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Modular Furniture for Compact Living through Sustainable Development Goals (SDG)

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Abstract

The idea of making compact and modular furniture is to save the space in one target area with the extra function of the furniture design to make it one compact used type of furniture or modular. The nine (9) selected issues is group 4 (quality education), group 7 (affordable and clean energy), group 8 (decent work and economic growth), group 9 (industry, innovation and infrastructure), group 11 (sustainable cities and communities), group 12 (responsible consumption and production), group 13 (climate action), group 15 (life on land), and group 17 (partnership for the goals).

Keywords—Sustainable Development Goals (SDG), Modular Furniture, Compact House.

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1.0 Introduction

Living in a modern compact house is challenging for someone who lives in it. With the compact space, they still need to have proper furniture for them to live and do daily routine such as preparing food, serving the food, cleaning all the laundry, and having a perfect space to rest and relax. A compact house is a choice for a young professional who wants a private modern living house and a young couple who wants space to live. With the current modern trend, modular furniture is one of the good choices for them to pick as their home furniture. It is because they still need the basic furniture such as a dining table or bar table, bed, sofa, and a storage cabinet that can fit their small space. Nowadays, there are a lot of choices in selecting furniture for homes, either going to a store such as IKEA or buying on online shopping webs such as SHOP and ALIBABA. From there, the user can make their survey in selecting good furniture to fit their space and compare the good deals for each item from the web. For someone very particular in selecting material and design, they usually will choose to custom their furniture based on what they need and what design they are interested in. For the custom furniture, they can pick and select the detailing for their furniture. For the price, it is different from the ready-made furniture sold on the market.

1.1 Research Objective

The objective of creating compact modular furniture is to give extra functionality to the user using their furniture. The mechanism offered is not as complex as the system. The target of producing the furniture is to produce a user-friendly product, space-saving, easy to assemble and install and made from an eco-sustainable material.

Therefore, with the excellent offer in design, the user will be attracted to using and also pick compact modular furniture as their choice in buying house furniture because it is suitable in compact sizing with the modern features in the design.

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This sustainable product is also one of the researcher's objectives in creating awareness of using the sustainable product. This can be said to be an effort to develop our better future in life and design development. Good design will be produced when the product itself fulfils the needs.

The objective of this research is:

- i. To explore the characteristics and features that the user needs in their furniture.
- ii. To get the feedback on the criteria that need to be applied in the design of the compact modular furniture.
- iii. To identify the suitable eco-material for the furniture that easily can be recycled or disposed of.

2.0 Literature Review

Sustainable development Goals (SDG) plays important role of developing the goal to pursue the ecological design in the furniture making. As the realization of environmental effect are growing, an educational element within the green furniture development apart from just for furniture design provides the opportunity of creating to be used for a long time period. The term for sustainability in a furniture develop positive attribution towards adoption a zero-impact environment as it approaches the effort in the aspect reusability and maintainability in the design process

Beginning in the 1960s, people for simple and clutter-free living began advocating for the needs of the environment (Kahn & Welch, 2012). Since then, living small has developed into much more. When the economy failed in 2008, this debt-free alternative to housing rose in popularity. The key to living small is downsizing. Small-scale living comes in many forms, such as apartments, single-family homes, and portable housing. Overall, downsizing to a smaller home is more than purging belongings and lowering your environmental impact; it takes mental awareness and a well-designed space. To appreciate how and why people are choosing to go tiny, we must understand the meaning of home. More luxurious and abundant space does not enhance one's ability to feel at home or experience happiness. According to personal accounts, smaller homes provide a chance to relate to the space and discover the rewards of individualized homes that reflect identity, belonging, and self-expression (Grinberg, 2012).

The mention of home brings up a plethora of feelings, places, or scenarios to different people. Exploring what home means varies from person to person. Culture, background, religion, and family status contribute to one's definition. "In English, the term 'home' derives from the Anglo-Saxon word 'ham,' meaning village, estate or town" (Mallett, 2004, p.4).

In many markets, the media influences real estate and homeownership. Commonly, advanced capitalist governments are behind promoting homeownership because it increases economic efficiency and growth. If people buy into the idea that they will be more satisfied by owning one or more homes, the government's tactics have succeeded. As an impact, the home becomes a source of personal identity and status, a way to boast. This is concerning because it adds to the pressures of impressing others, corresponding with the growing house trend (Mallett, 2004, p.5).

3.0 Methodology

Research Design: (Qualitative, Case Study, Survey.)

Based on this research approach, the researcher applied qualitative research with an approach of descriptive research. This approach requires the researcher to run research in order to collect primary and secondary data.

The case study has been carried out by the researcher to get the data and information on the actual market needs. Short interviews have also been occurred by the experts in interior design, furniture manufacturers and the group of society that implement SDG in their service to the public.

This data collection is carried out to obtain insight into the problem of space that the user face in their compact living area. The data plays an essential role in this research making to identify the problem and the recommendation in developing the furniture that can fit the compact and sustainable concept.

3.1 Research Instrument

In this research, finding the data on designing modular furniture for a compact living has been carried out by using interviews with experts, field works or case studies and surveys. This method is applied because it is appropriate by way of descriptive research.

The data will be compiled in complete documentation, such as a pie chart, and the result of the finding will be tested in the process of developing the design and its mechanism.

The finding from the data collection also determines how the design should be produced by following the rate of demand from the data statistic. The research question related to this topic is determined what the criteria for the design, the suitable eco-material used for the furniture, and also the suitable mechanism that gives good practicality while using it is.

4.0 Findings

The data collection based on the interview session from the expert has been carried out by the researcher to get the precise data for this topic. The researcher did the interview with the interior design expert Mr Nasirudin Mohammed Sehat about the style and demand of the design and also the recommended details such as height, length, and width for the furniture.

From the interview, Mr Nasir said that most of his clients that live in a compact house would go through the same issue, which is space. This is because the number of square feet area of the compact living is below 1000 sqft. He always recommends his client compact modular furniture to make sure they get what they need is a good choice.

In conclusion, ready-made furniture in the market offers a suitable type of design with a reasonable price, but they got no custom detailing if the client needs want the furniture a good and suitable for their home area.

The bar table also can be a space separator between the kitchen area and living area for the compact house. Most of his clients will have a bar table instead of a standard dining table for their home.

Firstly, a modular bar table is one of the needs in a compact living house. Consider it as one of the essential pieces of furniture the user will have for their home in running daily routine, which is eating activities. The modular concept of the bar table enhances the selling point to the user by giving practical furniture for them to have. With the sustainable material that has been used in furniture making, this research is supporting the United Nations Development Programme (UNDP) initiative in developing the eco product or furniture for the people and communities.

5.0 Recommendation

Based on the researcher's findings and conclusion of the study, the recommendation for producing a modular bar table for compact living through Sustainable Development Goals (SDG) is:

- i. Designing a modern concept in term of Circular design features such as sustainable, resilient and long-lasting
- ii. Producing design or idea that can be space-saving furniture with the concept of Modular which can be customized by the user in terms of sizing of the tabletop.
- iii. Designing and producing the design with sustainable or eco-friendly material, which is bamboo and timber.

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