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RESEARCH ARTICLE

Unveiling the Impact: How Malaysia's Low-Income Housing Programs Shape Resident Experiences and Quality of Life

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ARTICLE INFO	ABSTRACT	
Received: Nov 17, 2024	Malaysia's government has adopted many resettlement initiatives and	
Accepted: Jan 4, 2025	housing policies to eliminate the growing number of informal settlements, meet the housing demands, and improve the quality of homes to achieve its	
Keywords	aim of being a civilized country by 2020. A critical number of studies have been carried out to investigate the effect of low-cost housing environments on occupants' quality of life. However, there is a lack of study on the role of	
Environmental Design	experiential values in forming the dwelling experience and forming long-	
Experiential Values	term outcomes in the context of housing. This study aims to understand the mediating effect of experiential values on the People's Housing Programme	
Quality of Life	(PPR) environment and quality of life (QoL) of PPR residents in Malaysia.	
Low Cost Housing	The Structural Equation Model (SEM) was used to analyse the causal relationships between constructs. The model was developed and later	
Sustainable	relationships between constructs. The model was developed and tested by adopting the Partial Least Square (PLS) procedure or collected from a survey of PPR residents in five states that yielde usable questionnaires. The finding shows interesting results wh experiential values alone can substantially affect QoL and mediate be the PPR environment and QoL. Further, this study reveals that th environment positively influences the QoL of PPR residents in Ma Therefore, the time had come for the government to work closely wi private sector to provide a more liveable environment in PPR	
*Corresponding Author: maznisaad@iium.edu.my	Collaboration with the private sector needs to be strengthened through CSR, such as providing facilities and reducing costs incurred by the government.	

INTRODUCTION

Despite Malaysia's rapid economic growth and successful rehoming initiatives, the group with low income and urban poor quality of living life remains a source of worry (Ibhrim et al., 2022; Pitting & Radzi, 2022; Salleh & Latiffi, 2021; Zakaria et al., 2022), especially the B40 community. Both policymakers and researchers have raised concerns regarding the success of relocation programmes in terms of uplifting the life status of low-income communities (Yassin, 2023). Significantly, the main objective of the beneficiary target of the housing program is a segmented population, which indicates the dynamic movement to reduce poverty with a multiplier impact on their life (Mohd et al., 2019). The impact of the housing environment is one of the many contributing elements, and there is evidence that this environment contributes considerably to the lowering of rehomed people's quality of life (QoL) standards (Mouratidis, 2021).

Residents' QoL is important for those who have low incomes (Riazi & Emami, 2018) and are economically unable to get other options in housing (Ghezelseflou & Emami, 2023). Obtaining a high

standard QoL is not as simple as it appears, particularly for countries still rising economically, such as Malaysia. Housing, or living environment, is vital to achieving a high QoL. The housing environment serves various additional functions concurrently by addressing basic human needs such as improving QoL, reducing frustration, supporting intellectual development, increasing motivation for social activities, and fostering a sense of security. Cunningham et al. (2019) later expanded on this notion, emphasizing that this is important in deciding whether to start a family. Hence, housing is not restricted to providing shelter. It is a venue where the family and their generations can express their way of life and maintain their hereditary identities and history (Jiboye, 2012).

The Ministry of Housing and Local Government of Malaysia outlined the six "Livable Malaysia" goals in 2022, which include making sure there are enough high-quality homes for everyone, integrating digital technology into the delivery of local government services, empowering urban community development, enhancing fire and rescue preparedness, and putting urban sustainability, development, and resilience of green cities (Komak et al., 2023). As a result, housing has been proven to be one of the best markers of a person's standard of living and social status, and this study focused on improving B40 QoL in the PPR through the housing environment and its experiential values.

It has been nearly five decades since the Malaysian government introduced the PPR to provide affordable homes for low-income earners, but until today, the QoL of the community remains a major concern. In the 2023 Budget, the government has allocated RM50 million through the Ministry of Housing and Local Government of Malaysia to provide a safe environment in PPR housing nationwide. Unfortunately, low-cost housing schemes built under PPRs are often plagued by a plethora of problems, such as overcrowding issues faced by the sandwich generation living in compact PPR flats, congested buildings, limited space in recreational areas, there is no place for children to play, lack of infrastructure and facilities like garbage collection centers, drainage and sewage systems, and lack of security systems including CCTVs. Some PPR schemes are provided with space for recreation, but they are usually filled with adult residents, leaving the children feeling stressed and unhappy. Similarly, Zainal et al. (2012) revealed that most squatter areas and low-cost houses in Malaysia have limited space and recreation areas, such as multipurpose halls and playgrounds to be used for community and recreation activities. A study by Al-Mamun and Adaikalam (2011) on unsatisfied basic needs among low-income women in Peninsula Malaysia found that a higher percentage of women in the urban were unsatisfied with the quality of housing compared to their rural counterparts.

Further, Zumaya and Motlak (2021) interpreted QoL from the perspective of the availability of social utilities, such as public health, transportation services, local identity, and place personality among neighborhoods. Housing facilities and the environment are part of QoL elements that may influence residents' satisfaction and QoL because the accessibility makes their lives easier (Arabi et al., 2020). Unfortunately, previous studies have dealt with housing provision and affordable housing (Hafidzi et al., 2019; Liu & Ong, 2021), but there has not been as much research on housing quality (Ali & Ghani, 2018). This study focuses on the QoL of residents living in the Malaysian government's low-income housing scheme, the People's Housing Project, known in Malay as PPR.

State	Owner PPR			Rented PPR		
	Handover	Occupied	Vacant	Handover	Occupied	Vacant
Johor	-	-	-	9,745	8,653	1.092
Kedah	2,016	721	1,295	1,894	1,529	365
Kelantan	2,568	1,709	859	-	-	-
Melaka	336	336	-	1,100	1,053	47
Negeri	250	142	108	420	418	2
Sembilan						
Pahang	3,668	3,552	116	-	-	-
Perak	99	99	-	1,175	848	327
Perlis	-	-	-	1,428	1,404	24
Pulau Pinang	231	227	4	768	722	46
Sabah	-	-	-	23,009	19,157	3,852
Sarawak	1,124	1,124	-	3,016	2,996	20

Table 1: Occupied people's housing programme in Malaysia

Selangor	1,880	1,819	61	3,304	2,928	376
Terengganu	-	-	-	1,002	974	28
W.P. Kuala	2,100	1,785	315	32,762	32,195	567
Lumpur						
W.P. Labuan	-	-	-	-	-	-
W.P. Putrajaya	-	-	-	-	-	-
Total	14,272	11,514	2,758	79,623	72,177	6,746

Source: Ministry of housing and local government (2023)

The study's goals are to analyse the impact of the PPR environment on residents' experiential values and how it affects their QoL. The findings of this study are intended to serve as a foundation for improving the performance of PPR in Malaysia and the QoL of its B40 category residents.

LITERATURE REVIEW

People housing projects and B40 residents

PPR is an initiative by the Malaysian government to provide income earners under the B40 category to find a home and eradicate squatter areas throughout the nation. The B40, or the "bottom 40%," is the socio-economic category that identifies the population's accumulated monthly household income. According to the Department of Statistics Malaysia (DoSM), the B40 group is represented by those people with a monthly household income of RM5,250 and below (Department of Statistics Malaysia, 2023). A survey report conducted by (Department of Statistics Malaysia, 2023) revealed that the B40 category represents the bottom 40% of household incomes in Malaysia, consisting of 3.16 million households earning less than RM5,250. As these households suffer from a smaller income, they may end up on the streets if they cannot pay for rent or monthly mortgage installments. Some of them might not even have enough money for food. That is why the government must look after the basic shelter needs among the lower-income earners. Recognizing this fact, the Malaysian government is attempting to tackle this issue through several projects, such as PPR, which is in line with the Fourth Malaysia Plan.

The National Housing Department under the Ministry of Local Government Development is the primary body responsible for implementing the PPR projects in Malaysia (National Housing Department, 2022). In the 2024 Budget recently, Prime Minister Datuk Seri Anwar Ibrahim announced that the government will provide RM2.47 billion to implement the future PPR (Azmi et al., 2023). As of 30th June 2023, a total of 31 PPRs comprising 40,046 units have been completed in the Klang Valley, with 26 PPRs under DBKL's supervision, one under the Selangor government, and four under the Ministry (Azmi et al., 2023). PPR can be divided into two categories: Rented PPR and Owned PPR. Through this program, the government uses PPR as an initiative to give low-income groups a chance to purchase a home. Owned PPR homes are offered for sale in Peninsular Malaysia for RM35,000 per unit, while Sabah and Sarawak are offered for RM42,000 per unit (National Housing Department, 2022). Certain qualifications are imposed on this household group to qualify for this housing scheme.

All houses built under Rented PPR and Owned PPR programs use the low-cost housing planning and design specifications set by the National Housing Standard for Low-cost Flats Housing (CIS3: 2005). Despite facing numerous challenges, the Local Government Development Minister Nga Kor Ming said he was committed to enhancing PPR's livability, stating that all new PPR development must be constructed following five key principles, namely accessibility, livability, connectivity, decent community, and sustainability features to satisfy present and future requirements (Azmi et al., 2023). Table I shows that the number of occupied residents in rented PPR is more than that of the PPR owned by 72,177 residents all over Malaysia, as compared to 11,514 residents who owned the PPR homes. This indicates that the majority of the B40 community still cannot afford to have their own house.

Quality of life

The general understanding of the QoL explains that an individual or social group should work to fulfil physiological needs. QoL refers to how individuals perceive their position in society as being in line with their interests, expectations, goals, and living standards within the system of culture and values

in which they live (Morkoç & Erdönmez, 2018). According to Gou et al. (2018), the concept of QoL deals with the qualitative parameters of human life, way of living, lifestyle, and living conditions of society. Besides favourable living conditions, QoL is also commonly seen in terms of health, individual well-being, quality of public services, and general satisfaction in terms of cognitive state (Vaishar et al., 2018). Similarly, Marans (2015) explained that the study of QoL is associated with concepts such as health, liveability, well-being, urban environmental quality, sustainability, satisfaction, happiness, quality of place, or standard of living. Many factors affect the individuals' QoL positively or negatively (Tvaronavičienė et al., 2022). According to Palimaru et al. (2023), the World Health Organization recognizes that the perceived QoL dimensions are embedded in cultural, social, and environmental contexts. Yet, very few housing programs track QoL as an outcome that can be used to tailor service provision. At the same time, gaps remain in understanding what matters most to emerging low-income groups regarding their QoL.

Quality of life and housing environment

Previous studies suggest that housing quality and the surrounding environment influence individuals' perceived QoL (Frederick et al., 2014). Housing environment refers to the external facilities and public spaces in the entity owned by a building (Sanchez et al., 2020). It refers to the spaces in a building that will provide performance improvement in a building. The quality of the environment is not only focused on personal space, but it includes the development of the external environment and public space (Juharia & Dauda, 2015). Aspects of housing quality that may impact QoL include (but are not limited to) physical attributes (such as heat, cold, noise, and ventilation), biological exposures (like pest infestations and mold spores), and social environment (for example, fear of crime, poverty, and social exclusion) (Bovell-Ammon et al., 2021). In a local study, Alias et al. (2023) find that CPTED directly enhances residents' QoL and highlights its importance in shaping effective CPTED-based housing policies. According to Gou et al. (2018), an individual's QoL in Hong Kong depends not only on the subjective evaluation of their personal life but also on the place in which they live, which is affected by the characteristics of the residential environment. The places where people live, work, and relax represent dimensions of OoL, generally referred to as quality of urban life (QoUL) (Marans, 2015). According to Chowdhury et al. (2023), Dhaka's lower- and middleincome families typically reside in overcrowded or compact households in high-density apartment buildings. These crowded areas with poor environmental qualities and privacy lead to unfavorable living conditions, directly or indirectly affecting residents' QoL. Similarly, Chowdhury et al. (2021) and Chowdhury et al. (2023) stated that residents' QoL is influenced by their living environment, which affects their well-being, feelings, emotions, moods, and productivity. Hence, the following hypothesis is predicted.

H1: The PPR environment has a significant influence on QoL

Housing environment on experiential values

In general, experiential value is a relativistic preference characterizing a subject's experience with some object (Hans et al., 2021). Hans et al. (2021) referred to experiential value as the value derived from a subject's experience interacting with a product or a service. The traditional concept has been broadened by Holbrook (1994) to incorporate three aspects of value, which are (a) extrinsic versus intrinsic value, (b) active versus reactive value, and (c) self-oriented versus other-oriented value. According to Zhang and Wang (2021), residents' living conditions can be improved by adjusting individual perceptions and experiences in their housing environments. Saliu et al. (2023) consistently revealed that elements of the physical residential environment are crucial in developing occupants' comfort experience. People have a variety of experiences, and those experiences are connected to other aspects of that space's spatial and environmental factors. Lee and Kim (2020) suggested that space usability and residents' living standards strongly correlate with older adult's mental well-being. In this case, the user experience will be the primary driver of design strategies to investigate occupants' well-being in their living environment. Therefore, in a highly dense domestic setting, Chowdhury et al. (2023) suggested that the architectural design and decision-making process should consider and incorporate the domestic experiences of the occupants. Based on this discussion, the following hypothesis is conjecture.

H₂: The PPR environment has a significant influence on experiential value

Experiential values on quality of life

Manschot and Sleeswijk (2011) suggested that how people value an experience relates to the product or service other people and systems provide. In housing elements, the relationship between the family, social environment, community facilities environment, and neighborhood physical environment domains produces the residents' experience Karim (2012). According to Makinde (2015), the residents' experience value of these four domains will affect their attitude and, ultimately, their OoL. To meet the residents' needs, satisfy them, and maintain the overall health of individuals and the public, he recommended that the sociocultural experience be considered. Ricci (2018) argued that landscape, past experiences, personality traits, and sensory associations impact an individual's response to environmental stimuli. Hence, Mubinova and Gokgol (2023) suggested that architects should design spaces and building environments that promote well-being, improved performance, and pleasant experiences for occupants. In the context of shophouse residents, Zahra et al. (2021) described interactions of experiential value that occurred in the shophouse. Since the pre-occupation phase, the participants have already interacted with the building environment, which continues at the post-occupation stage and still occurs after achieving their QoL. Shaheen and Ibrahim (2021) firmly believed that key elements of design and environment can enrich the human experience, facilitating a path toward human happiness and well-being. Hence, the following hypotheses are predicted.

H₃: Experiential value has a significant influence on QoL

H4: Experiential value significantly mediates the relationship between the PPR environment and QoL

RESEARCH METHODOLOGY

This study adopted a cross-sectional research design and quantitative method through a survey questionnaire with PPR residents in Malaysia. Geographically, the work scope is urban, specifically in large cities, including Johor Bahru, Kuala Lumpur, Kuantan, Penang, and Kota Kinabalu. The main reason for selecting such urban locations is the existence of PPR flats in these cities. 704 respondents were selected using purposive sampling through contact with the PPR block leaders in July 2022. Before the survey was distributed, the researchers approached the Ministry of Local Government Development for approval to conduct a study in the PPR context. Once the permission was obtained, the approval letter and appointments were scheduled with PPR block leaders for the survey activities.

Measurement of the constructs

A questionnaire was developed based on the indicators linked to each proposed research model's constructs. Section A comprises the demographic profile of the respondents. Section B contains items related to the QoL construct adapted from Streimikiene (2015), followed by the PPR residential environment construct in Section C, which was adapted from (Arabi et al., 2020; Cozens & Sun, 2019; Olanrewaju & Lee, 2022). Finally, Section D is related to the experiential value construct, adapted from Streimikiene (2015). The respondents were asked to indicate their perception levels on a 6- 6- point Likert scale, ranging from Strongly Disagree (1) to Agree (6) Strongly. Table II shows the measurements of the constructs and their sources.

Constructs	Items	Source(s)
Quality of Life (QoL)	13	[48]
PPR Environment	5	[16];[49];[50]
Experiential Values	7	[48]

Two experts in research methodology carried out a pre-test, and, after further corrections, the final survey draft was piloted to 30 respondents. A preliminary data analysis was performed, and a reliability assessment of the constructs was carried out by calculating the values of Cronbach's alpha for each construct separately. The results of Cronbach's alpha were 0.852 for QoL, 0.848 for PPR environment, and 0.877 for experiential values. Hence, the internal consistencies of all constructs were considered acceptable since each reliability test exceeded the threshold (>0.70) suggested by Hair et al. (2019). In addition, assessing the normality of the metric variables in this study involves

Source: processed by author, 2024

empirical measures of a distribution's shape characteristics (skewness and kurtosis). Table III shows that the normality assessment values for QoL, PPR environment, and experiential values are between ± 3.00 as suggested by Hair et al. (2019). Therefore, this assessment confirms that the data of this study is normally distributed.

Constructs	Skewness	Kurtosis
Quality of Life (QoL)	0.193	2.159
PPR Environment	-0.081	1.573
Experiential Values	0.315	0.858

DATA ANALYSIS

Data were analysed using Partial Least Squares-Structural Equation Modelling (PLS-SEM) with two main models: the measurement and structural models. The PLS-SEM method is the most suitable method to explore the relationship between targeted variables (Hair et al., 2019). Karimimalayer et al. (2012) state that PLS-SEM can simultaneously evaluate a model construct relationship. Henseler and Chin (2010) suggested using 5000 replications of samples (i.e., bootstrapping theory) to assess the significant influence of the variables by estimating the bootstrap t-value.



Figure 1: The research framework

Based on the research framework illustrated in Fig. I, this study predicts that the independent latent construct of the PPR environment will significantly associate with the dependent latent construct of QoL. Meanwhile, the mediating construct of experiential values is expected to be influenced by the PPR environment, and subsequently, this mediating factor is anticipated to have a significant influence on QoL.

FINDINGS AND DISCUSSION

Regarding the demographic characteristics, 60.8% of the study's participants were female compared to 39.2% male. Further, the age group ranges show that more than half (56.1%) of the respondents were below 40 and married (63.8%). This study also tapped some information on the household, and 35.4% of the respondents were family leaders. Most respondents were employed fulltime (40.8%), with an earned monthly income of less than RM1,200 (58.0%).

The extent of quality of life

This section presents and analyzes the findings on the QoL among PPR residents in Malaysia. A onesample t-test was employed to determine whether the overall QoL significantly differs from a predefined benchmark. As shown in Table 4, the results indicate a mean QoL score of 4.1497, suggesting that PPR residents experience a high quality of life, with statistical significance at the 1% level. Overall, the findings suggest that residents generally enjoy positive well-being, with most expressing satisfaction with their neighborhood relationships. They find their homes comfortable and appealing, appreciate the nearby economic activities, and frequently socialize with their neighbors.

Source: processed by author, 2024

			One-Sample T-	Test
	n	Mean	t-statistic	p-value
OoL	704	4.1497	182.778	.000***

Note: Result is significantly different at *** 1% level and ** 5% level, respectively, using two-tailed tests

Source: processed by author

An independent sample t-test was conducted to examine the differences in QoL among PPR residents based on gender. The results in Table 5 reveal a significant disparity, with the t-statistic reaching 2.741**, indicating statistical significance at the 5% level. Male residents reported a higher QoL (mean = 4.7664) than female residents (mean = 4.1389). This difference may be attributed to the distinct biological and environmental factors that shape the daily lives and work roles of men and women. The findings align with previous studies by Badr et al. (2021) and Lam et al. (2017), which identified female gender as a significant independent correlate of lower QoL. Culturally, women often bear the burden of multiple responsibilities, including household chores and childcare. For working women, balancing these duties with professional commitments often leaves little time for recreational activities or socialization, potentially impacting their overall quality of life.

Table 5: Quality of Life based on gender

			Ind. Sample T-Test	
Gender	n	Mean	t-statistic	p-value
Male	276	4.7664		
Female	428	4.1389	2.741	.013**

Note: Result is significantly different at *** 1% level and ** 5% level, respectively, using two-tailed tests

Source: processed by author

Measurement model assessment

SmartPLS 4.0, a PLS-SEM software, was used to examine the research model (Fig. 1). PLS-SEM consists of a two-step process as suggested by Hair et al. (2016), which involved the calculation of the parameters of the PLS model separately by solving the measurement model and then calculating the path coefficients of the structural model. The next sub-sections describe the findings of the research model.

The measurement model assesses how much an item is loaded on its underlying construct (Henseler et al., 2015). PLS evaluates the reflective measurement model in terms of consistency reliability, indicator reliability, convergent validity, and discriminant validity. The statistics should meet three permissible levels to secure consistency and indicator reliabilities, which are (a) factor loadings of 0.40 are considered acceptable in exploratory studies (Hair et al., 2017), (b) Cronbach's alpha values must be larger than 0.7 (Hair et al., 2019) and (a) composite reliability (γ) should be significantly more than 0.7 (Gefen et al., 2000). Further, each latent variable's average variance extracted (AVE) should be bigger than 0.5 (Hair et al., 2018) to ensure convergent validity.

The results of the reflective measurement model are displayed in Table VI. The findings indicate that all construct items' factor loadings exceeded 0.40, except for item QoL9. Further, both Cronbach's alpha and composite reliability values were greater than 0.7. As a result, these two reflective constructs, PPRE and QoL, can be considered reliable. The AVE values exceeded the cut-off value of 0.5. These results confirmed the constructs' convergent validity of PPRE and QoL after the item QoL9 was removed from the construct QoL.

Indicators/Items	Loading	α	γ	AVE	
PPR Environment					
PPRE 1	0.750				
PPRE 2	0.725				
PPRE 3	0.635	0.799	0.817	0.553	
PPRE 4	0.813				
PPRE 5	0.782				

Experiential Values				
EV 1	0.736			
EV 2	0.814			
EV 3	0.867			
EV 4	0.723	0.838	0.879	0.515
EV 5	0.709			
EV 6	0.674			
EV 7	0.642			
Quality of Life				
QoL 1	0.669			
QoL 2	0.626			
QoL 3	0.669			
QoL 4	0.759			
QoL 5	0.692	0.870	0.894	0.535
QoL 6	0.786			
QoL 7	0.693			
QoL 8	0.672			
QoL 10	0.653			
QoL 11	0.590			
QoL 12	0.685			
QoL 13	0.791			

Note: α = Cronbach's Alpha; γ = Composite Reliability; AVE = Average Variance Explained; *p<.05

Source: processed by author

Finally, the discriminant validity was assessed using the heterotrait-monotrait ratio (HTMT) introduced by Henseler et al. (2015). They recommended a cut-off point of 0.85, and when HTMT values are higher than 0.85, it indicates that discriminant validity problems occur. The HTMT score for assessing the discriminant validity of PPRE and QoL was 0.758, lower than the recommended guideline of 0.85.

Table 7 displays the HTMT values that evaluate the discriminant validity of the latent constructs, PPRE, EV, and QoL.

Table 7: The HTMT values

	EV	PPRE	QoL
EV			
PPRE	0.677		
QoL	0.715	0.758	



Source: processed by author

Figure 2: The estimated measurement and structural model

Structural model assessment

Fig. 2 shows the findings for structural model assessment. The predictive power result shows that the two variables in the model could explain about 68.8% of the variance explained toward the QoL, indicating a 'substantial' model.

Hair et al. (2017) proposed an additional step of examining the change in the R² value via the effect size (f^2) value. The effect size (f^2), which measures the impact of a particular predictor construct on an endogenous construct, is shown in Table 8. The f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects on an endogenous construct (Gefen et al., 2000). PPR environment construct was observed to have a large effect size on experiential values ($f^2 = 0.545$) and QoL ($f^2 = 0.162$). Similarly, the experiential values construct had a large effect size on QoL ($f^2 = 0.829$).

	EV		QoL	
Experiential Values			0.829	
PPR Environment	0.545	0.162		

Table 8:	Effect sizes	(f^2)	result
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Source:	processed	by	author
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Table 9 reveals compelling evidence of highly significant causal relationships, particularly highlighting the powerful impact of experiential values on QoL. Notably, the strongest relationship between experiential values and QoL was found, surpassing all other relationships examined. The link between the PPR environment and experiential values closely followed this. The data underscores the relatively strong influence of experiential values, which was twice as impactful as the effect of the PPR environment.

The findings reveal compelling results, with the relationship between the PPR environment and QoL having a coefficient of $\beta = 0.279$ and a t-statistic of 3.067^{***} . In contrast, the relationship between experiential values and QoL showed an even stronger coefficient of $\beta = 0.632$ and a t-statistic of 7.401^{***} . These figures indicate that both predictors significantly and positively impact QoL, thus supporting hypotheses H1 and H3. Moreover, the PPR environment also significantly influences experiential values, with a coefficient of $\beta = 0.594$ and a t-statistic of 6.386^{***} , thereby supporting hypothesis H2. Overall, experiential values exert a more substantial influence on QoL than the PPR environment.

Hyp.	Path Estimate	β	<i>t</i> -stat	<i>p</i> -value	Remarks
H ₁	PPR Environment \rightarrow QoL	0.279	3.067	.002***	Supported
H ₂	PPR Environment \rightarrow Experiential Values	0.594	6.386	.000***	Supported
H ₃	Experiential Values \rightarrow QoL	0.632	7.401	.000***	Supported
H ₄	PPRE → Experiential Values → QoL	0.376	4.643	.000***	Supported

Table 9: Path coefficients of structural model

Note: ***denotes significance at .001 level; **denotes significance at .05 level; NS denotes not significant

Source: processed by author

This study delves into the crucial role of experiential values in enhancing the QoL, specifically by exploring their mediating effect on the relationship between the PPR environment and QoL. As shown in Table 9, the analysis reveals that experiential values exert a highly significant indirect effect on QoL ($\beta = 0.376$, t-stat = 4.643***), demonstrating their mediating influence. Positive direct and indirect effects suggest a complementary partial mediation, indicating that experiential values consistently enhance the positive relationship between the PPR environment and QoL. This phenomenon, often referred to as a "consistent model" or a model with positive confounding (Zhao et al., 2010), emphasizes the integral role experiential values play in amplifying the benefits of the PPR environment on residents' quality of life.

CONCLUSION

This study sought to determine whether experiential values mediate the relationship between the PPR environment and the QoL of PPR communities in Malaysia, addressing a notable gap in existing literature. Unlike prior research, which predominantly focused on experiential values in consumer

and tourist behavior (Coelho et al., 2020; Jang et al., 2019; Barnes et al., 2020), this study explored the long-term outcomes of encounter-based experiences within a housing context. This unique perspective was inspired by Makinde (2015), who emphasized the need to consider residents' experiential values to meet their needs, enhance satisfaction, and improve overall well-being.

The findings align with Alias et al. (2023), highlighting the critical role of the PPR environment and experiential values in enhancing the QoL for low-income residents. Notably, the data revealed that experiential values not only have a significant direct impact on QoL but also serve as a key mediator between the PPR environment and QoL. This dual role underscores the importance of fostering positive experiential values to improve residents' well-being.

Furthermore, the study confirmed that a supportive PPR environment positively influences QoL among Malaysian PPR residents. These insights suggest a timely call to action for the government to collaborate closely with the private sector in creating more livable environments in PPR housing. Strengthening partnerships through corporate social responsibility initiatives, such as providing essential facilities, could reduce the financial burden on the government and significantly improve residents' quality of life. This study thus offers a fresh perspective on the intersection of environmental factors, experiential values, and QoL, advocating for a comprehensive approach to housing policy and community well-being.

This study is groundbreaking as it introduces the concept of experiential values into the research on the PPR environment, offering a new dimension to understanding QoL in public housing. Experiential values—such as the sense of community, aesthetic pleasure, and personal comfort—are crucial to how individuals perceive their living environments and derive happiness. These values often create strong emotional attachments to one's home, yet they are frequently overlooked in housing policies due to their intangible nature. This study highlights that neglecting experiential values can lead to a significant gap in the QoL of residents, emphasizing that people's lived experiences are at the heart of true well-being.

The findings advocate for a comprehensive review of the National Housing Policy to foster more conducive, comfortable, and high-quality low-cost housing. This review should prioritize the demographic and sociocultural needs of local communities, rather than being driven solely by developers' profit motives. For instance, Singapore's Housing and Development Board (HDB) has successfully implemented policies that cater to the diverse needs of its population, ensuring community cohesion and inclusivity. Similarly, the Netherlands has embraced mixed-income housing projects, which have been effective in preventing socio-economic segregation and enhancing the QoL for all residents.

Moreover, the study suggests that the placement of PPR schemes should be strategically planned to avoid isolated locations that lack essential infrastructure and services. Lessons can be drawn from Germany's approach, where public housing is often integrated into well-developed urban areas, providing residents with easy access to public transport, schools, and healthcare facilities (Bosswick et al., 2007). This integration not only improves residents' quality of life but also fosters a sense of belonging and inclusion.

Future low-cost housing policies should also account for the social and economic statuses of residents, ensuring that low-income individuals have the same opportunities to enhance their QoL and economic prospects as other income groups. This egalitarian approach is akin to Sweden's social housing model (Grander, 2017), which aims to provide high-quality housing for all, irrespective of income, thus maintaining social equity and cohesion.

The research also calls for future studies to expand beyond Malaysia, exploring the impact of the PPR environment and experiential values on QoL in different global contexts. Comparative analyses could reveal best practices and innovative solutions from around the world, such as the community-focused designs seen in Japan's Machizukuri projects or the sustainable (Mamula-Seadon et al., 2015), eco-friendly public housing developments in Norway (Prevost, 2020). By understanding how different countries address the well-being of low-income earners, policymakers can adopt and adapt these successful models to enhance the living conditions and overall well-being of residents in Malaysia and beyond.

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REFERENCES

- Ali, M., Abdul, N. A., & Ghani, I. (2018). Interpreting the Meaning of Housing Quality Towards Creating Better Residential Environment. *Environment-Behaviour Proceedings Journal*, 3(8), 141-154. https://doi.org/10.21834/e-bpj.v3i8.1414
- Alias, Z., Mohan, N.M.M., Ghani, M.R.A., Saad, M., & Abdullah, M. (2023). Crime Prevention Through Environmental Design for Low-Income Residents (B40) in Sabah, Malaysia. *Nakhara Journal* of Environmental Design and Planning, 22(3), 318, 1-21
- Al-Mamum, A., & Adaikalam, J. (2011). Examining the Level of Unsatisfied Basic Needs Among Low-Income Women in Peninsular Malaysia. *International Research Journal of Finance and Economics*, 74, 89-96.
- Arabi, M., Naseri, T. S., & Jahdi, R. (2020). Use All Generation of Crime Prevention Through Environmental Design (CPTED) for Design Urban Historical Fabric (Case Study: The Central Area Of Tehran Metropolis, Eastern Oudlajan). *Ain Shams Engineering Journal*, 11(2), 519-533.
- Azmi, A., Povera, A., Daim, N., & Mohamed Radhi, N. A. (2023). 2024 Budget: RM2.47b Allocated for People's Housing Project Schemes. News Strait Times Online.
- Badr, H. E., Rao, S., & Manee, F. (2021). Gender Differences in Quality of Life, Physical Activity, and Risk of Hypertension Among Sedentary Occupation Workers. *Quality of Life Research*, 30, 1365-1377.
- Barnes, S. J., Mattsson, J., Sørensen, F., & Friis Jensen, J. (2020). The Mediating Effect of Experiential Value on Tourist Outcomes from Encounter-Based Experiences. *Journal of Travel Research*, 59(2), 367-380.
- Bosswick, W., Heckmann, F., Lüken-Klaßen, D., & Kohlbacher, J. (2007). Housing and Integration of Migrants in Europe.
- Bovell-Ammon, A., Yentel, D., Koprowski, M., Wilkinson, C., & Sandel, M. (2021). Housing is Health: A Renewed Call for Federal Housing Investments in Affordable Housing for Families with Children. *Academic Pediatrics*, *21*(1), 19-23.
- Chowdhury, S., Noguchi, M., & Doloi, H. (2021). Conceptual Parametric Relationship for Occupants' Domestic Environmental Experience. *Sustainability*, *13*(5), 2982-2998.
- Chowdhury, S., Noguchi, M., & Doloi, H. (2023). Methodological Approach of Environmental Experience Design to Enhancing Occupants' Well-Being, Bangladesh. *Buildings*, *13*(2), 542-561.
- Coelho, F. J., Bairrada, C. M., & de Matos Coelho, A. F. (2020). Functional Brand Qualities and Perceived Value: The Mediating Role of Brand Experience and Brand Personality. *Psychology & Marketing*, *37*(1), 41-55.
- Cozens, P., & Sun, M. Y. (2019). Exploring Crime Prevention Through Environmental Design (CPTED) and Students' Fear of Crime at An Australian University Campus Using Prospect and Refuge Theory. *Property Management*, *37*(2), 287-306. <u>https://doi.org/10.1108/PM-04-2018-0023</u>
- Cunningham, M., Gillespie, S., & Batko, S. (2019). *How Housing Matters for Families.* Metropolitan Housing and Communities Policy Center.
- Department of Statistics Malaysia. (2023). *Malaysia Household Income & Expenditure | OpenDOSM*. OpenDOSM. <u>https://open.dosm.gov.my/dashboard/household-income-expenditure</u>
- Frederick, T. J., Chwalek, M., Hughes, J., Karabanow, J., & Kidd, S. (2014). How Stable is Stable? Defining and Measuring Housing Stability. *Journal of Community Psychology*, *42*(8), 964-979.
- Gefen, J., Straub, D., & Boudreau, M. (2000). Structural Equation Modeling and Regression: Guidelines for Research Practice. *Communication of the Association for Information Systems*, 4(7), 2-77.
- Ghezelseflou, S., & Emami, A. (2023). Low-Income Households' Responses to Residential Dissatisfaction: A Phenomenological Approach. *Housing Studies*, 1-24.
- Gou, Z., Xie, X., Lu, Y., & Khoshbakht, M. (2018). Quality of Life (QoL) Survey in Hong Kong: Understanding the Importance of Housing Environment and Needs of Residents from

Different Housing Sectors. *International Journal of Environmental Research and Public Health*, *15*(2), 1-16. https://doi.org/10.3390/ijerph15020219

- Grander, M. (2017). New public housing: A Selective Model Disguised as Universal? Implications of the Market Adaptation of Swedish Public Housing. *International Journal of Housing Policy*, *17*(3), 335-352.
- Hafidzi, N. A., Tarmidi, Z., Maimun, N. A., Hassan, N., Noor, N. M., Ariffin, A., & Norasma, C. Y. N. (2019). Assessing Sustainability Level from Social Aspects for Affordable Housing in Malaysia Using Spatial Indicators. *The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences*, 42, 215-219.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd Ed.). Thousand Oaks. New York: Sage Publications, Inc.
- Hair, J. F., Page, M., & Brunsveld, N. (2019). *Essentials of Business Research Methods*. (4th Ed). Routledge.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced Issues in Partial Least Squares Structural Equation Modelling*. Sage Publications.
- Han, S., Yoon, J. H., & Kwon, J. (2021). Impact of Experiential Value of Augmented Reality: The Context of Heritage Tourism. *Sustainability*, *13*(8), 4147-4162.
- Henseler, J. & Chin, W. W. (2010). A Comparison of Approaches for the Analysis of Interaction Effects Between Latent Variables Using Partial Least Squares Path Modeling. *Structural Equation Modeling*, *17*(1), 82-109.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, 43, 115-135. <u>https://doi.org/10.1007/s11747-014-0403-8</u>
- Holbrook, M. B. (1994). The Nature of Customer Value. *An Axiology of Services in the Consumption Experience*, 21-71.
- Ibhrim, Z., Zur Raffar, I. N. A., Aziz, S. A., & Dzaky, A. (2022). Impact of the Covid-19 Pandemic on the Standard of Living of the B40 Group. *Environment-Behaviour Proceedings Journal*, 7(22), 9-13.]
- Jang, J. Y., Hur, H. J., & Choo, H. J. (2019). How to Evoke Consumer Approach Intention Toward VR Stores? Sequential Mediation Through Telepresence and Experiential Value. *Fashion and Textiles*, 6(1), 1-16.
- Jiboye, A. D. (2012). The Place of Governance in Effective Housing Deliverance for Sustainable Urbanization in Nigeria. *Spaces and Flows: An International Journal of Urban and Extra Urban Studies*, *15*(1), 31-48.
- Juharia, H., & Dauda, S. Z. (2015). Post Occupancy Evaluation of Physical Environment in Public Low-Cost Housing. *Jurnal Teknologi*, *75*(10), 155-162.
- Karim, H. A. (2012). Low-cost Housing Environment: Compromising Quality of Life? *Procedia-Social and Behavioral Sciences*, *35*, 44-53.
- Karimimalayer, M., Alavifar, A., & Anuar, M. (2012). Structural Equation Modeling vs Multiple Regression the First and Second Generation of Multivariate Techniques. *Engineering Science and Technology: An International Journal, 2*, 2250-3498.
- Komak, F. A., Bakar, N. A. A., Aziz, F. A., & Ujang, N. (2023). Assessing the Impact of Public Infrastructure on Neighbourhood Liveability in Cyberjaya, Malaysia: A Global Technological Hub. *Journal of Urban and Regional Analysis*, *15*(2), 273-302.
- Lam, C. L. K., Guo, V. Y., Wong, C. K. H., Yu, E. Y. T., & Fung, C. S. C. (2017). Poverty and Health-Related Quality of Life of People Living in Hong Kong: Comparison of Individuals from Low-Income Families and the General Population. *Journal of Public Health*, *39*(2), 258-265.
- Lee, L. N., & Kim, M. J. (2020). A Critical Review of Smart Residential Environments for Older Adults with A Focus on Pleasurable Experience. *Frontiers in Psychology*, *10*, 3080.
- Liu, J., & Ong, H. Y. (2021). Can Malaysia's National Affordable Housing Policy Guarantee Housing Affordability of Low-income Households? *Sustainability*, *13*(16), 8841-8863.
- Makinde, O. O. (2015). Influences of Socio-Cultural Experiences on Residents' Satisfaction in Ikorodu Low-Cost Housing Estate, Lagos State. *Environment, Development and Sustainability*, *17*(1), 173-198.
- Mamula-Seadon, L., Kobayashi, I., & Maki, N. (2015). Place-making After a Disaster: Japanese Practice of Machizukuri. *Planning Quarterly*, (199).

- Manschot, M., & Sleeswijk V. F. (2011). Experience-value: A Framework for Determining Values in Service Design Approaches. *The* 4th *World Conference on Design Research*, 1-10.
- Marans, R. (2015). Quality of Urban Life and Environmental Sustainability Studies: Future Linkage Opportunities. *Habitat International*, 45(1), 47–52.
- Ministry of Housing and Local Government. (2023). *Housing for All: A Better Urban Future*. Habitat Magazine.
- Mohd. R. F. A., Zainon, N., Sulaiman, S., Lou, E., & Zulkifli, N. H. (2019). Factors Affecting the Ownership of Low-cost Housing for Socio-economic Development in Malaysia. *Journal of Building Performance*, *10*(1), 1-16.
- Morkoç, K. D. & Erdönmez, C. (2018). Yükseköğretim Öğrencilerinin Yaşam Kalitesine Yönelik Algıları: Çanakkale Onsekiz Mart Üniversitesi Örneği. *Yönetim Bilimleri Dergisi*, *16*(32), 509-532.
- Mouratidis, K. (2021). Urban Planning and Quality of Life: A Review of Pathways Linking the Built Environment to Subjective Well-being. *Cities*, *115*, 103229.
- Mubinova, S., & Gokgol, M. K. (2023). What are the Impacts of Architectural Design on Occupants' Well-being, and How Can Architects Optimize Spaces to Enhance Productivity? *Proceedings* of London International Conferences 8, 34-40. <u>https://doi.org/10.31039/plic.2023.8.158</u>
- National Housing Department. (2022). Program Perumahan Rakyat Dimiliki (PPR Dimiliki). Retrievedfrom:NationalHousingDepartmentOfficialWebsite.https://teduh.kpkt.gov.my/scheme/ppr_dimiliki
- Olanrewaju, A., & Lee, H. J. A. (2022). Analysis of the Poor-quality in Building Elements: Providers' Perspectives. *Frontiers in Engineering and Built Environment*, *2*(2), 81-94. https://doi.org/10.1108/febe-10-2021-0048
- Palimaru, A. I., McDonald, K., Garvey, R., D'Amico, E. J., & Tucker, J. S. (2023). The Association Between Housing Stability and Perceived Quality of Life Among Emerging Adults with a History of Homelessness. *Health & Social Care in the Community, 20*, 41-54.
- Pitting, Z., & Radzi, M. M. (2022). Exploring and Developing a Quality-of-life Instrument for Urban Poor Public Housing. *Jurnal Kinabalu*, *28*, 322-337.
- Prevost, L. (2020). House Hunting in Norway: Eco-Friendly with Fjord Views for \$1.9 Million. *International New York Times*, NA-NA.
- Riazi, M., & Emami, A. (2018). Residential Satisfaction in Affordable Housing: A Mixed Method Study. *Cities*, 82, 1-9.
- Ricci, N. (2018). The Psychological Impact of Architectural Design. (CMC Senior Theses). Claremont Colleges.
- Saliu, H. O., Sagada, M. L., Maina, J. J., & Sani, M. (2023). Residential Satisfaction Within Selected Public Housing Estates in Lokoja Kogi State, Nigeria. *Geografia-Malaysian Journal of Society and* Space, 19(3), 46-58.
- Salleh, N. A. S. M., & Latiffi, A. A. (2021). Kajian Kepuasan Penduduk Terhadap Kualiti Perumahan Program Perumahan Rakyat (PPR). *Research in Management of Technology and Business*, 2(2), 685-698.
- Sanchez. L, D., Christine Sotsek, N., & de Paula Lacerda Santos, A. (2020). Post-Occupancy Evaluation In Buildings: Systematic Literature Review. *Journal of Performance of Constructed Facilities*, 34(1), 03119002.
- Shaheen, L., & Ibrahim, M. A. A. (2021). Smart Happy City. WIT Transactions on Ecology and the Environment, 253, 527-537.
- Streimikiene, D. (2015). Environmental Indicators for the Assessment of Quality of Life. *Intellectual Economics*, *9*(1), 67-79. <u>https://doi.org/10.1016/j.intele.2015.10.001</u>
- Tvaronavičienė, M., Mazur, N., Mishchuk, H., & Bilan, Y. (2022). Quality of Life of the Youth: Assessment Methodology Development and Empirical Study in Human Capital Management. *Economic Research*, *35*(1), 1088-1105.
- Vaishar, A., Vidovičová, L., & Figueiredo, E. (2018). Quality of Rural Life: Editorial. *European Countryside*, 10(2), 180-190. <u>https://doi.org/10.2478/euco-2018-0011</u>
- Yassin, A. M. (2023). Strategi Pemilikan Perumahan Bagi Golongan Belia Di Kluang. *Research in Management of Technology and Business*, 4(1), 1449-1463.
- Zahrah, W., Ginting, N., Aulia, D. N., & Marisa, A. (2021). Shop as Home: The Meaning of Built Environment to Quality of Life of Shop Houses Residents in Medan, Indonesia. *Civil Engineering and Architecture*, 9(3), 932-948.

- Zainal, N. R., Kaur, G., Ahmad, N. A., & Khalili, J. M. (2012). Housing Conditions and Quality of Life of the Urban Poor in Malaysia. *Procedia-Social and Behavioral Sciences*, *50*, 827-838.
- Zakaria, S. M., Abdullah, N., Md. Akhir, N., Amin, A. S., Mohd Shukry, A. N. A., Abdul Rashid, M. R., & Wan Yusof, W. N. (2022). Perceptions of Quality of Life During the Pandemic: A Case Study on B40 Single Mothers. *International Journal of Environmental Research and Public Health*, 19(1), 12219.
- Zhang, L. X., & Wang, L. (2021). Influence of Indoor Environment Design on Occupants' Experience. *Journal of Environmental Protection and Ecology*, *22*(3), 1366-1375.
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths About Mediation Analysis. *Journal of Consumer Research*, *37*(2), 197-206. <u>https://doi.org/10.1086/651257</u>
- Zumaya, J. Q., & Motlak, J. B. (2021). Sustainable Housing Indicators and Improving the Quality of Life: The Case of Two Residential Areas in Baghdad City. *IOP Conference Series: Earth and Environmental Science*, 754(1), 12-32.