

Kitchen Solution for Temporary Dwellers

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Abstract

The need for a kitchen goes back to the earliest of times. It is what makes a house complete as the activity performed is higher compared to other areas in the house. Since the kitchen industry in Malaysia has been dominated as a built-in type since the 90s, the choice of a solution to own a kitchen is only selected to permanent residents of the house. However, there is a niche market in this industry for temporary dwellers. In 2010, a report of the housing census was made and 21.3% of households in Malaysia do not own a house. This paper examines the possible solution for this group in owning a kitchen.

Keywords: Affordable, Freestanding Kitchen, Renters, Temporary Dwellers, Unfitted Cabinet.

Introduction

The kitchen has always been the heart of every home. Without a kitchen, a house is considered incomplete. It is a place not only to be utilized as a cooking area but also as a social space (Kitchens as a Social Space, 2015). According to architect and prominent kitchen designer Johnny Grey, "Kitchen is now a microcosm of the whole house" (The Art of Kitchen Design, 1994). He also stated that it can be one of the greatest assets needed for a good life and a happy household. Studies have shown that the kitchen is the most important area today (Yazıcioglu and Kanoglu, 2016).

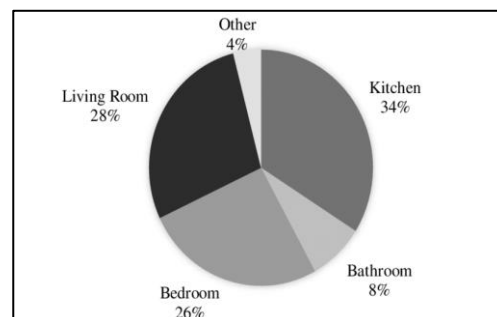


Fig. 1. The rates of demand as for renewal of space within a house (Harbor, 2009)
(Source: Academic Research International)

In the study, results show that on average 30% of the work done in the house consists of food preparation and actions related to it, making the kitchen the most frequently used area (Arcan and Evci, 1992; Thiersch, 1977). Kitchen units are also known to be the most demanding household item. During an event that was held annually in the city of Kuala Lumpur, 'Homedec,' which is considered the largest household exhibition in the country; custom built-in wardrobe and kitchen cabinets have the second-highest merchants with 28 numbers in the 2019 fair. With the many options of kitchen retailers from local cabinetry to imported brands, the local industry creates a very dynamic and competitive market.

When it comes to types of kitchen cabinets in Malaysia, it is mostly dominated as a built-in or fitted type. Take for example when visiting any kitchen fair like 'Homedec,' whereby generally all kitchen manufacturers are selling the fitted type. The built-in kitchen is known for being modern, sleek and unified. The birth of fitted kitchens dated back in 1926 in the post-world war I era. An Austrian architect, Margarete Schutte-Lihotzky designed the Frankfurt kitchen for architect Ernst May's social housing project in Frankfurt, Germany. It is designed to enable efficient work and to be built at a low cost.



Fig. 2. The Frankfurt Kitchen in 1926 (view from the entrance)
(Source: Wikipedia)

Until today, fitted kitchen cabinets still dominate the major kitchen industry. It has also dominated most consumer ideals of what a kitchen cabinet should look like. However, not every homeowner is able to have a fitted kitchen cabinet, considering economic factors, accommodation factors, or both. To some, it is considered a luxury. A targeted niche for this group would be temporary dwellers. When defining the word temporary dwellers, it is not subjected to only renters but also to those who are in mobile, even if the person is working from place to place. In this study, the researcher wants to explore the solution in having a kitchen for this niche.

Background

In contrast to the kitchen industry, the demand and supply of the housing market have become uncertain recently with the rising of the unsold residential property, an increment of 48.35% in 2019 from 2018. Although the population is growing with 32.04 million in 2018, a substantial growth rate of 1.32%, the housing supply is still overhanging due to the high-price factor. While income has increased by approximately 101% since 1999, housing prices have increased by more than 200% within the same period, which has led to the decrease of homeowners, rating at 1% annually (Thean Lee Cheng, The Star; 2018). Another statistical data to prove this is from 2014 to 2017, whereby 1.33 million families in Malaysia do not own a house (Urban Wellbeing, Housing and Local Government Ministry, 2017). According to a census conducted in 2010 by the Department of Statistics Malaysia, a rate of 59.0% of households have been revealed to own a house, followed by 21.3% of households to do not own a house, and the remaining 19.7% is classified as unknown.

This rate decreased compared with the census report made 10 years before in 2000 with 8.3% for households which own a house, 4% for households which do not own a house, and an increased rate of 12.4% for unknown groups. It is projected that the rate will decrease even more for this year's report in 2020 on households which own a house. Bank Negara reported that unsold housing units are increasing due to unaffordability (EdgeProp, 2017).

One of the key factors of unaffordability in housing is the imbalance of living wage with the cost of buying a house, thus leading to the increased number of temporary dwellers. This proves that there is a substantial number of temporary dwellers. Pricing is also one of the most important factors influencing the consumer's purchasing power besides services and design attributes. According to Household Income Survey (HIS), the monthly median income of households in Malaysia for the year of 2016 is RM5,228.00 and the household expenditure for furnishing, household equipment and routine household maintenance is 4.2% for a household to be spent monthly on average (Bank Negara, 2016). Hence, affordability is a significant aspect in creating a household item especially for the case of temporary dwellers.

Purpose

The aim of this research is to design a kitchen unit with potential design attributes through the factors for temporary dwellers while focussing on an affordable price.

Major Arguments

Interestingly, all kitchen cabinets from all over the world start from a freestanding unit and later become a modular and fitted type. The history of kitchen cabinet making comes from a very long way. Historically, our kitchen cabinets have a lot of influence from the 19th century, based on western and colonial furniture using freestanding cabinets. This can be seen in one of our heritage buildings, the Peranakan Mansion Museum in Penang.



Fig. 3. Peranakan Kitchen (Source: Peranakan Heritage Museum, Penang)

To many, the idea of a freestanding kitchen is considered dated and unorganized given that the available design of freestanding cabinets is still limited in the local market, which is contrary to the kitchen design in the western market. The 2019 IMM Cologne fair showcased the idea that the home of the future will be designed around the kitchen. The concept behind it is to allow homeowners to be able to cook, entertain, relax and even work in that space. As social life has become more dynamic, users prefer to stay flexible and so does the kitchen. Some of the top-notch kitchen brands such as Poggenpohl even released their latest series called +VENOVO which is a floating kitchen to emphasize flexibility. The idea of flexibility works closely with freestanding kitchens. The design can be explored in many ways to create a unified concept that is yet still practical.

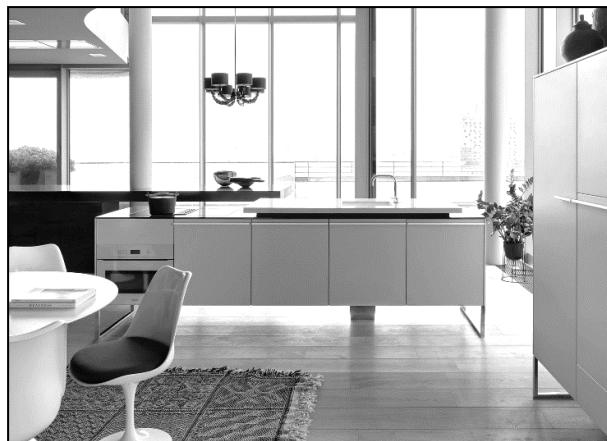


Fig. 4. +VENOVO kitchen by Poggenpohl, first released in 2018 (Source: Architonic)

Discussion

A fitted kitchen which requires installation that is fixed and permanent is unlikely convenient to temporary dwellers. Some renters purposely look for a house with a kitchen cabinet or some request the owner to provide a kitchen cabinet before moving in. However, not every renter is fortunate enough to request this and it might even create other limitations. Renters who are buying the cabinets are also bound to certain limitations, such as not having anything fixed to the wall.

More importantly, they are looking for a solution for their kitchen area that is convenient - from purchasing, to being transported, and to utilization for several months or years, and yet at the same time has an appealing look with design attributes. In many cases, a kitchen area in a rental property has the most unfinished look.

Another limitation is in most cases, once the renters have moved out to a new place they are unlikely to continue to use the same kitchen cabinet even if they bought a freestanding type. This will result in unsustainability. Therefore, the researcher has planned to design a freestanding kitchen cabinet that is affordable with design attributes inline to current trends and is still functional for other purposes besides a kitchen cabinet. In doing so, once the user might no longer need it to be a kitchen cabinet, the user can still use it for other purposes for example a workbench, a kitchen island or a cart. This kitchen concept is not just focused on freestanding but also a knock-down and flat pack system which will help to achieve sustainable products and give benefits to the economy and to the environment.

In fact, RTA (ready-to-assemble) furniture is expected to boost in the local online market especially since the recent Covid19 pandemic that hit globally (The Edge, 2020). IKEA, the world's largest furniture retail chain, has been selling RTA furnitures successfully and has witnessed an increase of over 43% in its online revenues in comparison to 2018 for the European market. Thus, the advent of e-commerce with the recent Covid19 pandemic situation will make the product befitting in the market.

Method

In order to understand the need for a non-fixated kitchen or a freestanding type of kitchen, the researcher needs to collect her data with the respondents using a qualitative method to study behavioural habits and lifestyle when working in the kitchen.

This will be the second step in the fieldwork of data collection. The researcher will conduct two sets of interviews, the first interview is with the consumer. The target respondents for this study will be temporary dwellers. It is to understand an individual reason on how they select, purchase and use a product. The influence of the environment is also one of the key-factors especially since the temporary dwellers have a certain limitation on buying a fixed item for the house. These respondents will be selected in Klang Valley as the study will be focused on this area which is the most densely populated area in Malaysia with the highest number of non-residents or temporary dwellers. The demographic of this group will be categorized into different levels of professionalism and backgrounds from five selections of respondents in different areas in Klang Valley.

The second set of the interview is with the professional group since conducting a study on behaviour alone will not answer to how impactful the product ends up in the market. The product needs to have certain criteria that answer to the principle of a good design. To get this insight, the researcher will conduct a set of interviews with a panel of experts in the kitchen industry. These experts are those who have been working in the kitchen industry for more than five years and who understand the kitchen market in Malaysia. During the interview with the user, the researcher determines to understand which area is most crucial and which activities are mostly performed in the kitchen. The outcomes from this review will give an important layout to stimulate the designer's awareness by understanding the difficulties that occur when the activity is performed. This method was taken from a research paper by V.V. Vermol titled "Designer Activity Experience: Blind User-Designer Activity Model in Knowing Product Influence Through Blind User Perspective". To study this, the researcher

will draw the kitchen layout based on every kitchen in the interviewee's residence after performing the open-ended questions to the interviewee.

The researcher will ask the interviewee to perform and explain one of their most cooked meals while recording and jotting down every action performed by the interviewee. From that guide, the researcher can mark the layout on which areas are most performed and also to identify the problematic areas while performing in that kitchen. Figure 5 shows an example of the layout guide by one of the respondents.

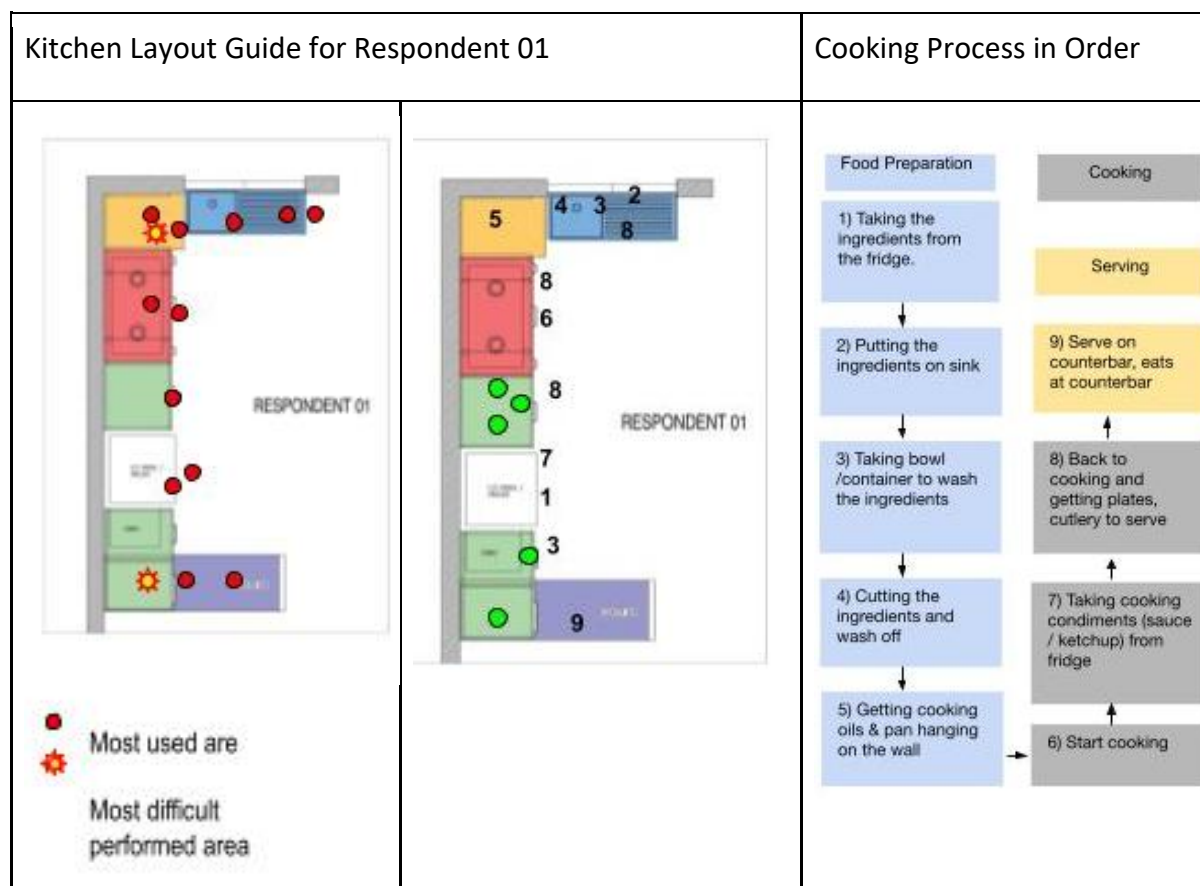


Fig. 5. Layout Guide for Work Performance in the Kitchen for Respondent 01

Results and Discussion

Results of the interview from the five respondents show that there are three main activities performed in the kitchen which are washing, cooking and preparation. Thus the researcher will design units for these three main activities with design attributes to help the user perform in the kitchen. The highlight of this study is the journey of the design process which has taken months from market study to ideations to idea and design developments, mock-up testing and finally prototyping. This is also the stage where critical thinking involves in creating an outcome of this study. It focused on putting parts of the analysis together to form a new and original design.

However, due to the limitation of working in a workshop during the pandemic 2020, the researcher has come out with a 3D model instead. The final design is called 'Dow-It' which represents 'dowel' and 'do-it-yourself'. The main element of this design is the usage of dowels with an improved and innovative system.

This dowel in Dow-It comes in a slot-in system that has a magnetic force to connect to the steel frame main structure. A magnet has many advantages in furniture installation. In fact,

the latest iPhone 12 invention also introduces their new feature which is magnetic rings that give many tech industries predict more tech products and accessories will be using magnetic systems. In furniture making, a magnet may not be seen as a convincing tool especially in installation however, with the rise of magnet technology, it will get improved and will be a tool to solve many installations.

The following 3D images in Figure 6 show the structure and main idea of Dow-It. The structure can be assembled and disassembled easily with just a click. Figure 7 shows the three main units for Dow-It which are the washing unit, cooking unit and preparation unit. These units can be joined together to form a unified kitchen set. Therefore, buyers can buy the unit at their financial convenience by buying each unit one at a time. Each unit has its own accessories to help the user to work comfortably. The materials used in these designs are aluminium for the structure and chipboard for the body. These materials shared the same criteria which are lightweight, economical and widely used in cabinet making as advised by the kitchen expert during an interview session. However, a study on the material can be discussed in another paper as the material for furniture has been evolving quite rapidly to achieve sustainability and good quality. In fact, a study on Bagasse and Kenaf fibre-based material for furniture has been discussed in papers by M.A. Ahmad, S.N.D Sukri and S. Safian. These are some of the potential materials that can be explored to achieve sustainability, affordability and strength.

What makes Dow-It different from any other product in the market is not just because of its tool-less cabinet and a flatpack unit but because of its ability to transform into other products. This is a crucial value for temporary dwellers since they will not necessarily use the same cabinet in their next home. That is also the reason for the size which is 900mm, the same height as the average kitchen unit so it can be fitted easily in any part of the house. Dow-It even has its own tagline which is 'No Tools, No Muscle, No Hassle, Even a Woman Can Do It'. The tagline shows clearly that this kitchen cabinet is simple to construct and does not need professionals to do it. Since it is designed for users to do-it-themselves, it needs to be practical to carry hence, reducing the logistics and installation cost.

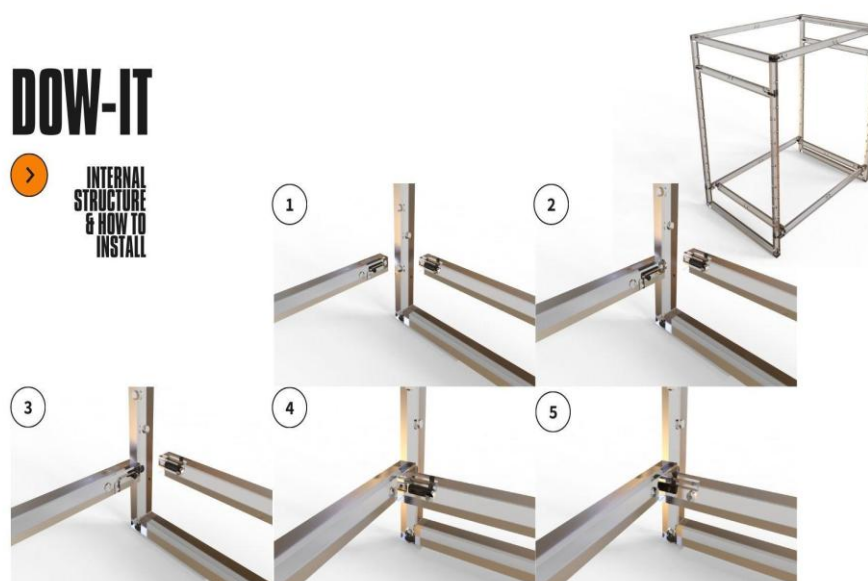


Fig. 6. Structure and installation guide of the design



Fig. 7. Result of this study, Dow-It

Conclusion

Given the current issue, it appears to have been the right time to reintroduce the freestanding kitchen as a kitchen solution for temporary dwellers. Though its main objective is for temporary dwellers, it still is a practical product for permanent residents to own it. The idea of making it flat-pack and easy to self-assemble will help in achieving Sustainable Development Goals focussing on consumption, production and affordability. Cutting costs on the production of material, packaging and transportation can help to reduce the retail price making it accessible to own. It will also help the users to achieve greater satisfaction in terms of sustainability of the product and financially.

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