# Building Satisfaction Scale Model of Consumer Experience in Residential Refurbishmnet Behaviors

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#### **ABSTRACT**

For the purpose of comparative analysis, this study adopted the point of view of the consumer to verify consumer experience in terms of a satisfaction scale that was based on the concept of consumer experience when commissioning contractors to work on, or designers to design, residential refurbishment. The results indicated that the overall fitness indicator for the satisfaction scale of consumer experience on various types of residential refurbishment, as well as reliability and validity indicators for various aspects of residential refurbishment, were within the acceptable range. This means that the consumer experience satisfaction scale for residential refurbishment, as measured in this study, proved to be both reliable and accurate.

Keywords: Residential Refurbishment, Experience, Satisfaction Scale, Contractor, Designer

# INTRODUCTION

Residential refurbishment services are a very important industry and are directly related to domestic consumption of the general population. Residential refurbishment services are also part of service quality that are provided by industry operators and are very closely related to the management sector. Schmitt (1999) first put forward the concept of "experiential marketing." The purpose of experiential marketing is to create a better overall consumer experience, which is then translated to added value for consumers. Further, Egbu (1995) argued that different professional services for housing refurbishment attract different attitudes and consumption intentions. According to a past survey, households in Taiwan typically adopted either one of two service types in residential interior refurbishment. The first service type was that householders entrusted contractors who specialized in construction (referred to as

contractors here). The other service type was that householders hired design firms to undertake both the design and construction of the interior refurbishment (referred to as designers here). Applying the concept of consumer experience to these two types of refurbishment services may lead to different experiential meanings and feelings toward such services. As such, the objective of this study was to apply the concept of consumer experience to construct a satisfaction scale of consumer experience in residential refurbishment for the various refurbishment methods. A comparative analysis was conducted on the above-mentioned types of refurbishment using a satisfaction scale to measure consumer experience.

#### LITERATURE REVIEW

# **Residential Refurbishment**

Mendelsohn (1977) was the first scholar to investigate residential refurbishment behaviors and the first to propose the notion that residential refurbishment is a behavior that combines residential consumption with residential investment. His study showed that refurbishment spending behavior only marginally diminished in the face of increasing residential housing prices.

As ordinary households have greatly different demands in residential refurbishment, service providers often need to provide a variety of "customized" refurbishment categories. As such, the decision-making model for a household's consumption of refurbishment services, in this study, included confirmation of the demand for refurbishment, searching for contractor information, deciding on contractors, and post-refurbishment evaluation on product satisfaction, as well as the two stages of residential planning and design and construction.

# **Consumer Experience**

The concept of the consumer experience was first introduced by Norris (1941), who believed that marketing and consumer researchers needed to realize the importance of hedonic consumption and consumer experience. A few studies even viewed the experience as an attempt to explore the differences among experiences, products, and services (e.g., Pine II and Gilmore (1998, 1999); O'Sullivan and Spangler (1998); Gupta and Vajic (2000)). Further, Schmitt (1999) proposed five Strategic Experiential Modules (SEMs) for the purpose of creating differentiated designs of consumer experience for the customer that included senses (sensory experience), feelings (affective experience), thought (intellectual experience), actions (behavioral experience), relations (relational experience). Schmitt (1999) also

introduced consumer experience through the use of a complete framework to create a complete experience for customers. SEMs can help narrow down this concept and the operation of these experiences.

In addition, Lien and Hwang (2009); Lien, et al. (2009) showed that the value experience in residential refurbishment plays a very critical influence on the consumer. Because refurbishment costs are much higher than the costs of other goods and account for a large portion of most people's income, this researchers suggested that the value experience in the residential refurbishment process would be dissimilar to that proposed by Schmitt (1999) in the above-mentioned five types of new experiences.

#### **METHODS**

#### Research Framework

This study adopted the consumer experience framework as proposed by Lien and Hwang (2009); Lien, et al. (2009) using the qualitative research method to develop its own foundation for a satisfaction scale on the consumption experience in residential refurbishment. Following this process, a reliability analysis and confirmatory factor analysis (CFA) were used to investigate, via quantitative analysis methods, the difference in terms of consumer choice for designers and contractors between two different types of satisfaction scale measurement of consumption experience in residential refurbishment.

# **Research Subjects and Sampling Method**

A quantitative analysis method was used to conduct a convenience sampling of households in the Taipei metropolitan area with refurbishment experiences from 2004 to 2006. This researchers then conducted a formal questionnaire survey. According to Mueller (1997), a properly developed questionnaire survey requires at least 371 questionnaires. To improve the effectiveness of the sample, this study collected 719 samples, 601 of which were valid questionnaires (83.6%).

# **Data Analysis Method**

The data analysis methods used in this study included reliability analysis and CFA, which were designed to, respectively, verify consumers' selection of contractors and designers in terms of a consumer experience scale of reliability, structure validity, and discriminant validity, and to comparatively analyze the differences between the scales from the two selections.

#### **RESULTS**

Statistical Analysis on the Satisfaction Scale of Consumption Experience in Residential Refurbishment using Designer and Contractors.

# • Selection of Estimation Method

From the results of this study, for designers, the value of skewness ranged from -0.73 to 0.40 and kurtosis value lay between -0.23 to 1.12. For contractors, the skewness value was between -0.52 and 0.42 and the kurtosis value was between -0.10 and 1.10. The results showed that the observed difference in skewness and kurtosis value variables was not large. Therefore, this study adopted the maximum likelihood estimation as its estimation model.

# Confirmatory Factor Analysis (CFA)

In the process of developing the scale, this researcher first used exploratory factor analysis to extract the relevant variables during the pre-test. Then CFA was used for a competitive model comparison to test for reliability, convergent validity, and discriminant validity. This was done to confirm the scale of reliability and validity, whereby the relevant content and practices are described below. Models of competition included a null model, one-factor model, uncorrelated factors model, correlated factors model, and hierarchical model. This study belongs to the fourth method; therefore, this study defined the models as follows:

# 1. Competition Models Defined

This was a first-order correlative confirmatory factor (latent variables do correlate) model - an average model with CFA. As such, this model can be described as a multi-factor model with CFA (Joreskog and Sorbom, 1992), which is also the most common type of CFA model. The latent variables in this model were correlated and used to verify whether the observed variables could be comprised of known latent variables (Doll, *et al.*, 1994; 1995). It was assumed that the experiences of residential refurbishment had six correlated factors. If this model gains support, then it would mean that these factors are inter-related and imply that there exists the possibility of a hierarchical model.

# 2. Competition Model Verification

For a two correlated factors model, the improvement of the fitness of its indicators were quite large. Only the likelihood-ratio,  $\chi 2$ , indicator showed significant rejection of the model. All other indicators were accepted in the model.

Because the second-order, one-factor model did not converge, for designers and contractors, we chose the correlated factors model as the best model for satisfaction level in terms of experience behaviors in residential refurbishment.

# Reliability and Validity

# 1. Reliability

The results of this study showed that the reliability (R2 values) of individual observed variables was between 0.36 and 0.72 for designers and between 0.39 and 0.67 for contractors, which is consistent with the reliability requirement for a variable. Findings also showed that all observed variables were reliable. The structural reliability of the six latent variables ranged from 0.75 to 0.83 for designers and from 0.79 to 0.84 for contractors, all reached the 0.6 or above standard (Fornell and Larcker, 1981). This indicates that the reliability of the observed and latent variables in this scale was excellent.

# 2. Validity

# (1) Convergent Validity

The results of this study show that the values of the factor loadings of allobserved variables, against individual latent variables, ranged from 0.45 to 0.84 for designers and from 0.49 to 0.85 for contractors, which indicates that all observed variables were sufficient to reflect their latent variable structure; therefore, this scale had good convergent validity.

# (2) Discriminant Validity

In the discriminant validity test, the criteria was to calculate the number of occurrences. When the total number of occurrences was less than 50%, then it met the requirements of discriminant validity (Campbell and Fiske, 1959). The results of discriminant validity showed that the correlation coefficients, with respect to various aspects of designer and contractor satisfaction, reached a level of significance for the experience of residential refurbishment, which indicates that this scale measurement had excellent discriminate validity.

# CONCLUSION

This study was based on the consumer experience as the core point of view. With respect to consumer satisfaction using two different refurbishment methods in the residential interior refurbishment service industry, a CFA was used to compare and analyze the differences in satisfaction of consumer experiences between the two. In past interpretations of consumer behaviors, methods used were too standardized and consistent, which resulted in a failure to fully understand the variety of phenomena in consumer behavior. Therefore, the concept of consumer experience must be used to explain consumer behaviors.

Further, this study used results from the research of Lien and Hwang (2009); Lien, *et al.* (2009) on householder's interior refurbishment consumer experiences. It also adopted senses, feeling, thoughts, actions, relations, and values as the six types of experiences. Further, this study used the experiences other than the five experience strategy proposed by Schmitt (1999). Consumer experience that is created in the residential refurbishment service industry is called a "value experience," which is used to establish different types of satisfaction scales of consumer experiences in residential refurbishment. This study also considered rational and emotional attitudes of consumers to widen the variety of factors to explore the decision-making process of consumers.

The results of this study show that various aspects of reliability, convergent validity, and discriminant validity of the chosen satisfaction scale of consumer experiences in residential refurbishment were within a reasonable range. The different types of satisfaction scale of consumer experience in residential refurbishment established in this study yielded both reliability and accuracy. Therefore, the results can be used as a reference for planning future marketing strategies and for related industries conducting research on related subjects and consumers.

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