memory and collective consciousness. Ensuring the continuity of cities' identity elements and immovable cultural assets that have become part of

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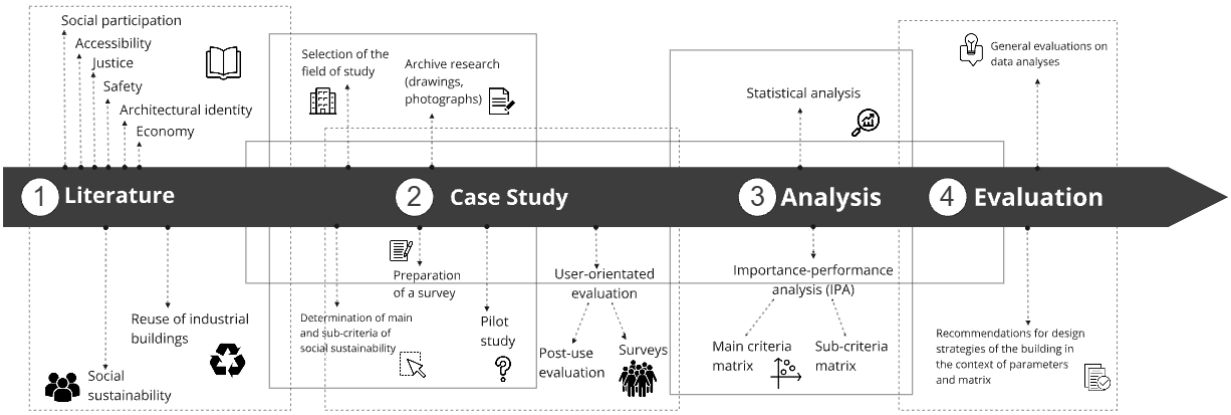


Figure 1. Research design. Source: Prepared by the Authors.

social life provides multifaceted social benefits (Cihanger Medeıros Rıbeıro, 2012; De Gregorio et al., 2020).

Since the 2000s, the concept of sustainability has become a fundamental component of all conservation approaches at the environmental and structural levels (Eyüboğlu & Faiz Büyükçam, 2024; Turgut Gültekin, 2016). In this context, the integration of industrial heritage with society, the preservation of local identity, and its opening to public use have gained importance in terms of social sustainability (Çelebi Karakök & Ertaş Beşir, 2023; Faiz Büyükçam & Eyüboğlu, 2023; Landorf, 2009). Furthermore, activities that increase social participation in these areas and practices that support the local economy contribute to social sustainability (Lansiwi et al., 2024).

METHODOLOGY

The study aims to evaluate the reuse of industrial heritage within the scope of socio-cultural sustainability. In line with this objective, the study aims to identify the strengths and areas for improvement of industrial heritage that has been repurposed and integrated into the city's current life. Another objective of the study is to identify users' expectations and propose design strategies to meet them. Furthermore, the study aims to ensure efficient use of resources and identify elements that should be prioritized in similar planning approaches. Using a mixed-methods approach, this study employed a cross-sectional survey design (Figure 1). This research design focuses on analyzing participant opinions and attitudes regarding an event or topic within a specific time frame. Thus, it allows for description by capturing a snapshot of the existing situation.

In the first phase of the study, a comprehensive literature review was conducted on the reuse of industrial heritage structures and their social sustainability. The literature review aimed to understand the different dimensions of the concept of social sustainability and to shape the study framework by examining similar studies. On the other hand, it was used to determine the quality of social sustainability indicators. Based on the data obtained from this phase, the authors identified 6 main and 19 sub-criteria related to social sustainability (Table 1).

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Main criteria	Sub-criteria
Social Participation	Social facilities and activities
	Social interaction and communication
	Community bonds
	Educationality
Accessibility	Information on social activities and facilities
	Temporal availability
	Transport and mobility
	Environmental design
Justice	Equal opportunities and inclusion
	Community engagement
Safety	Perception of security
	Safety of the local environment
Architectural Identity	Protection of local characteristics and historical values
	Place identity and belonging
	Environmental context and location
Economy	Pricing policy
	Contribution to the local economy
	Economic diversity
	Employment

Table 1. Social sustainability main and sub-criteria Source: Ahmad & Thaheem (2017); Ahmad, Yaqub & Lee (2024); Almahmoud & Doloi (2020); Bramley et al. (2009); Chan & Lee (2008); Davoodi, Fallah & Aliabadi (2014); Eizenberg & Jabareen (2017); Kefayati & Moztarzadeh (2015); Kurtenbach (2024); Maywald & Riesser (2016); Miller et al. (2016); Murzyn-Kupisz (2012); Sierra et al. (2018); Stender & Walter (2019).



Figure 2. Maps and photographs of the study area. Source: Google Earth (2026); Bulvar Samsun (2024).

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Figure 3. Original photographs of the complex Source: Yıldız (2019a); Samsun Yerel Tarih Grubu (n.d.); Yıldız (2019b).

The second phase of the study consists of fieldwork. In this phase, the study area was determined, the population and sample group were selected, and data collection was carried out. First, the study area was determined. Within this scope, the Bulvar Shopping Center in Samsun, Turkey, was selected as the site for analyzing the user experience in the context of social sustainability (Figure 2). The building, which is currently used as a shopping center, was built in 1887 by the French Reji company, but its architect is unknown.

The Samsun Tobacco Factory, one of Turkey's first cigarette production facilities, is one of the city's most significant industrial heritage sites due to its location and historical function (Evsel, 2023; Us, 2014; Yılmaz & Gül, 2018). Spanning approximately 9,300 m² and comprising production, storage, office, and support units, the site has become an integral part of the city's daily life over time. The factory, which was expanded during the Republican Era after 1923, remained operational until 1994. After closing in 1997, the factory lay derelict for a long period (Görmüş, 2024). Situated within Urban Conservation

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Area No. 1, the factory buildings were listed in 1985 as immovable cultural assets requiring protection. Representing the legacy of the city's tobacco industry and leaving its mark on a particular era of Samsun, the factory complex was designated a 'Regeneration Area' in 2006 and entered a process of adaptive reuse (Halıcı, 2021). Following restoration work, the building was repurposed and opened as a shopping center in 2012. Having been transformed from a production facility into a retail space, the building is still in use as a shopping center today. Its current repurposing as a shopping center is a notable example of social and cultural sustainability in action. The decision to select this site as the study area was driven by its industrial heritage status, central location, new function, and the impact of its spatial transformation on user perception. Furthermore, the site's ability to appeal to diverse demographic groups and offer multi-layered spatial experiences was also a key factor in the selection (Figure 3).

After defining the study area, the population and sample group were identified. The study population consists of individuals aged 18 and over who have visited the building at least once. The study sample was selected using simple random sampling and comprises 100 volunteers aged 18 and over with strong communication skills who have visited the Bulvar Shopping Center. Participants from the population were selected for the sample independently, with equal probability and at random. Six individuals who were unable to complete the survey were excluded from the sample, leaving 94 participants. While different age groups are represented in the sample, the highest participation rate was among adults residing in Samsun. Furthermore, care was taken to ensure that participants visited the shopping center for different purposes, such as shopping, entertainment, work, and dining out. To ensure diversity among participants, the sample group was approached at the Bulvar Shopping Center on different days and times between September 1st and October 29th, 2025.

The fieldwork was completed with the data collection step. Both quantitative and qualitative techniques were used in the study. Quantitative data collection techniques, such as surveys, were used, as well as qualitative data collection techniques, such as on-site observations and document reviews. The survey was conducted face-to-face with users at Bulvar Shopping Center. The criteria listed in Table 1 were used when preparing the survey form. The survey consists of two sections. The first section of the survey contained demographic questions to determine the participant profile. The second section consisted of questions on a 5-point Likert scale regarding the importance and success of social sustainability in the design of shopping centers.

The third stage of the study focuses on data analysis. The primary analysis method used in this study, which employs quantitative data analysis techniques, is Importance-Performance Analysis (IPA). This analysis compares participants' levels of importance assigned to social sustainability criteria with their evaluations of the Bulvar shopping center building's performance against these criteria. Importance-performance analysis is one of the most prominent models for evaluating user satisfaction (Matzler et al., 2004). In other words, it

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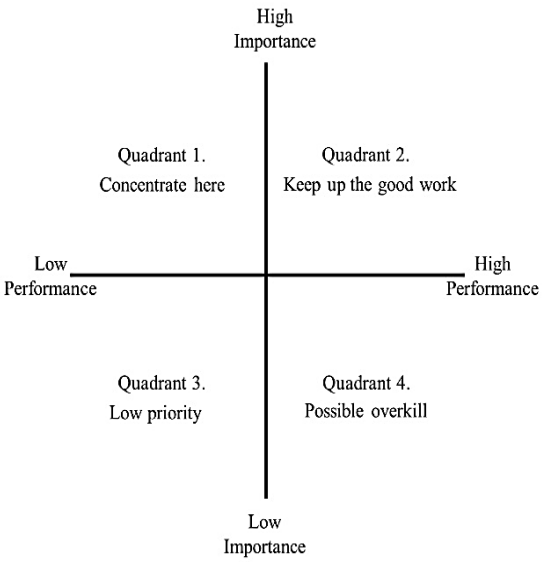


Figure 4. IPA matrix quadrants. Source: Prepared by the Authors.

was developed to identify the criteria to focus on to increase user satisfaction. IPA, an effective method for evaluating quality, facilitates the examination of management strategies and the identification of priority areas for upcoming regulations.

The analysis process, which utilized descriptive statistics and matrices, was completed in three steps. First, the participants' questionnaires were prepared for analysis. In this step, missing and erroneous data were identified. Of the 100 questionnaires administered, 94 were included in the evaluation. The study excluded 6 survey forms because the participants did not complete them. After the data from the questionnaire forms were transferred to a digital environment, frequency and percentage analyses were performed using the SPSS statistical program, and the average values of the participants' responses were calculated. Subsequently, an IPA matrix was created using the relevant data, and the importance (I) and performance (P) values for each social sustainability criterion were separately entered into the matrix, and the importance-performance values were compared (Figure 4).

The fourth stage of the study is the evaluation stage, in which literature information, data, and analyses from fieldwork are considered together. In this context, elements that should be prioritized in planning to ensure efficient use of resources, especially for industrial cultural heritage, have been highlighted, along with recommendations.

FINDINGS AND DISCUSSIONS

The demographic data obtained from the surveys are presented in Table 2. Then, an importance-performance matrix was created by averaging users' survey scores for the quality indicators of social sustainability.

In the IPA process, the average of participants' scores for the main social sustainability indicators was calculated. According to the data obtained,

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	Group	Frequency (n)	Percentage value (%)
Gender	Female	57	60.64
	Male	37	39.36
Age	18-24	15	15.96
	25-34	20	21.27
	35-44	30	31.91
	45-54	15	15.96
	55 and over	14	14.90
Education status	Primary School	3	3.20
	Middle School	2	2.13
	High School	10	10.63
	University	56	59.58
	Postgraduate	23	24.46
Economic status	Under 17,000 liras	17	18.08
	17,000 – 24,000 liras	7	7.45
	25,000 – 39,000 liras	17	18.08
	40,000 – 59,000 liras	34	36.18
	60,000 liras and over	19	20.21
Residence status	Samsun	90	95.74
	Other	4	4.26
Residence years	1-4 years	22	23.40
	5-9 years	15	15.95
	10 years and over	53	56.39
	Other	4	4.26

Table 2. User profile. Source: Prepared by the Authors.

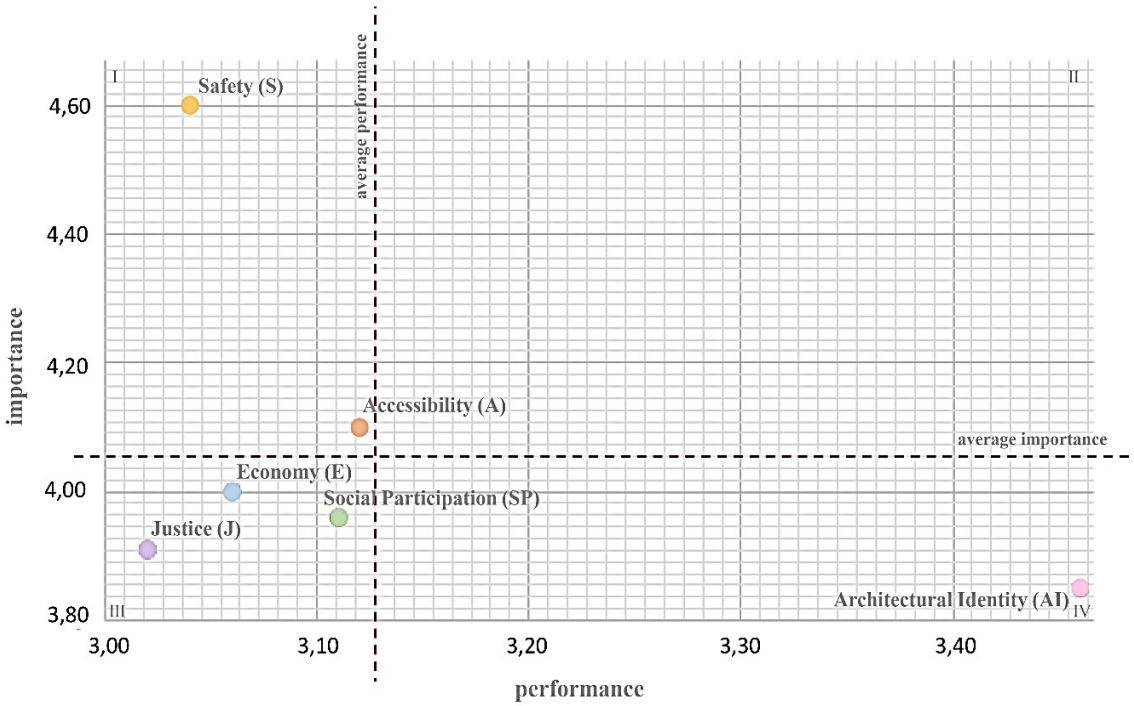
Social sustainability quality key indicator	Importance	Performance	Difference (I-P)
Social participation	3.96	3.11	0.85
Accessibility	4.10	3.12	0.98
Justice	3.91	3.02	0.89
Safety	4.60	3.04	1.56
Architectural identity	3.85	3.46	0.39
Economy	4.00	3.06	0.94
High difference		Low difference	

Table 3. Average and difference values for the main indicators of social sustainability quality. Source: Prepared by the Authors.

expectations regarding safety were the component of social sustainability with the highest importance, with an average score of 4.60 (Table 3).

An IPA matrix has been created for the key indicators of social participation, accessibility, fairness, safety, architectural identity, and economy of the boulevard shopping center structure (Figure 5). According to the IPA matrix, the average importance and average performance are shown with thick, dashed black lines. The "focus here" quadrant of the matrix shows that the safety criterion is at the forefront. Despite its high average importance, this criterion's performance is quite low. Parameters related to the safety of the complex have been the most critical area for improvement. This situation

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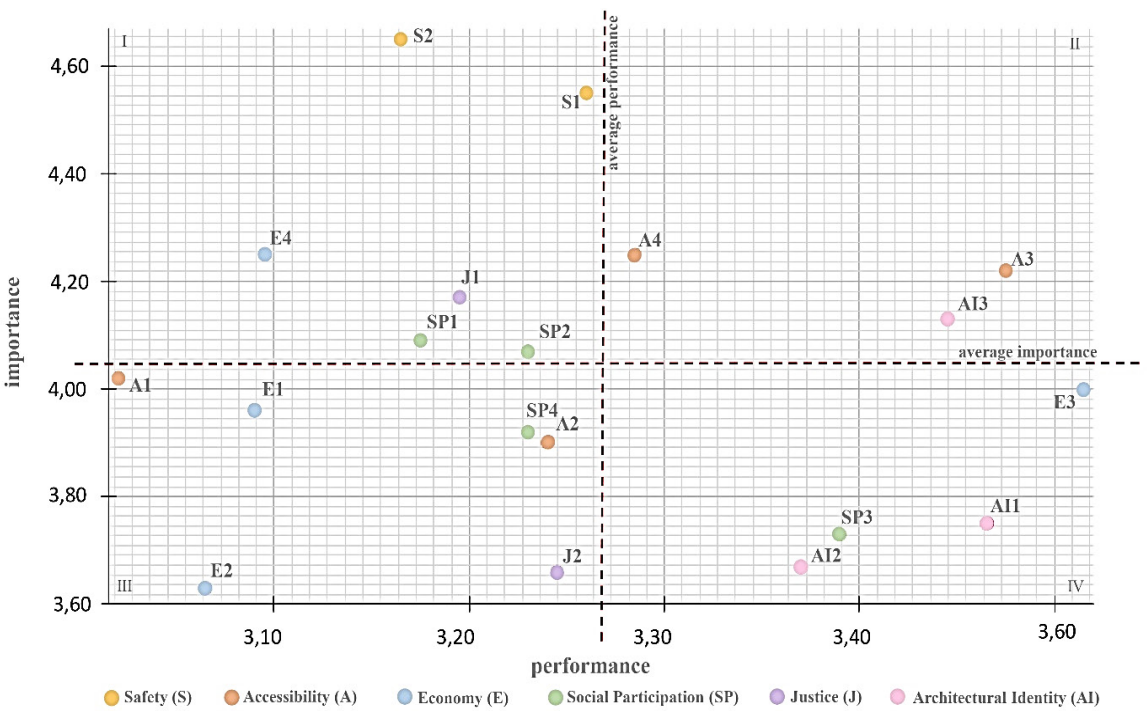


Figure 5. Main criteria of social sustainability. Source: Prepared by the Authors.

Figure 6. Sub-criteria of social sustainability. Source: Prepared by the Authors.

indicates that visitors experiencing the shopping center do not feel sufficiently safe and that the perception of spatial safety is inadequate. This situation can be attributed to the shopping center's location within a complex comprising open, semi-open, and closed spaces. The fact that circulation between spaces in the shopping experience is often provided through open or semi-open areas may have raised questions about safety. Added to this is the fact that the front of the enclosed blocks that make up the complex leads onto an open square

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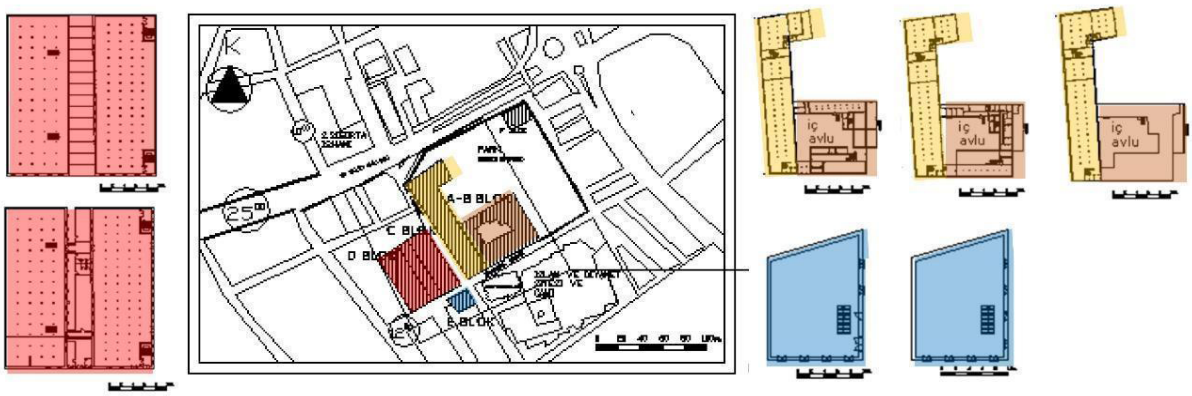


Figure 7. Layout plan. Source: Edited by the authors based on Özen & Sert (2013).

belonging to the shopping center. The accessibility indicator is another criterion that requires improvement, although it is also located in the same area. The performance value for the settlement's accessibility can again be linked to the fragmented layout of the original function. Considering the hierarchy of open, semi-open, and closed spaces, climatic comfort conditions may lead to accessibility disadvantages between spaces. Similar disadvantages may also exist in terms of accessibility for people with disabilities. The "continue to perform well" quadrant of the matrix shows strong, successful areas, and no main criteria are included in this quadrant. This indicates that the settlement's functional and relational practices can be reviewed within the framework of social sustainability.

In the "low priority" quadrant of the matrix, the justice indicator stands out as the most prominent criterion. This criterion, which has the lowest importance and performance according to users, does not appear to be a primary problem in the overall structure. This can be attributed to the center's different social spaces, primarily focused on shopping. Visitors' preference for spaces where they feel comfortable and can spend time enjoying themselves has influenced the importance and performance value of this criterion. The economy criterion also falls into the "low priority" quadrant, showing low performance in meeting user expectations. Social participation, also in a similar quadrant, is seen as a criterion open to improvement in the future. The architectural identity indicator in the "potential excess" quadrant of the matrix exhibits a balanced, well-performing distribution (Figure 5). This indicator shows that efforts have been made to preserve the building's architectural and spatial identity. However, users place less importance on this issue in the context of social sustainability. Considering the main indicators of social sustainability in the matrix, it is evident that improvements should primarily focus on the safety criterion. In addition to the main criteria matrix, importance-performance analyses of the sub-criteria were conducted in the study. For each sub-criterion, the average scores for users' importance and performance were calculated, and an IPA matrix with four quartiles was created (Figure 6).

The first quadrant of the matrix revealed that three critical areas require urgent improvement. These were the sub-criteria of "safety of the local environment" (S2), "perception of safety" (S1), and "employment" (E4).

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Figure 8. Transport routes. Source: photographed by the authors in November 2025.

Although these three criteria are the most important for users regarding the building's social sustainability, their current performance is low. Users were predominantly concerned about safety. This situation can be attributed to the shopping center complex's separate blocks, reflecting its unique function, rather than a single enclosed mass. This fragmentation in the complex resulted in a lack of defined entry and exit points and limited control and monitoring mechanisms (Figure 7).

The second quartile of the matrix shows that the top three criteria that stand out as important and high-performing for users are "environmental design" (A4), "economic diversity" (E3), and "transportation and mobility" (A3) (Figure 6). These criteria constitute the shopping center's strengths from an overall perspective. In this context, it shows that spatial quality and landscape design have a strong role in social sustainability. The high performance of this criterion indicates that the building is successful not only in terms of social sustainability but also in terms of spatial sustainability. Furthermore, in terms of economic diversity, the shopping options compatible with different price segments, appealing to a wide audience, have been at a sufficient level for users. On the other hand, in terms of transportation, the shopping center's location in the city center and its accessibility via various transportation options, such as buses and trams, are positive criteria for users (Figure 8).

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Figure 9. Social activity areas. Source: photographed by the authors in November 2025.

In the third quartile of the matrix, the criteria of "support for the local economy" (E2) and "community participation" (J2) stand out, having low importance and low performance according to users. While these criteria are important for long-term development, they have low priority. Users value the shopping center's contribution to local businesses and the local economic cycle, believing this will support social sustainability. Community participation, while a critical aspect of social sustainability, is of low importance to users. This indicates that community activities, such as social projects, remain insufficient (Figure 9). The fourth quartile of the matrix is the region with high performance but lower importance given by users. In this quartile, "preservation of local characteristics and historical values" (AI1), "place identity and belonging" (AI2), and "community bonding" (SP3) are the three prominent sub-criteria. Users find the transformation of the site from a tobacco factory and production center to a shopping center, and its suitability for the new function, successful. However, the relationship between shopping and the preservation of architectural values is not considered important within the scope of social sustainability. This situation is thought to be related to users viewing shopping malls primarily as places of consumption. Even if they are aware of the architectural value of shopping malls as venues for entertainment and socialization, they are believed to perceive their spatial impact only to a very limited extent.

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CONCLUSIONS

The study, conducted using IPA matrices, highlights the aspects that designers need to address and improve by considering user factors and attitudes during the repurposing process. Therefore, the results obtained from the analyses serve as a control mechanism for subsequent changes. This study, based on IPA principles, provides critical information regarding the sustainability of repurposed industrial buildings. The findings and recommendations are listed below.

- There is a need for improvements in the center's safety and accessibility indicators. Investment in these areas will undoubtedly enhance user satisfaction and strengthen social sustainability. In particular, the safety indicator is the area that most needs development. To achieve this, the shopping center and its immediate surroundings could increase security measures, such as camera systems and security personnel, to improve users' perception of safety. Ambient lighting could be installed in circulation areas and at car park entrances and exits. Traffic management and pedestrian safety could also be improved. Regarding the accessibility indicator, the transport networks are robust given the building's location. While the building is in the city center with access to various transport options, additional mobility solutions such as cycle paths and pedestrian-friendly walkways could be incorporated. Improvements to access within the complex's fragmented layout could also be proposed. In this regard, ramp solutions for circulation between blocks or spaces, as well as measures to enhance climatic comfort, could be implemented. Furthermore, to improve access to social events at the shopping center, the more effective use of digital screens and advertising hoardings, along with active sharing on social media and on the website, could be considered.

- The improvement of justice and economic indicators is, however, a lower priority. To ensure equal opportunities, directional signage could be added to help users with disabilities, those with children and the elderly locate circulation areas such as lifts and ramps. Additionally, increasing the number of information signs would make it easier to find shops, open spaces, car parks and similar venues. Conversely, special social areas could be designed for children and older people. To enhance inclusivity, the shopping center could organize events catering to all groups. To ensure the sustainability of economic indicators, the local population's labor potential could be utilized more effectively. Collaborations could be established to support local traders and businesses within the shopping center, and low-rent stalls could be provided. Local markets could be set up on specific days to sell fresh, locally sourced fruit and vegetables. Furthermore, new brands and sectors could be introduced to safeguard economic diversity.

- Although there does not appear to be a significant need to improve the social participation indicator, it is clear that supporting it through different activities is important for social sustainability. In this regard, sustainable social and cultural events could be organized. Ensuring

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these events are sustainable is key to maintaining social participation. For example, modular stages could be set up for workshops and simple performances, or multi-purpose spaces could be designed for artistic events. Holding these events in open spaces could increase public access. To strengthen social ties, open spaces could incorporate landscaping and seating arrangements to create meeting places.

- It is clear that improving the architectural identity is not a priority, given the efforts being made to preserve the site's historical and spatial context. However, the significance of the site's architectural identity can be emphasized by raising awareness of its original function, given its new functionality. This would strengthen users' awareness of heritage. This could be achieved by incorporating exhibitions on the building's history, digital simulations, and documentary screenings. Furthermore, green spaces could be utilized more to strengthen the site's environmental connections and enhance users' spatial experience.

With the implementation of these proposals, it is envisaged that the historic industrial site will become a socio-cultural hub and a shopping center. Integrating historic industrial heritage buildings or sites into everyday life brings multifaceted benefits to society. These transformations help preserve local identity and strengthen collective memory whilst creating dynamic public spaces that bring people from different walks of life together. Thus, preserving industrial heritage supports social sustainability and strengthens social bonds.

AUTHOR CONTRIBUTIONS CRediT

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