UNIVERSITI MALAYSIA SARAWAK
UNIMAS

Faculty of Applied and Creative Arts

CREATIVE CONNECTOR FOR DIY FURNITURE

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Bachelors of Applied Arts with Honours
(Design Technology)
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CREATIVE CONNECTOR FOR DIY FURNITURE

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This project is submitted in partial fulfillment of
the requirements for the degree of Bachelor of Applied Arts with Honors
Applied and Creative Arts
(Design Technology)

Faculty of Applied and Creative Arts
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2016

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ABSTRACT

The research is conducted based on the problem of existing connectors facing by the user. The researchers began to identify problems after doing some observations on the use of existing connector used by the user. The problem that frequently seen is when the user wants to assemble furniture with the connector, it may create difficulties to join between furniture parts. Sometimes the connector is not suitable for all material and does not have a flexible key-lock system.

This problem can be avoided if the existing connector is designed with various functions to facilitate users. For example, it can be used to assemble various types of furniture with or without a key-lock system. Besides, the durability will last for years and the size of the connector is practically compact and portable. Thereby, users will feel no doubt using the connector and more convenient without having any problems when assembling the furniture.

In conclusion, this research was carried out to design practical connector for user convenience. The design of the connector will be produced according to users need and requirements.

CONTENT

LIST OF FIGURE **PAGE**

LIST OF TABLE **PAGE**

LIST OF PIE CHART **PAGE**

LIST OF DIAGRAM **PAGE**

INTRODUCTION

1.1 RESEARCH BACKGROUND

Research on the furniture connector is conducted to produce innovative designs in supporting Do It yourself (DIY) furniture concept. The availability of existing connectors in the market is still not able to meet the characteristics of the users requirements. Thus, the research method applied in this study are both qualitative and quantitative, which involved 60 respondents. A priority in this study also aims to give more specific knowledge to the researcher and the public about DIY furniture connector. The main objective of the connector is for users comfort in terms of ergonomics.

1.2 PROBLEM STATEMENT

A furniture connector is a tool to connect two parts or more of flat surface wood without any help from an expert. Not many users alert about this existing of furniture connector use for constructing DIY furniture.

The use of a connector for DIY furniture is quite lukewarm. This is due to the lack of knowledge about the potentiality of the tool for assembling the furniture. In addition, some users are having problems with the existing connector that does not meet their needs and requirements in terms of design appearance and the practicality of the design. Users need a convenient furniture connector that is ergonomic with their lifestyles.

The process of designing a workable connector is complicated because it requires an important information such as design, materials, and manufacturing process in producing a durable and long-lasting product. The production of a connector must meet the consumers needs and have a good safety features to avoid any accident.

1.3 OBJECTIVE

The main objective of this research was to produce a better connector to overcome the problems faced by consumers when using the connector to build furniture. Among other objectives of this study are as follows:

1. To Identify connector design that functions as the main medium for designing furniture.

2. To propose and design a suitable connector for users.

3. To build full-scale prototype connectors based on the product specification.

4. To Validate the design of the connector to determine the best quality connector.

1.4 SCOPE OF RESEARCH

More specific research need to be done to achieve the objective of this study which is to produce a better connector and to make the study easier to be solved. Research and experiments must be carried out to produce a better connector for the consumer.

The scope of this research involves several aspects such as designers, and users. Researcher has analysed on the existing from internet, jurnals, books and looking at international designs before designing the connector. The observations have been done through existing furniture connectors. In addition, questionnaires were distributed to users in Kuching at different areas to get more information about the use of connectors. Apart from these sources, researchers also generate design ideas from educational related materials such books, magazines, and the Internet as a reference to get more detailed information about existing connector.

Various measures should be taken and implemented to ensure the success of a good design, it is also aimed at obtaining customer satisfaction and can help reach a broader target market as well as provide important information to readers or the researchers themselves.

1.5 RESEARCH LIMITATION

The study only focused on DIY furniture assembly problems involving the use of connectors. The type of connector focuses on a creative connector for DIY furniture. Use of material is limited because not all types of material suitable for producing connectors. The scope of the research, which also limits the use of furniture connector involves a certain time. For example, the time taken by users to assemble the furniture. Some users found it is hard to understand the manual on how to assemble the furniture using the connectors. Also classified as well, where users are located in different locations in Kuching, such as Satok, Petra Jaya, BDC and other areas. Thus, the scope of the study has been restricted in 50 respondents only to facilitate the research.

1.6 RESEARCH QUESTION

In this study, researcher has described a number of questions to each of the questions or concerns about the product device connecting the research took place. There are several issues that have been raised in this research. These includes:

a. How does the connector be used in different types of furniture?
b. What type of material suitable to be used for the connector design?
c. Are the materials used to produce these products are compatible with the design of furniture to be built?
d. What type of connector is suitable for application in various furnishings?
e. Are the use of the connector is flexible for users?

1.7 CONCLUSION

Creative Connector for DIY Furniture is a product to help the users to ease their DIY installation and provide comforts to them. The conclusion was to create a connector which has a unique function and convenient for users. The connector was redesigned to be stable and capable of movement or something. Ergonomic principles should be prioritized in producing a better connector for every user to enable a change in various designs.

Researcher have studied the lack of functionality of existing connector for redesigning and innovate the connector. After the study, researcher found that any shortcomings can be overcome by applying different functions of connector and making it easy to assemble. A suitable material should provide physical properties of a stronger and more durable material. The design of connector produced has a good safety features and durable. Indirectly, the use of this tool is suitable for all ages.

In overall conclusion, the Creative Connector for DIY Furniture is a potential product to be commercialized in the manufacture of industrial products. The problems encountered by users can also be completed and meets the needs and requirements of users. Thus, this connector also has a large potential for commercialization into international markets and the production of connectors should be carried out in order to realize successful local products.

LITERATURE REVIEW

2.1 DIY FURNITURE DESIGN

Nowadays, people tend to do their own things without using the help from experts. Therefore, there are a lot of DIY furniture production in the market. These furnitures are easy to install and portable as it is also easy to uninstall for storage or move away.

One of the most famous company in the world producing DIY products is IKEA. This company is known for its modern and contemporary designs in different types of furniture such as wardrobe, beds, chair, kitchen utensils and cabinets, outdoor furniture and others. Besides, they are also expert in consulting interior design works.

Besides, a blogger, Ana White is a famous Alaskan mom with her DIY furniture plan. She is a home builder and furniture designer. She creates many DIY furniture that she shows in her blog, making it accessible to everyone. She started to build DIY furniture after she helped her husband to build their house. As reported by Graham (2012), Ana has the passion for what she does by building her own furniture with some easy plans that is more saving money.

Lastly, one of DIY websites that creates DIY plans for everyone to build their own furniture. How to Specialist (HTS) team is managed by Jack Sander who is known as a DIY enthusiast. They are very passionate about home construction and improvement. Their goal is to inspire and motivate everyone to improve their homes.

HTS vision is to help users create a better lifestyle by saving money and having the satisfaction of building something from scratch.

2.2 WHAT IS DIY CONCEPT?

Do it yourself (DIY) is a procedure of designing, creating or modifying any particular object or product when it is accomplished by an individual, rather than a professional. In technology, the do-it-yourself technique enables general users to assemble products or services without the aid of an expert or organization in that particular field. Techopedia.com (2010) defines that, "Do-it-yourself is a broad term that refers to building or repairing a product independently. In tech, this term refers to a culture of hobbyists who build their own computers and other electronic components."

The DIY concept has been used since many years ago. "The term 'Do It Yourself' was commonly used in the 1950's and was referred primarily to home improvement. But now it covers everything from lifestyle to food. Today, the DIY concept is becoming very popular for startups with low cash. The movement was given mojo by makers who actually makes things and display them around the country. People who make things with their hands started to influence people who create things online. Thus, began a revolution.", reported by Avula (2015) in Inc42 Magazine.

DIY furniture saves more than a ready-made furniture as it is at low cost and the flexibility of the furniture is very convenient to users. Some users can reuse or

repair the old furniture into a DIY furniture. It also creates a creative mind to users on how they would create their own furniture. For example, an old folding chair could be used as a wardrobe, where the old chairs are hung onto the walls. The leg of the chair could hang clothes and the seat could be a storage for bags. Although, some DIY furniture are brand new where as the furniture are assembled by users without the help from an expert. Most of the material used for DIY are lightweight and cheaper than the material used in ready-made furniture.

DIY is different from a ready-made and a custom-made furniture. A ready-made is a production of a furniture that is assembled by the factory and sold in the store while a DIY is a furniture that is created or assembled by the user itself. On the contrary, a custom-built furniture is a furniture that is produced in limited numbers. For example, a custom-made furniture is produced only in two or three designs or based on customers requirements. Thereby, DIY concept furniture is more way less expensive in production and materials. The concept of using DIY is that it would convenient the users and to encourage users to be creative in terms of building own furniture.

In conclusion, Do-It-Yourself (DIY) is something that been started many years ago by users. They build their own things by designing and creating the product themselves. This helps them to save more without spending so much buying new things. Thus, they can build it without the help of an expert or anyone.

2.3 FURNITURE CONNECTOR

A furniture connector is a piece of furniture tool that comprises a connector body that connects to the modular objects such as the wood to create a furniture. KO and Kenneth (2014) defines that a connector includes some hardware pieces, to be assembled onto furniture modules severally. A furniture unit consisting of a combination of multiple modules using connectors that can withstand the weight and the stability of the furniture.

Besides, a connector fastens a different parts modular together and users just simply assemble furniture themselves. Thus, the connector is the basic element of the furniture and construction. These connectors come in different types that can connect various furnitures. A connector holds together various components of modular so that it can be assembled with minimal tools. As discussed by Häfele's company (2015), a connector is pointed out to be as functionality in furniture by assembling the pieces of furniture giving the actual figure of a furniture.

As a conclusion, a furniture connector is a tool that connects modular furniture in various types of furniture depends on the users creativity. It is small and portable for users to simply assemble or disassemble the modular to easily put into storage. Connectors are DIY products for users to create their own furniture.