

## RESEARCH ARTICLE

# A trip down memory lane: Sustaining collective memory through old shophouses in Jalan Mendaling Kajang, Selangor

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## ABSTRACT

This research focuses on the adaptive reuse of old shophouses in Jalan Mendaling Kajang, Selangor. The city's modern development has caused some old shophouses to be abandoned and demolished. Some of them have been renovated to lose their heritage value. This study aims to understand the form of adaptive reuse of shophouses in Jalan Mendaling Kajang and to measure the community's perception of the adaptive reuse of heritage buildings in preserving their collective memory through heritage values, a sense of belongingness, and sustainability. This study used a mixed-method approach, combining a qualitative and quantitative analysis to provide research rigour. The quantitative data collection was conducted through a survey in the form of questionnaires given randomly to 386 respondents. The sampling selection was determined using Krecjie Morgan's table. Meanwhile, the qualitative data collection involves an interview session with several informants from the professionals of Kajang Municipal Council, the premises owners, and the local community. Direct observation of shophouses in Jalan Mendaling Kajang was also conducted. In the meantime, the qualitative data were analysed using six steps thematic analysis by Clarke and Braun, whereas the quantitative data were analysed using Statistical Package for Social Science (SPSS) using descriptive analysis. The result highlights the role of the old shophouses in preserving the community's collective memories of the past, which evokes their sense of identity and belongingness and eventually promotes heritage sustainability. This research contributes as a reference for the adaptive reuse of old shophouses in preserving and conserving old shophouses in the future in connecting the community's identities and sense of belongingness through collective memories of the past.

**Keywords:** adaptive reuse; collective memory; old shophouses; sustainable heritage management; sense of belonging

## 1. Introduction

Heritage buildings are considered essential assets that need protection due to their manifestations of geographical, localities and identities of the past<sup>[1]</sup>. This is true in the context of old shophouses, as it reflects the cities' developments, evolution, and morphologies. In the postmodern era where people look for uniqueness, the adaptive reuse of old buildings meets the current demand for aesthetic structures and façades. However it is also important to note that the adaptive reuse has continuous existing conflicts of interest and value prioritization<sup>[2]</sup> especially between community and authority. Among the strongest reasons for adapting

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heritage buildings are their identity and values<sup>[3]</sup>. Within the context of adaptive reuse, the terms “place” and “authenticity” are often the most perplexing. Despite multiple various definitions of adaptive reuse, their subjective nature poses a challenge in recognizing and preserving their associated values. Ultimately, being unable to value the old building could lead to demolition. One example in Malaysia concerning an old building is the Pudu Prison. The Pudu Prison has been demolished to make way for new developments due to perceived values that no longer serve the society’s economic and social benefit. Kajang, located in Hulu Langat, is one of Malaysia’s oldest cities. It is a 22.4-kilometre-distance satellite town of Kuala Lumpur, and its historic old town centre serves as a reminder of its past expansion, fueled by the pioneering spirit and labour of Mandailing, Javanese, Tamil, Hakka, Cantonese, Hokkien, and other migrants and immigrants<sup>[4]</sup>. The origins of this historic town can be traced to the early 19th century when Raja Barayun, a Mandailing descendant, along with fellow Sumatran Malays, founded it on the present-day Jalan Mendaling in Kajang. This marked the beginnings of early architectural developments, establishments, and villages in the area<sup>[5]</sup>. According to the population of the local government areas, Kajang is Malaysia’s third biggest town. Klang, Subang Jaya, and Kajang should be deemed cities based on population alone. Despite being in Selangor, each of these locations has a distinct personality, size, demographics, ethnic composition, and culture<sup>[6]</sup>.

The city boasts a notable collection of longstanding architectural landmarks, with several structures having endured for over a century. Among these venerable edifices are the post office, police station, school, and a series of historic shophouses. Kajang lays claim to a total of 111 heritage shophouses, distributed across key areas, including Jalan Tukang (10), Jalan Sulaiman (23), Jalan Besar (4), and Jalan Mendaling (29)<sup>[5]</sup>. The blossoming of the building in the cities also marks an essential evolution signified through varieties of culture, arts, beliefs, and traditions entangled to form harmonious and stable lifestyles<sup>[7]</sup>. Despite being a protected historic building, the owner neglected a few structures, resulting in a weak structure and façade. Negligence may be caused by financial troubles in which owners are unable to maintain the structures and finally decide to demolish the old structure and construct a new one that is more cost-effective<sup>[8]</sup>. Meanwhile, a few buildings have been used adaptive reuse to protect historic structures. Adaptive reuse can be a component of a successful plan to revitalise old shophouses in Jalan Mendaling’s urban districts, Kajang. Although most of the historic shophouses in Jalan Mendaling Kajang have changed their original business form and undergone architectural transformations from their original design, 78% of them still retain their original purpose as business premises<sup>[9]</sup>. It is more common when the original function is visible on the bottom floor, but the top floor has been repurposed. Because the buildings on Jalan Mendaling are located on Kajang City’s main traffic route, it was discovered that the ancient shophouses that had been left unoccupied largely required a suitable business plan. This is significant because adaptive reuse is an outstanding effort that not only saves historical treasures for future generations but also serves as a stimulus for tourism growth and generates revenue for the community<sup>[10]</sup>. Furthermore, adaptive reuse acts as a regeneration programme that should be implemented to recover the riches of the illustrious past of historic cities and to enhance the lifestyle of its inhabitants, as the vibrancy of a heritage site is only meaningful when its original community continues<sup>[11]</sup>.

Most shophouses still maintain the same ownership but the current generation is not interested in preserving and conserving the buildings resulting in a negative impact on tenants and the surrounding community. Consequently, the situation also affected the economic activities in the town of Kajang, where new traders are not attracted to old shophouses due to dilapidated buildings<sup>[12]</sup>. Despite various studies on the importance of adaptive reuse on the economic well-being of the community, and satisfaction among visitors<sup>[10]</sup>, this study found a limitation in the scope of research regarding the importance of adaptive reuse towards the community’s sense of belongingness in preserving their collective memories. Thus, this research seeks to understand the form of adaptive reuse of shophouses in Jalan Mendaling Kajang and to measure the

community's perception of the adaptive reuse of heritage buildings in preserving their collective memory through heritage values, a sense of belongingness, and sustainability.

### **Research problems**

Old shophouses were demolished and rebuilt to fit modern and contemporary needs. However, they should be protected and preserved under law and enforcement as the old buildings serve as a crucial symbol for Malaysians in nation-building<sup>[13]</sup>. Through interventions and efforts such as adaptive reuse of the old building, it will indirectly preserve the collective memories of the locals. Rows of the buildings were seen alongside the Mendaling Road, Jalan Tengah, Jalan Besar and Jalan Tukang, known as the old towns of Kajang, rich in historical remains of the past<sup>[14]</sup>. The old shophouses in Kajang have undergone quick renovation, and the stakeholders do not care about the conservation activities towards the old shophouses. Without proper guidance, the property owner is left without knowledge about conservation.

Furthermore, the lack of initiative from stakeholders to preserve and conserve these shophouses is also among the reasons why the building is poorly maintained. Hence the preservation and conservation activities of these old and historic shophouses need to be given more serious attention by the State Government and local authorities. This effort to preserve the old shophouses' structure, façade, value, and aesthetics can indirectly attract tourists to the cities<sup>[12,15,16]</sup>. Hence this study seeks to understand forms of adaptive reuse towards shophouses in Jalan Mendaling Kajang and to identify the effectiveness of adaptive reuse techniques on the shophouses in protecting the heritage values of the city in Jalan Mendaling Kajang.

## **2. Literature review**

Adaptive reuse refers to the practice of repurposing buildings originally designed for different uses, often in cases where they have faced economic or social challenges and abandonment, with the aim of giving them a new, viable purpose in the future<sup>[17]</sup> offering holistic solutions to urban challenges by fostering positive environmental effects, promoting social engagement, and stimulating economic vitality, particularly through cultural endeavors<sup>[2]</sup>. Often the repurposing buildings for new uses ranging from minor changes to complete renovations, and when applied to heritage structures, it conserves both their physical and cultural significance, expanding to include less prestigious buildings and offering sustainability benefits in terms of environmental and economic efficiency<sup>[18]</sup>. The hallmark of adaptive reuse is emphasizing reversible changes to maintain cultural values, which requires understanding and potentially navigating conflicts arising from different groups' varying values attached to these structures<sup>[3]</sup>.

The conservation of heritage buildings needs to be done by the stakeholders responsible for planning, managing, conserving, and controlling these heritage properties and sites so that they continue to be in good condition<sup>[19]</sup>. Awareness of conservation activities for these heritage buildings is still weak and lacks support from the local community. The management of heritage buildings also faces various problems, especially from the legal aspect. This problem is a growing agenda and haunts the conservation of buildings in Malaysia<sup>[1]</sup>. The old shophouses is one of the primary building components established in the old city<sup>[20]</sup>. This old shophouses is also known for its unique architectural structure with a diverse mix of community identities. The unique design of these old shophouses has made it valuable and should be preserved so that it remains relevant for future generations. The variety of old shophouses found throughout the country can symbolise not only in terms of economic maturity in a city, but also measure the taste of the design and artistic nature of the building from time to time<sup>[21]</sup>. The old shophouses are also one of the buildings that have applied many adaptive reuse techniques in the conservation measures. The old shophouses that have applied many adaptive reuse techniques as a conservation measure are the old shophouses in Melaka and Georgetown, Penang. This

measure will not only protect the heritage value found in these old shophouses, but it will also attract more tourists. There are also many adaptive reuse options available for old shophouses. Among the most popular are industrial buildings to museums, art studios, direct work units, offices, residential units, schools, retail, cafes and so on<sup>[22]</sup>. In summary, this old shophouses building is considered unique, vital to a city, and worth preserving.

### **2.1. Effectiveness of adaptive reuse**

Adaptive reuse is part of the methods in heritage conservation. It involves a conservation activity for heritage buildings by reusing or giving new life to the heritage building. It consists in changing the original function to meet the needs of the current role and developments<sup>[23]</sup>. Adaptive reuse of historic buildings should be part of an industrial strategy rather than demolishing and developing a new building. It is because adaptive reuse helps the communities, governments, and developers reduce the undesirable impacts on the environment, society, and economy<sup>[24]</sup>, consequently promoting environmentally friendly and sustainable heritage management. Moreover, it can reduce the cost of demolition and redevelopment of new buildings. In addition, the adaptive reuse of old building help boosts the spirit and a sense of belonging in the community<sup>[20]</sup>. It is seen to have a profound effect on the local community in the city. In recent years, the adaptive reuse of heritage buildings has emerged rapidly compared to previous years when many buildings suffered from poor building conditions<sup>[23]</sup>. This trend has also been widely accepted in the Malaysian context as it promotes sustainability.

### **2.2. Social sustainability in collective memories through adaptive reuse building**

There has been a demand in research emphasizing the importance of social sustainability in heritage buildings signified through its cultural and social, aesthetical, and human comfort values. Studies show that heritage building prevails over its significance as a place of social interaction<sup>[25]</sup>. It denotes the importance of space perception and appreciation through human experience and past usage and collective memory's effect on an adaptive reuse building. In this context, collective memory is a shared group recollection, emphasizes the social and political disputes inherent in historical accounts. It's a dynamic arena where local communities engage in an ongoing struggle against elites and authorities to control their interpretation of the past. This contestation occurs in various settings like family discussions, museums, monuments, textbooks, and national holidays<sup>[26,27]</sup>. The embodied collective memory within the historical structures should be considered to preserve the old building. The preservation of the essence of the past and its experience attached to the building will increase the users' emotional experience, consequently preserving the building's significance<sup>[28]</sup>. This statement is supported by a study on visitor satisfaction towards adaptive reuse buildings. Tourists highly acknowledged the practices of adaptive reuse of historic buildings. Most tourists perceive the adaptive reuse of historic buildings to influence their appreciation level and subsequently translate it into their actual visitation<sup>[10]</sup>. Hence adaptive reuse should be understood as utilising a concept of structures existing in different states of permanence, with varying influences on memory and an effort to preserve the collective memory of the past transcending the present<sup>[29]</sup>. In ensuring sustainable heritage management, it is crucial to understand the importance of adaptive reuse. One of them is through a clear understanding that the old building poses attributes and values which does not necessarily reside within its structures. Instead, it is reflected in people's meaning, experience, and perception derived from their interaction with the building. From here, collective memory is regarded as a tool for the sense of place in the adaptive reuse of heritage buildings<sup>[30]</sup>. It is through the culture that the community has with the building that creates memories and gives the city life and meaning. Therefore, tearing down heritage buildings is more than just erasing building material, but also a vital link to the past and connection to the city. Adaptive reuse provides a way to maintain our connections to the past while meeting the ever-changing needs of the present<sup>[31]</sup>.

### 3. Methodology/materials

This study uses a mixed method approach whereby quantitative and qualitative approaches were used. As for qualitative approaches, semi-structured interviews were arranged with four informants from the professionals of Kajang Municipal Council, the premises owners, and the local community in Jalan Mendaling Kajang, Selangor. During the field study, observation was also made to see the old shophouses undergoing adaptive reuse in Kajang. This observation helps the researcher understand the fundamental phenomenon of adaptive reuse in Kajang. Meanwhile, quantitative research involves a survey of locals who live in Kajang to measure the extent of adaptive reuse protecting heritage property in Kajang. This quantitative approach uses probability sampling with simple random techniques whereby random sets of surveys were given to locals living in Kajang online using five-point Likert scale techniques. The survey was disseminated and posted to social media. Using the table to determine sample size from a given population<sup>[32]</sup>, 386 respondents were selected from the total population of Kajang 908,874 with a reliability of 95%. Data were analysed using descriptive analysis using IBM SPSS statistic version 26. Descriptive analysis is used to visualise trends and relationships systematically. For qualitative approaches, non-probability sampling was used, whereas the snowball technique<sup>[33]</sup> was used. This method is useful when researchers know little about the studied group and organisation. Hence the selection of research sampling is helpful for this kind of communication and decision-making<sup>[34]</sup>. Finally, this research also uses thematic analysis in analysing the qualitative data. Thematic analysis is a flexible analysis used to answer research and observations<sup>[35,36,37]</sup>, where themes and coding were formed based on the interview scripts guided by the research objective. It will eventually lead to the final phase, where data from the literature review, survey, observation, and interview will be triangulated to form an inclusive result discussion.

### 4. Results and findings

The first stage of data analysis is to analyse primary data derived from survey respondents who live in Jalan Mendaling Kajang. The sample consisted of 163 (42.2%) male and 223 (57.8%) female respondents (N = 386). Fundamental demographic analyses were done to understand respondents' backgrounds and experiences living in Jalan Mendaling Kajang, which may affect their perception of adaptive reuse, as presented below.

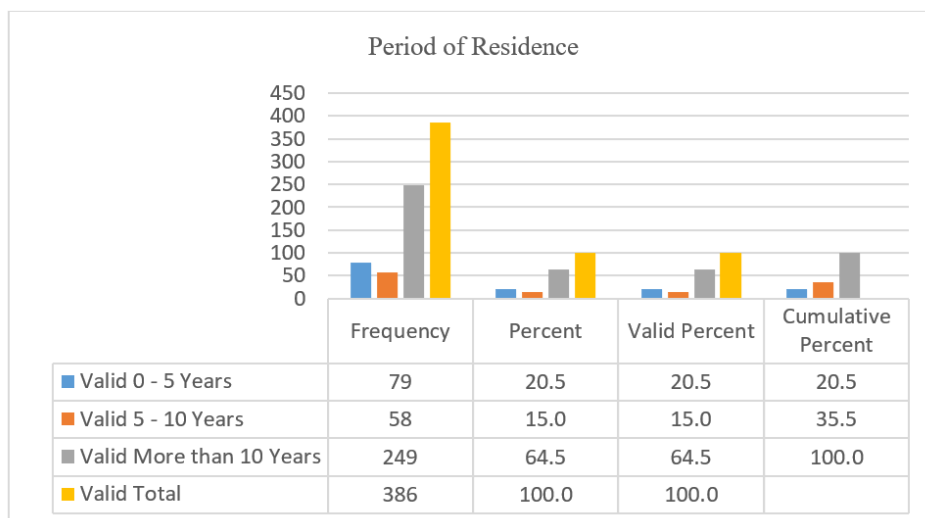
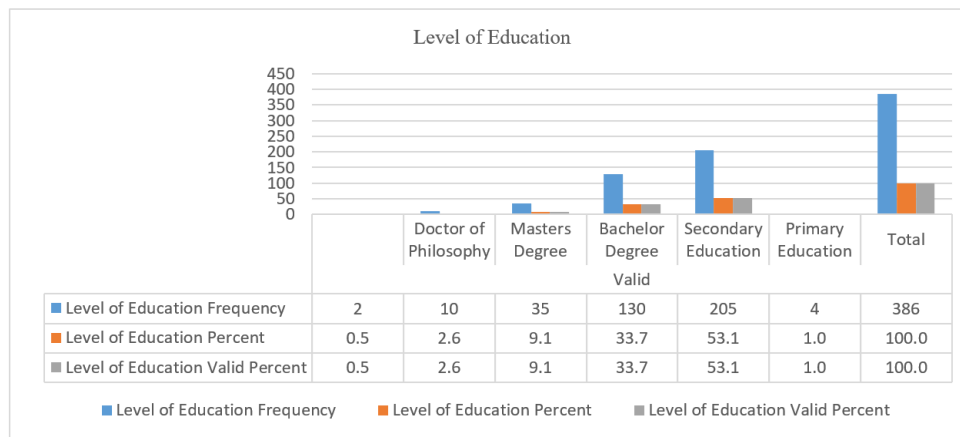


Figure 1. Period of residence in Kajang.

Figure 1 shows that 249 (64.5%) of the respondents have been living in Kajang for more than ten years,

whereas 58 (15%) of them have been living in Kajang for the past five to ten years). Finally, only 79 (20.5%) of the respondents have lived in Kajang for less than five years. In the meantime, the level of education also plays a significant role in affecting the community’s perception of adaptive reuse, as presented below.

**Figure 2** shows the respondents’ level of education as 205 (53.1%) respondents have a Bachelor’s Degree, whereas 130 (33.7%) respondents finished their secondary education. In addition, 35 (9.1%) respondents have a Masters’s degree, and finally, only ten (2.6%) have a Doctor of Philosophy. It shows that the respondents who live in Kajang are highly educated, as only 1% of the sample population has at least entered primary education. It is interesting to note that almost all the population residing in Kajang consists of Malay communities (see **Table 1**).



**Figure 2.** Level of education.

**Table 1.** Ethnicities.

Ethnicities		Frequency	Percent	Valid percent	Cumulative percent
<b>Valid</b>	<b>Chinese</b>	12	3.1	3.1	4.1
	<b>Indian</b>	7	1.8	1.8	6.0
	<b>Malay</b>	360	93.3	93.3	99.2
	<b>Others</b>	7	1.8	1.8	6.0
	<b>Total</b>	386	100.0	100.0	

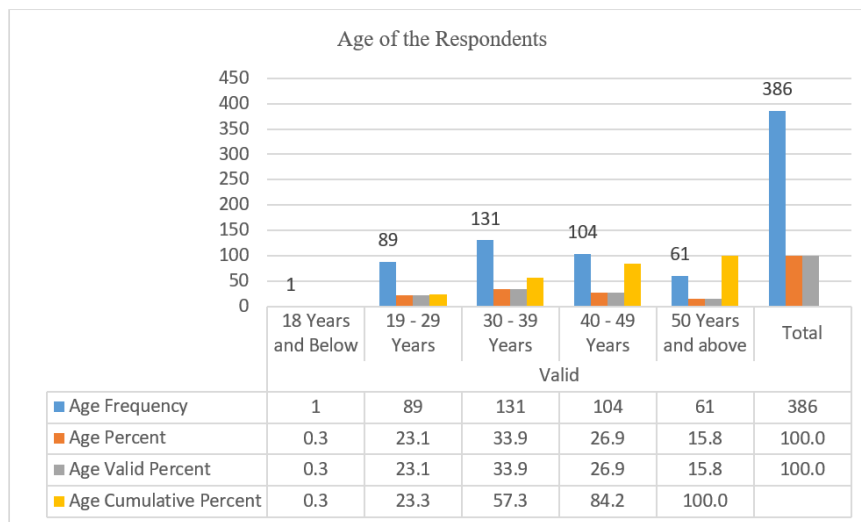
**Table 1** shows that Kajang is mainly populated by 93.3% (360) Malays, followed by a minimal amount of 3.1% (12) Chinese population and 1.8% (7) Indian, finally 1.8% (7) others. Another point to highlight, Kajang residents are populated mainly by young adults to middle-aged adults (30–50 years old), as presented in **Table 2** below.

**Figure 3** shows that most respondents were aged between 30–39 (33.9%) and 40–49 (26.9%) years old. Meanwhile, a moderate number of respondents were between 19–29 years old (23.1%) and 50 years old and above (15.8%). Only one (0.3%) of the respondents were between 19 years and below. Thus, results indicate that most of the population living in Jalan Mendaling Kajang are by 30–50 years old respondents. This result parallels with the respondent’s period of residency, as most of them have been living in Kajang for the past five to ten years or more.

**Table 2.** Mean score of community’s perception on adaptive reuse of heritage building in promoting heritage values in Jalan Mendaling Kajang.

Descriptive statistics			
	N	Mean	Std. Deviation
The adaptive reuse technique provides charm in the middle of a modern city.	386	4.66	0.582
The adaptive reuse technique can increase awareness in the local community to protect heritage assets.	386	4.64	0.663
The adaptive reuse technique empowers creative society by giving new meaning to an old building.	386	4.63	0.680
The adaptive reuse technique can expose the community to historical knowledge.	386	4.56	0.655
The adaptive reuse technique can attract young people to appreciate the heritage.	386	4.56	0.701
<b>Valid N (listwise)</b>	386		

Source: Author 2021.



**Figure 3.** Respondent’s age.

#### 4.1. Forms of adaptive reuse of the old building in Jalan Mendaling Kajang

The following data analysis was conducted to assess the form of adaptive reused applied by shop owners. This data was collected based on the field survey and interviews with professionals and shop owners in Jalan Mendaling Kajang. As mentioned before, building and architecture are catalysts for cities’ development<sup>[38]</sup>. As the city evolved and developed, many new buildings were built side by side. To top off that, most of the old buildings still exist and require some intervention to suit new functions without undermining their original structures. For a building to be adapted for reuse, a few criteria should be assessed, such as economic, environment, social, architecture, technology, and legislative<sup>[39]</sup>. Based on the field study, few buildings incorporated adaptive reuse, whereas some maintain the original building and structures and interior design. Also, some have done significant changes to the building, affecting the shophouses’ original features.



**Figure 4.** Old shophouses which have undergone adaptive reuse.

Source: Field study by the authors, 2021.

**Figure 4** shows one of the old shophouses, which has successfully gone through adaptive reuse without changing the original features and appearance of the buildings. Based on the observation done on-site, most of the original elements of the building were maintained, including the building façade and original structure of the building. According to an informant who owns the old shophouses, one of the conditions for applying adaptive reuse is to ensure that the building is close to the original structures and minimal interference is taken, as presented below.

*Our building appearance has not changed much because we want the appearance of this old building to be maintained so that the next generation can see... this old building again... (R4, Field Study, 15 Oct 2021).*

Whereas from the perspective of the professionals from Kajang Municipal Council who claim that not many of the owners use adaptive reuse towards their property. This is primarily due to their understanding of losing connections with their ancestors.

*If we see for ourselves in the city of Kajang, there are not many shops that use this adaptive reuse method, there are many shops that still keep this building without changing anything, especially the facade of the building, and most of them want to continue the legacy of their grandparents... Only a few shops changed the building a bit, so.... That satay restaurant, right? (R1, Field Study, 5 Oct 2021).*

In addition, based on field study, the original shophouses have been adapted into cafes and restaurants with minimal interior design and intervention, as presented in **Figure 5**. The rest prefer to maintain their original structure, façade and interior, as presented in **Figure 6**.



**Figure 5.** Interior design of Satay Putera Restaurant Jalan Mendaling, Kajang.

Source: Field study by the authors, 2021.





**Figure 6.** Kah Chong Key & Lock Enterprise, Jalan Mendaling, Kajang.

Source: Field study by the authors, 2021

*Usually, the restaurants are among the buildings which has been applied adaptive reuse with a more classic atmosphere... meanwhile... many shops still maintained the original structure of the old building like before, such as the lock shop and bike shop. They still maintain the legacy of their ancestors (R2, Field Study, 7 Oct 2021).*

Based on the interview scripts above, most old shophouses have gone adaptive reuse for a restaurant and cafés. Meanwhile, based on the field study observation, Satay Putera Restaurant, located in Jalan Mendaling Kajang, has retained many original structures, such as the facade of the building, walls, and even the roof of this old shophouses. Meanwhile, the locksmith shop, Kah Chong Key & Lock Enterprise, chose to preserve this old shophouses' original elements and structure. The facade of this building still looks as magnificent as it was a hundred years ago.

Hence, it is important to note that the local's understanding of what constitutes adaptive reuse is different from that of professional stands. It is understandable as the community owns not only the old shophouses but also the memories and connections to the old building. Changing the building even to a minimal amount is feared to have changed their sense of continuity with their past. Therefore, a perception analysis is carried out to further understand community's perception of their sense of continuity and belongingness.

#### **4.2. Community's perception of adaptive reuse of the old shophouses, Jalan Mendaling Kajang in promoting heritage values, sense of belongingness and sustainability**

The subsequent data analysis was conducted to assess the community's perception of the adaptive reuse of the old shophouses in Jalan Mendaling Kajang in promoting heritage values, a sense of belongingness and sustainability. A sample survey of 386 out of 908,874 total population responded to the question with 95% of reliability. A five-point likert scale was used to determine if respondents agreed or disagreed with statements measuring their satisfaction or dissatisfaction towards the preference of using adaptive reuse regarding a few items questioned below.

**Table 2** summarizes the mean scores of the community's perceptions of adaptive reuse of heritage buildings in promoting heritage values in Jalan Mendaling Kajang. Cronbach's alpha ( $\alpha$ ) is used to measure the internal consistency of a test or scale and express it as a number between 0 and 1. As seen in **Table 3**, the  $\alpha = 0.92$ , indicating that the test was reliable and valid<sup>[40]</sup>. The mean, or average, of a dataset is found by adding all numbers in the data set and then dividing it by the number of values in the set. The mean represents typical values and serves as a yardstick for all observations. This study measured the level of acceptance and respondents' preference on a scale of 1 to 5; where 1 = Strongly Disagree and 5 = Strongly Agree. The mean score of items in **Table 2** ranged between 4.63 to 4.66, with an overall mean of 4.61, indicating their agreement

level in the statement given. Of these items, the statement “The adaptive reuse technique provides charm in the middle of a modern city” has the highest mean score. In contrast, the statement on the adaptive reuse technique can expose the community to historical knowledge and the adaptive reuse technique can attract young people to appreciate the heritage falls the lowest. However, it is essential to note that the gap in mean score for all five items is close to 5, which is the highest score. Hence it is essential to highlight here that the community’s perception of the adaptive reuse of heritage buildings in promoting heritage values in Jalan Mendaling Kajang is relatively high. It emphasizes that the old shophouses are one of the heritage treasures that must be maintained and preserved for future generations. To add value to an old building, old shophouses can be preserved through adaptive reuse. Moreover, preservation through adaptive reuse can reduce the number of abandoned buildings that are eventually demolished and protect a place’s cultural heritage assets<sup>[41]</sup>. This statement is also supported by one of the informants during interview sessions.

*“Nice... through this adaptive reuse, people can see and realise how important our heritage is” (R2 7 Oct 2021, Field Study, 2021).*

Not only that, through adaptive reuse of the old shophouses, people will become aware of the heritage values by giving a new look to an old building, eventually attracting youth to engage in the uniqueness of an old building as stated by R4;

*“Yes, for me. The adaptive reuse of this old shophouses building helps us a lot in providing awareness to the people, especially the youth because I see that it has been one of the trends where we use these old shophouses for something unique. Something new...” (R4 15 Oct 2021, Field Study 2021).*

Meanwhile, **Table 3** summarizes the mean scores of the community’s perceptions of adaptive reuse of heritage buildings in promoting the identity and sense of belongingness in Jalan Mendaling Kajang Selangor. The  $\alpha = 0.90$ , indicating that the test was reliable and valid<sup>[40]</sup>.

**Table 3.** Community’s perception on adaptive reuse of heritage buildings in promoting the identity and sense of belongingness in Jalan Mendaling Kajang Selangor.

<b>Descriptive statistics</b>			
	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
The adaptive reuse technique of an old building able to maintain the identity of the city over the ages.	385	4.67	0.627
The adaptive reuse technique of an old building able to maintain the identity of the local community.	385	4.58	0.653
The adaptive reuse technique of an old building able to evoke a sense of belongingness.	386	4.49	0.757
The adaptive reuse technique of an old building able to nurture the love for national heritage.	386	4.48	0.739
The adaptive reuse technique of an old building able to instill a sense of belonging in the local community.	386	4.43	0.757
<b>Valid N (listwise)</b>	384		

The mean score of items in **Table 3** ranged from 4.43 to 4.67, with an overall mean of 4.53, indicating their agreement level in the statement given. Of these items, the statement on the *adaptive reuse technique of an old building can maintain the city’s identity over the ages* scores the highest, whereas the *adaptive reuse technique of an old building can instil a sense of belongingness in the local community* scores the lowest (4.43). However, it is essential to note that the gap in mean score for all five items is close to 5, which is the highest score. Hence it is essential to highlight here that the community’s perception of adaptive reuse of heritage buildings in promoting the identity and sense of belongingness in Jalan Mendaling Kajang is relatively high.

Looking from the lowest statement of an *adaptive reuse technique able to instil a sense of belonging in the local community*, one of the informants during the interview session, however, has a different stand on the importance of a sense of belongingness and adaptive reuse techniques;

*“A sense of belonging.... will exist if we both protect these shophouses. Because everyone in Kajang knows this place (can associate themselves to the place) ... if you mention “Kajang” everyone can imagine this place... so that is why this building is seen as the identity for this city (Kajang)... ” (R4 15 Oct 2021, Field Study 2021).*

Another informant supported the idea of the importance of protecting and conserving the old building through adaptive reuse. This is because, if the building is demolished, people will no longer feel connected to the building historically, as stated below;

*“For me.... There is a spirit, a sense of belonging for all of us. Because aaa... everyone who lived long in Kajang, know their memories in the olden days. It doesn't matter what race.. Chinese.. Malay... Indian.. all grew up here and had fond memories of this city ... So, if this building is lost... the sense of belonging can also lose” (R2, Field Study, 7 Oct 2021).*

These findings is similar to<sup>[7]</sup> who contested that heritage building is signified through a combination of different culture, arts, beliefs and traditions that forms harmonious and stable lifestyles of the community who lives there regardless of their race and ethnicities. Finally, **Table 4** summarizes the mean scores of the community’s perceptions of adaptive reuse of heritage buildings in promoting the sustainability of the Jalan Mendaling Kajang Selangor.

The last mean score of items presented in **Table 4** ranged between 4.61 and 4.72, with an overall mean of 4.68, indicating their agreement level in the items below. Cronbach analysis was performed ( $\alpha = 0.93$ ), and the test was highly reliable and valid<sup>[40]</sup>. Of these five items, a statement on *the adaptive reuse technique can preserve the history of the city for future generations* scores the highest, whereas *the adaptive reuse technique can protect the heritage property in the city* scores the lowest. Again, it is crucial to note that the gap of mean score for all the five items is close to 5, which is the highest score. Hence it is essential to highlight here that the community’s perception of adaptive reuse of heritage buildings in promoting the identity and sense of belongingness in Jalan Mendaling Kajang is relatively high (see **Table 4**).

**Table 4.** Community’s perception on adaptive reuse of heritage buildings in promoting the sustainability of the Jalan Mendaling Kajang Selangor.

<b>Descriptive statistics</b>			
	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
The adaptive reuse technique can preserve the city’s history for future generations.	386	4.72	0.559
The adaptive reuse technique can prevent old shop house buildings from being abandoned.	386	4.70	0.582
The adaptive reuse technique can preserve the architectural artistry of the building in the past.	386	4.68	0.602
The adaptive reuse technique can prevent the old shop house from being demolished.	386	4.67	0.630
The adaptive reuse technique can protect the heritage property in the city.	386	4.61	0.653
<b>Valid N (listwise)</b>	386		

Data from an interview has supported all of the items in **Table 4** through their justification that the adaptive reuse techniques prevent the old building from being abandoned and demolished by giving a new life to the old building. Consequently, it protects the heritage property, architectural artistry and history for future

generations, as stated by one of the informants.

*“Indeed... this old shophouses... we can see it has an architectural element that is without parallel in any... architectural building as of now... if we can see the old shophouses... we can easily identify through the facade of the building ... ok it is a the old shophouses... so I assume adaptive reuse of the old shophouses is indeed... giving a new breath to this old building and at the same time can protect and preserve the building for the future...” (R1 7 Oct 2021, Field Study 2021).*

One of the informants who owns the shophouses also supports this idea as adaptive reuse maintains the old buildings and sustain the community’s cultural heritage;

*Adaptive reuse of this old shophouses ... really helps maintain this old building... if we look, there are still a lot of old buildings that we don’t use... but people keep building more and more new buildings... so, what do you want to do with that many new buildings? ... such a waste...I think we should reuse this old building which looks more beautiful... just don’t leave it empty...so for me, just reuse this old building. it is good to maintain our culture...” (R3 7 Oct 2021, Field Study 2021).*

## 5. Conclusion

It is evident from quantitative and qualitative data that adaptive reuse protects the community’s heritage building by giving a new role and function to the once ruined abandoned building with minimal intervention without affecting its original structures. However, it is worth noting that in defining, planning, and regulating the adaptive reuse, a proper negotiation and consultation with the community should be considered in order to understand the meaning and connection the community has with their ancestor’s building to encourage engagement and participation among communities in applying the adaptive reuse. Therefore, future planning of adaptive reuse should emphasize community’s attachment to the old building. Hence further research to understand the community is recommended. A few areas are suggested as below:

- Relationship between the community’s understanding of adaptive reuse and their acceptance of the practice.
- Relationship between residency period in place dependence and the impacts of youth migration in protecting heritage building.
- Community expectation in adaptive reuse building.
- Barriers to their acceptance of adaptive reuse.

## Authors contributions

Conceptualization, SS and NENS; methodology, AWR and NAJ; software, SS; validation, SS; formal analysis, SS and NENS; investigation, AWR and NAJ; resources, NENS; data curation, NENS and SS; writing—original draft preparation, SS and NENS; writing—review and editing, SS, NENS and HYH; visualization, SWH; supervision, MZMZ; project administration, ASAL; funding acquisition, YI. All authors have read and agreed to the published version of the manuscript.

## Conflict of interest

The authors declare no conflict of interest.

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