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Heritage Community Resilience: The Experience of Stakeholders in Calle Real, Iloilo City, Philippines

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Abstract. Cultural heritage is a significant part of the UN Agenda 2030 in making cities safe and resilient. Yet, the role of cultural heritage on resilience has not been sufficiently investigated. The study contributes to the discussion of the role of knowledge and practices in the prevention and recovery from risks within the frameworks of heritage preservation and community-based disaster management approach. The research aims to describe the knowledge about the heritage structures as well as the heritage-related practices of stakeholders employed in Calle Real, Philippines, an urban heritage zone in Iloilo City, Philippines. Through a social survey with 200 stakeholders, key results showed that respondents are aware that the unique character of Calle Real is worth preserving. Moreover, the multiplicity of uses of the buildings makes these prone to rapid wear and tear. Also, a majority of the respondents are aware of the buildings' susceptibility to fire, seismic hazards, and strong winds. There is a gap, however, between the respondents' awareness of the risks of the buildings and their heritage preservation practices. Few respondents reported being affiliated with heritage advocacy groups or to take part in actual conservation activities. There are possible ways to address the disparities in knowledge and practices with the goal of enhancing heritage resilience to natural & man-made hazards.

1. Introduction

The past decade has seen the occurrence of large-scale disasters in many countries that have caused not only loss of lives but also widespread damage to the cultural heritage of these towns and cities [1]. The Great East Japan Earthquake and Christchurch, New Zealand Earthquake in 2011 and the Bohol earthquake in 2013 are just some examples of the extreme vulnerability of cultural heritage and the lack of resources and planning in place to protect it [1, 2]. Cultural heritage is also vulnerable to the adverse impacts of rapid urbanization and the inherent risks faced by dense urban areas so that it is necessary to develop specialised approach to risk management of cultural heritage in urban areas [3]. Moreover, local communities are often excluded from heritage reconstruction processes, which are frequently led by external donors and agencies and national authorities. Yet, local knowledge and engagement is a unique resource for resilience and long-term heritage conservation and management [4]. In academic debates, the question of the relationship between heritage and resilience has been evolving [5]. One way to address the debate is through studies that analyse the results of the processes that occurred before and



after the disasters and have highlighted the contribution of the local material culture in prevention and recovery from risks ([6]. In the prevention phase, for example, the role of knowledge of traditional construction techniques or traditional prevention strategies resulting from subsequent trial and error in the management of known and expected risks is underlined [6]. In light of these challenges, making use of intangible heritage knowledge and practices apart from technical and structural solutions to disaster recovery is of importance within the overall planning and management frameworks [4].

This paper contributes to the understanding of stakeholders' awareness of heritage structures and of their heritage-related practices for the overall improvement of the outcome of disaster management in a heritage zone. The paper shows the results of a social survey among stakeholders whose main employment is in Calle Real, Iloilo City which is an urban heritage zone in one of the highly urbanized cities in the Philippines.

2. Linking Community Resilience and Cultural Heritage

The scientific literature [5, 6] has reinvigorated the discussion on the significance of cultural heritage in disaster risk-reduction, post disaster rehabilitation and recovery. Discussions have focused on the need to safeguard cultural heritage and its important role for the well-being and quality of life of people. There are also studies that have highlighted the contribution of the local material culture in prevention and recovery from risks. In the prevention phase, for example, the role of knowledge of traditional construction techniques or traditional prevention strategies resulting in subsequent trial and error in the management of known and expected risks is emphasized [6]. There are also researches on the capacity of cultural heritage to make and innovate communities in a proactive process aimed at preventing, coping with and recovering from disturbances and/ or disasters [5,6]. An example is the partnership with community heritage groups on creating digital archives of cultural artefacts and of information system to help develop more resilient communities [6]. Still, there is little reference in the programmes of governments to the role of cultural heritage in building community resilience [5]. In the context of heritage places, tourism studies show very little is known about public awareness of the management, importance, or designation of historic sites [7].

Community residents have a strong stake in a local heritage site and the Community-based Disaster Risk Management (CBDRM) framework has been used to mobilize residents to participate in heritage conservation. CBDRM can be defined as inclusive and owned community driven processes aimed at the direct and continued involvement of at-risk communities in the decision-making process of disaster risk reduction. It assumes that local knowledge is comparable to scientific knowledge and the community works together with in unison with other outside organizations and agencies. The Philippines has recognized the importance of building community resilience to disasters to reduce loss of lives and other community assets. This is shown through the National Disaster Risk Reduction and Management Plan (NDRRMP) for 2011-2018 and the creation of a National Disaster Risk Reduction and Management Council [8]. At the local level, there are equivalent plans and councils that align with higher level plans and bodies.

3. The Study Area

Calle Real is located in Iloilo City which is one of the oldest cities in the country and is a Highly Urbanized City (HUC) with a population of 457,626 residents in the 2020 census [9]. Calle Real is the old Central Business District (CBD) of the city and was declared by the National Historical Commission of the Philippines as a heritage zone on August 8, 2014. The heritage buildings found in the heritage site reflect the architectural designs of those times: the Beaux Arts style, Art Deco, art modern, post-art modern, & neo-classical designs [10]. The Iloilo City Hall and commercial banks are located in the old CBD that contributes to the everyday characteristics of the place where people engage in government & commercial transactions. Moreover, the buildings in Calle Real are low-rise (5 storeys and below) and have mixed uses. The lower floors are for commercial activities and the upper floors are used as residential and storage facilities. In general, the development and design guidelines of the old CBD are embodied in the Implementing Rules & Regulations (IRR) thru EO 46-2009 [11]. The Iloilo City

Cultural Heritage and Conservation Council (ICCHCC) implements the IRR, a body that was created thru Ordinance No. 2000-054 [12]. There are currently 23 buildings of heritage value that can still be found in Calle Real. The heritage zone is just a few meters away from Iloilo River and is a 20-minute boat ride away from Guimaras Island province from the Parola wharf at For San Pedro.



Figure 1. Calle Real is the Old Central Business District of Iloilo City

4. Data Collection Methods

A pre-test survey of the stakeholders' perceptions was first conducted by the authors during the period of March 2021. The actual data collection was conducted at a time when Iloilo City was on Modified General Quarantine Status (MGCQ) in April 2021. The MGCQ has the most relaxed quarantine guidelines in terms of movements of people and business services allowed to operate. Data were collected with 200 stakeholders: 75 city hall, 50 employees of shops, 50 tenants or property managers, and 25 vendors. Purposive and convenient sampling methods were used in the selection of respondents.

The questionnaire is divided into six major sections. Section A is a description of the stakeholders who work and/or reside in Calle real, Iloilo City, particularly their socio-demographic characteristics. Section B is a description of the stakeholders' general activities in the heritage site. Section C is the stakeholders' perceptions about the buildings in Calle Real on strength, stability, and security; about how the buildings represent the Ilonggo culture and history; and the stakeholders' knowledge of cultural heritage and of the buildings' risks. Section D is the stakeholders' willingness to help in the preservation of heritage buildings in the Calle Real. These include educating the public about the value of these buildings, giving money, and cleaning the building among other things. Section E describes the current

or earlier practices of stakeholders related to the preservation of heritage buildings in Calle Real and of similar structures. Section F consists of data about the tenants/property managers.

Table 1. Frequency and Percentage Distribution of Respondents by Sex and by Sectoral Membership

Sectoral Membership	Male		Female		Total	
	f	%	f	%	f	%
City LGU Employee	36	36.7	39	38.2	75	37.5
Employee of the Shops	23	23.5	27	26.5	50	25.0
Tenants/Property Managers	26	26.5	24	23.5	50	25.0
Vendors	13	13.3	12	11.8	25	12.5
Total	98	100.0	102	100.0	200	100.0

The survey was supplemented by desk review and informal face-to-face interviews to provide context to the answers. Materials read were the old CBD catalogue, newspaper articles, earlier works of some authors on Calle Real done in 2014 and 2019, and undergraduate thesis.

5. Key Results

5.1. Stakeholders' Socio-Economic Characteristics

The socio-economic profile showed that there are slightly more females than males and majority of the stakeholders have relatively high educational attainment (college education and college degree holders). The mean age is 42 years old, the computed monthly mean income is around Php 29,000.00, and the monthly median income of Php 13,000.00. Males have a higher mean monthly income (Php around Php 13, 700.00) than the females (Php 27, 200.00) but the latter has a higher median monthly of Php 15,000.00 than the former which is Php 12,000.00. The majority of the stakeholders reside outside Calle Real but still within Iloilo City. There are those who live in adjacent towns with a few residing in another island (Guimaras Island Province).

Table 2. Frequency and Percentage Distribution of Respondents by Residence

Current Residence	f	%
Iloilo City	180	90.0
Iloilo Province	16	8.0
Others		
Guimaras	4	2.0
Total	200	100.0

5.2. Calle Real and I

- Majority (61.0%) have full-time employment at the time of the interview. Thirty-six (35%) percent reported to being self-employed while a handful of the stakeholders (3.0%) have part-time employment.
- There are respondents who have worked in Calle Real in less than 5 years while there are those who have worked there for 9 years.
- The nature of economic activities of vendors, tenants, and employees of business establishments are mostly on food, retail, and photocopying/printing services.
- Males have higher reported educational attainment (college graduates) than females (college level). Of the 5 stakeholders who reported to be members of heritage groups, 4 of them are

females. Both male and female stakeholders go to Calle Real 2.6 times in a week during the pandemic period.

- Doing some shopping and eating/dining are relatively popular activities compared to other reported activities among the stakeholders. All (100%) vendors reported to dine/eat-in Calle Real and a high percentage of them do their marketing in Iloilo Central Market (Tienda Mayor). Very few reported to doing bank transactions in Calle Real. The stakeholders did not say where they conduct their bank transactions outside of Calle Real.
- Places visited frequently: the Iloilo Central Market, drug stores, department stores, stores that sell general merchandise, restaurants, hardware, bank, certain streets, and the plaza/park.

Table 3. Activities of Respondents

Activities	City LGU Employee (n=75)		Employee of Shops (n=50)		Tenants / Property Managers (n=50)		Vendors (n=25)	
	f	%	f	%	f	%	f	%
Shopping	60	80.0	26	52.0	22	44.0	9	36.0
Do government transactions	25	33.3	2	4.0	4	8.0	1	4.0
Grocery shopping	42	56.0	25	50.0	24	48.0	19	76.0
Marketing at Tienda Mayor	29	38.7	15	30.0	18	36.0	21	84.0
Eating/ Dining	45	60.0	27	54.0	16	32.0	25	100.0
Others:								
Buy Medicine	0	0.0	0	0.0	3	6.0	1	4.0
Coffee	1	1.3	0	0.0	0	0.0	0	0.0
Bank transactions	2	2.7	2	4.0	0	0.0	0	0.0
No Response (Did not want to answer)	3	4.0	9	18.0	13	26.0	0	0.0

5.3. Perceptions of Calle Real

- Majority of the stakeholders believe that the buildings in Calle Real are strong, stable, secure, and safe.
- Majority of the stakeholders 'agree' or 'strongly agree' that Calle Real represents the "Ilonggo" culture through the products sold in the area, the architectural styles, and the general pride the place gives them. Moreover, most of the stakeholders 'agree' or 'strongly agree' that the designs of old buildings complement with the newer developments in the area, and that the buildings tell important stories of Iloilo's history. For most stakeholders, the buildings are sources of income and are essential for tourism activities.
- Majority of the stakeholders 'agree' and 'strongly agree' that the buildings can be lost due to fire, earthquake, strong winds during a tropical cyclone. There are a few stakeholders, however, who 'don't know' of the risks of buildings to natural hazards.
- Stakeholders were asked about certain information about Calle Real. The majority of the stakeholders 'don't know' about specific details of the buildings and of incentives to owners of heritage buildings in Calle Real. However, this statement does not hold true about the Iloilo Central Market (Tienda Mayor) where an overwhelming majority agree on information about the structure.

Table 4. Respondents and Their General Perceptions about Calle Real

Perceptions	City LGU Employee		Employee of Shops		Tenants / Property Managers		Vendors	
	f	%	f	%	f	%	f	%
	Strength & Stability							
Yes	55	73.3	39	78.0	35	70.0	16	64.0
No	20	26.7	11	22.0	15	30.0	9	36.0
Total	75	100.0	50	100.0	50	100.0	25	100.0
Security								
Yes	57	76.0	37	74.0	40	80.0	16	64.0
No	18	24.0	13	26.0	10	20.0	9	36.0
Total	75	100.0	50	100.0	50	100.0	25	100.0

5.4. Attitudes Towards Cultural Heritage

- Majority of the participants reported to ‘agree’ and ‘strongly agree’ of their willingness to advocate for the preservation of heritage buildings and to study, document, or do research about the buildings. Yet, most of the stakeholders (specifically the City LGU employees) provided ‘neutral’ responses about giving money for the preservation of heritage buildings in Calle Real and their willingness to spend time or to volunteer for the maintenance work for the buildings.
- An overwhelming number of stakeholders ‘agree’ and ‘strongly agree’ on the importance of the following characteristics to preserve the buildings:
 - ✓ The appearance and design qualities
 - ✓ Streetscapes and views
 - ✓ Availability of goods and services
 - ✓ Rarity or unique characteristics such as landmarks
 - ✓ Tourism activities (e.g. tours of buildings and of food)

5.5. Practices Related to the Preservation of Heritage Buildings

- Majority of the stakeholders reported ‘sometimes’, or ‘rarely’, or ‘never’ in terms of engagement to a variety of heritage preservation activities.

Table 5. Frequency and Percentage Distribution of Respondents by Attitudes to Cultural Heritage

Practices	City LGU Employee		Employee of the Shops		Tenants / Property Managers		Vendors	
	f	%	f	%	f	%	f	%
	I encourage the local and international tourists to visit the heritage buildings in Calle Real.							
Never	7	9.3	21	42.0	7	14.0	12	48.0
Rarely	6	8.0	11	22.0	7	14.0	9	36.0
Sometimes	25	33.3	9	18.0	14	28.0	2	8.0
Often	19	25.3	8	16.0	16	32.0	2	8.0
Always	18	24.0	1	2.0	6	12.0	0	0.0
I attend public gatherings or online webinars about Calle Real and the Ilonggo built heritage.								

Practices	City LGU Employee		Employee of the Shops		Tenants / Property Managers		Vendors	
	f	%	f	%	f	%	f	%
Never	38	50.7	41	82.0	38	76.0	8	32.0
Rarely	18	24.0	3	6.0	5	10.0	9	36.0
Sometimes	15	20.0	4	8.0	5	10.0	0	0.0
Often	3	4.0	2	4.0	2	4.0	5	20.0
Always	1	1.3	0	0.0	0	0.0	3	12.0
I participate in conservation and preservation projects for the Ilonggo built heritage.								
Never	42	56.0	45	90.0	35	70.0	20	80.0
Rarely	17	22.7	3	6.0	7	14.0	5	20.0
Sometimes	10	13.3	2	4.0	4	8.0	0	0.0
Often	5	6.7	0	0.0	1	2.0	0	0.0
Always	1	1.3	0	0.0	3	6.0	0	0.0

5.6. Information about the Tenants/Property Managers

- The reported uses of the buildings are of mixed uses: commercial shops/storage/warehouse/ and residential and commercial purposes or residential/commercial/storage.
- The mean no. of employees is 4 and the median is 3 per shop.
- The reported monthly income ranges between Php 5,000.00-Php 12,000,000.00 with a mean income of Php 1,422.00 and a median of Php 570.00. It can be implied that the figures reflect the condition since the pandemic started. The figures could have been higher pre-pandemic period.
- Most of the business establishments have employees that go home after work while a few reported to having staff that resides in the same building.

5.7. Desk Review: Hazards of Calle Real

Based on secondary accounts, Calle Real experienced a great fire on February 7, 1966. It destroyed nearly 75% of the central business district of Iloilo City at that time. As a result, the Ilonggo Chinese Community established the Filipino Chinese Fire Prevention Association Incorporated in the aftermath of the event. Prior to 1966, a supreme court decision (GR No. L-12695, Mar 23, 1959) laid down the rules for hotels, tenements, lodging/boarding houses to avoid fire. Up to now, fire remains to be the most destructive man-made disaster in the city. In 2015, fire assessment was conducted on certain heritage structures in Calle Real. Results showed that buildings do not have a passive fire prevention system. If there are incidents of fire, the usual cause is faulty electrical wiring [12]. Apart from fire, Calle Real is also susceptible to seismic hazard and strong winds brought about by typhoons.

6. Preliminary Insights

There is a disparity between knowledge and practices among the stakeholders particularly on the following matters: heritage value of Calle Real and the buildings, the risks of the buildings, the stakeholders' current practices on heritage activities, and their willingness to engage in preservation efforts. The gap between knowledge and practices can be enhanced through extensive and intensive information dissemination program that the city government can undertake together with the academe and other sectors. By publicizing information using appropriate materials, this can help improve what people know about the built structures. In addition, materials to be produced are targeted to various groups and highlight the distinct characteristics of Calle Real and its buildings. One of the distinct

characters are those areas that were reported to be frequented by the stakeholders, particularly for eating/dining and for doing some shopping. The production of such materials, however, implies that thorough and regular inventory and documentation of the engineering, architectural, and socio-cultural conditions of Calle Real should be undertaken. The academe and other sectors working on heritage preservation can be of great assistance in providing science-based and practical knowledge on this aspect.

Survey results showed that at present there appears to have limited engagement of stakeholders to practices that demonstrate the principles of community-based disaster risk management. The stakeholders reported to 'rarely' or to have 'never' participated in heritage preservation and disaster management activities. While there is a community that appreciates heritage preservation and know about disaster management in Calle Real, their responses demonstrate a lack of strategies and operational tools aimed at community-based disaster risk management and community resilience.

Some buildings have no passive fire prevention in place. This maybe because the tenant or building owner does not have sufficient money to install elements to slow or impede the spread effects of fire or smoke. Heritage structures have a different set of guidelines compared to other buildings. It is difficult for the owner/tenant to do repairs or retrofitting without complying to the procedures set for heritage structures. Mechanisms can be set in place to allow some flexibility in doing such types of works without compromising the safety of buildings. At the same time, such mechanisms will not give too much inconvenience to the owners or tenants of the buildings.

The onset of the pandemic has affected the work arrangement of the stakeholders. On a positive note, vehicle traffic has been lessened given the limited mobility of the people who go to Calle Real and the public vehicles that ply the area. However, the stakeholders have reported that the pandemic has affected their income and revenues due to the number of people allowed in the workplace at certain times of the day and the travel and health restrictions imposed by the national government. Thus, there is a need to review and implement work and travel arrangements in the new normal that address income and revenue concerns of the stakeholders.

7. Policy and Research Methods Recommendations

It is necessary to identify factors and strategies that will actually engage the stakeholders to heritage preservation and disaster management activities. Certain strategies used in the co-management of natural heritage resources may be applicable in the context of managing tangible immovable structures. It is also important to integrate heritage resiliency to the overall framework of Community-based Disaster Risk Management (CBRM) to increase the stakeholders' knowledge and enhance activities aimed at heritage resiliency through community-based disaster response. A systematic program or projects to reinvigorate activities in Calle Real with the goal of improving the income and revenues should be put in place. For tenant/heritage tenants that engage in reactive maintenance especially against fire, incentives and loans can be explored to motivate them to invest on preventive maintenance measures.

In terms of methods, adjustment have to be made resulting in the quarantine status. This means that the methods and the types of data that can be collected have to be adjusted by the researchers following the quarantine guidelines. Moreover, ethical considerations have to be discussed by the researchers and the stakeholders depending on the quarantine level and when there is no quarantine status anymore.

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