



# Identifying the Encouraging Factors of Adaptive Reuse: Heritage Shophouses in Georgetown, Penang, Malaysia

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## ABSTRACT

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The process of modifying or changing an old structure for a new use or purpose is known as "adaptive reuse." Recently, there has been a growing phase of development focused on adaptive reuse, reflecting an increasing recognition of its importance. This approach primarily aims to halt urban decay, promote social reform and preserve architectural and cultural heritage. Many of the shophouses are facing challenges related to preservation, maintenance and modern adaptation, posing a risk to their historical and cultural value. This study identifies the significant factors that encourage the adaptive reuse of heritage shophouses in this region. The research methodology employed was qualitative and utilizing interview techniques. Interviews were conducted with architects and technical assistants who have expertise in the adaptive reuse of heritage shophouses especially in Georgetown, Penang. Open-ended questions were carefully designed and distributed to the respondents during the interview sessions to gather detailed information about the factors promoting adaptive reuse of heritage shophouses in Georgetown, Penang. Through a thorough process of data analysis, the researcher identified the elements that support and encourage the adaptive reuse of heritage shophouses in Georgetown, Penang. The findings of the study showed that the most significant factors that encourage the adaptive reuse of heritage shophouses in Georgetown, Penang was to help to restore and enliven a city.

## 1. Introduction

Repurposing existing structures for new use or adaptive reuse, has become a crucial urban development approach especially when it comes to protecting architectural and cultural heritage. A UNESCO World Heritage Site, Georgetown, Penang is a prime example of adaptive reuse especially when it comes to its famous heritage shophouses. These shophouses, which symbolize the social and historical fabric of the area are not only visually stunning but also culturally significant because they represent a distinctive fusion of Eastern and Western architectural influences [8]. The adaptive reuse of these historic structures has drawn more attention in recent years as a means of halting urban deterioration, promoting economic expansion and preserving Georgetown's cultural landscape. This

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study aimed to appraise the adaptive reuse of heritage shophouses in Georgetown, Penang, identifying the significant factors that encourage such practices and evaluating their impact on urban development and heritage conservation.

Several crucial components become apparent during the data analysis process as being essential to the accomplishment of adaptive reuse initiatives in Georgetown. Strong legal frameworks that encourage the preservation of cultural assets, public knowledge and enjoyment of cultural heritage, and cooperative initiatives including public authorities, private developers and local communities are a few of these. Adaptive reuse requires a supportive environment, which can only be achieved *via* the implementation of effective legislative measures such as historic protection legislation and zoning rules [1]. Furthermore, public education and engagement programmers can help people appreciate historic structures on a deeper level and support conservation efforts in the community.

Heritage shophouses in Georgetown, Penang, are emblematic of the city's rich cultural and architectural history. However, these structures are increasingly threatened by a combination of factors related to preservation, maintenance and adaptation to modern needs. Many of these shophouses suffer from structural deterioration due to age, exposure to the elements and inadequate maintenance. Therefore, this study was done to find out the most important factors that encourage the reuse of heritage shop houses in Georgetown, Penang so that effective strategies can be developed to promote their sustainable preservation and adaptive reuse. By identifying the key factors that incentivize the restoration and contemporary utilization of these heritage structures, the study aims to provide actionable insights for stakeholders, including property owners, developers, conservationists and policymakers. This research will examine the economic, regulatory, social and technical aspects influencing the reuse of heritage shophouses, seeking to balance the need for preserving historical and cultural integrity with the demands of modern functionality.

## **2. Literature Review**

### **2.1 Adaptive Reuse**

Converting a building to accommodate a change in use, required by new or existing owners is known as adaptive reuse. The existing building or structures may need to be completely renovated or refurbished in order to accommodate the change of use. Adaptive reuse, as practised in the majority of Australian states, always entails physically altering a building's purpose if it is vacant or underutilized [7]. Building modifications may include extensive interior space reorganisation as well as service replacement or upgrades. As an alternative, adaptive reuse might just call for modest restoration efforts in which the building's intended use remains unchanged. The term "adaptive reuse" describes a particular type of redevelopment that employs existing building stock for modern purposes, even if that stock was constructed for antiquated reasons in the past. Renovating an old structure is implied by the adaptive reuse process. However, unlike restoration which ends with restoring a property to its previous state, adaptive reuse entails a change in use [9]. Over the past 20 years, there have been numerous instances of adaptive reuse projects where abandoned office buildings have been transformed into residential structures featuring either rental apartments or condominiums for sale. Another typical example of adaptive reuse are restaurants that were once industrial warehouses. Depending on the history of urban development and the current status of the national and regional economies, a multitude of alternative forms of adaptive reuse may be feasible [15].

## 2.2 Heritage Shophouses

According to Ali *et al.*, [2], the shophouse is an urban terrace house that dates back to the 18<sup>th</sup> and 19<sup>th</sup> centuries and is typical in Asian towns. A store or business space is typically located on the ground floor of a shophouse, with the family residing on the upper floor for convenience and security. The shophouse can also be fully utilized as a place to live. Shops are constructed in rows, with each row consisting of blocks encircling a grid of side roads, back lanes and main roadways. A shophouse is typically long and narrow, with two or three stories above ground, and it shares a "party" wall with its neighbours on either side. Every row of shophouses has a continuous, covered five-foot walkway in front of it, as well as an ornate façade that displays a historically inspired design.

The "heritage value" of a heritage shophouse can be determined in a variety of methods. First, historically, functionally, aesthetically, architecturally, scientifically and materially, built legacy possesses "special values or significance." The value of built heritage is diminished if its unique importance is disregarded or replaced. The second is historicity, which entails learning about the shophouse's historical era and architecture. Architecture is next. Discover the meanings and influences of other cultures on the shophouse's architecture, design and ornamentation. Not to be forgotten, materials. Learn about the customary building supplies and techniques that are appropriate for the neighborhood shophouse [3].

## 2.3 The Significant Factors that Encourage the Adaptive Reuse of Heritage Shophouses

Several researchers claim that the characteristics of adaptive reuse help to restore and enliven a city by evading demolition waste, encouraging recycling of the embodied dynamism, delivering substantial social and economic profits to the world, and covering the building's lifetime [4]. Adaptive reuse is the act of bringing fresh ideas and materials into an old building's interior while maintaining its core structure. By examining the quality of the ancient building, the procedure helps people relate to and learn about the life of their predecessor and the prior architectural advancements. By examining the quality of the ancient building, the procedure helps people link to and learn about the life of their predecessor and the earlier construction advancements. Besides, innovation can be found in architectural style and design, materials and texture, and building workmanship and construction [4]. Furthermore, adaptive reuse can save the costly process of demolition and reconstruction.

Remodelling an existing structure is more economical than demolishing and starting over, asserting that the erection of new structures will require a substantial amount of raw materials and energy and produce more carbon emissions than buildings that are already in place [5]. Older structures often consist of more strong materials and can last longer. Repurposing the building stock is a practical way to lessen any potential environmental effects that the construction sector may have.

According to Tu [17], adaptive reuse has a connection to leisure values such as social, health and self-improvement. Furthermore, the stakeholders will be able to improve the historic buildings' amenities and services, such as fire safety, sound insulation and disabled access, contributing to the adaptive reuse of heritage structures [6]. Hidayat [12] however, argued that adaptive reuse does not imply that the historic structure have to stay intact. Change is also required since, in the absence of such ability, the neighborhood will collapse because this building cannot support the new growth.

Moreover, incorporating modern architectural elements into adaptively reused historic buildings can draw attention to lively and visually stimulating areas [13]. Additionally, the reuse of an ancient structure enables future generations to recognize its identity as the old building has its own story due to its distinct architectural, aesthetic, political and social features from a different time [14]. Building

designers are therefore encouraged by the adaptive reuse method to carefully incorporate a contemporary layer while still paying homage to the past. Furthermore, according to Melis [15], the adaptive reuse strategy acts as a fundamental intervention in the process of repurposing existing structures and provides a deeper grasp of current technical and technological advancements.

### 3. Methodology

The methodology used in this study entailed the utilization of method or data sources to collect the results used by the researcher to obtain the significant factors that encourage the adaptive reuse of heritage shophouses in Georgetown, Penang. As a result, the researcher was able to collect accurate data and results to conduct the study effectively.

The study used semi-structured interviews as the primary data collection instrument. The interview questions focussed on identifying key elements that promote adaptive reuse, such as economic benefits, social and cultural value, architectural significance and regulatory frameworks. The respondents for the interviews were selected using purposive sampling, targeting three expert officers in heritage management: Two from the George Town World Heritage Incorporated (GTWHI) and one from the Penang Island City Council (MBPP). This selection was based on their extensive knowledge and involvement in the heritage management and conservation processes within Georgetown.

Purposive sampling was appropriate for this study as it allowed for the selection of individuals who have specific insights and experience relevant to the research objectives [16]. The interviews were recorded and transcribed to ensure accuracy in data capture. Subsequently, the data was analyzed using content analysis, a systematic coding and categorizing approach used for identifying patterns, themes and meanings within the qualitative data [10]. This method enabled the researcher to distill complex information into clear, significant factors that influence the adaptive reuse of heritage shophouses. Through this process, themes related to the economic viability, regulatory support, community engagement and preservation of cultural heritage were explored. The insights gained from these expert interviews provided a comprehensive understanding of the driving forces behind the adaptive reuse practices in Georgetown, contributing valuable knowledge to the field of heritage conservation.

### 4. Results and Discussion

Table 1 below shows the themes / results and the indicator factors that have been gathered during the interview session with all three respondents from officer experts in heritage management especially in heritage shophouses at Georgetown, Penang. Twelve questions were selected to be answered by them to analyze significant factors that encourage the adaptive reuse of heritage shophouses in Georgetown, Penang.

**Table 1**  
 Indicator factors from interview session

No.	Themes/Result	Indicator Factors
1	- Increased recognition and investment. - Stricter guidelines. - Enhanced community engagement.	- Maintain the Identity of the Building - Compliance with Guideline - Community Engagement
2	- Heritage events and festivals. - Valuable input and feedback. - Local businesses and residents. - Promoting the restored heritage shophouses.	- Help to Restore and Enliven a City - Community Engagement - Community Engagement - Maintain the Identity of the Building

3	<ul style="list-style-type: none"> <li>- Provides technical expertise and guidance.</li> <li>- Administers grants.</li> <li>- Conducts research and documentation of heritage buildings.</li> <li>- Oversees planning and zoning regulations.</li> <li>- Provides permits and approvals necessary for renovation.</li> </ul>	<ul style="list-style-type: none"> <li>- Compliance with Guideline</li> <li>- Compliance with Guideline</li> <li>- Maintain the Identity of the Building</li> <li>- Compliance with Guideline</li> <li>- Compliance with Guideline</li> </ul>
4	<ul style="list-style-type: none"> <li>- Balancing modern functionality</li> <li>- Regulatory compliance</li> <li>- Obtaining necessary permits and approvals</li> <li>- Structural stability and material conservation</li> </ul>	<ul style="list-style-type: none"> <li>- Highlight Vibrant and Visually Spaces</li> <li>- Compliance with Guideline</li> <li>- Compliance with Guideline</li> <li>- Help to Restore and Enliven a City</li> </ul>
5	<ul style="list-style-type: none"> <li>- Boutique hotel</li> <li>- Cultural center</li> <li>- Thriving café</li> </ul>	<ul style="list-style-type: none"> <li>- Help to Restore and Enliven a City</li> <li>- Help to Restore and Enliven a City</li> <li>- Help to Restore and Enliven a City</li> <li>- Help to Restore and Enliven a City</li> </ul>
6	<ul style="list-style-type: none"> <li>- Financial incentives and grants</li> <li>- Market demand and trends</li> <li>- Rental income potential and operational costs</li> </ul>	<ul style="list-style-type: none"> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Attract Tenants to Occupy the Designated Premise</li> </ul>
7	<ul style="list-style-type: none"> <li>- Financial incentives.</li> <li>- Technical assistance and guidelines.</li> <li>- Facilitates partnerships between owners and developers.</li> <li>- Promote heritage tourism initiatives.</li> <li>- Expedited permit.</li> <li>- Processing and fee waivers.</li> <li>- Zoning relaxations and flexibility in land use regulations.</li> </ul>	<ul style="list-style-type: none"> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Help to Restore and Enliven a City</li> <li>- Help to Restore and Enliven a City</li> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Attract Tenants to Occupy the Designated Premise</li> <li>- Compliance with Guideline</li> </ul>
8	<ul style="list-style-type: none"> <li>- Create a sense of identity and belonging for local communities.</li> <li>- Owners and developers recognize the marketability of authentic cultural experiences.</li> <li>- Stringent conservation guidelines and oversight.</li> </ul>	<ul style="list-style-type: none"> <li>- Help to Restore and Enliven a City</li> <li>- Help to Restore and Enliven a City</li> <li>- Compliance with Guideline</li> </ul>
9	<ul style="list-style-type: none"> <li>- Contributing local knowledge and skills.</li> <li>- Promote the cultural significance of heritage shophouses through educational programs and events.</li> <li>- Community input.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintain the Identity of the Building</li> <li>- Maintain the Identity of the Building</li> <li>- Maintain the Identity of the Building</li> </ul>
10	<ul style="list-style-type: none"> <li>- Ensure the economic viability of adaptive reuse projects.</li> <li>- Environmental sustainability.</li> <li>- Fostering inclusive spaces within heritage shophouses.</li> </ul>	<ul style="list-style-type: none"> <li>- More Cost Effective</li> <li>- Environmental Sustainability</li> <li>- Highlight Vibrant and Visually Spaces</li> </ul>
11	<ul style="list-style-type: none"> <li>- Preserving architectural heritage and promoting traditional crafts.</li> <li>- Transforming vacant shophouses into boutique hotels, galleries, or cafes.</li> <li>- Integrating mixed-use developments that combine residential, commercial, and cultural functions.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintain the Identity of the Building</li> <li>- Help to Restore and Enliven a city</li> <li>- Help to Restore and Enliven a city</li> </ul>
12	<ul style="list-style-type: none"> <li>What are the main factors driving the adaptive reuse of heritage shophouses in George Town?</li> <li>- Help to Restore and Enliven a city</li> <li>- More Cost Effective</li> <li>- Highlight Vibrant and Visually Spaces</li> <li>- Maintain the Identity of the Building</li> </ul>	<ul style="list-style-type: none"> <li>- Help to Restore and Enliven a city</li> </ul>

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- Attract Tenants to Occupy the Designated Premise
  - Compliance with Guideline
  - Environmental Sustainability
  - Community Engagement
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The results showed that adaptive reuse of heritage shophouses in Georgetown, Penang is driven by several key factors, primarily focused on restoring and enlivening the city, maintaining the identity of the buildings and attract tenants to occupy the designated premise. These factors are interconnected and have become pivotal due to the unique cultural, historical and environmental context of the region.

Firstly, from the result of interview session with all three respondents from expert officers in adaptive reuse, the most significant factor that was identified is to help restore and enliven a city. The restoration and enlivenment of Georgetown through adaptive reuse played a crucial role in preserving the city's rich historical and architectural legacy. Georgetown, a UNESCO World Heritage site, boasts a significant number of heritage shophouses that reflect the multicultural history of Penang. By repurposing these buildings, the city can retain its distinctive character and charm, which is essential for both residents and tourists. This approach not only revitalizes the urban fabric but also stimulates local economies by attracting businesses and visitors, thereby fostering a vibrant community atmosphere. According to Hamzah and Yusof [11], such revitalization efforts help in preserving the architectural heritage while adapting to contemporary uses, thus ensuring that the historical essence of the city is not lost amidst modernization efforts.

Secondly, the results from this interview session also shows that the second most important factor found was compliance with guidelines. It have emerged as a crucial element driving the adaptive reuse of heritage shophouses in Georgetown, Penang Georgetown that is well known for its rich architectural history and cultural value. It is a UNESCO World Heritage Site. This is because standards offer property owners and developers with a systematic and supportive framework. A careful balance was needed to preserve this legacy while meeting contemporary demands. The standards established by preservation organizations and municipal agencies provided a model for preserving these buildings' historical character while permitting modern usage. These guidelines ensure that any modifications were in keeping with the historical context by covering a wide range of topics, such as architectural features, materials, building techniques and usage regulations.

In addition, the results also show that attracting tenants to occupy the designated premise and maintaining the identity of the building have the same key element factors that were mentioned by the three respondents.

Maintaining the identity of the buildings is another crucial factor. Heritage shophouses in Georgetown are emblematic of the city's cultural and historical identity, featuring unique architectural styles that blend Chinese, Malay and colonial influences. Adaptive reuse ensures that these structures are not demolished or replaced by modern buildings that lack historical significance. Instead, they are given new life and purpose while retaining their original architectural elements and cultural significance. This preservation of identity is essential for fostering a sense of place and continuity within the community. As noted by Hidayat and Noor [12], adaptive reuse projects often involve careful restoration that respects the original design and craftsmanship, which helps in maintaining the cultural heritage of the area. Attracting tenants to occupy the designated premise is also important. This is due to the economic and cultural vibrancy it brings to the area. Georgetown, a UNESCO World Heritage Site, is home to numerous heritage shophouses that reflect its rich multicultural history. However, preserving these buildings while ensuring they remain functional and economically viable poses a challenge. Adaptive reuse, which involves repurposing old buildings for

new uses while retaining their historic features, helps in this regard by making these heritage sites attractive to modern tenants.

Environmental sustainability is also a key driver behind the adaptive reuse of heritage shophouses. Reusing existing buildings significantly reduces the environmental impact associated with demolition and new construction. It conserves resources by minimizing the need for new materials and reduces waste and energy consumption. This sustainable approach aligns with global efforts to promote green building practices and mitigate climate change. Furthermore, heritage shophouses are often constructed with traditional materials and techniques that are inherently sustainable, such as natural ventilation and durable construction methods. According to Wong [18], adaptive reuse of these buildings can lead to substantial energy savings and contribute to more sustainable urban development.

## 5. Conclusion

In conclusion, the adaptive reuse of heritage shophouses in Georgetown, Penang is fundamentally encouraged by the need to restore and enliven the city, maintaining the identity of the buildings and promote environmental sustainability. These factors are deeply intertwined with the preservation of Georgetown's rich historical and architectural heritage, which is crucial for retaining the city's unique character and cultural significance as a UNESCO World Heritage site. The restoration and adaptive reuse of these structures breathe new life into the urban landscape, transforming it into a vibrant and economically thriving community. Maintaining the identity of these shophouses ensures that the cultural and historical essence of the city is preserved, fostering a strong sense of place and continuity for both residents and visitors.

Moreover, the focus on environmental sustainability highlights the importance of conserving resources, reducing waste and promoting energy efficiency through the reuse of existing buildings. This sustainable approach aligns with global efforts to address climate change and promote green building practices. Studying these factors is crucial as it provides insights into effective strategies for heritage conservation, urban revitalization and sustainable development, offering a model for other historical cities facing similar challenges. The careful balance of preservation and modernization in Georgetown serves as a testament to the potential of adaptive reuse in fostering culturally vibrant, economically resilient and environmentally sustainable urban environments.

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