# Space-Use of Multifunctional Rooms in One-Bedroom-Plus Units Among Generation Y in Bangkok

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#### **Abstract**

The study investigates the association between Generation Y demographics (N = 400) and the use of multifunctional rooms in one-bedroom-plus residential units. A total of 7,596 units across 65 projects — from 5 leading real estate developers with the largest number of one-bedroom-plus units developed in Bangkok, — were classified into 31 unit types. These were grouped according to spatial zoning (primary and secondary living spaces) and survey data were analyzed to develop guidance and a blueprint that better address modern living space needs and practices for Generation Y. Results of chi-squared tests indicated significant associations between space-use and gender (p = 0.005), age (p = 0.05), marital status (p = <0.000), and fertility (number of children) (p = <0.000). However, no significant association was found between space-use and income (p = 0.314) perhaps because the survey data focused on salary income, whereas there are additional supplementary incomes that impact the use of multifunctional spaces for Generation Y. Notably, Generation Y reported the highest use for entertainment spaces, (N = 214, 53.5%). This observation is consistent with general understanding of Generation Y's behavior traits. Storerooms can be crucial for condominium spaceuse, impacting resident quality of life, well-being, and happiness. However, for the studied demographic segment, the use of storerooms was low (N = 31, 7.8%) due to horizontal configuration, which does not optimize unit price per m2. Thus, vertical storage may be the most suitable for this demographic segment. Future research should explore entertainment technology trends and storage behavior to design one-bedroom-plus units that meet Generation Y needs effectively.

#### **Keywords**

One-bedroom-plus units; Multifunctional rooms; Generation Y; Space-use; Demographic data

#### 1. Introduction

According to statistics from 2023, Thailand's population reached 66,052,615. Within this population, a large demographic segment of 19.8 million individuals identified as Generation Y, representing approximately 30.2% of the total population (The Bureau of Registration Administration, 2025). Generation Y, also known as Millennials, has experienced remarkable technological and innovative transitions. They are known for their

adaptability, self-improvement, and individuality. This generation values convenience, emphasizes work-life balance, and exhibits confident decision-making abilities (Creative Economy Agency (AEC), 2023; Li & Ngamvimutteyaporn, 2023). The members of Generation Y range from recent graduates to senior executives in various organizations, demonstrating their diverse roles in the workforce.

Generation Y plays a crucial role in shaping social and cultural patterns and driving the economic system in Thailand (Li & Ngamvimutteyaporn, 2023). Their influence is evident in various sectors, including the real estate market. A notable proportion of Generation Y chooses condominium living in Bangkok (Rungruangphon & Chatchaiphonrat, 2021). This preference is due to several factors, including the proximity of condominiums to workplaces, convenient transportation options, access to various amenities, and relatively lower prices compared to other types of residential properties in the same area.

The COVID-19 pandemic further influenced the living preferences of Generation Y. The necessity of residential lockdown and remote work forced many to spend more time in their living spaces (Nikolić et al., 2022; Memon et al., 2023). This shift has become the new normal (Vacchiano, 2022; Raišienė et al., 2020) and as a result, there is an increasing demand for living spaces that can accommodate various needs (Jarutach, 2023).

Consequently, the addition of multifunctional rooms that can be adapted for various uses has gained popularity. One-bedroom-plus units, in particular, have become highly sought after as they cater to more than just basic living needs. These units are suitable for 1-2 residents and offer the flexibility needed for a modern lifestyle. (Rungruangphon & Chatchaiphonrat, 2021; Techavichien & Jarutat, 2023) Therefore, this study aims to explore the unit plans and spatial zoning (primary and secondary living spaces) of one-bedroom-plus condominiums in Bangkok and identify guidance and a suitable blueprint for architects and developers to address Generation Y's needs for multifunctional rooms. The findings of this study will provide insights into the approach for space-use of multifunctional rooms in one-bedroom-plus units among Generation Y in Bangkok.

#### 2. Literature Review

#### 2.1 Generation Y

"Generation Y," also known as "Millennials," is a demographic that is characterized by people who were born between 1980 to 2000. This generation is the first to grow up with more recent technology such as the internet and smart phones and is highly skilled in its use. They have a strong sense of individuality, adaptability, independent thinking, decisiveness to drive for financial success, and self-reliance (Parsons, 2011).

Generation Y is at a stage where they are preparing to enter middle age and are encountering transitions in their lives. This generation values work-life balance and places a strong emphasis on physical health, mental health, and choosing safe living environments (AEC, 2022). The characteristics of Generation Y that identify lifestyle typologies based on the AIO (Activities, Interests, and Opinions) framework include six lifestyles (Chaihanchanchai & Anantachart, 2023):

- Hedonic-focused, this group lives an urban lifestyle, prioritizes happiness, positive emotions, and entertainment. For example, watching TV series on streaming platforms, buying concert or movies tickets, playing online games, watching e-sports, or downloading movies. They highly value work-life balance and enjoy convenience.
- Future-focused, this group focuses on building a secure future and life stability. They exhibit entrepreneurial characteristics and continuously work on self-improvement. Social consciousness and

sustainability also are important to them as reflected, for example, by participation in volunteer activities and preference for eco-friendly products. They also enjoy home decorations, healthy food, and aesthetic artwork.

- Practical-oriented, this group is grounded in reality and adapts to change with an open-minded attitude.
   They value direct communication that openly addresses both positive and negative aspects of the topic.
- Online-active, this group has grown up with computers, the internet, and various communication devices. They engage heavily in online interactions, spending both personal and work time on digital communication, including social media, texting, and using websites for information and content.
- Tradition-focused, this group prioritizes living according to religious principles and is deeply rooted in traditional Thai culture and customs. They are committed to their religious beliefs and also hold faith in concepts like destiny and astrology. They often practice traditional rituals and customs.
- Money-focused, this group prioritizes money and investment. They actively use online media to gain knowledge, find information, and explore opportunities for income generation to achieve financial success.

#### 2.2 General Principles of Space Planning for Condominiums

Space planning is essential for effective interior design, focusing on creating interior environments that meet the needs of residents. It encompasses considerations such as functions, aesthetics, spatial zoning, and design psychology. For condominiums, specific attention must be given to aspects that include storage solutions and flooring materials. Moreover, market research indicates that the size, unit plan, interior design, and amenities should align with targets of the condominium project (Boonpracha, 2014; Vuscan & Muntean, 2023).

Residents spend at least half of each day engaging in various activities within their residential spaces, such as entertainment, eating, sleeping, and bathing. These activities influence the design of interior spaces and require the spaces to be optimized for maximum utilization while maintaining appropriate proportions for safety. Panero and Zenik (1979) described residential spaces as falling into five categories based on activity types: (1) Living Spaces; (2) Dining Spaces; (3) Sleeping Spaces; (4) Cooking Spaces; and (5) Bathroom Spaces, which aligns with the research by Nititerapad et al. (2022), who studied home design in the new normal era in Thailand and divided space types into two categories based on resident activities: (1) Basic functions consisting of bedrooms, bathrooms, dressing rooms, living rooms, relaxation rooms, kitchen, dining rooms, terraces, balconies, and parking; and (2) Special functions, depending on the residents' lifestyle, that include an entertainment and activities room, a fitness room, a gallery, a book room, an office room, a religious activity room etc. According to Alfirevic & Alfirevic (2024), the interconnection of residential functions is significantly influenced by the category of space users. These functions can be categorized into distinct spatial types, including: (1) bedroom; (2) bathroom; (3) toilet; (4) kitchen; (5) dining room; (6) living room; and (7) workroom. Furthermore, Alfirevic and Alfirevic (2024) highlights that certain types of spaces have the capacity to accommodate multiple functions, thereby contributing to the development of multifunctional spaces within residential environments.

Based on the above literature review, this section could summarize the categorization of spatial zoning in a residential unit as: (1) Primary living spaces, which are used daily and consist of the bedroom, living and dining area, bathroom, and kitchen; and (2) Secondary living spaces, which are used occasionally including the balcony and multifunctional room etc.

#### 2.3 One-Bedroom-Plus Unit

Based on data related to Generation Y and their residential needs, considering factors such as Generation Y characteristics and space-use behaviors, the condominium unit type best-suited for Generation Y in Bangkok would be a one-bedroom-plus unit. General unit sizes range between 30-50 m<sup>2</sup> (Condo Newb, 2021). Onebedroom units include one bedroom, one bathroom, and a multifunctional room of no more than 8 m<sup>2</sup>. If the multifunctional room exceeds 8 m<sup>2</sup>, it is classified as a two-bedroom unit (Ministerial Regulation No. 55 (B.E. 2543) Issued under the Building Control Act B.E. 2522, 2000). In terms of market positioning, a one-bedroomplus unit is situated between a one-bedroom and a two-bedroom unit. A study of data and articles from real estate companies has highlighted various uses for a multifunctional room. These uses include a small bedroom for visiting quests, a creative art studio, a walk-in closet, a workspace for freelancers live commerce, a gym, and to provide a small bedroom for family planning (Siripayak, 2024). Other uses for a multifunctional room include a reading room, a storage space for residents who conduct online shopping business to keep the living space organized and facilitate delivery to customers, a gaming and live-streaming room with equipment for live broadcasts (Akra Land and House Company Limited, 2023), a room for plants (Stanborough, 2020; Condo Newb, 2021), and a combined living and multifunctional room to increase versatility. The latter room use can encompass a document storage room, a music room, a space for pets, a camping area, a connection between the dining and living rooms, and an entertainment room for watching movies or hosting parties (Jaroenwattanawinyoo, 2023) .

Based on the aforementioned articles, the multifunctional room within one-bedroom-plus units can be classified into four groups: (1) Home offices; (2) Leisure and recreation spaces; (3) Additional living spaces; and (4) Storage.

Home offices can be grouped into two main categories. The first category is the Working room. This space is designated for professional activities or business-related tasks, which often are performed by freelancers, remote workers, or individuals engaged in e-commerce activities. It also is used frequently for online meetings and virtual conferences. A typical Working room includes essential office equipment such as computers, printers, and often features meeting spaces for work-related discussions or conference calls. This setup ensures a productive environment conducive to professional endeavors. The second category is the Study room. This space is intended specifically for educational or academic activities, making it ideal for reading, doing homework, receiving extra tutoring, and participating in online education. A Study room typically includes study materials, books, desks, and sometimes computers, which are essential for research or online learning. This environment enhances concentration and learning efficiency.

Leisure and recreation spaces are designed for people to engage directly in activities within the space, which can be grouped into four distinct categories. The first category is the Work and craft area. This space is dedicated to hobbies and crafts, such as painting, crafting, sewing, and other similar activities. It is designed to inspire creativity and provide a dedicated area for artistic expression. The second category is the Entertainment space. This space is meant for relaxation and various leisure activities, including watching movies, playing games, and listening to music. It is equipped to provide an enjoyable environment where individuals can unwind and enjoy their favorite pastimes. The third category is the Exercise area. This space is designated for physical activities such as yoga, cardio exercise, weight training, and more. It typically includes exercise equipment, providing a convenient and private area for maintaining physical fitness. The fourth category is the Plant area, which is intended for cultivating and caring for plants. It might include pots, soil, gardening tools, and other

equipment necessary for plant growth and maintenance. This area provides a serene environment for those who enjoy gardening.

Additional living spaces are areas beyond standard living spaces that meet specific requirements and provide unique functions, which can be categorized into two main types: Child areas and Pet areas. Both spaces are designed with specific attributes, such as safety, durability, and ease of maintenance, to support the daily needs of children and pets (Wormald, 2023) contrasting with leisure and recreation spaces, which primarily are focused on relaxation and entertainment. The Child area, which can include a child's personal room, or a playroom filled with children's toys and activities, is designed to be a safe and fun environment for children to play and learn. The Pet area typically consists of space for pet bedding, litter boxes, pet toys, and feeding areas. It is designed to accommodate the needs of pets and ensure their comfort within the home.

Storage also can be grouped into two main categories. The first category is the Storeroom, a room designated for storing items that are not in use, such as household goods, which provides a practical solution for organizing. The second category is the Gallery which is considered to be a type of storage due to its primary functional focus on organization and display (Kilmer & Kilmer, 2014). This space emphasizes passive engagement viewing and appreciating collections rather than active or physical relaxation within the space. This space is intended for displaying various items or artwork, such as models, collectible figurines, or other collections. It offers a dedicated area for showcasing personal interests and adding an aesthetic touch to the home.

## 3. Methodology

The methodology employed in the study is quantitative, involving the collection of secondary data and administration of a survey. This study aims to explore the unit plans and spatial zoning of one-bedroom-plus condominiums in Bangkok from the 5 real estate developers with the largest number of one-bedroom-plus units developed in Bangkok, drawn from a group of 18 developers ranked by the highest residential project performance in 2021 (These 18 developers represent only a subset of the total number of real estate developers active in the market). The unit plans were analyzed and grouped to identify suitable guidance and a blueprint for architects and developers to address Generation Y's needs for multifunctional rooms. The research also involves collecting demographic information such as gender, age, income, marital status, and fertility, along with data on the preferred use of multifunctional rooms in these condominiums. These data were gathered through a survey conducted among Generation Y residents, defined as individuals born between 1980 and 2000 (B.E. 2523-2543), residing in Bangkok. A total of 400 respondents were selected using simple random sampling. The responses were analyzed using Chi-square (PCS) tests, conducted through the Statistical Package for the Social Science (SPSS) version 27, to examine associations between demographic data and the use of multifunctional rooms. The results were summarized to provide guidance in designing multifunctional rooms for one-bedroom-plus condominiums within the Generation Y market segment. Figure 1 summarizes the research framework and workflow.

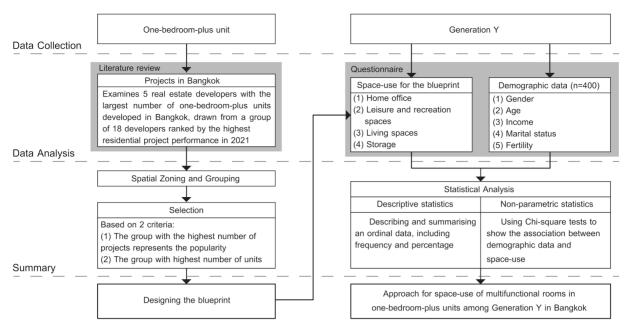


Figure 1. Research framework and workflow.

#### 4. Results and Discussion

#### 4.1 The Number of One-Bedroom-Plus Units From a Sample in Bangkok

Among the 18 real estate developers in Bangkok, the selected samples are (1) APT, (2) OGP, (3) ASW, (4) SPL, and (5) NBD, collectively accounting for a total of 7,596 one-bedroom-plus units.

Table 1 summarizes the number of projects and one-bedroom-plus units associated with each developer. The real estate developers with the highest number of projects and units are APT (N = 2,365,10 projects). The second highest is OGP (N = 1,698,13 projects), followed by ASW, (N = 1,396,23 projects).

Table 1. Data on condominium projects in Bangkok.

		Conde	lominium projects in Bangkok				
Order	Developers	Number of projects with one-bedroom-plus units.	Number of one-bedroom-plus units	%			
1	APT	10	2,365	31.1			
2	OGP	13	1,698	22.4			
3	ASW	23	1,396	18.4			
4	SPL	10	1,098	14.5			
5	NBD	9	1,039	13.7			
Total		65	7,596 100				

Source: Pusae (2022)

### 4.2 Unit Plan and Spatial Zoning of One-Bedroom-Plus

An examination of spatial zoning and functions within samples of the 7,596 one-bedroom-plus units revealed that each project offered only one variation of the one-bedroom-plus unit type. Therefore, the 5 selected real estate developers resulted in a total of 65 unit variations, which can be classified into 31 types. (Figure 2).

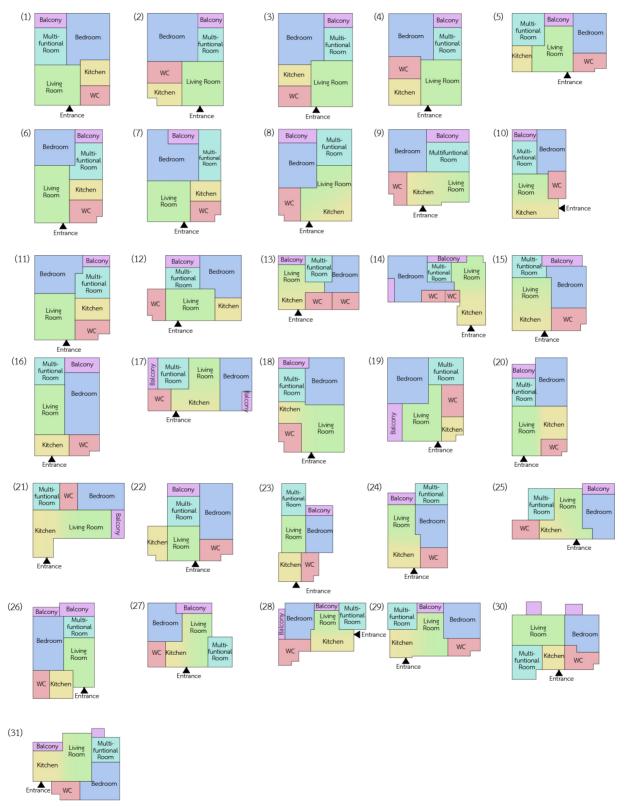


Figure 2. Spatial zoning and functions of condominium units in Bangkok: one-bedroom-plus.

From Figure 2, the 31 unit types can be categorized into groups by similar zoning (Table 2). The most frequent type of spatial zoning group is group A, which includes types 6, 11, and 18, (N = 1,624, 12 projects), followed by group B, which includes type 22 (N = 1,066, 3 projects), and group C which includes types 16 and 23 (N = 897, 6 projects).

Table 2. The spatial zoning group from 31 types of one-bedroom-plus units.

Group	Туре	Number of projects	Total (Projects)	Number of units	Total (N)	
	6	2		174		
A	11	1	12	67	1624	
	18	9	•	1383		
В	22	3	3	1066	1066	
	16	5		620		
С	23	1	6	277	897	
	8	4		368		
D	15	3	7	461	829	
Е	10	3	3	552	552	
	1	3		169		
F	3	1	2	164	541	
	20	2		208		
	2	4		283	379	
G	4	1	5	96		
	5	1		14	298	
Н	29	3	4	284		
I	30	1	1	326	326	
J	28	3	3	305	305	
K	26	1	1	186	186	
L	19	2	2	114	114	
М	14	1	1	112	112	
N	7	1	1	76	76	
0	24	1	1	73	73	
Р	25	1	1	70	70	
Q	9	1	1	40	40	
R	17	2	2	32	32	
S	12	1	1	26	26	
Т	27	1	1	14	14	
U	13	1	1	12	12	
V	21	1	1	12	12	
W	31	1	1	12	12	

The selection of the spatial zoning group for the development of the blueprint typology is based on 2 criteria: (1) The group with the largest number of projects represents the popularity; and (2) the group with the largest number of units. Thus, the design guidance for the development blueprint typology is based on group A (Figure 3) which aims to create a living space having an area of 35 m<sup>2</sup>, including a living room, bedroom, bathroom, kitchen, multifunctional room, and balcony (Figure 4).

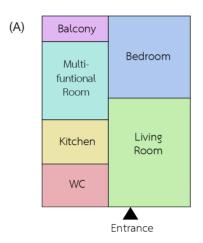


Figure 3. The spatial zoning for group A.



Figure 4. The blueprint of one-bedroom-plus unit.

#### 4.3 The use of Multifunctional Rooms in One-Bedroom-Plus Units by Generation Y

In this section, the survey results related to demographic data and space use by Generation Y (N = 400) are analyzed. The results showed that the majority of respondents were female, with 257 individuals (64.3%). The most common age range among respondents was 23-28 years, consisting of 173 individuals (43.3%). In terms of income, most respondents fell into the middle-income bracket of 20,000-50,000 baht per month (approximately USD 550-1,375), representing 170 individuals (42.5%).

Regarding marital status, the majority of respondents were single, accounting for 293 individuals (73.3%). Lastly, in terms of fertility, most respondents were childless, with 301 individuals (75.3%). These findings are detailed in Table 3.

Table 3. Demographic data of respondents.

Data			N	%	
	Female		257	64.3	
Gender	Male		130	32.5	
	Neutral		13	3.3	
	23 – 24		63	15.8	
Age	25 – 34		244	61	
	34 – 38		93	23.3	
	0	No income	11	2.8	
	Lower 10,000				
	10,000 - 12,000	Low income	74	18.5	
Income	12,001 - 15,000				
(baht/month)	15,001 - 20,000		244	61	
	20,001 - 50,000	Middle income	244		
	50,001 - 100,000		_,	47.0	
	More than 100,000	High income	71	17.8	
	Single		304	76	
Marital status	Married		96	24	
		1	49	12.3	
		2	41	10.3	
Fertility	Children	3	8	2	
		More than 3	1	0.3	
	No children		301	75.3	

The survey identified four space uses: Home office, Leisure and recreation spaces, Living spaces, and Storage. Among these, leisure and recreation spaces were the most frequently used multifunctional rooms, with 214 respondents (53.5%) indicating this preference. Within this category, the entertainment space was the most popular, chosen by 121 respondents (30.5%). This was followed by the work and craft area, selected by 72 respondents (18%), and the working room, chosen by 62 respondents (15.5%). These findings are detailed in Table 4

Table 4. The use of multifunctional rooms in one-bedroom-plus condominium units.

Space-use		N	%	Total	%
	Working	62	15.50		
Home office	Studying	16	4.00	78	19.5
	Work and craft	72	18.00		53.5
Leisure and	Entertainment	121	30.25		
recreation spaces	Exercising	11	2.75	214	
	Plants	10	2.50		
	Child	50	12.50		
Additional living spaces	Pet	27	6.75	77	19.3
	Storeroom	18	4.50		7.0
Storage	Gallery	13	3.25	31	7.8

# 4.4 Associations Between Demographics and the use of Multifunctional Rooms in One-Bedroom-Plus Units by Generation Y

The study had two stages. The first stage involved a detailed summary of respondent demographic data, including gender, age, income, marital status, and fertility compared to the use of one-bedroom-plus units, as presented in Table 5.

Table 5. Demographic data and the use of one-bedroom-plus units.

Variable	Home	e office		re and on space	Additional living spaces		Storage		Total
	N	%	N	%	N	%	N	%	
Gender									
Female	41	16%	138	53.7%	60	23.4%	18	7%	257
Male	30	23.1%	72	55.4%	16	12.3%	12	9.2%	130
Neutral	7	53.9%	4	30.8%	1	7.7%	1	7.7%	13
Age									
23-24	13	20.6%	41	65.1%	4	6.4%	5	7.9%	63
25-34	46	18.9%	133	54.5%	48	19.7%	17	7%	244
35-43	19	20.4%	40	43%	25	26.9%	9	9.7%	93
Income									
No income	2	18.2%	7	63.6%	2	18.2%	0	0%	11
Low income	12	19.4%	42	67.7%	2	3.2%	6	9.7%	62
Middle income	42	21.8%	129	66.8%	2	1%	20	10.4%	193
High income	22	33.9%	36	55.4%	2	3.1%	5	7.7%	65

Table 5. Demographic data and the use of one-bedroom-plus units (continued).

Variable	Home	office		re and on space		nal living aces	Storage		Total	
	N	%	N	%	N	%	N	%		
Marital status	Marital status									
Single	66	21.7%	175	57.6%	40	13.2%	23	7.6%	304	
Married	12	12.5%	39	40.6%	37	38.5%	8	8.3%	96	
Fertility										
Children	11	11.1%	32	32.3%	48	48.5%	8	8.1%	99	
No children	67	22.3%	182	60.5%	29	9.6%	23	7.6%	301	

According to Table 5, the majority of female (N = 138, 53.7%) and male (N = 72, 55.4%) respondents preferred leisure and recreation spaces, while those who did not specify their gender preferred home office (N = 7, 53.9%). In terms of age, most respondents aged 23-24 (N = 41, 65.1%), 25-34 (N = 133, 54.5%), and 35-43 (N = 40, 43%) preferred leisure and recreation spaces.

Across all income levels, leisure and recreation spaces were the most popular, particularly among low (N = 42, 67.7%), middle (N = 129, 66.8%), and high-income respondents (N = 36, 55.4%). In terms of marital status, single respondents strongly preferred leisure and recreation spaces (N = 175, 57.6%), while married respondents had nearly equal demand for additional living spaces (N = 37, 38.5%) and leisure and recreation spaces (N = 39, 40.6%). In terms of fertility, the majority of respondents who have no children preferred leisure and recreation spaces (N = 182, 60.5%), whereas those who have children prioritized additional living spaces (N = 48, 48.5%).

In the second stage of the research, the results of the demographic data were compared with the use of one-bedroom-plus units through Pearson Chi-square (PCS) analysis. The aim was to test and identify any significant associations among these variables. These findings are detailed in Tables 6.

Table 6. Chi-square test of independence comparing demographic characteristics and unit space use.

		Space-use		
Variable/Demographic Data	Degrees of freedom	x <sup>2</sup>	p-value	
Gender	Gender 6		0.005	
Age	6	12.598*	0.050	
Income	9	10.465	0.314	
Marital status	3	31.565***	<0.000	
Fertility	3	74.206***	<0.000	

Significance at the level: \*p≤0.05; \*\*p<0.01; \*\*\*p<0.001

The chi-square tests indicated that gender, age, marital status, and fertility were significantly associated with the use of multifunctional rooms in one-bedroom-plus units,  $x^2$  (6, N = 400) = 18.67, p = 0.005;  $x^2$  (6, N = 400) = 12.60, p = 0.05;  $x^2$  (3, N = 400) = 31.57, p = 0.000;  $x^2$  (3, N = 400) = 74.21, p = 0.000. However, no significant association was found between income level and the use of multifunctional rooms,  $x^2$  (9, N = 400) = 10.47, p = 0.314. The findings indicate that the variables having the greatest influence on preference for space-use are marital status and fertility.

#### 5. Discussion

The study examined the demographics and the use of multifunctional rooms in one-bedroom-plus units by Generation Y. The results showed that there was no association between space-use and income level which is likely due to the narrow survey focus on salaried income and excludes other financial sources that Generation Y frequently relies on, such as supplementary income, savings, and loans (Siam Commercial Bank, Economic Intelligence Center [EIC], 2014; Office of the National Economic and Social Development Council (NESDC), 2020). Interestingly, Generation Y has the highest borrowing rate (The Siam Commercial Bank Public Company Limited, 2017), which could provide them with greater financial flexibility.

The survey indicated that entertainment rooms, including leisure and recreation spaces, were the most popular among Generation Y, which aligns with previous studies highlighting this group's desire to balance work and personal life (Euajarusphan, 2017). This is particularly true for hedonic-focused groups, who prefer spaces that enhance their entertainment experiences, such as those used for gaming and socializing with friends and family (Chaihanchanchai & Anantachart, 2023). Meanwhile, married respondents and those with children prioritized additional living spaces for future family planning because Generation Y tends to consider various factors before having children, one of which is the ability to manage and ensure that the environment is conducive to raising children (Kanchanajittra et al., 2017).

In terms of storeroom, the study's findings are consistent with Economic Commission for Europe [UNECE], 2019 which stress the importance of storage in improving the quality of life in condominiums (Marco, 2022; Azmi et al., 2024). For Generation Y, efficient use of space is crucial. However, the study found that designated storerooms in these units are horizontally configured, which is inefficient in terms of unit price per square meter. To offer better value, especially for financially-conscious groups (Chaihanchanchai & Anantachart, 2023), vertical storage, such as shelves and integrated furniture, provide a more efficient use of space, as noted by Smith (2023) and Ji-Hye and Min-Ah (2008) .

#### 6. Conclusions

This study highlights the key demographic factors influencing space-use preferences for one-bedroom-plus units among Generation Y in Bangkok, with gender, age, marital status, and fertility significantly shaping their choices. The survey results emphasize the importance of entertainment rooms for Generation Y, such as game rooms or home theaters, not only reflecting their lifestyle of balancing work and personal life but also aligning with the technological and modern lifestyle.

The findings suggest that although income level may not directly influence space use, the high borrowing rates among Generation Y could impact their ability to afford housing and provide greater flexibility in designing spaces according to their needs, regardless of salary income. Incorporating entertainment rooms and vertical storage solutions into residential designs can enhance the living experience for this demographic. For example,

adaptable entertainment zones could serve multiple purposes, such as a lounge that transitions into a gaming area or a modular space for social gatherings. These align with Generation Y's lifestyle, which prioritizes worklife balance. Additionally, versatile furniture, such as foldable tables, extendable seating, and wall-mounted units, can create dynamic environments that accommodate evolving space-use needs, including work or study areas. Expanding multifunctional spaces and integrating well-organized storage solutions for equipment in one-bedroom-plus units can further enhance daily efficiency and functionality.

These approaches not only align with financial and lifestyle considerations but also offer developers and designers comprehensive solutions for optimizing space utilization under the constraints of limited space by reducing the cost per square meter without compromising aesthetics. In the overview of the real estate industry, this approach will be one of the methods for addressing the quality of life for residents in the urban environment. Future research should explore the behaviors and preference of residents from other generations, examine current and future trends in entertainment technology, and consider differences in storage behavior that affect the efficiency of storage design while maintaining aesthetics and functionality. Considering these factors can help design spaces that accurately meet resident needs and respond effectively within one-bedroom-plus units.

#### **Author Contributions**

The manuscript title "Space-use of multifunctional rooms in one-bedroom-plus units among Generation Y in Bangkok" was authored independently by a single contributor, T.T. Consequently, all aspects of the research, including conceptualization, methodology, data collection, analysis, investigation and visualization, were exclusively undertaken by the author.

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