

Authenticity in adaptive reuse of heritage building in Malaysia

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Abstract: -

Heritage building is one of the urban identities for the city and should be well-preserved not only because of the value and story but it also because of existing building stock. Reusing existing building stock can contribute to combat the environmental load significantly by reducing the material, transport, energy consumption and pollution in the construction of new building. In recent years, adaptive reuse of heritage building is popping out so fast, compared to the previous years which heritage building mainly suffers from dilapidated and poor building conditions. Adaptive reuse is converting the original function of existing buildings which services and technology are outdated to a new building purpose for new need to meet the current development. However, in the eagerness of the owner and local authority when applying the adaptive reuse approach in heritage building, this approach has been recently criticised for jeopardizing the authenticity of the heritage building. Hence, the aims of this study are to highlight the authenticity issue in adaptive reuse of heritage building. It is believed that this study can help alert among stakeholders regarding the challenges to implement adaptive reuse in retaining the authenticity of the heritage building. To do so, a pilot study by interview has been conducted to the conservators in Malaysia to embrace all information pertaining issues in authenticity in adaptive reuse of heritage building faced in a practical scenario. It is hoped that the outcome of this study will help the organization or individuals interested in adaptive reuse for future references.

Key-Words: - Authenticity, adaptive reuse, heritage building, issue, problems, Malaysia

1 Introduction

Heritage building in Malaysia have their own value and story, [1] and they are portrayed through building styles [2]. These buildings have a variety of interesting styles, influences, as well as a sign of the economy change and become one of the urban identities of the city[3]. Presently, heritage building preserved not only because of the value and story but also because of existing building stock. By using existing building stock, it contributes to combat the environmental load significantly within the next 20 years and this can contribute to sustainable development by mitigating the material, transport, energy consumption and pollution in the construction of new building [4]. 75% of all buildings expected to be operating in the year 2040 by reusing the existing building[5]. This statement stressed that it is vital to conserve heritage building for our future development. As heritage building show a lot of signs as mentioned above, adaptive reuse approach will be used to retain the heritage building to extend the building's

life and avoid demolition waste, encourage reuses of the embodied energy and also provide significant social and economic benefits to the society[6], [7].

2 Heritage Building

Building is a structure with a roof and walls that is used as a place for people to live, work, do activities, store things, etc.: the act or process of making structures by putting together materials [8]. Heritage means features belonging to the culture of a society, such as traditions and languages. Heritage is something transmitted by or acquired from a predecessor [9], [10]. In short, the definition of heritage building is a building possessing architectural, aesthetic, historic or cultural values which is declared as heritage building by local authority or competent authority in whose jurisdiction such building is situated. Heritage building serve as cultural and heritage symbols and thus, act as a hub of individual and community life. Heritage building have a variety of interesting architectural styles, influences, and become one of the urban identities for the city, example for heritage

buildings situated in Ipoh, Malacca and Georgetown [2], [11], [12].

Heritage building portrays the character of the city at various time [13] as well as symbol of the economic development [3]. Heritage building should be preserved because they have their own emotional, cultural, and historical values [1], [14], [15]. However, failure to maintain the property can impair the structural integrity of the fabric and accelerate the decline in investment returns [16]. One way of keeping the heritage building is by applying adaptive reuse on them to contemporary uses which fit the new development need. The practice of adaptive reuse of heritage building could save them from being replaced by new buildings which will contribute to social, economy and environment purpose [17]. Therefore, the best way to keep the minimum loss of heritage building authenticity and contribute to combat the environmental load significantly is by applying adaptive reuse in the right way. If not, the heritage building was turned into corpses, dead spaces in the daily life of the street, where nothing useful to the local community is happening. Consequently, after a while, people no longer care about these buildings [18].

3 Adaptive reuse

Adaptive reuse converted the function of the old building which services and technology were outdated into a new building purpose for new needs of the inheritors due to development by injecting new materials and ideas while at the same time retaining the original structure and fabric [6]. Adaptive reuse is beginning to receive widespread attention because of the economic, social and environmental benefits that can be espoused. Adaptive reuse of heritage building is popping out so fast, compared to the previous year which mainly suffers from dilapidated [19], neglected and turned into corpses [20]. Adaptive reuse is one of the conservation techniques which can save heritage building being replaced by the new building and preserve the identity of the place [21], [22]. The reuse of heritage building enables a future generation to appreciate the identity of the building [23] as the heritage building represent unique architectural, aesthetic, political and social features of a different time [24]. Therefore, the best way to keep the minimum loss of heritage building authenticity and contribute to combat the environmental load significantly is by applying adaptive reuse in the right way.

Adaptive reuse of heritage building might compromise the authenticity to satisfy the

development needs [25]. However, presently in the eagerness of owner and local authority applying the adaptive reuse, this approach has been recently criticised for compromising the authenticity [26]–[30] which continue to harm and resulted the great impact on the heritage building. They want to conserve the heritage building but at the same time ruin the authenticity [31]. If no tremendous effort is thrown in an adaptive reuse approach, it can jeopardize the precious heritage building life, value, and story. This paper's aim is to identify a problem in implement the adaptive reuse of heritage building in Malaysia which contribute to the authenticity issues.

4 Authenticity

Authenticity can be defined as a condition of the heritage resource including artistic, historical and cultural dimensions. It is related to the aesthetic, structural and functional form of the object or site, material, and technology, as well as physical and socio-cultural context [32]. Authenticity can be defined as something that sustains and proves itself, as well as having credit and authority from itself. This refers to something creative, an authorship, something having a deep identity in form and substance. It means something specific and unique [33]. Authenticity is a principle that shared by conservation and sustainability [34]. In conservation based on the Venice Charter, authenticity indicates how to slow down the heritage property erosion process; especially in buildings. Based on conservation principle, authenticity can minimize the intervention and can be considered as an aesthetic aspect while the process is the ethics to restore it [35]. In the context of adaptive reuse of heritage building approach, the most important aspect is the ethics rather than aesthetics. Thus, in conservation, beauty is not the measurement of restoring the heritage building to the original [36]. The authenticity can slow down the heritage building property erosion process [37]. The authenticity based on conservation principle does not hinder development, but in fact act as a catalyst to the development and well-being of a town [38]. It will be most important to take great care to maintain the authenticity of existing heritage resources from the past as they will form a reference for future memory and will, therefore, need to be conserved with due respect for relevant issues [32].

5 Authenticity Issues in Adaptive Reuse of Heritage Building from Previous Studies

People nowadays paying greater attention to adaptive reuse, but the issue appears now is regarding the authenticity of the heritage building as stated in table 1. Previous studies have discussed the improper conservation of the heritage building that diminishes the authenticity of heritage building. Owner of building reuse and adapt all sorts of buildings without proper planning [39]. 8% of the early heritage building in Malacca are still in the original form while 51% had been renovated and 41% had either perished or lost in originality due to renovation works in adaptive reuse [27]. Only certain heritage building in the row to be preserved, the rest were subjected to the hideous conservation works that totally destroy the authentic value [12]. There are still many buildings that have been adaptively reused without following the regulations, thereby, losing the building’s authenticity and historical significance[28]. Most of the walls in adaptive reuse of heritage building lose their authenticity of material and design [26], [40]. It is showed that lack of authenticity in heritage building is a serious issue and need to be properly addressed due to the negative effects happened to the heritage building value as well as the environmental significance. From this issue, the lack of authenticity may be influenced by many interrelated factors as stated in table 2. Most of the researchers agreed that there is no effective legal protection and control pertaining to authenticity within the local authority in adaptive reuse[20], [41], [42] and the stakeholders unable to follow most of the guidelines due to incomplete information and details for each component of the building element regarding authenticity in adaptive reuse approach [18], [28] contribute to this issue. It is vital to review previous studies pertaining assessment in the authenticity of adaptive reuse of heritage building to highlight overlooking in implementing adaptive reuse of heritage building. For that reason, to tone up the information pertaining to issues faced in adaptive reuse, it is vital to interview the experts in conservator to gain more information in a practical scenario when implementing adaptive reuse of heritage building as well as can help the author to fill the loophole in applying this approach.

Table 1: Issue in implementing adaptive reuse of heritage building

Authors	Issue
[27]	8% of the early heritage buildings in Malacca are still in the original form while 51% had been renovated and 41% had either perished or lost in originality due to renovation works in adaptive reuse.

[12]	Only certain heritage building in the row to be preserved, the rest were subjected to the hideous conservation works that totally destroy the authentic value
[28]	There are still many buildings that have been adaptively reused without following the regulations, thereby, losing the building’s authenticity and historical significance
[26]	Most of the walls in adaptive reuse of heritage buildings lose their authenticity of material and design.

Table 2: Problems contribute to the adaptive reuse issue

Authors	Problem
[20], [41], [42]	There is no effective legal protection, neglected to the point, and control pertaining to authenticity within the local authority in adaptive reuse.
[18], [28]	The stakeholders unable to follow most of the guidelines due to incomplete information and details for each component of the building element regarding authenticity in adaptive reuse approach.

6. Research Method

To obtain the objective, the essential stages of methodology were performed in several stages. This research begins with completion of literature reviews from publication. The literature review is mainly acquired from published books, research papers, seminar papers, and journals. The research is further reinforced by a pilot study by interview conducted to the conservators in Malaysia to embrace all information pertaining a problem in implement the adaptive reuse of heritage building in Malaysia which contribute to the authenticity issues. A set of semi-structured interview questions are handed over to four experts in adaptive reuse in Malaysia. This interview was done to the experts with at least 10 years’ experience or minimum involved in 5 projects in adaptive reuse of heritage building in Malaysia to identify the authenticity issues in adaptive reuse of heritage building faced in a practical scenario. Through studies on the previous researches and experts’ interview, the problem in implement the adaptive reuse of heritage building in Malaysia which contribute to the authenticity issues are identified at the end of the stage. The results of the pilot study will help to fill the loophole in applying this approach and give benefit to all stakeholders.

7 Authenticity Issues in Adaptive Reuse of Heritage Building in Practical Scenario

Pilot study has been conducted to obtain detailed information on authenticity issues in adaptive reuse of heritage building in practical scenario and help author to get precise problem. By conducting a pilot study, unnecessary risks could be avoided [43]. Surveys have been conducted with a semi-structured interview with four experts in conservation to identify:

- a) The understanding about authenticity in adaptive reuse based on conservation principles.
- b) The application of authenticity in adaptive reuse based on conservation principle in respondent adaptive reuse project.
- c) The current practice in assessment of authenticity in adaptive reuse of heritage building in Malaysia.
- d) The respondent opinion relating to current practiced assessment aids the expert in retaining authenticity in adaptive reuse of heritage building in Malaysia.
- e) The most affected building elements in adaptive reuse of heritage buildings.
- f) The most difficult building element to be preserved its authenticity when adaptive reuse is applied in heritage building.

From table 3 below, it shows the response from four experts in conservator regarding the authenticity issues in a practical scenario. All the pilot study below was done by using the semi-structured interview.

Table 3: Analysis of respondent in semi-structured interview

Questions	Respondents	Feedback
1. What do you understand about authenticity in adaptive reuse based on conservation principle?	1	It is about retaining the method, architecture, fabric and material of heritage building
	2	Apply adaptive reuse in heritage building but in the same time we must retain original structure of the building to meet end user need.
	3	Respect the subject, minimum intervention and try to increase the long life of subject as we can.
	4	To conserve the originality of the heritage building.
2. Do you apply authenticity in adaptive reuse based on conservation principle in	1	Yes
	2	Yes
	3	Yes
	4	Yes

your adaptive reuse project?		
3. What is the current practiced assessment of authenticity in adaptive reuse of heritage buildings in Malaysia?	1	Usually follow the guideline as a guide provided by local authority. No evaluation provided to control authenticity in adaptive reuse. The guideline by local authority state simple guide.
	2	No assessment provided. Only guideline used, and it depended on the client or end user needs. But so far, there are no standard rule provided from local authority to control in preserving authenticity of adaptive reuse work. Any further improvement is welcomed.
	3	No specific control from local authority. The guideline provided was not detail enough in elaborating on how to retain the elements. Detail to conserve each building elements depend on the conservator's wisdom.
	4	So far, no assessment focus on authenticity. All the conservator will follow the guideline from local authority and if there is a conflict among us, it will be discussed before the implementation of the project.
4. Are the current practiced assessment help you in retaining authenticity in adaptive reuse of heritage building in Malaysia?	1	Sometimes
	2	No, not all situation stated in the guideline.
	3	No specific control in authenticity in building element
	4	Sometimes but still need to be improved
5. What are the five most affected building elements in adaptive reuse of heritage building?	1	Roof finishes(tiles), door & window, partition wall and corridor
	2	Façade, floor, internal wall, sewerage and door & window
	3	Depends on types of building, for example floor, wall, window, roof finishes and roof truss
	4	Façade, roof, window, door and wall
6. Which building element is most difficult to be preserved its authenticity when adaptive reuse is applied in heritage building?	1	Depends on the project and types of building. Roof
	2	Floor
	3	Roof truss
	4	Façade

8 Conclusion

After reviewing and analyzing all semi-structured interview above, the problem in implement the adaptive reuse of heritage building in Malaysia which contribute to the authenticity issues are

identified. This semi structured interview revealed that:

- a) Most of the respondents understand that authenticity in adaptive reuse are to retain the workmanship, design, material, setting of the heritage building. They try to increase the long life of subject as they can in the same time try to fulfill the development needed.
- b) It is discovered that all respondents try to apply the authenticity in adaptive reuse based on conservation principle in adaptive reuse project as they can.
- c) Respondents agreed that there are no specific assessment or tool to control the authenticity in adaptive reuse. They only use a guideline for conservation as a guide in adaptive reuse approach and it depends on the situation and wisdom to retain the authenticity in adaptive reuse work since the guideline provided is not in detail clarification and improvement are welcomed.
- d) The current practiced assessment does not really help conservator in retaining authenticity in the adaptive reuse of heritage building in Malaysia and needs to be improved.
- e) The most building elements affected in adaptive reuse of heritage building are roof, floor, door & window, internal partition, wall, and façade.
- f) Roof, façade, and floor are most difficult to be preserved their authenticity when adaptive reuse is applied in a heritage building.

By viewing into the practical issue, improper guideline and no specific assessment method in authenticity could be tricky among stakeholders which can give tremendous impact to the authenticity of the elements in a heritage building. This statement parallel with the previous researchers' finding mentioned above that most of the researchers agreed that there is no effective legal protection and control pertaining to authenticity within the local authority in adaptive reuse and the stakeholders unable to follow most of the guidelines due to incomplete information and details for each component of the building element regarding authenticity in adaptive reuse approach. Obviously, the local authority needs to take action to ensure that proper guidelines sufficient among stakeholders to facilitate the authenticity assessment in adaptive reuse. Local authority contribution is necessary for attaining the authenticity in the adaptive reuse of heritage building because, in the end, it may give the benefit to the economic dynamic of society.

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