



Research and Development of Residence's Living Furniture Design with Slate Material: A Case Study of Slate Material in Pakchong District, Nakorn Ratchasima Province

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Abstract

This study aimed to develop living furniture design for residence with slate material in order to add value to goods including enhancing local profession as well. It was found that slate material in Pakchong district, Nakorn Rachasima province gained sufficient property used in product designing, especially residence's living furniture as follow:

The design was not the imitation of the living furniture in the market. The addition of value was to mix other material in order to innovate the design and included slate material, as well as local wood which results in the uniqueness in accordance with nature. Moreover, it could be as the model for other product design. The property of slate was strong and had natural color to make the design harmonized as to good environment for residence.

The researcher developed four patterns and then constructed the residence's living furniture with slate material as the last design through satisfaction survey. The research was made by surveying four designs and gaining expert advices to improve and develop a new design with standardized uniqueness of shape and texture as to the natural design of slate and how to mix its construct with the kind of method. According to the satisfaction survey, all respondents (100%) returned questionnaire. It was found that they preferred the design 4 (55%), they used the living furniture 1-3 times/ week (47%), most of living furniture used was made from slate material in design 4 (55%) and it was attractive and had local uniqueness (47%), including most preferred in the residence (68%). The interesting form of design were products made of local slate material (40%), the interesting design for residence used was harmonized texture and color (35%), the most improved shape was structure design (40%). The new developed living furniture should gain good image and could compete with products in the market as design 4 (50%), whereas its utilization for satisfaction as efficiency (47%), and different design (45%).

Considering the effectiveness of four patterns of living furniture from 100 respondents in order to finalize the last one to develop, it was found that the pattern 1 gained at good level ($X=3.96$), the pattern 2 gained at the good level ($X=4.21$), the pattern 3 gained at good level ($X=3.43$), and the pattern 4 gained at good level ($X=4.24$). Finally, the second of developed living furniture design with slate material (as pattern 5) was evaluated by twenty of 5-year experts. The results revealed that this pattern was sufficient as to criteria of design, production and utilization. In addition, customers' satisfaction on design including production of material, process, physical and beauty utilization was at a good level as well.

Keywords: Teaching, Media, Free Expression of Students, Atmosphere, Activities.

Introduction

Problem and obstacle of product design development is the investment, including scarce and few raw material used. Still, we lack of expert designers on research and development of new products, especially qualified research and development and various patterns. Thus, designers need to use important strategy of design and adjust market condition, aiming at producing competitive goods such as products with technique, design; beautiful and artistic look with value-added quality as well. Then the researcher tries to promote the development of product design with slate material which can be easily found in the local area and it can contribute careers for local people as well as small entrepreneurs.

The development of product design aims to cope with the above problems envisioned how to support and develop social, economic, and efficient linkage of vocational organization contribution. A study of property of slate material is aiming at possibility and properness as database of process of residence's living furniture design.

Most of the residence's living furniture product is not modern, made of heavy cement structure which causes it to be hardly moved; results in high investment and low price, including imbalanced product process. Thus, selection of raw material and design to be used is restricted. Its pattern does not meet with market demand and also there is lacking of designers who can develop the pattern and link the products to market need as well.

The results illustrate that the development of added-value slate material through mixed molding results in interesting pattern, especially when mixed with utilized wooden material or easily-found wood in the local area, and also design creation through natural colors of slate material as innovation for residence's living furniture development.

However, there are some problems on raw material concerning the lacking of designers with

expertise and experience of creativity and support from government section. Moreover, the entrepreneurs do not have cooperation and good understanding with the designers in order to assume the guideline for their own product design development. The process of production is still the same because there is lacking of the application in accordance with the nature of the local area. Thus, the problem of residence's living furniture design relies on weak industry; they independently make their own design with few kinds of material. It could be concluded that the development of residence's living furniture design with slate material should be mixed with other material in order to add value to slate material as quality material for the making of residence's living furniture.

Aims

1. To study the property of slate.
2. To examine residence's living furniture with slate material.
3. To increase entrepreneurs income.
4. To support vocational development in the rural area.

Material and Method

The researcher studies documents, questionnaires, and interviews of the experts in furniture design.

Tools and material

1. The living furniture pattern 1 with one-color slate material
2. The living furniture pattern 2 with two-color slate material
3. The living furniture pattern 3 with three-color slate material
4. The living furniture pattern 4 with four-color slate material
5. Utilized wooden material or easily founded wood
6. Cement

Method

Conclusion: The design processes of the residence's living furniture with slate material are as follow:

- Documents preparation
- 1. Data collection, surveys, evaluation forms, and interviews
- 2. Analyzing an innovation of living furniture design
- 3. Designing 4 patterns of living furniture
- 4. Selecting the efficient design to be developed (through expert advices)
- 5. Making residence's living furniture with standardized slate material

Results

The residence's living furniture in the market are old-fashion and heavy with the same material. Therefore, they are not interesting and they lack of linkage to market's need. This study examines the property of slate material for residence's living furniture design development. The result reveals that the slate gains its physical property of strength which can be used in residence's living furniture production. The element of natural colors of the slate can be used to create free design as innovation of design development for residence's living furniture and also contribute to new choice for entrepreneurs, including its value-added product. The experimental study results in uniqueness of residence's living furniture, mixed technique of structure molded with other kinds of material accompanying utilized wooden material or easily-

found wood. This is a process of development of living furniture design in accordance with customers' needs.

The purposed pattern is collected through surveys with questionnaires and interviews from experts on furniture design. The colorful design of the slate shows the difference which can be used to develop as to market's need of qualified residence's living furniture.

Colors of the slate to create the design are used as follow: The researcher uses free and geometry patterns from its colors as: (1) pattern 1 with one-color slate material, (2) pattern 2 with two-color slate material, (3) pattern 3 with three-color slate material, and (4) pattern 4 with four-color slate material. The researcher finally selects the pattern in accordance with market need in order to develop the pattern 5 through experts' advices and satisfaction survey.

- Inspirational study
- Analysis through information, trends, material, colors, patterns, matter, and market's need
- Scope of study with definition and purpose of design
- Design process through the collection of data (colors, silhouette, proportion, fabric, patterns, texture, sampling, and construction) and the selection through comparing and questionnaire by experts, designers, and entrepreneurs
- Prototyping and implementing through the most proper selected pattern to be developed and proceeded as to product design industry as (1) design's try out, (2) selection to develop and finalize construct, and making the genuine pattern.

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