



Domestic Possessions and Space Adequacy in Urban Homes

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ABSTRACT

As economies and societies transform, housing models need to be modified accordingly to reflect the changes in demand and the shifts in living standards. This study seeks to ascertain whether the recently built private housing schemes provide adequate amount of space to meet the requirements of present-day living, considering the importance of domestic materials as instruments for domestic organization in modern homes. Data was collected by a questionnaire survey designed to elicit information on residents' attitudes towards the adequacy of the available space in their homes with regard to their belongings. Result from 179 residents of medium cost housing in the Klang Valley area of Malaysia indicates that the available home space seems inadequate. The provision of storage and circulation is also a cause for concern. The findings may be used to enhance urban housing design by incorporating the contemporary understanding of beliefs and ideologies attached to the home.

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1. Introduction

The amount of domestic possessions and in some cases, their accumulation has been suggested to have placed spatial pressure on homes (Hand, Shove, & Southerton, 2007).

The inability to efficiently perform household practices afforded by the possessions due to the lack of space has been shown to cause spatial restlessness in homes (Shove & Hand, 2005). Acquisition and accumulation of domestic goods in homes of contemporary residents and the spatial pressures created by them seem to go unnoticed by those in the housing industries, particularly where provisions of space is concerned.

Understandably, insufficient home space is more likely to be experienced by those in the lower segment of the housing sector (i.e. low-cost housing), as evidenced by a number of past researches (e.g. Abdul Mohit, Ibrahim, & Rashid, 2010; Husna & Nurizan, 1987; Idrus & Ho, 2008). Ideally, one would expect such shortcomings are less likely to be experienced by residents in the upper segment of housing, given the fact that the houses in that segment are much larger. However, there are evidences that space inadequacy in homes has also been experienced by those in the upper housing segment (e.g. Saruwono, 2007). Insufficient home space, it is thus argued, appears to affect a much larger population of dwellers in urban housing schemes.

Two main problems may have contributed to the predicament. One is the widening gap of housing affordability (Suhaida, Tawil, Hamzah, Che-Ani, & Tahir, 2010). Over the years, housing prices have soared, moving faster than the incomes of the average population. House prices over the last 20 years have increased by at least 200% while pay, especially that of government servants has generally not increased as much (Koh, 2010). Houses that used to be within the affordability of the middle income group have now become too expensive to own. Consequently, more people from the middle-income segment have shifted to housing in a lower price bracket. The options are either to buy smaller houses, to move to a cheaper location or a combination of the two (Kamal, 2011; Koh, 2010)

The second problem is that the rate of urbanization grows faster than improvements in the housing provisions (Salama, 2007). In many instances, urbanization equates rising living standards and higher quality of life, hence increasing expectations on housing quality. Evidence shows that rising living standards have caused a shift in contemporary understanding and evaluation of homes (Altas & Ozsoy, 1998; Corrigan, 1997). However, despite contemporary residents becoming increasingly conscious of quality issues in housing, the provisions of space standards have not changed much over the years. For example, the current regulations of minimum size and dimension of residential space (Malaysia-UBBL,

2010) which have been in use since 1984 have not been revised accordingly and thus, may not be suitable to address the requirements of present-day living. Interestingly, by the same token, the government, through the Ministry of Housing and Local Government has issued revised guidelines for space specifications in 2002, which shows a slight increase in the minimum requirement of room area (Idrus & Ho, 2008). However, the revised guidelines are applicable only to those of public housing.

2. Home Space, Domestic Items and Space Adequacy

Past researches have explored space adequacy in homes from the broad dimension of domestic requirements (e.g. Abdul Rahim, 2008; CABE, 2009b; Hashim, Rahim, Rashid, & Yahaya, 2006). However, this study attempts to focus on possession of domestic items as a contributing factor to space inadequacy in homes. The understanding here is that items “make alliances with other items and ideas” (Hand & Shove, 2007). If space is insufficient with regard to items owned, there are possibilities that it is also likely to be inadequate to serve other purposes (e.g. privacy, entertaining guests).

In explaining the relationship between home and items people place in its space, Warde (2005) defines a home as a place where “items are regularly obtained, appropriated and consumed by residents in the course of engaging in the practices of routines of everyday life”. Parallel to this, Oseland and Donald (1993) acknowledge that having more usable space affords efficient domestic practices and conversely less usable space may restrict certain practices. To most contemporary households, domestic items have become instrumental for domestic organization. Having them help in daily negotiation of the “generic problem of domestic coordination and practice” (Hand & Shove, 2007). However, placing items in home space not only consumes physical space, more importantly they consume space for the practices associated with them. Hence, the argument outlines the imperative need to investigate such relationships. Adequate space, it is thus argued, is important for basic living for it enables residents to go about their routines of everyday lives in comfort.

The results reported here come from the exploratory survey conducted as part of the bigger framework of the investigation. The findings are used to set the strategies and directions for the subsequent stage of investigation.

3. House Profile

The research emphasises the investigation of space adequacy within the context of contemporary urban middle-class dwellers. Therefore, a case study of a recently developed housing scheme would be ideal as it would provide contemporary background to the phenomenon investigated. For this purpose, a relatively new medium-cost housing scheme in Sungai Buloh, Selangor was selected to become the case study. The scheme consisted of a total of 1019 units of double storey houses of three plus one bedrooms and three bathrooms developed in three different phases. The price of the houses ranged between RM110,000 to approximately RM180,000 each, a range tailored to suit the middle and working class populations. The first phase comprising of 317 units of houses was occupied in 2005, followed by the second (422 units) and third phase (280 units), occupied in 2007 and 2008 respectively. Thus, residents in this housing scheme had lived in their present homes for not more than 6 years.

Table 1 shows the floor area of the spaces originally prescribed to the house. Each phase featured two variations of the plan layouts of type A and B, adding to a total of six variations. However, it was found that the plan layouts of type A and B in Phase 1 were identical. There were twelve internal room/space typically featured in the layout plus an external front porch and terraces. With the exception of house type A in Phase 3 which featured a fourth bedroom, all other houses featured a utility room instead. It is also important to note that not one phase provided storage space.

The gross floor area of the houses ranged approximately from 127 square meters to the largest of 145 square meters, with the average floor area for all six variations being 134 square meters. By comparison, the average floor area for Selangor is slightly bigger at 146 square meters¹. With the exception of “utility”, all other rooms/spaces in the sample were, on average, slightly smaller than those of Selangor. This is expected since the majority of the samples used for “Selangor” were built on bigger lots (i.e. 6.1m x 21.3m). In terms of internal layout, with the exception of one variation which used a split configuration of living, dining and kitchen areas, all others employed an open configuration of living and dining with split kitchen space.

Table 1: Floor area of the originally prescribed spaces of the case study.

Feature-First Floor	Floor area of room/space (in sq. m)						Mean Floor Area (sq. m)	
	Phase 1 6.1m x 18.3m (20'x60')		Phase 2 5.5m x 18.3m (18'x60')		Phase 3 6.1m x 21.3m (20'x70')		CASE STUDY	¹ Selangor
	Type A	Type B	Type A	Type B	² Type A	Type B		
³ Porch & terrace	5.6	5.6	11.1	18.8	12.1	13.9	11.2	17.1
⁴ Living	15.7	15.7	15.0	19.7	17.4	21.1	17.4	18.9
⁴ Dining	11.4	11.4	10.9	6.7	10.1	11.0	10.3	12.0
Kitchen	10.6	10.6	9.2	9.9	9.4	10.0	10.0	10.0
Utility	7.5	7.5	8.4	8.9	n/a	7.4	7.9	7.7
Bedroom 4	n/a	n/a	n/a	n/a	8.0	n/a	8.0	9.8
Bath 3	2.9	2.9	2.5	2.9	3.2	2.8	2.9	3.4
Feature-Ground Floor								
Bedroom 1	16.5	16.5	14.6	17.2	19.1	20.5	17.4	19.2
Family	10.4	10.4	8.9	6.7	11.5	11.8	10.0	10.0
Bedroom 2	10.6	10.6	10.5	9.9	9.8	9.8	10.2	11.6
Bedroom 3	8.8	8.8	9.3	8.9	9.8	8.8	9.1	11.1
Bath 1	3.6	3.6	3.3	3.8	3.2	3.6	3.5	4.0
Bath 2	2.9	2.9	3.6	2.9	3.2	2.9	3.1	3.5
Gross Floor Area	134sq.m	134sq.m	127sq.m	128sq.m	145sq.m	138sq.m	134sq.m	146sq.m

¹Source: Field work (2010). There is significant difference between the sample of the case study and that of Selangor in terms of mean floor area ($t=-2.6$, $df=23.83$, $p=.014$, $<.05$)

²Split configuration of living, kitchen and dining

³Area is calculated based on the area covered by a terrace.

⁴A combined living and dining is split for area calculation based on the imaginary plane indicated by an overhead beam running across and dividing the two areas.

Table 1 also reveals that the floor area of all “habitable space” have complied with the minimum requirement stipulated by the Uniform Building By-Laws (Malaysia-UBBL, 2010). The average size of rooms (i.e. gross floor area divided by the number of internal rooms/spaces) of the sample in the case study is 11.2 square meters and in Selangor, it is 12.2 square meters¹. By comparison, the Commission for Architecture and the Built Environment, UK (CABE) reported that the average size of rooms in a newly built dwelling in France, for instance is 26.9 square meters while in the UK, it is 15.8 square meters (CABE, 2009b).

4. Method

A self administered questionnaire was distributed by mean of a census to 834 houses, after excluding those unusable units (i.e. unoccupied or not used as residence). A total of 179 responses were collected, a return rate of 21.5%. Fifty-two responses were obtained

each from Phase 1 and Phase 3, while 75 responses were gathered from Phase 2. Although the response rate was somewhat lower than is usually recommended, it is nevertheless acceptable for exploratory purposes.

The survey consists of four sections: (1) house-related data, including the characteristics of the house, and residents' future intention and planning with regard to the house; (2) space adequacy scale and rating of space size; (3) household information, including demographic data; and (4) respondents' education and employment background. Section 3 forms the core of the questionnaire and had to be specially developed for the purpose.

Space adequacy in this research refers to the extent to which the available amount of home space supports the accommodation and consumption of domestic materials (i.e. furniture, appliances, and technologies). In other words, the research explores the functionality of the space in relation to the performance of domestic items. The underlying understanding is that sufficient space would provide efficient performance of materials, hence efficient household practices. Conversely, insufficient space leads to deficient practices. Therefore it is envisaged that by exploring the intersection of space-material-practice within the home space, it would possibly provide clues as to whether the available space is adequate or otherwise.

Four dimensions of space adequacy – (1) accommodation of items; (2) facilitation of the inscribed practice as afforded by the items; (3) circulation; and (4) storage space – are to be examined in order to ascertain whether residents have adequate amount of space in their homes. Following this model, it can be reasonably assured that residents have the adequate amount of space to perform daily routines in comfort when space in the home allows them to (1) accommodate and use items that they own or would like to own, (2) perform their domestic routines efficiently according to the inscribed functions of the items, (3) move around the house conveniently in presence of the items, and (4) store items that need to be stored.

A 19-item, 5-point Likert scale (1=strongly disagree and 5=strongly agree) was developed to capture space adequacy. Questions were adapted from past researches (CABE, 2009a; Oseland & Raw, 1991; Richins, 1994). A series of factor analyses that was

performed to the adequacy scale returned four factors. Factor 1 (accommodation-7 items), factor 2 (practice-5 items) and factor 3 (storage-4 items) registered the inter-item reliability of .792, .713 and .804 respectively. Due to a small number of items, factor 4 (circulation-3 items) used a mean inter-item correlation instead and registered an acceptable value of 2.99 (Pallant, 2009). The analyses thus confirm the four pre-determined dimensions of space adequacy described earlier.

In addition to the scale, residents were also asked to rate the original size of the eleven rooms or spaces commonly prescribed in their homes with regard to the amount of domestic items that they own or would like to own. A five-point small-large scale ranging from 1 which indicates “small” to 5 which corresponds to “large” was used. A mid-point 3 corresponds to “about right” in terms of space. Residents may have to reflect on the original size of rooms in cases where spaces have been enlarged. Given the fact that the housing is relatively new, residents were assumed to still have clear impressions of the original spaces. It was also indicated clearly at the beginning of both assessments that the frame of reference was domestic items owned by residents.

5. Result

5.1 The Floor Area

The Uniform Building By-Laws (Malaysia-UBBL, 2010) sets the minimum area requirements for the first and second habitable room at 11 and 9.3 square meters respectively, while for all other habitable rooms, the minimum area is set at 6.5 square meters, of which all are subjected to a minimum width of at least two meters. The minimum area for the kitchen is 4.5 square meters while for the bathroom, it is 1.5 square meters. The kitchen and the bathroom are also subjected to a minimum width of 1.5 and .75 meters respectively. Because “utility” is not considered as a habitable room, it is not subjected to any of these regulations.

Analysis of the floor area shown in Table 2 shows that all of the rooms or spaces prescribed to the houses have generally exceeded the minimum requirements by a substantial margin. The margin ranges from the biggest of 60% (living and dining) to the smallest of

19% (bedroom 4). The finding suggests that complying with the minimum area requirements is not a major concern for these type of houses, or for that matter, houses in the upper segments for they are generally much larger. The margin is expected since the minimum area requirements are mostly meant to regulate houses in the lower segment.

Table 2: Margin of floor area exceeding the minimum requirements.

Room/space	Mean Floor Area (sq. m)	Exceeded Min. Area Req. by (sq. m)	% exceeded
¹ Living & dining	³ 27.7	16.7	60%
² Bedroom 1	17.4	8.1	47%
Bedroom 2	10.2	3.7	36%
Bedroom 3	9.1	2.6	29%
Bedroom 4	8.0	1.5	19%
Family	10.0	3.5	35%
Kitchen	10.0	5.5	55%
Utility	7.94	n/a	n/a
Bath 1	3.5	2.0	57%
Bath 2	3.1	1.6	52%
Bath 3	2.9	1.4	48%

¹1st. habitable room/space

²2nd. habitable room/space

³Area combined.

5.2 Respondents

Almost 80% of the household heads are below the age of 46 and close to 50% have completed tertiary education. 60 % of the residents are dual earners and more than 80% of respondents are of the middle to high-income group. The data suggests that residents living in this housing scheme are predominantly young, have a decent level of education, at the early to mid stages of their lives and living a presumably comfortable life.

In terms of household structure, data indicates that a four, five and six-person family forms 65% of the total household surveyed. The data also reveals that the average number of persons per household of the sample is 4.96. The figure is slightly higher than the current national average of 4.31 persons per household (Department of Statistics Malaysia, 2010). However, the typical household size of the sample is within the national average of persons per household. Assuming the structure of a five-person family consists of a parent and three

children, data suggests that many houses in this sample are fully occupied.

The break down between owner and tenant is 92% and 9% respectively. 46% of respondents have been living in this housing scheme for less than three years while 54% report to have been living here for more than 3 years. Almost 85% indicate that they intend to stay in their present residence for at least another ten years, suggesting that the present homes are likely to be their permanent address, at least until they reach retirement age. Furthermore, as owners, residents may already have made huge financial investments on their homes. This is reflected by 43% of respondents who reported to have already extended their homes for more space. This further implies that temporary stay may not be justifiable.

5.3 General Description of Responses

5.3.1 Adequacy Scale

The undertone of the statements in the adequacy scale proposes that there be sufficient space in residents' homes to enable them to conduct practices associated with the domestic materials they own. Table 3 shows the overall mean score across all types and phases. The most obvious result is that the score for space adequacy in the home for all three phases was recorded as below the neutral score of 3.00, with the overall average score of all the phases being 2.58. The mean score for Phase 2 (2.51) and Phase 3 (2.79) are closer to being "unsure" than "disagree". Phase 1 is the only phase to have a mean score that leans towards "disagree". Nevertheless, the overall score indicates that on average, residents in the sample are generally uncertain about space inadequacy in their homes. By the same token, it is also important to note that there is no indication that the space is sufficient.

The most extensive disagreement expressed by the residents was in response to the factor relating to a lack of storage ("storage"), where the range of mean scores across all subgroups is between 1.68 and 2.05. For the total sample and all subgroups, the questions regarding there being no storage available consistently resulted in the "strongly disagree" bracket. In general, residents reported strong disagreement that they would not make significant improvements to how space is being consumed by items in the absence of storage. This suggests that the issue related to storage is very much a big concern for the residents.

Table 3: Overall mean score of space adequacy across all subgroups.

FACTOR	PHASE 1 n=52			PHASE 2 n=75			PHASE 3 n=52			MEAN ALL N=179
	Type A (n=18)	Type B (n=34)	Mean P1	Type A (n=37)	Type B (n=38)	Mean P2	Type A (n=26)	Type B (n=26)	Mean P3	
Accommodation & use	2.84	2.96	2.90	2.73	3.01	2.87	3.34	3.20	3.25	2.99
Practice	2.13	2.31	2.22	2.34	2.30	2.32	2.90	2.75	2.80	2.43
Storage	1.68	2.05	1.87	1.85	1.95	1.90	1.78	1.73	1.75	1.84
Circulation	2.55	3.04	2.80	2.76	2.81	2.78	3.11	3.05	3.07	2.87
SPACE ADEQUACY	2.36	2.61	2.48	2.45	2.58	2.51	2.87	2.75	2.79	2.58

(5-point agree-disagree scale - 1=strongly disagree; 2=disagree; 3=unsure; 4=agree; 5=strongly agree)

The other area of main concern across all subgroups refers to the extent to which the available space allows residents to practice household routines as afforded by the items that they own, according to the households' conventions ("practice"). For example, there are instances where a dining table for six people can only be used for four due to space limitations. The mean score for "practice" is 2.43, suggesting that there was general agreement that the available space is insufficient for residents to conduct their routines according to the inscribed practice of the items they own.

The factor "circulation" refers to the extent to which the space, in the presence of household items, allows residents to move around with ease. The mean score of 2.87 indicates that on average, residents were closer to "unsure" than "disagree". For the questions regarding there being sufficient space to accommodate and use items that residents own or would like to own ("accommodate & use"), the mean score across all types also generally fall within the "unsure" bracket, with the overall mean score of 2.99.

5.3.2 Space Rating

To simplify the analysis, the size of the three bathrooms were combined as separating them would not make much difference. Table 4 shows the mean scores of room size rating across all types and phases of the sample. The mean score of room size rating across all subsamples were consistently within the scale point of 2.00 or below, with the overall mean score of all three phases being 2.19. With the exception of Type A in Phase 3, the score suggests that on average, the size of rooms or spaces were considered fairly small when compared to the amount of items residents own. The average room size in Type A of Phase 3 was generally considered acceptable (mean 2.53).

Table 4: Respondents' rating of size of the spaces in their homes.

ROOM/ SPACE	PHASE 1 n=52			PHASE 2 n=75			PHASE 3 n=52			OVER ALL MEAN N=179
	Type A (n=26)	Type B (n=26)	Mean P1	Type A (n=37)	Type B (n=38)	Mean P2	Type A (n=18)	Type B (n=34)	Mean P3	
Kitchen	1.69	1.62	1.65	1.65	1.74	1.69	2.72	1.82	2.13	1.81
Utility	1.81	1.65	1.73	1.81	2.08	1.95	n/a	2.00	2.00 (n=34)	1.89 (n=161)
Dining	1.73	1.77	1.75	1.70	1.84	1.77	2.67	2.32	2.44	1.96
BR 3	1.77	1.62	1.69	2.00	2.00	2.00	2.22	2.26	2.25	1.98
BR 4	n/a	n/a	n/a	n/a	n/a	n/a	2.06	n/a	2.06 (n=18)	2.06 (n=18)
Family	1.77	1.81	1.79	1.89	2.39	2.15	2.28	2.47	2.40	2.12
BR 2	2.00	1.77	1.88	2.27	2.24	2.25	2.22	2.32	2.29	2.16
Living	2.19	2.27	2.23	2.16	2.34	2.25	2.00	2.65	2.42	2.30
Car porch + terrace	2.04	2.19	2.12	2.16	2.05	2.11	3.00	2.79	2.87	2.33
*Bath & toilet	2.42	2.27	2.35	2.43	2.42	2.43	2.61	2.62	2.62	2.46
BR1	2.50	2.58	2.54	2.59	2.87	2.73	3.56	3.29	3.38	2.87
SIZE RATING	1.99	1.95	1.97	2.07	2.20	2.13	2.53	2.46	2.48	2.19

(5-point rating scale – 1=small; 2= quite small; 3= about right; 4= quite large; 5=large)

*Combination of all three bathrooms & toilet

Phase 3 has the highest mean score of room size rating among the three phases. This is not unexpected since houses in Phase 3 were designed to have the largest gross floor area than the other two phases. Similar patterns of assessments were also detected between subsamples in each phase where room sizes in houses with smaller gross floor area tend to be more critical. However, a closer look reveals this was not always the case. The room sizes in Phase 1 were assessed slightly lower than those in Phase 2, even though in terms of gross floor area, houses in Phase 1 are slightly bigger than that of phase 2. The finding suggests there were other attributes apart from the gross floor area that residents considered in size assessments.

The data also shows that all of the eleven spaces scored an overall mean value within 2 scale points or less. Out of these eleven spaces, four spaces have an overall mean score within 1 scale point. It can thus be said that these four spaces were probably the most

critical in terms of size. These include the kitchen, utility, dining, and bedroom 3. On the positive side, “bedroom 1” (mean 2.87) was the only space considered as “about right”. Assessment on the size of bedroom 1 across subsamples indicates that the prescribed size was generally acceptable.

The relationship between the two assessments (i.e. space adequacy and room size) was examined using Pearson product-moment correlation coefficient. It was found that there was a strong correlation between the two assessments ($r=.58$, $n=179$, $p<.0005$). This suggests that perceived space adequacy is attributable to perceived room size. The finding is in concordance with past research (e.g. Oseland & Raw, 1991).

6. Discussion

This paper highlights three important findings that need to be addressed. First, 82% of respondents indicate that it is either a very important or an important factor to have sufficient amount of home space to accommodate household items that they own or would like to own. Yet, evidence presented here gives little indication that residents have the amount of space they need to accommodate domestic items and to conduct the practices afforded by the items efficiently. Rooms were considered small while spaces were considered insufficient insomuch that it raises questions whether these homes serve the purpose of present-day living. In other words, the findings in general pose a big question mark on the functionality of the rooms or spaces in new homes. It suggests that there is a mismatch between the desired amount of space by residents and the space provided by the housing market.

Second, despite having exceeded the minimum space requirements by a substantial margin, these houses appear not to be providing the space that residents require, at least from the perspective of their possession of domestic items. Because size is mostly determined by the profit margin, making the spaces larger would definitely inflate selling prices, thus placing these houses in a higher price bracket or possibly in a higher segment. Certainly there is a “limit” to how large the spaces can be before the whole house shifts into the upper housing category. Additionally, on average, the size of these houses is not considered too small when compared to the average house of a similar category. The point is that making the spaces larger may not necessarily provide a real solution for if a buyer would like a slightly

larger house for instance there is always one available elsewhere.

Third, storage is a basic and essential function in modern homes. There is a strong indication that storage is a space that residents need most, yet these houses offer none. To these residents, having no storage space in their homes appears to be a source of inconvenience. In the absence of storage, many of those surveyed said they badly needed that space in their homes and that having it would make a big difference in the choice of equipment layout whilst improving circulation. Since the By-Laws has apparently made no regulations for the provision of storage space, to provide one falls within the discretion of the developer. Again, adding storage space in these houses would mean adding up the burden in terms of additional costs.

Interestingly, the survey has also uncovered a promising finding. Almost 60% of respondents say that not all the things they place in their homes are important or essential. By implication, this suggests that the space has not been used efficiently and there is potential to free some space by getting rid of those unimportant items. One pertinent question emerging from this finding is whether space inadequacy is attributable to the size of the space or to some deep rooted habit of hoarding things in a limited home space.

7. Conclusion

As economies and societies transform, housing models need to be modified accordingly to reflect changes in demand. However, this has not been the case in Malaysia. There appears to be little initiative taken to synchronize the two. Although Uniform Building By-Laws (1984) outlined the requirements of room dimensions, compliance with these requirements may not necessarily ensure meeting the spatial requirements of present-day lifestyles. Urban contemporary housing appears to be distinguished by a conflict between what is provided and what is desired, yet the housing industry does not seem obligated to address this conflict. Although some house owners may have the opportunity of adjusting their homes to fit their needs, there are many who may have to compromise and put up with space inadequacy in their homes. Either way, the implications are far reaching.

In concluding, this paper presents an argument by looking at two sides of a coin. On

one hand, home space may be insufficient simply because rooms are small and spaces are limited to accommodate residents' belongings and associated practices, or it may possibly be due to poor configuration of the internal layout. On the other hand, inadequate home space may also be due to inefficient usage. Either way, the overall findings present an imperative need to investigate the reasons for space inadequacy in homes. It is recognised that examining the intersection of space, domestic materials and practice may be a useful strategy for determining space adequacy in homes.

There were several limitations to this study. First, the study runs the risk of being biased by "social desirability". Therefore, the survey questions were designed to enquire specific functional aspects of space in the home, focusing on material domestic possessions as a frame of reference, rather than posing general questions. The number of case studies and respondents were also small and may not be representative of the broader population. Nevertheless, the interesting findings highlight the imperative need to address the functionality of space in the home, particularly in medium-cost housing. The study also sets the direction for future research in order to understand the reasons for the gap between the space aspired and the space prescribed.

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