

**CONSUMER SATISFACTION WITH SOLID WOOD FURNITURE PRODUCED
BY SMALL SCALE ENTERPRISES IN UGANDA**

BY

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DECLARATION

I, Simon Savio Kizito, declare that this research work is a result of my own effort and has not been previously accepted or submitted in candidature for any degree award in this or any other institution of Higher learning. Where any other information has been used in this research, the authors have been dully acknowledged.

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DEDICATION

I dedicate this project report to my late Grand Mother Janet Nakato I will always appreciate your love, may your soul rest in eternal peace with Christ.

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ABSTRACT

Like many other sectors, Small and Micro Scale Wood Furniture Enterprises in Uganda are facing increasing competition pressure from imports. Changing consumer preferences and liberalization of the economy are exposing the consumers to new products especially from China and Malaysia. The only way of survival for the majority of the small and micro level artisans is to produce products that meet consumer needs. The purpose of this study was to assess consumer satisfaction with wooden furniture produced by the Small Scale Enterprises in order to determine their market share and competitiveness. Specifically, the study investigated the level to which the consumers' quality expectations are met by small scale artisans and the overall satisfaction on four selected product features (design, finish, durability and price). Using a questionnaire survey a total of 275 respondents who had bought furniture in the last 1-5 years were sampled in Nakawa, Rubaga, Kawempe, and Makindye divisions of Kampala District. The results indicate that: Consumer's expectations were only met on durability and only 59 % of the surveyed consumers were satisfied. The logistic regression model revealed that consumers' partial satisfactions on design, finish and durability explained up to 66 percent of their overall satisfaction with wooden furniture. The highest influence is exerted by durability ($\beta = 3.92$), design ($\beta = 3.46$) and finish ($\beta = 2.87$). Consumers' satisfaction was only significantly associated with income ($X^2, 5 = 44.091, p > .05$) and education ($X^2, 5 = 31.082, p > .05$). The study concludes that consumer centered production can provide solutions to improving market competitiveness of small scale wooden furniture through development of specialty products to target the high market potential segments. In this way they will be able to shield off competition from imported goods. However, to achieve this, small scale producers need to develop internal quality control systems, develop modern designs, and improve on finish in order to satisfy a wider range of consumers.

Key words: Wooden Furniture, small scale enterprises, consumer expectations, Uganda

LIST OF ABBREVIATIONS

UNBS	Uganda National Bureau of Standards
UMA	Uganda Manufacturers Association
GDP	Gross Domestic Product
UIA	Uganda Investment Authority
UCPA	Uganda Consumer Protection Association
UBOS	Uganda Bureau of Statistics
PEAP	Poverty eradication Action Plan
NFA	National Forestry Authority
MWLE	Ministry of Water Land and Environment
MFEPD	Ministry of Finance Economic Planning and Development
KCC	Kampala City Council
FP E	Forest Products Engineering
FGD	Focus Group Discussion
SSFE	Small Scale Furniture Enterprises

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Product quality management, consumer satisfaction and retention, are global issues that affect all organizations, be it large or small, profit or non-profit, global or local. As many industry sectors mature, having a competitive advantage through provision of high quality service is an increasingly important weapon in business survival (Patterson *et al.*, 1997). The wood furniture industry has certainly not been exempted from increased competition or rising consumer expectations of quality. World over, the growth in consumer populations and incomes has raised the demand for household furniture (Moore, 2002). The boom in the modern housing and cottage industry has been and continues to drive the demand for quality furniture (Schuler and Buehlmann, 2003).

To serve the high demand, furniture industrialists world wide are operating under stiff competition in the attempt to own the largest share in the market (Bumgardner *et al.*, 2004). In Europe and USA as examples, the majority of furniture producing firms are now focusing on consumer oriented marketing as a strategy of maintaining a reasonably big percentage of satisfied consumers (Biggsby *et al.*, 2003). In addition, many furniture producing firms are investing in developing satisfaction indices for their consumers in order to monitor quality and manage competition (Bumgardner *et al.*, 2004). Tremendous research is also going on especially in the domain of modern furniture design emphasizing value addition and increased utility of furniture products (e.g., Biggsby *et al.*, 2005, Schuler and Buehlmann, 2003; Drlikova *et al.*, 1999).

Unlike Europe, USA and developed parts of Asia where high end furniture production focusing on consumer demand is highly developed, in Uganda furniture production systems are at the start of this evolution cycle. For example, in the past 10 to 15 years, high value added furniture was not a top priority for majority of Ugandan consumers (Upton, 1996). This was because on average the per capita incomes were low and therefore furniture was mainly purchased as a convenience product only serving practical purposes such as beds for sleeping, chairs for sitting and less for luxury.

Today, the steady growth in the economy has resulted into growth in per capita incomes and there is a growing transition from low to middle income populations (MFPED, 2006). With growth in population incomes, furniture has increasingly become a high value asset and an indicator of social class in many urban homes in Uganda. For this reason, the demand for quality furniture has grown tremendously over the last 5 years. As the demand for quality furniture continues to grow, the market is greatly expanding too, and attracting many foreign companies from Malaysia, South Africa, and China who are now doing furniture business in the country. It is estimated that furniture imports worth between 8 to 10 million United States Dollars enter the market in Uganda annually (UBOS, 2007). The figures indicate a growing acceptance of furniture imports on the Ugandan market and sound a bell of change in preferences for furniture among Ugandan consumers.

The entry of large scale foreign producers is however, progressively making the market very competitive for the domestic ¹small scale producers. The reason is that foreign companies use advanced technology production systems that emphasize high value added especially in the area

¹ 80 percent of the domestically produced furniture is made by small scale enterprises

of modern design and finish. Furthermore, the foreign furniture companies have raised their competition stake by offering a one-stop furniture shopping experience for their consumers. They do by selling a wide assortment of household furniture together with complimentary products such as interior design and artwork which the majority of small scale domestic producers cannot afford. Therefore, within the same market niches, the small scale producers are increasingly finding it difficult to compete with these foreign companies (UMA, 2007). The challenge facing the small scale artisans is how to position themselves in order to capture and sustain the biggest share of market especially for the middle income consumer segments.

1.2 Statement of the Research Problem

Due to their stable and unthreatened positions in the relatively uncompetitive Ugandan furniture market in past decades, the small scale producers managed to supply 80% of the local furniture demands. However, today, the Ugandan furniture market is fully open to foreign competition and the local producers are facing tough competition challenges. In the now fully liberalized economy, local small scale producers are battling strong competition from foreign companies that are mainly competing at a higher quality level. Additionally, they are encountering rapid changes in customer preferences resulting from emerging new lifestyle patterns..

From recent research, limited technological infrastructure, inadequate skills of workers, scarcity of high quality furniture producing hardwoods and lack of internal quality control systems have been reported as the major obstacles to quality production that limits the competitiveness of the small scale producers in Uganda (Kityo and Plumpre, 1996; Kambugu *et al.*, 2005; Zziwa *et al.*, 2006).

In this study, inadequate market information is pointed out as an equally important aspect hindering favorable competitiveness of locally made wooden furniture that has not received much attention. With certainty, empirical and documented data is lacking about the current furniture market segmentation, the product attributes preferred by consumers and what portion of consumers is satisfied by the small scale furniture products. Viewed from an economist's perspective, this information gap limits the small scale producers to meet the actual requirements of their consumers because they can only satisfy needs to the extent of their knowledge of these needs. Therefore, local furniture producers need better insight into product-customer linkages for the development of their competitive strategies.

To fill the gap therefore, this study evaluates consumers' satisfaction with wooden household furniture produced by the small scale furniture producers. The study also evaluates the product attributes and socio-economic factors that influence consumers' satisfaction with wooden furniture. This information is useful to fill up the gaps in both marketing and production so as to maintain a large portion of consumers satisfied and in the long run improved production efficiency by the small scale furniture producers.

1.3 Overall Objective

The overall goal of this study was to generate information about quality and consumer satisfaction that can be used to improve the market competitiveness and production efficiency of small scale wood based furniture enterprises in Uganda.

1.4 Specific Objectives

The specific objectives were to;

1. To determine consumer satisfaction with wooden furniture from small scale enterprises.
2. To assess the level to which consumers' quality expectations are met by the small scale wooden furniture producers on four selected product features (design, finish, durability and price).
3. To determine the major socio-economic factors that influence consumer satisfaction for wooden furniture in Kampala.

1.5 Study Hypotheses

The study hypotheses were;

- H₁:** Consumers' satisfaction with wooden furniture is not dependent on product attributes offered i.e. design, durability, finish and price.
- H₁:** Consumers' satisfaction with furniture does not depend on consumers socio-economic characteristics.

1.6 Scope of the Study

The study aimed at assessing consumers' satisfaction with small scale wooden furniture and understanding the underlying factors that influence satisfaction formation specifically; product attributes, consumer expectations and the role played by socio-economic factors in satisfaction formation. The main focus was in the domain of solid wood household furniture products: beds, tables and chairs because these are the most commonly traded by the small scale enterprises. The

study targeted final consumers of small scale wooden furniture within Kampala city and Kampala district at large.

1.7 Study justification

To improve market competitiveness and production efficiency of small scale furniture enterprises in Uganda requires that market information on consumer preferences and level of satisfaction be collected, analyzed and used to effect quality production that addresses a wide range of consumers needs. Basing on this proposition the findings of this study will contribute to the following;

(a) Improved marketing of small scale wooden furniture

Understanding what attributes are of importance to consumers and the socio-economic factors that affect consumers' satisfaction can guide on how to orient furniture production systems to accommodate and satisfy the various consumer segments that exist within the furniture market. More so in a competitive market, where both the domestic and foreign producers serve the same niches within the broad market, better understanding of consumer rating of, and preferences for wooden furniture will assist local wood furniture manufacturers to focus their production and subsequent marketing decisions to what satisfies the consumers.

(b) Policy support

The current National Forest Policy (2001) emphasizes the need to establish a “modern, competitive, efficient and well-regulated wood processing industry in the private sector” (MWLE, 2001). This study is in line with the above policy statement and will contribute to

information about the performance of the small scale furniture wood industry in Uganda. The study is also in line with the Poverty Eradication Plan (PEAP) and the Private Sector Support Policy that emphasize the need to support the small scale entrepreneurs to improve their production systems and incomes through value addition (MFPED, 2000).

CHAPTER TWO: LITERATURE REVIEW

2.1 Overview of the Furniture Industry in Uganda

In Uganda, wood furniture making was introduced in the early 1900s by the British Colonial Government. During this time, majority of the natural high forests were intact with an abundance of hard woods among which mahoganies (*Khaya and Entandrophragma spp*) and Mvule (*Milicia excelsa*) were the timber species preferred by the furniture industry (Upton, 1996). By the late 60s and early 70s the industry had become well established producing products for both local and regional markets (Carvalho, 1999). However, due to the political conflicts that occurred between 1977 and 1985, the industry experienced a long recess period. During this conflict era, skilled man power majority of who were of Indian origin left the country. Gradually, the wood working machinery became obsolete and finally the industry was run down and all the factories were vandalized (Carvalho, 1999).

In 1986, the civil war was ended and Law and order were restored in several parts of the country. Ever since then, huge efforts have been made to salvage the economy under the national Resistance Movement (NRM). Today, at a growth rate of 6.5% per year for the last ten years, the economy of Uganda has steadily recovered (MFEPD, 2008). During this period, the construction sector which is also the leading user of timber and furniture has experienced tremendous growth (UBOS, 2006). At an averaged growth rate of 5 % per year, the furniture industry has experienced a tremendous recovery over the last 10-15 years (Odokonyero, 2005). The industry has also witnessed technological advancements as well. There has been a progressive shift from

old technology and traditional practices to modern wood working technology and craftsmanship (Calvalho, 1999).

At present, the furniture industry is perhaps the most vibrant sector within the wood industry in Uganda. Mainly dominated by the small and micro scale producers (Auren and Krassowska, 2004) the industry is expanding fast and making significant contribution to the economy. According to UBOS report (2006), the furniture sub sector is employing 25% of the urban population especially the low income groups, youth, semi-literate and women.

Although still a few, medium scale producers are also slowly taking the stage in furniture production in Uganda. A recent study by the Department of Forest Products Engineering of Makerere University (2007), reports up to 20 medium sized furniture producing firms producing for the Kampala market. The most prominent ones include; Hwang Sung Furniture Company, Elimu furniture company, Lotus Arts, Kaava Furniture Company, Kapkwata Furniture Works and Master Wood Furniture Company. These enterprises are based on high technology machinery from Europe and Asia conferring high value addition and wood recovery.

2.2 Furniture Market and Distribution Channels in Kampala District

According to the Uganda Bureau of Statistic (UBOS) business report (2006), there are about 300 registered furniture businesses that sell office and household furniture in Uganda. The market is mainly serving the domestic demand. Only 10% of furniture produced is exported mainly to Rwanda, Kenya Sudan and Democratic Republic of Congo (DRC). Furniture sales are by majority made along streets (in show rooms) and through roadside displays in Kampala city and

its suburbs. The showrooms are mainly used by bigger furniture companies for high value products and less by small scale producers' because of the high rental tariffs.

Of recent, there has also been an increasing influx of household furniture imports into the Ugandan market. By the year 2003 alone, household furniture imports into the country had reached one million United States Dollars (Anon, 2003).

The changing consumer preferences to high quality luxurious furniture are driving the shift in consumer preference to imported furniture especially among the middle and high income consumers. Although a hand full of reasons can exist to the question why urban consumers are preferring furniture imports, visual appeal (modern design and surface finish) is one of them. This is because majority of the imports are mainly based on artificially ²engineered Wood and produced from high technology systems. Compared to the locally produced furniture from natural solid wood, engineered wood can be made to different light shades and surface finishes that impact attractiveness to their furniture which may not be easily achieved by natural solid wood. Moreover, majority of the small scale enterprises are still using low technology (hand plane and saw) that may not permit complex value added designs (Upton, 1996).

2.3 What Small Scale Furniture Enterprises are in Uganda's Context?

Globally, there is still a debate on the appropriate definition of small scale wood enterprises (Mc Queen *et al.*, 2006). The variations occur in interpretation of the several definitions already posed. For example, the European Union Commission (2007) defines of Small Scale Wood Enterprises (SSWEs) as enterprises with less than 50 employees and earning revenues not

² Engineered wood referred to laboratory or industrial made fibre boards that are cut and joined into furniture. The commonest on market is rubber wood and Densified Fibre Boards covered by famica to impart attractiveness.

exceeding 10 million Euros (measured as turnover) or 43 million Euros (measured on a balance sheet). In addition, the European Union specifies terms of ownership, stating that SSWEs must be independent, with less than 25% being owned by outside interests.

Mayers (2006) provides a working definition of Small Scale Wood Enterprises (SSWEs) as “business operations employing 10–100 full-time employees, or with an annual turnover of US\$10,000–US\$30 million, or with an annual round wood consumption of 3,000–20,000 m³.”

Macqueen (2004) defines Small Scale Wood Enterprises (SSWEs) as enterprises “employing 10–99 full time employees or with a fixed capital investment of US\$1,000–500,000.” While the transposition of these more or less global standards may make some conceptual sense, often times the operational and investment scales used are not practically transferable to Ugandan conditions. Technically speaking several enterprises dealing in furniture production do not conform to any of the formal standards³ above.

The question is how then small scale can be defined to suit the real Ugandan context? The closest answer to this question is provided by a study by Auren and Krassowska (2004). Auren and Krassowska (2004) define small to medium scale forest based enterprises (SMFEs) in Uganda as those enterprises that employ 20-100 persons on both permanent and casual basis, within an annual turnover range of 20-50 million Ugandan shillings and financial investment of 1.9 - 950 million Ugandan shillings. However, from their definition, SMFEs constitute almost all enterprises working in the wood industry sector due to the size which is not the true reflection; it is rather still so much generalization.

³ Formal standards refers more to organization systems of documentation, registration and formal trade. Majority of Small Scale Furniture Enterprises operate in the informal sector i.e. with no formal registration of business activities.

In continued search for more a representative definition to the Ugandan context, advances by Kazak (2007) were found to provide a somewhat more contextual definition. According to Kazak (2007), small scale Wood based Enterprises are defined as “forest-based enterprises whose economic activities are undertaken mainly at the individual or household level, usually employing members of the family or close relatives and neighbours, and where salaried labor is negligible.”

Following the debate above, for this study, small scale wood furniture enterprises were conceptualized to be both forest and wood based and the term small scale was operationally used to refer to all wood furniture producing entities employing from 10 – 50 people, operating within an estimated financial investment (in terms of timber stock and machinery) of 10 - 50 million based on low to medium technology. All entities above these definitional limits were considered to be medium scale.

2.3.1 The Role of Small Scale Wooden Furniture Enterprises in Economic Development

Small scale furniture enterprises make significant economic contributions to the livelihoods and well-being of a significant number of poor people both in rural and urban regions in Uganda. Because the enterprises tend to be labor-intensive, they provide significant employment especially to the youth and women. Within the wood industry sector small scale furniture production alone provides employment up to 2500,000 persons (FAO, 2006). They also constitute a reasonably big percentage of down stream wood users consuming approximately 245,000m³ of wood (Odokonyero, 2005).

Despite their economic significance, it appears that little documented information exists to quantify their significance and characterize their activities. It is therefore of great value to track the progress of small scale furniture enterprises and one important area that has received little attention is their ability to compete in a free market economy in Uganda.

The attempt to understanding their competitive position is the focus of this study. The area of interest is the quality of products they produce, and how these meet the expectations of the current wooden furniture consumers. Moreover, the government having realized the contribution of the small scale production enterprises to economic development in Uganda, has come up strongly to support the private sector development which is to a bigger percentage, made up of small scale enterprises.

2.3.2 Opportunities and Weaknesses in the Small Scale Furniture Enterprises

From the strength point of view, opportunities for growth of furniture production are widening due to the ever growing demand. For example, the current buoyancy of the housing sector means that there is greater potential for small enterprises which can supply the housing construction and home furnishings markets. There are also several opportunities for small scale furniture enterprises to supply localized niche markets (individual consumers and/or industrial users) by producing specialty products that do not compete directly with imported goods.

Much as these and more opportunities exist, the operational growth of small scale furniture enterprises is curtailed by a number of weaknesses which include: (i) poor quality production and control (ii) informality and poor organization (iii) chronic underdevelopment. Zziwa *et al* (2006) explain poor quality production relating it to unskilled manpower. According to Zziwa *et al.*,

(2006), majority of workers within the small scale furniture sector are either having partial or no formal training in carpentry and wood joinery. The inadequate skills limit their level of innovativeness especially in developing appropriate designs and product value addition.

The other explanation of poor quality products is the increasing scarcity of the traditional furniture making tree species such as Mvule (*Milicia excelsia*) and mahoganies (*Khaya* and *Entandrophragma* spp). Due to the scarcity, several small scale producers have resorted to the use of lesser utilized species to meet the demand for furniture (Kityo and Plumptre, 1996). To counteract the scarcity, changes are occurring in species selection, as previously underutilized species such as *Antaris toxicaria* (Kirundu), *Albizia coraria* (Mugavu) and *Markhamia lutea* (Musambya) are making substantial inroads for a variety of products, including dinning tables, beds, doors, and chairs. Ten years ago, many of these species were considered only acceptable for low-end construction type uses such as roof trussing and wood frames (Kityo and Plumptre, 1996). The major standing argument is whether all these species are suitable for their new purposes in furniture production? If not the inappropriate use of a particular type of wood may explain the poor quality of the end product as argued by (Baumgartner, 2004).

Institutional weakness in quality enforcement has also hampered the efforts to monitor the quality of wooden furniture produced. In Uganda, the regulatory bodies responsible for ensuring quality of wood products are the Uganda National Bureau of Standards (UNBS), the National Forest Authority through its wood utilization department and the Ministry of Trade and Industry (Odokonyero, 2005). These regulatory bodies have not taken significant concern to regulate the quality of wood products offered in the market. For instance, the only quality regulatory tool at present is the national timber grade system. However, few individuals within the wood

processing sector are trained in using the timber grade system. There is therefore need for a more appropriate and up to date quality regulation system within the wood industry sector so as to improve on the quality of domestic furniture products for both local but also export market.

In their study about the role of small to medium scale enterprises in ensuring sustainable development in Uganda, Mc Queen *et al* (2006) reported that a big percentage of small scale wood based enterprises occur as fragmented and informal (not legally registered) meaning that they operate outside the regulatory and incentive system of government. According to Mc Queen *et al* (2006) this lack of formal recognition coupled with poor organization undermines the potential to: (1) access financial support from the public sector and (2) share technology and marketing information and thus majorities have remained underdeveloped.

2.4 The Concept of Consumer Satisfaction in Uganda

In Uganda, the notion of consumer satisfaction and protection is still at infancy level. It has been introduced recently to curb down the entry of fake imported products into the Ugandan market (UMA, 2004). There is yet no comprehensive consumer protection policy in place (UCPA, 2006). There have been efforts by the Uganda National Bureau of Standards (UNBS) to standardize some traded commodities, to meet the minimal allowable standards for public safety. The main focus has been on basic utility goods such as food stuffs, beverages, pharmaceutical products, and other building materials but not furniture. The lack of quality regulation in the wood furniture industry has propagated poor quality products that are less competitive especially among quality conscious consumers.

2.4.1 What Consumer Satisfaction Means in the Context of Furniture

Within the realm of current market research, consumer satisfaction has been defined as the buyer's cognitive state or judgment of being adequately (or inadequately) rewarded for the sacrifices he/she has undergone (Cronin *et al.*, 2002; Spais and Vasileiou, 2006; Wang and Liu, 2007). Consumer satisfaction can also be visualized as consisting of different levels of specificity. For instance, satisfaction may be with a product attribute (Tse and Wilton, 1988), with a salesperson (Swan and Olive, 1985) or consumption experience (Olive, 1999). Several marketing scholars have also made a distinction between transaction-specific and cumulative consumer satisfaction (e.g. Andreassen, 2000; Johnson *et al.*, 1995; Boulding *et al.*, 1993; Olshavsky, 1985).

According to Andreassen (2000), transaction-specific consumer satisfaction is a post-consumption evaluative judgment of a specific purchase occasion. In contrast, Fornell, (1992) and Ruyter *et al* (1997) view cumulative consumer satisfaction as an overall product evaluation based on the entire purchase and consumption experience over time. *In this study, consumer satisfaction with wooden furniture was defined as the overall contentment felt by the consumer as a result of a furniture product to fulfill the consumers' expectations and needs in relation to the furniture product.*

2.4.2 Relevance of Consumer Satisfaction in the Domain of Furniture Marketing

According to Cardozo (1965), the whole essence of marketing is the satisfaction of consumer needs. The basic idea is that a satisfied consumer will be more likely to repurchase the same product, leading to increased sales and market share for the firm (Chen Yu, 2002).

Understanding the systematic variations in consumer satisfaction can then be used as a good predictor of future purchase and can help explain changes in product choice, based on the degree of satisfaction and its rate of change (Oliver, 1997).

Recent market research trends also associate consumer satisfaction with business profitability and efficiency (Carden, *et al.*, 2004; Wang and Liu, 2007). Fornell *et al* (1996), explain the link between consumer satisfaction and business profitability basing on the fact that only satisfied consumers will keep loyalty to firm's product and will pass on a positive word of mouth to other consumers to purchase the product hence expanding the market niche. Patterson *et al* (1997) reported a strong link between satisfaction and business competitiveness. Patterson *et al* (1997) highlight that satisfied consumers represent an indispensable means of creating a sustainable advantage in the competitive environment. Satisfied consumers demonstrate high acceptance of other products in the production line, and exhibit brand loyalty or increased intentions to repurchase.

Consumer satisfaction is also recognized as a driver of product design and development (Anderson *et al.*, 1994). According to Lesli and Reimer (2003), wood furniture consumption world wide is driven by the desire to replace old fashioned designs with new ones that serve both convenience but also much the changing lifestyles. In essence consumers' satisfaction is imperative to developing modern furniture designs.

2.5 Consumer Satisfaction Models: Theoretical Framework

Ever since Cardozo (1965), there has been a growing interest in assessing consumer satisfaction/dissatisfaction with products and services (Andreasen and Best 1977; Day and Landon 1976), as

well as explaining the processes through which consumers arrive at such judgments (Anderson 1973; Olshavsky and Miller 1972; Swan and Combs 1976). Typically, efforts to account for satisfaction/dissatisfaction can be divided into three broad topics: the first explores the relationship between consumer expectations and appraisals of performance (e.g., Cardozo 1965; Anderson 1973; Spreng *et al.*, 1996).

The second determines the antecedents of satisfaction (e.g., Oliver 1977, 1980; LaBarbera and Mazursky 1983; Tse and Wilton 1988) and the third and most recent category evaluates the consequences of consumer satisfaction for purchase decisions, sales, and firm profitability (e.g., Anderson, Fornell, and Lehmann 1994; Fornell 1992; Chen Yu, 2002; Cronin *et al.*, 2003). In measurement of satisfaction, several models have been developed which include the attribution model (Oliver and DeSarbo, 1988; Bitner, 1990), the affective also called cognitive model (Oliver, 1980; Sirgy, 1987), the equity model (Zeithaml, 1988) and expectation disconfirmation model (Miller, 1975; Olive, 1980).

2.5.1 The Expectation Disconfirmation Model

This is the most dominant of consumer satisfaction evaluation models (Chen Yu, 2002). The model predicts that expectations and disconfirmation are the two variables that best explain consumer satisfaction. It assumes that during consumption the consumer compares his or her perceptions of the product or service against a 'pre-purchase' comparison level or standard. Satisfaction is then mediated by the size and direction of disconfirmation that is, - the difference between an individual's pre-purchase expectations and perceived performance or quality of the product or service after consumption (Oliver, 1996).

According to Churchill and Suprenant (1982), expectations reflect anticipated behavior and are predictive, indicating expected product attributes at some point in the future. Expectations also serve as the comparison standard – what consumers use to evaluate performance and form a disconfirmation judgment (Halstead, 1999; Spreng *et al.*, 1996). The major scientific argument therefore becomes that all things being equal, the higher one's expectations, the less likely that service or product performance can meet or exceed them, the result being reduced satisfaction or even dissatisfaction. Conversely, the higher the perceived level of performance, the more likely that the expectations will be exceeded, resulting in increased satisfaction (Zeithaml and Bitner, 1996).

Critics to the expectation model argue that although the model has a substantial predictive power regarding satisfaction formation, a significant problem lies in the definition of predictive expectations as the comparison standard for perceived performance (e.g., Halstead, 1999). To overcome this problem, some researchers have incorporated other comparison standards such as desires, ideals, equity, or past product and brand experience (Halstead, 1999; Yi 1990; Tse and Wilton, 1988; Spreng *et al.*, 1996; Woodruff *et al.*, 1983).

More recently, Lesli and Reimer (2003) found that satisfaction with individual attributes of a product (such as finish and design for a furniture item) have a direct independent effect on satisfaction judgments that are not fully reflected in expectations-disconfirmation. In addition, Spreng *et al.*(1996), argue that there can be other factors influencing consumers' satisfaction judgment other than a comparison of expectations. He highlights the role played by information in overall satisfaction as an example. He argues that many times expectations are developed from

marketer controlled information sources such as misleading advertisement and this can greatly influence satisfaction judgments.

2.5.2 Attribution Model

Attribution theory has been found to be very useful in explaining consumer's purchase behavior (Erevelles *et al.*, 2003). In the attribution theory, consumers are viewed as processors of information, actively looking for reasons to explain why a purchase outcome turned out the way it did. Consumers always want to attribute causes to the mistakes and virtues they find when consuming a given product and these can influence on satisfaction (Olive and DeSarbo, 1988). More specifically, consumers tend to search for causes of purchase successes or failures and attribute these successes or failures using a three dimensional schema represented as "causality or control" (who is the responsible?), "stability" (can it possibly happen again?), "control" (who is responsible for control over the cause?) (Oliver and DeSarbo, 1988; Bitner, 1990). Critics of the attribution models have argued that the models are more suitable for predicting consumers' reactions when they are dissatisfied than in explaining the satisfaction process it self.

2.6 Conceptual Frame Work

From literature, satisfaction can be conceptualized as cumulative construct that is related to service quality expectations and performance perceptions in any given period (Oliver 1981; Yi, 1999 and Fornell *et al.*, 1996). On the other hand, satisfaction is affected by prior experiences that condition expectations. From this conceptual view, the relationships described in this study are illustrated in Figure 2.1. The depicted model is dynamic because of the feedback supplied by disconfirmation, and by the intention to repurchase derived from satisfaction. It integrates three

important conceptual relationships: 1) satisfaction is a function of perceived performance, expectations fulfillment or disconfirmation: 2) intention to repurchase is a function of consumer satisfaction and 3) choice is a function of expectations as moderated by marketing mix tools such as price and perceived benefits or value based on different product features offered for each alternative furniture product.

To extend our understanding of the furniture satisfaction formation process, consumer satisfaction has been regarded as a function of: (a) consumer quality perceptions (b) product attributes (durability, finish, design details, price,) (c) market factors (supplier reliability and trust, store location, consumer care, etc) (d) consumer socio-economic characteristics (income, gender, age, family size and education level) (Fornell *et al.*, 1996; Baron-Epel *et al.*, 2001; Wang and Liu, 2007).

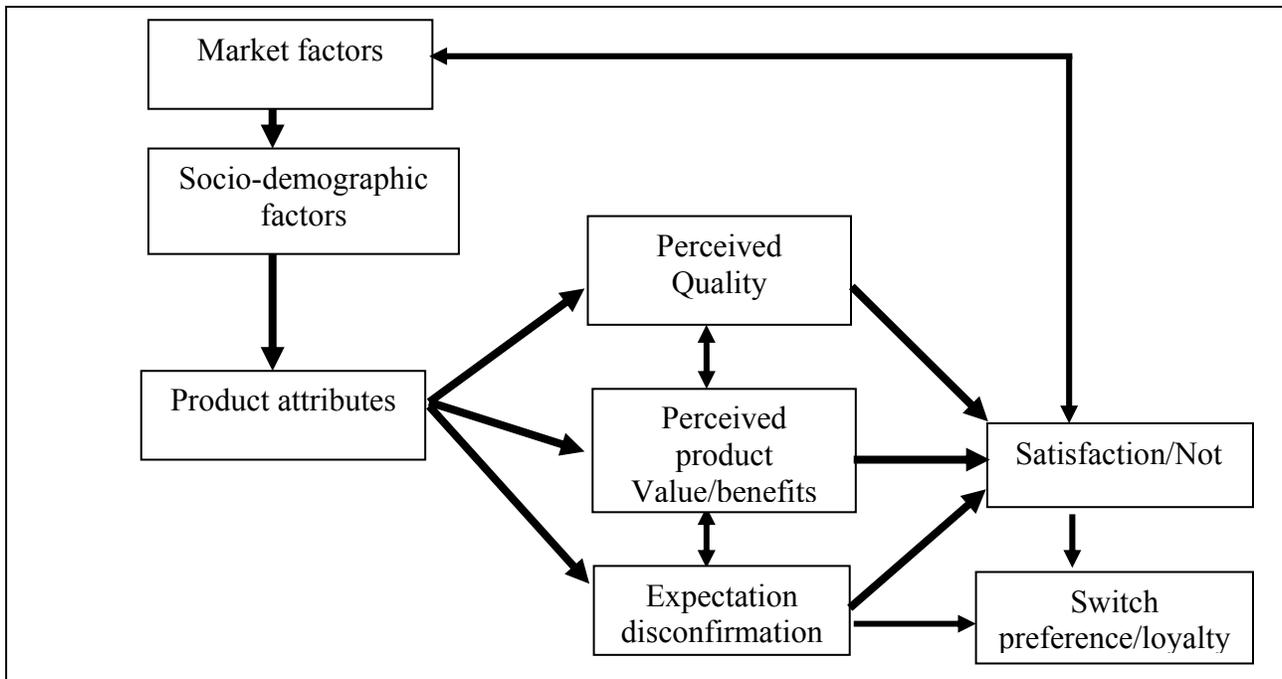


Figure 2.1: Conceptual Frame of the Study

2.6.1 Satisfaction and Consumer Expectations

According to Bigsby *et al.*, (2001), furniture like any other consumable product is evaluated based on multiple attributes. In the expectancy-disconfirmation model of consumer satisfaction, consumers compare their perceptions of performance with their pre-purchase expectations to form judgments about the product (Olshavsky and Spreng, 1989). When expectations are met, that is- when perceived performance is close to expectations, little conscious thought is given to the process. After purchase, the consumer can compare expectations with perceptions of product performance, a process that confirms or disconfirms the earlier expectations (e.g., Oliver 1980, 1981).

Disconfirmation can be used in two ways, as it: 1) provides information for future purchases; and 2) serves as a major determinant of overall satisfaction with the purchased product. Marketing mix tools such as price and product features are captured by customer expectations for each alternative. Disconfirmation of expectations both at purchase and after consumption form a preference cue that influences brand choice. In this study we assume from an informed point of view that furniture consumers will form discrepancies in their quality expectations and actual consumption perception, and that they will use the gaps to come to an overall judgment of their satisfaction with a product. This is why we include expectations in the conceptual model.

2.6.2 Satisfaction and Consumers' Perceptions

Consumer perceptions (attitudes) of product quality have been identified as a vital variable related to consumer satisfaction (Varela *et al.*, 2001; Baron-Epel *et al.*, 2001; Bojanic, 1996). It follows that, at purchase consumers form attitudes toward products and services and based on

these attitudes, services or products having the most favorable attitude are chosen (Engel *et al.*, 1995). According to Hawkins *et al.* (1998), this evaluation of services and products is often based on consumers' immediate emotional response as determined by wide range of factors ranging from socio-economic to market characteristics. Based on these propositions, and looking at the furniture market in Uganda that is highly segmented, this model suggests that consumer attitudes and perceptions influence consumers purchase decisions and the derived consumer satisfaction and thus are worthwhile investigating.

2.6.3 Perceived Quality and Consumer Satisfaction

Many of the previous studies on satisfaction have identified perceived product quality as a direct antecedent of satisfaction and company or business performance (e.g., Phillips *et al.*, 1983, Aaker and Jacobson, 1994; Patterson *et al.*, 1997; Kirmani and Baumgartner, 2000). According to Kirmani and Baumgartner, perceived quality can be defined as consumer's evaluation of a product or brand's overall excellence based on intrinsic (e.g., performance, durability) and extrinsic cues e.g., brand name and warranty. Aaker and Jacobson (1994) mention that perceived quality provides a measure of the consumers' assessment of the superiority or excellence of a given product and is highly correlated to business performance.

In support of his view, Kirmani and Baumgartner (2000) argue that in making quality assessments consumers base on attitudinal judgments, and often base on how well the target product or brand satisfies internal quality standards with regards to their consumption experience. Specifically, the internal standards act as reference points and may include stored evaluative information about a particular target product or brand or a cognitive comparison based

on product attributes. In this study it is presumed that consumers' perceived quality of a product is intricately linked with the satisfaction dimension. In addition, perceived quality of a furniture product is presumed to play a significant role as a direct function of subjective disconfirmation and an indirect effect on satisfaction in the expectancy-disconfirmation model. Hence a proposition is posited that; *Perceived product quality is positively related to consumer satisfaction.*

2.6 .4 Perceived Price and Consumer Satisfaction

According to Zeithaml (1988), perceived price has been defined as the consumers overall assessment of the utility of a product based on perceptions of what is received and what is given. Underlying this definition is the direct meaning that “value is what consumers get from what they give or pay” and most recent studies have studied this construct basing on the same (e.g., Reisinger and Turner, 2002; Chan, 2005). Although perceived value has been reported as a key variable that can explain repeat purchase and brand loyalty, there is disagreement about the causal relationship between perceived price value and satisfaction (Voss *et al.*, 1998; Parasuraman and Grewal, 2000).

However, from the Equity theory, a basis is provided to support a link between satisfaction and price (Patterson *et al.*, 1998). The “satisfaction-value link” research argues that feeling of satisfaction with a product or service result in perceptions of good value. On the other hand, the “value-satisfaction link” research proposes that perceptions of good value result in feelings of satisfaction (Fornell *et al.*, 1996; Cronin *et al.*, 2000). Desarbo (1998) argues that in an exchange process, parties involved will only feel equitably treated if they hold a belief that the ration of their exchange outcome is comparable to their perception of “value for money”. It is

from this literature review that the relationship between consumers' satisfaction and perceived Price-Value is posited, and perception of value has been defined as price-based value rather than overall assessment of the utility of a product (Varela *et al.*, 2001).

2.6.5 Satisfaction Based on Product Attributes

Consumer preference studies based on an analysis of product attribute have received good attention in consumer behavior studies (e.g. Engel *et al.*, 1993; Bannock *et al.*, 1998; Schaupp and Belanger, 2005). According to Engel *et al.*, (1993), consumers evaluate a product based on its attributes. This decision process is generically known as 'Consumer Preference', or the attitudes which determine consumers' choices between alternative commodities or groups of commodities. Several scholars have examined consumer satisfaction with furniture, and report that the most important furniture attributes are quality (i.e. quality of materials and durability) (Drlickova *et al.*, 1999), price (Chung and Dung, 1999), and design (i.e. attractiveness, safety, finish and colour) (Drlickova *et al.*, 1999; Ozanne and Smith, 1996). Based on these arguments, preferences based on product attributes have been included in the study conceptual frame work.

2.6.6 Socio-economic Factors and Consumers' Satisfaction

A key factor to understanding consumer satisfaction formation is to find out why and how perceptions vary from person to person based on age, gender, income, education level, and race, marital and family status etc. A better understanding of the influence of socio- economic differences on satisfaction can provide insight into which needs receive priority and for which consumers in somewhat diverse and complex consumer populations. Ultimately, this understanding can help firms tailor consumption experiences which promote wider satisfaction

among the different consumer categories. Socio-economic factors of gender, age, income, literacy level, marital status and family size do influence the consumers' perception formation and consequently the purchase decision making process. In this study, it is hypothesized that consumers' level of satisfaction for wooden furniture will depend on the consumers' perceptions and that perceptions vary with the socio-economics of the respondents (see conceptual model).

CHAPTER THREE: METHODOLOGY

3.1 The Study Area

The study was conducted in Kampala district. The district doubles as the capital city and major commercial hub of the country. Administratively, Kampala district is divided into 5 divisions and 99 parishes and has a population density of 4,581.3 people per Km (2002 population and Housing Census). It is located 32° E and 15'' E of the Greenwich, 0° and 19'' N of the equator and bordered by Wakiso and Mukono Districts to the North East and South-West respectively. The district was chosen as a study area because: it has the highest timber consumption (<50%) in Uganda (Odokonyero, 2005) and in addition, 45 percent of the total furniture enterprises in the country are located in Kampala (Upton, 1996). The district was also considered because it had a high and diverse population of small scale wooden furniture consumers than any other in Uganda. Primary data were obtained from four divisions; Rubaga, Kawempe, Makindye and Nakawa divisions (Figure 1).

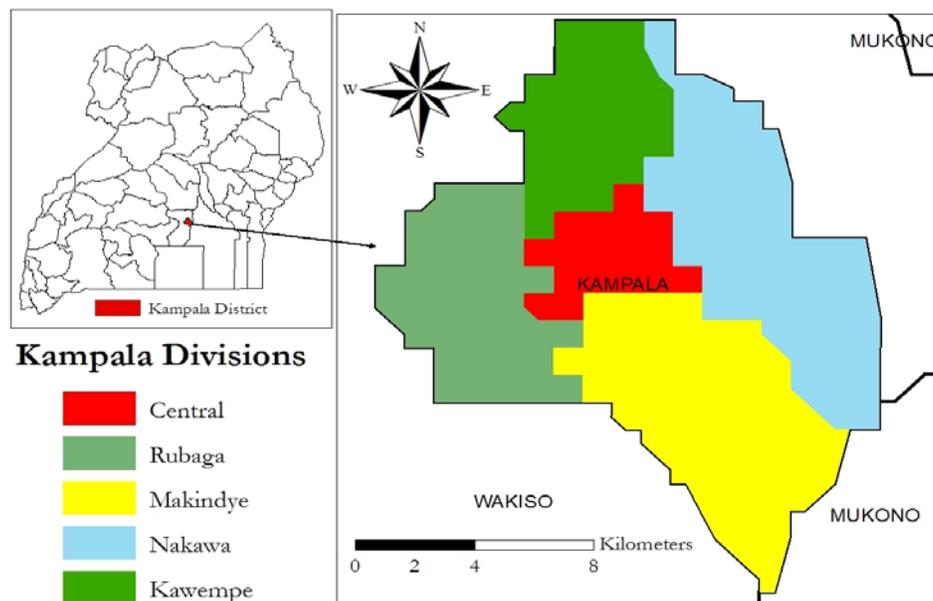


Figure 3.1: Map of Kampala District showing the study divisions

3.2 Research Design and Sampling

A cross-sectional consumer satisfaction survey design was adopted to collect the required information. The cross sectional survey design has been widely used in consumer satisfaction studies (e.g. Shu-Chung Chou *et al.*, 2001; Desai *et al.*, 2008). Its use in consumer satisfaction measurement studies provides the advantage of exploring the present level of satisfaction about a product, project or service taking into consideration the degree of heterogeneity in perceptions and opinions at a particular time (Okechuku and Onyemah, 1999; Keith, 2005).

The study population: the survey considered the final consumers of small scale wooden furniture products with diverse socio-economic characteristics, different consumption experiences, and perceptions of small scale wooden furniture industry. Multistage sampling method was used to sample the households (Varela *et al.*, 2001; Angermeyer *et al.*, 2004). At the first stage, study parishes were selected. Ten (out of 99) parishes of Kampala were purposively selected to participate in the study. The divisions were selected using two criteria: (1) the parishes were mainly residential and (2) the parishes had substantially large amounts of small scale wooden furniture being traded. Using the criteria above, sampled parishes were Nakawa and Kiwatule parishes for Nakawa division, Kabowa, Ndeeba and Busega parishes in Rubaga division, Luwafu, Najjanankumbi and Ggaba parishes in Makindye division, Mpererwe and Kyebando parishes in Kawempe division.

At the second stage, in each parish villages were randomly selected from the Local Council (LC) lists using random numbers. Random numbers were also used to select sample zones within the selected villages. In third stage, target households within zones were systematically selected based on Local Council (LCI) household lists for each village. The start (first) household was

randomly chosen within the sampling area. The subsequent households were obtained by choosing every 10th household along a chosen route⁴ (Varela *et al.*, 2001; Hoffmeyer-Zlotnik, 2003). In the fourth stage, individual respondents within each household were selected purposively targeting members who had the responsibility of purchasing furniture and at least purchased small scale wooden furniture in the last 1-5 years.

3.3 Data Collection Methods

Three hundred households were selected as the final sample from which a total of 350 respondents were surveyed using a researcher administered and semi-structured questionnaire. Data were collected on socio-economic characteristics of the respondents, their furniture purchase and use patterns, quality perceptions and satisfaction with furniture. The questionnaire (in appendix) was divided into quantitative and qualitative sections.

The qualitative section investigated consumers' perceptions of quality, their expectations, complaint and suggestions for improving the quality of products and services from the small scale furniture enterprises. The quantitative section collected information on the socio-economic characteristics of the respondents, expectation fulfillment, ⁵partial satisfaction and overall satisfaction.

⁴ The routes were chose with the help of local leaders(LCI) starting from well marked areas such as trading centers, and followed through the region to be sampled.

⁵ Partial satisfactions in this study were the evaluations of satisfaction based on product attributes; design, durability, price and finish

3.3.1 Operational Definitions of Study Variables

3.2.1.1 Quantitative Variables

This study quantitatively evaluated three variables: the overall satisfaction/dissatisfaction attained from use of a furniture product, partial satisfaction (satisfaction scores on the different product attributes) and quality expectation fulfillment. Table 3.1 gives the operational definitions of the quantitative variables investigated in the study.

Table 3.1: Operational Definitions of variables used in the Study

Variable	Definition used in the study	Bibliography
Overall consumer satisfaction	The overall pleasure or contentment felt by the consumer as a result of a given furniture product to fulfill the consumers', expectations and needs in relation to the furniture product.	Spais and Vasileiou, 2006
Perceived quality	The consumers' overall evaluation of the quality of a furniture product based on a set of attributes	Spreng and Mackoy, 1996
Expectations	A preconceived perception of the product performance that drives their choice during purchase.	Yi, 1991, Chen-Yu, 2002
Expectation fulfillment	Consumers' assessment of the degree to which their pre-purchase expectations are meet or even exceeded.	Oliver & Swan, 1989, Spreng <i>et al</i> , 1996.
Attribute(partial) satisfaction	The contentment felt by the consumer that a given product attributes (e.g design, durability, and finish) or set of attributes fulfills his/her expectations and needs in relation to the furniture product.	Spais and Vasileiou, 2006
Attribute preference	The consumers' overall assessment of the relative importance of given furniture attribute during purchase decision making and in the satisfaction process.	Engel, 1993, Ozanne and Smith, 1999

3.4. Measurements of Study Variables

3.4.1 Expectation Fulfillment Measurement

In order to have an understanding of consumer satisfaction, two factors were considered: (1) the level of importance (expectation) a consumer attaches to a product or product feature, and (2) the degree to which a producer or service provider meets that expectation (Yi, 2004). In this study we used the expectation fulfillment index to measure consumer's expectation fulfillment. The consumer expectation fulfillment index is popular in consumer measurement studies (e.g Yi, 1990; Parasuraman, Zeithaml and Berry (1990). It use eliminates errors of subjectivity when using rating scales.

To get information necessary for the computation of the index: (i) consumers were asked to rate four furniture product attributes (durability, design, finish and price). The rating was done on importance and satisfaction. Design detail was operationalized by: shape, size, style, dimensional accuracy, and ⁶craftsmanship. Finish detail was operationalized by visual appearance: surface texture, grain patterns and colour of the furniture product. Durability was operationalized by: structural strength, resistance to deterioration and service longevity (Bowe and Bumgardner, 2003). For importance and satisfaction ratings, a 6-point Likert scale was used. For importance, the scale ranged from 1 = "very important" to 6 = "not at all important". For satisfaction, the scale ranged from 1 = "very satisfied" to 6 = "very dissatisfied" (ii) the average rating was determined for each attribute.

⁶ Craftsmanship was a qualitative aspect related to innovativeness

The expectation fulfillment index (expressed as a percentage) was then obtained by comparing the importance (rating) a consumer attaches to a particular feature or attribute of a product with the level of expectation fulfillment (level of satisfaction attained) after purchase and use of the product as shown in equation (i) below;

$$\text{Percent Expectation Fulfillment Index} = \frac{\sum_j^i r_{ij}}{\sum_j^i k_{ij}} / n \times 100 \dots \dots \dots (i)$$

where;

- r = product attribute importance ranking by a consumer
- k = satisfaction attained on a given product attribute
- n = number of respondents
- ij = the respondents from the ith to jth

If the score was equal or greater than 80 consumer expectations were judged as either met or exceeded. Conversely, if the score was less than 80 expectations were not met.

3.4.2 Overall Satisfaction Measurement

Overall satisfaction was measured as a summated evaluation of the entire product use and performance experience following recent methodologies by Olive, (1999) and Chen Yu (2002). The lead question asked was “*from your consumption experience, how satisfied are you with the furniture you purchased?*” The responses were collected on a 6 point scale anchored on ‘Extremely dissatisfied’ or ‘Extremely satisfied’ (Wang and Liu, 2007).

3.5 Data analysis

From a total sample of 350 surveys, only 275 were usable giving a response rate of approximately 78.5%. The remaining surveys were discarded because of incompleteness. The

data were managed using Excel and analysed using SPSS Version 12.0. (SPSS Inc. 2005, USA).

Descriptive statistics: Univariate analysis was carried out to obtain patterns of distribution and dispersion of responses on the different study variables. Where appropriate, associations between mean scale scores were explored using Spearman's rank and Pearson's correlations

Inferential statistics: The Kolmogorov–Smirnov test was used to test for normal distribution of data. Because the data were not normally distributed, Non parametric tests were opted for. The Kruskal-Wallis⁷ test was used to investigate significant differences in satisfaction among the different consumer groups based on their socio-demographic characteristics (Sidney and Castellán, 1988). The Chi square test of independence was used to investigate the association of socio-demographic factors (household income, age, sex, education, family size, and homeownership) with overall satisfaction with furniture. The result was used to check hypothesis one.

Logistic regression analysis was used to investigate the relationship between consumer overall satisfaction and nine potentially relevant dependent variables (household average monthly income, age, sex, education level, family size, satisfaction on design, finish, durability and furniture price). Logistic Regression was chosen because of its flexibility. First it does not assume data normality. Second, it extends techniques of Multiple Linear Regression Analysis to research situations in which the outcome variable is dichotomous and the predictor variables are categorical (Meixner, 1998). Multicollinearity can however, be problematic when including a large number of variables in the analysis as parameter variance and the r^2 value can tend to

⁷. Kruskal-Wallis test is an alternative to the independent group ANOVA when the assumption of normality or equal variance is not met (Kruskal and Wallis, 1952).

increase leading to an increased probability of committing a type II error (Hosmer, and Lemeshow 1989). Consequently, multicollinearity was tested by setting the tolerance value at less than 0.2 and the Variance Inflation Factor (VIF) considerably less than 5.

Procedure: the dependent variable (overall satisfaction with furniture) initially evaluated on a 6 point scale, was converted into a dicotomous variable (1 = Satisfied, 0 = Not satisfied). This was done by regrouping scaled responses where all responses from 1- 4 were group as Dissatisfied and coded (0), and 4 – 6 were grouped as Satisfied and coded (1). Similary, responses on attribute satisfaction initially collected on a 1 to 5 scale, where scaled down to 1 = Satisfied and 0 = Dissatisfied. The other variables were categorical. The backward stepwise elimination method was used to enter candidate variables into the model and iterations run at a specified <ENTER value of < 0.05 and removal 0.1.

The regression model expected takes the form of a logit;

$$\text{Logit}(\pi) = \beta_1x_1 + \beta_2x_2 + \beta_3x_3 \dots\dots\dots \beta_nx_n + C$$

Where: π – is the probability that the dependent variable (Overall satisfaction) will be predicted by its selected predictors.

$\beta_1, \beta_2, \beta_3, \dots$ are regression coefficients due to each variable entered into the model

$x_1, x_2, x_3 \dots x_n$, are predictor variables, and C is a constant representing the intercept.

Testing of the hypothesis (H₂) that: Overall satisfaction for wooden furniture is not dependent on consumer’s satisfaction on product attributes, the beta (β) coefficients were calculated signifying contributions of each attribute to the final model. The decision to reject the null hypothesis was based on the significance of the regression coefficients measured by the Wald statistic.

Reliability Tests: Internal consistency of the measure scales was tested with Cronbach's alpha. All the scales were deemed reliable. Perception of quality ($\alpha = 0.79$, $n = 275$), Attribute importance ranking ($\alpha = 0.76$, $n = 275$), product attribute satisfaction on product attributes ($\alpha = 0.86$, $n = 275$) and overall satisfaction with furniture ($\alpha = 0.88$, $n = 275$).

CHAPTER FOUR: RESULTS

4.1 Socio-economic Profile of Respondents

The sample was composed of 58 % men and 42 % women. Sixty three percent of the respondents were within the age group of 36 - 56 years and 12 % were over the age of 56. The average (median) age was 37.6 years. Sixty-one per cent of the respondents were formally educated to tertiary level and 20 % to secondary level. Eighty-seven per cent of the respondents were employed. Forty-one per cent of the respondents earned between 300,000 – 500,000 Ugandan shillings per month in household income, 33.6 % earned between 500,000 - 1000, 000 and 16 % earned above 1000,000 Ugandan shillings. The average (median) income was 374,000 shillings. Eighty percent had personally been involved in a major furniture purchase within 1-5 years and nearly 66 percent owned their own homes. The detailed socio-economic profile of the respondents is presented in table 4-1.

Table 4.1: Socio-economic Profile of Respondents

Variable	Percentage (%)
Gender	
Male	58.2
Female	41.8
Age (years)	
18-35	24.9
36-56	62.9
>56	12.2
Education background	
No formal Education	2.9
Primary Education	15.6
Secondary Education	20
Tertiary Education	61.4
Marital status	
Married	64
Single	36
Family size (persons)	
1-5	34
5-10	62.5
>10	3.5
Employment	
Informal Employment	64
Formal employment	23
Home Ownership	
Own home	65.7
Rented	34
Household Income	
<300,000	9.8
300,000-500,000	40.6
500,000-1000,000	33.6
>1000,0000	16

4.2 Type of Furniture Purchased by the Respondents and the Source

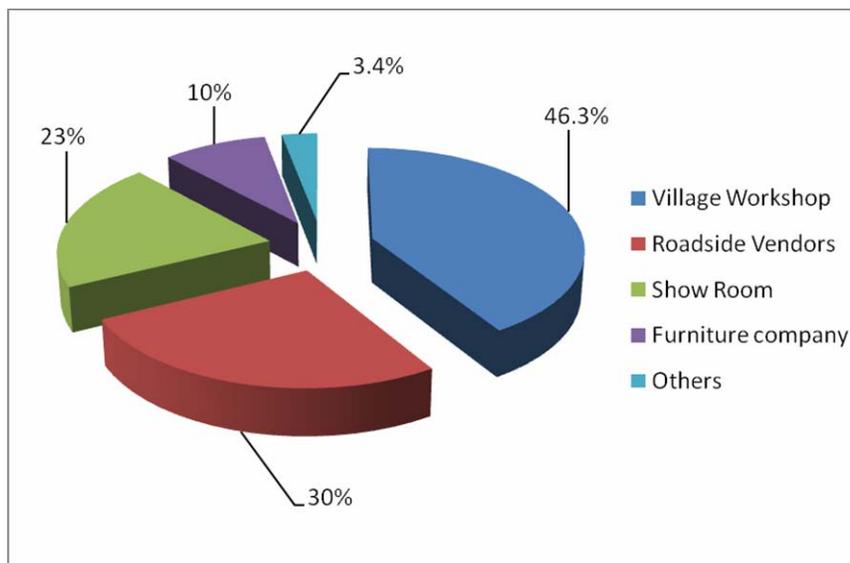
Table 4-2, shows the different products that were purchased by the study respondents and it was upon these that their satisfaction was evaluated.

Table 4. 2: Wooden Furniture Products purchased by Consumers in Kampala

Product category	Percentage
Beds	59%
Chairs	57%
Sideboards/wall units	43%
Dinning tables	39%
Coffee sets	27%
Other	7.0%

% total >100 due to multiple response, **Others** = TV stands, wardropes, etc

Figure 4-1 shows the various sources (suppliers) from which the survey respondents purchased their furniture.



* others included any other sources apart the ones listed.

Fig 4. 1: Source of Furniture Purchased by Consumers in Kampala District

From figure 4-1, 46 % of the respondents bought their furniture from small scale workshops around their residential areas, 30 % bought from roadside vendors, 23% purchased their furniture from showrooms and only 10% bought their furniture directly from furniture companies.

4.2.1 Respondents’ Reasons for Purchasing Small Scale Wooden Furniture in Kampala

When asked what prompted their choice of purchase for a particular product, 60 per cent of the respondents mentioned wood species used, 75% said visual appearance and 70% durability (Table 4-3). Affordable price was the major reason for choosing the source of furniture especially among the low income class (300-500,000/=), whereas quality (durable wood, design and finish) were most preferred among the middle (500-1,000,000/=) and high income (>1,000,000/=).

Table 4.3: Consumers’ Reasons for choosing furniture at Purchase

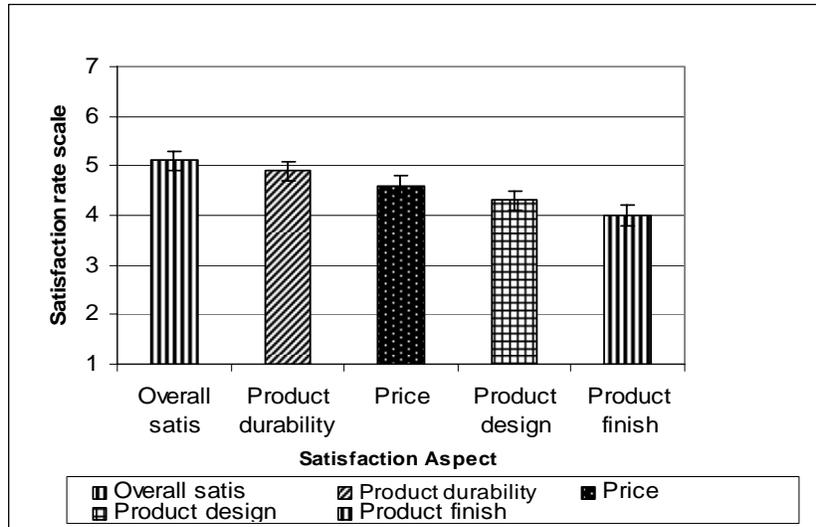
Reason for furniture purchase	Percent response
Affordable price	80
Product visual appearance	75
Sense of durability	70
Wood species used	60
Convenience	53
Product information	10

*the % total is >100 due to multiple responses

4.3 Consumers’ level of Satisfaction with Small Scale Wooden Furniture sold in Kampala

Overall, 59 per cent of the surveyed consumers were satisfied while 41 per cent were dissatisfied. The mean overall satisfaction was 5.1 as rated on a 6-point scale from 1(extremely dissatisfied) to 6(extremely satisfied). Respondents were mainly satisfied with product durability

(mean = 4.9) and price relative to quality ratio (4.69). They were less satisfied with the product finish (4.0) and design (4.36) (figure 4-2)



*Overall satis. = overall satisfaction with the product, Price = quality relative to price

Fig 4. 2: Consumers’ mean satisfaction with wooden furniture

4.4 Consumer Expectation Fulfillment

In this survey, respondents were asked to rate four product attributes that were hypothesized to be key in furniture shopping exercise. Evaluation was done on importance and satisfaction. Table 4.4 gives a summary of consumers’ importance ranking of product attributes and the level of their prior expectation fulfillment.

Table 4. 4: Relative importance of product attributes as ranked by consumers (N = 275)

Product attribute	^aMean ranking	^bMean satisfaction	Index score
Durability	5.8	5.1	88.0
Price	5.3	4.6	86.8
Design	5.6	4.4	78.6
Finish	5.7	4.2	74.0

^a Based on a Likert scale: 1 = not all important, to 6 = very important

^b based on a Likert scale; 1 = very satisfied to 6 = very dissatisfied

† For most consumers, durability was much related to species used and for this reason durability was more used since few consumers had the ability to identify or differentiate between wood species.

The result (Table 4-4) above, show that only durability and price had an index score above 80% meaning that the consumers had 88 parts of their expectation met for durability and price.

Expectations on design and finish were not met.

4.5 Consumers Furniture Quality Perception

To validate the result of the expectation index, further probing was done to assess the perception about quality. Probing was done based on the question “Having purchased and used the furniture product, what is your personal assessment of the overall quality of the product that you bought based on design, finish and durability? A six point scale was used from 1= Very poor to 6 = Vey good. The responses were then scaled down to either “Poor” or “Good quality”. Table 4-5 shows the details of consumer’s quality perceptions

Table 4. 5: Consumers’ quality perception of the furniture they purchased

Product attribute	Quality Perception (%)	
	Good	Poor
Design	61	39
Durability	67	33
Finish	56	44

4.6 Consumer Complaints

To ascertain the causes of dissatisfaction among respondents, complaint analysis was carried out to identify the gaps in product development that producers can improve to increase consumers' satisfaction. The probe question was: Having used the product what are your areas of complaint about the product? Because the question was open ended (see questionnaire in appendix), the responses were verbal and so were qualitatively analyzed. Mainly recurrent description statements were summarized into meaningful themes representative of the consumer's area of complaint. Table 4-6 gives the summary of the results

Table 4.6: Consumers' complaints about the furniture purchased

Type of complaint	Description	Percent (%)
Poor finish	Poor surface characteristics	49.8
Short service life	Limited durability	45.8
Inappropriate species	Not the type of wood I wanted	43.6
Biodeterioration	The wood was attacked by insects	36.2
Weak joints	The joints become loose with time	26.7
Distortion	The wood bent, crooked etc	14.0

% total > 100 due to multiple responses

From the results (Table 4.6), 49.8 % of the dissatisfied consumers complained about poor finish, 43.6 % complained about the use of inappropriate timber species used for the furniture that was sold to them while nearly 46 % complained of short service life(limited durability) of the furniture products. Other complaints reported included; insect attack on the wood, joint failure and distortion during use.

4.7 Effect of socio-economic factors on consumers' satisfaction with wooden furniture

Using the Chi-square test for independent, the effect of socio-economic factors on consumer satisfaction was investigated. Table 4.7 shows a summary of a chi-square test of independence (or association) between consumer satisfaction and their socio-economic factors.

Table 4.7: Chi-square test of association between socio-economic factors and consumer satisfaction

Socio-economic factor	Satisfaction aspect	X^2 value	P value
Gender	Design	0.260	0.992
	Durability	1.577	0.813
	Finish	7.579	0.108
	Price	3.156	0.532
	Overall Satisfaction	2.109	0.909
Age	Design	17.272***	0.046*
	Durability	10.057	0.864
	Finish	8.171	0.044*
	Price	8.019	0.948
	Overall Satisfaction	11.641	0.398
Education	Design	32.335	0.049*
	Durability	41.060**	0.018*
	Finish	38.796	0.031*
	price	26.955	0.307
	Overall Satisfaction	31.082**	0.040*
Income	Design	37.147	0.034*
	Durability	44.765**	0.016*
	Finish	34.054	0.045*
	Price	23.335	0.500
	Overall satisfaction	40.091*	0.031*

* Correlation significant at the 0.05 level (2-tailed).

* SDN = satisfaction with design. SPD = satisfaction with durability, SPF = satisfaction with product finish, SP = satisfaction with price

From the results (Table 4.7) at 95 per cent ($P = .05$) education of the consumer, and household income are significantly associated to overall satisfaction with wooden furniture. Basing on Cramers' V statistic, the association between education and overall satisfaction was greater ($V = 0.18$) than that with income ($V = 0.15$) while for age moderate associations were observed for

satisfaction with design ($V = 0.13$) and finish ($V = 0.11$). Cross-tabulations of the significant factors with overall satisfaction revealed that less literate consumers (primary and secondary levels) were more satisfied than the highly literate (above secondary level). Likewise the more income the household earned per month the less satisfied they were with the furniture purchased. Using the Kruskal Wallis Test of variance, significant differences in satisfaction at 95% confidence level were investigated (Sidney and Castellan, 1988). Table 4-8 gives the summary of the ANOVA results.

Table 4.8: A summary of *Kruskal Wallis* test result of variance in overall satisfaction of consumers with different ages, income, gender, family size and education background

Socio-demographic variable	Satisfaction attribute	Df	Chi-Square Value	P values		
Gender						
<i>Male Vs Female.</i>	Design	1	33.56	0.047		
	Durability	1	29.97	0.063		
	Finish	1	37.12	0.040		
	Overall satisfaction	1	27.85	0.071		
Age						
<i>Young^a Vs. Middle^b Vs Old^c</i>	Design	2	30.86 ^a , 34.07 ^b , 39.04 ^c	0.060 ^{ab}	0.05 ^{bc}	0.034 ^{ac}
	Durability	2	28.24 ^a , 31.63 ^b , 33.91 ^c	0.064 ^{ab}	0.056 ^{bc}	0.046 ^{ac}
	Finish	2	35.04 ^a , 36.26 ^b , 41.66 ^c	0.043 ^{ab}	0.047 ^{bc}	0.029 ^{ac}
	Overall satisfaction	2	27.41 ^a , 34.01 ^b , 40.22 ^c	0.060 ^a	0.042 ^{bc}	0.033 ^{ac}
Education						
<i>Low^a Vs Middle^b Vs. High^c</i>	Design	2	37.06 ^a , 29.97 ^b , 43.32 ^c	0.041 ^{ab}	0.053 ^{bc}	0.023 ^{ac}
	Durability	2	31.63 ^a , 31.01 ^b , 34.45 ^c	0.056 ^{ab}	0.066 ^{bc}	0.044 ^{ac}
	Finish	2	34.72 ^a , 35.15 ^b , 39.94 ^c	0.050 ^{ab}	0.047 ^{bc}	0.036 ^{ac}
	Overall satisfaction	2	26.39 ^a , 32.78 ^b , 41.02 ^b	0.061 ^{ab}	0.055 ^{bc}	0.037 ^{ac}
Income						
<i>Low^a Vs Middle^b Vs. High^c</i>	Design	2	34.72 ^a , 33.89 ^b , 44.01 ^c	0.050 ^{ab}	0.049 ^{bc}	0.020 ^{ac}
	Durability	2	37.34 ^a , 28.06 ^b , 35.61 ^c	0.040 ^{ab}	0.062 ^{bc}	0.049 ^{ac}
	Finish	2	33.88 ^a , 33.91 ^b , 44.01 ^c	0.045 ^{ab}	0.047 ^{bc}	0.002 ^{ac}
	Overall satisfaction	2	38.91 ^a , 30.96 ^b , 47.96 ^b	0.039 ^{ab}	0.055 ^{bc}	0.018 ^{ac}

* Age: Young^a = 18-35, Middle^b = 36-49 and Old^c = > 50 years

* Income: Low^a = > 500,000, Middle^b = 600,000 -1000, 000, High^c = > 1000,000 UgX.

* Education: Low^a = > Secondary training, Middle^b = Secondary, High^c = Tertiarily training

The results (Table 4.8) indicate significant differences in overall satisfaction among respondents between respondents of different age, income and education groups. A cross tabulation (Table 4.9) of age with satisfaction further reveals that the young age (18-35 years) respondents were less satisfied than the old (> 45 years). Sharp differences in satisfaction existed more with design and finish where the young consumers different from their older counterparts preferred modern design with pronounced finish (see figure. 4-3 below).

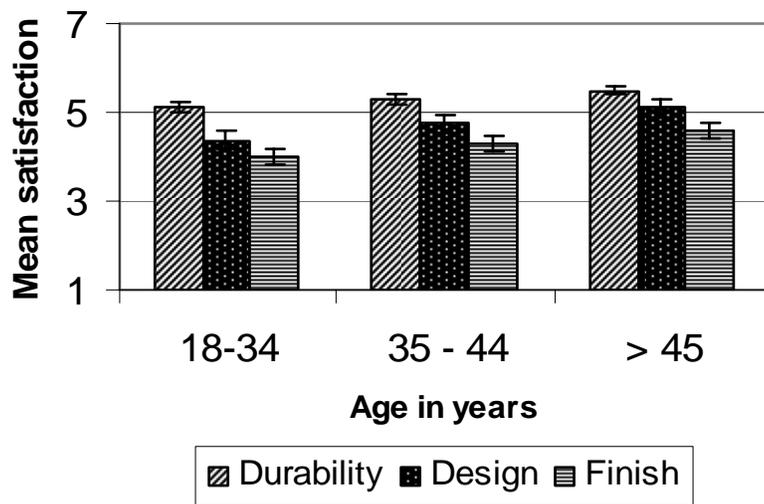


Fig. 4.3: Mean overall satisfaction distribution among consumers of different age.

For gender, there were no significant differences in overall satisfaction among male and females. However, slight differences were found in satisfaction for design ($P = 0.047$) and finish ($P = 0.04$). The discrepancy was that males were less satisfied with the product price and finish but more satisfied with design and durability, whereas women were more satisfied with the price but generally less satisfied with design and finish (Table 4.9).

There were significant differences in attained overall satisfaction between individuals of different education background ($p = 0.034$). Cross tabulation of education versus satisfaction

(partial and overall satisfaction) reveals that generally, individuals with tertiary education were significantly less satisfied than their counterparts below in education. As regards which product attributes gave more satisfaction, highly literate consumers (with tertiary training) showed low satisfaction scores on product design and finish whereas their counterparts were less satisfied with the product durability (see Table 4.9). Figure 4.4 shows the mean differences in attained satisfaction within the different educational groups.

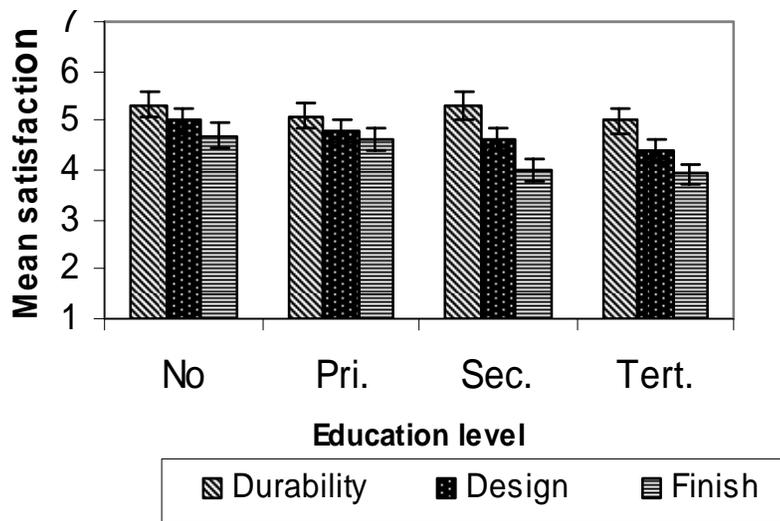


Fig. 4.4: Distribution of satisfaction among consumers of different education level

For income, there was a significant difference ($p = 0.021$) in attained satisfaction among consumers of different income levels. In general, the low income consumers (>300,000-500,000 UGX) were overall more satisfied compared to those in the high and middle income classes (Table 4.9).

Table 4.9: A cross tabulation of socio-economic factors and satisfaction

Demographic Factor		Percent satisfaction (%)			
		Design	Durability	Finish	Price
Gender:	Male	59.0	52.0	64.0	67.0
	Female	41.0	64.0	56.0	54.8
Age:	Young	45.0	58.0	43.0	52.9
	Middle	47.0	60.6	53.6	61.5
	Old	69.0	78.0	68.0	67.9
Income:	Low	78.0	73.8	66.4	70.9
	Middle	54.0	63.7	53.7	77.4
	High	48.9	53.9	40.5	78.0
Education:	Low	65.0	69.0	65.7	64.8
	Middle	54.7	60.3	52.5	67.0
	High	47.0	58.0	49.7	78.4

*Age: Young =18-35, Middle = 36-44 and Old => 45 years

* Income: Low => 500,000, Middle = 600,000 -1000, 000, High => 1000,000 UgX.

* Education: Low => Secondary training, Middle = Secondary, High = Tertiary training

4.8 Modeling consumer satisfaction from its hypothesized predictors

4.8.1. Correlation analysis

Prior to modeling, correlation (bivariate) analysis was used to assess the correlation between attribute satisfactions on design, finish, durability and price as predictors and the predicted variable(overall satisfaction) to estimate the error of collinearity that could easily lead to misinterpretation of the model results. Table 10 shows the results of bivariate correlations.

Table 10: Bivariate correlations between model variables

Variable	Overall satisfaction	Design	Price	Durability	Finish
Overall Satisfaction	1	0.701*	0.591*	0.769*	0.780*
Design	0.701*	1	0.454*	0.317*	0.425*
Price	-0.691*	0.454*	1	0.406*	0.380*
Durability	0.769*	0.317*	0.406*	1	0.489*
Finish	0.780*	0.425*	0.380*	0.489*	1

*Correlation is significant at the 0.01 level (1-tailed).

From the results (Table 10), it can be noted that all the partial satisfactions (satisfactions with individual product attributes) except price are highly correlated to overall satisfaction. Satisfaction with product finish ($r = 0.78$) and durability (0.769) are exerting the highest influence on overall satisfaction. The correlation between predictors was minimal (< 0.5).

4.8.2. Regression analysis

Binary Logistic Regression Analysis was then used to model the linear relationship between overall satisfaction and partial satisfactions partial satisfactions on design (DES), durability (DUR), finish (FIN) and price (PRICE). Socio-economic factors: Age (AGE), education levels (EDUC) and average household incomes (INCOME) were included as covariates. A significant model emerged for overall satisfaction with wooden furniture ($X^2_4 = 37.802$, $p = 0.00$, adjusted $R^2 = 0.66$) with the significant variables being satisfaction with durability ($\beta = 3.92$, $p = 0.001$), design ($\beta = 3.46$, $p < = 0.000$), product finish ($\beta = 2.87$, $p = 0.001$), Price ($\beta = -1.12$, $p = 0.047$) and income ($\beta = 0.125$, $p = 0.046$). Table 4.11 gives a summary of the statistic of variables included in the model at different stages.

Table 4.11: Summary statistics for variables in the Logistic Regression Model

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1(a)	DES	3.472	.697	24.788	1	.000	.031
	Price	-1.12	.649	2.970	1	.085	.327
	DUR	3.817	1.153	10.963	1	.001	.022
	FIN	2.966	.738	16.139	1	.000	.052
	AGE	.097	.406	.057	1	.812	.908
	EDUC	.127	.383	.110	1	.740	.881
	INCOME	.183	.440	.173	1	.678	1.201
	Constant	15.662	2.574	37.023	1	.000	6337113.646
Step 2(a)	DES	3.455	.691	25.028	1	.000	.032
	Price	-1.121	.647	2.997	1	.083	.326
	DUR	3.840	1.149	11.176	1	.001	.021
	FIN	2.959	.735	16.214	1	.000	.052
	EDUC	.104	.370	.078	1	.780	.902
	INCOME	.163	.431	.143	1	.706	1.177
	Constant	15.442	2.391	41.706	1	.000	5088329.094
	Step 3(a)	DES	3.443	.687	25.094	1	.001
Price		-1.101	.643	2.931	1	.047	.332
DUR		3.888	1.140	11.630	1	.001	.020
FIN		2.913	.712	16.737	1	.000	.054
INCOME		.125	.406	.096	1	.046	1.134
Constant		15.105	2.040	54.810	1	.000	3630498.965

^a Variable(s) entered on step 1: DES, Price, DUR, FIN, AGE, EDUC, INCOME.

From the table 4.11 above, at 95 percent confidence level, the best model obtained in the form;

$$y = \beta_1x_1 + \beta_2x_2 + \beta_3x_3 \dots \dots \dots \beta_nx_n + C \text{ is}$$

$$CS_{OVERALL} = 15.4 + 3.92 SFD + 3.46 SDN + 2.87SPF + 0.125 INC - 1.12SFP$$

Where;

$CS_{OVERALL}$ = Overall consumer satisfaction with wooden furniture

SFD = Satisfaction with furniture durability, SDN = Satisfaction with furniture design,

SFF = Satisfaction with furniture finish, SFP = Satisfaction with furniture price

INC = Household Income

From the predicted model, the positive beta (β) coefficient signifies a positive and unidirectional relationship between the predictor and predicated variable. It can therefore be deduced that for every unit increase in satisfaction with design, durability and finish there was a proportionate increase in the consumer's overall satisfaction with the furniture product. The negative coefficient ($\beta = - 1.12$) for price implies that the consumer's overall satisfaction with furniture reduces with an increase in price. The model result asserts that overall consumer's satisfaction with furniture depends on partial satisfaction on product attributes thus the model provides support for the hypothesis (**H2**): *'that consumers' overall satisfaction with furniture is dependent on the design, durability, and finish and product price'*.

Evidence for rejecting the null hypothesis (no significant relationship) is provided by the Chi-square distribution of the likelihood probability ($X^2_4 = 37.802, p < 0.00$) and Cox & Snell R Square value (0.655) (Table 4.12). The statistics (X^2 and Cox and Snell) imply that the final model is significant and explains 66 percent of the variation in the dependent variable (overall satisfaction)

Table 4.12: Model Summary statistics

Step	-2 Log likelihood	Chi-square	df	Sig.	Cox & Snell R Square	Nagelkerke R Square
1	78.413(a)	7.614	8	.472	.655	.884
2	78.470(a)	8.340	7	.304	.655	.884
3	78.549(a)	45.816	6	.000	.655	.884
4	78.645(a)	37.802	4	.000	.658	.887

^aEstimation terminated at iteration number 7 because parameter estimates changed by less than .001.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.1 Consumer satisfaction level

Overall, only 59% of the surveyed consumers were satisfied. From a competitive marketing perspective, the 59 % satisfaction reported in this study is not satisfactory. It implies that only 6 out of the 10 targeted consumers have their needs satisfied with the offered product and the 4 out of 10 are left to your competitors. Recent marketing literature (e.g. Wang and Liu, 2007; Chen-Yu, 2005 and Cronin *et al.*, 2002), suggest that a firm can only maintain a competitive share of the market if it is able to satisfy 80% of the target consumers. As argued by Cronin *et al.*, (2002), the major tenet of the marketing concept holds that businesses can only exist by satisfying customer wants and needs. In this way firms can create a sustainable competitive advantage because satisfied consumers represent or dictate the company's market share.

Customer satisfaction also measures the utility (benefit) obtained from the consumption of a given product (Chen-Yu, 2005). When consumers have their needs unfulfilled through the purchase and use of a given a furniture product (low utility), they are likely to switch preference in search for better services. If this happens, then a large percentage of sales will be lost and hence a large consumer turnover. The high consumer turnover then means that consumer loyalty is lost and eventually totals loss of competitiveness in the market (Wang and Liu, 2007).

Therefore, the findings have significant implications to the future of the Ugandan small scale furniture business profitability. First, they highlight the need for small scale wood furniture enterprises to employ more effective strategies to satisfy a wider range of consumers. Some of

the effective strategies to achieve higher satisfaction may include; a “niche marketing” approach based on segmentation. Segmentation means dividing the market into small and specific groups of similar consumption needs and preferences. Segmenting markets helps meet or beat competition by uncovering those consumer segments with the greatest market potential. Furthermore, segmentation can also help in identifying additional market and can form a basis for product differentiation. Accordingly, the small scale furniture producers in Uganda should probably seek for differentiation in quality and functionality based on consumer attributes preferences in order to remain competitive.

5.2 Contribution of socio-demographic factors to consumers’ satisfaction

To quantify the relative contribution of different socio-demographic, age, gender, income, marital status, family size, and home ownership were entered into regression model as independent variables. A significant model emerged for the socio-demographic factors ($p \leq 0.001$, adjusted $r^2 = 0.49$) with the significant variables being age ($\beta = 0.097$, $p = 0.001$), education ($\beta = -0.127$, $p = 0.003$), family size ($\beta = -0.127$, $p = 0.027$) and income ($\beta = -0.183$, $p < 0.001$). A Chi-Square test of independence also revealed that consumer satisfaction with furniture is significantly associated with family size, income, education level and age of the consumer (Table 4.7).

The results indicate that the market for small scale furniture is highly segmented. The segments are based on income (consisting low, middle and high income consumers), age (young, middle and old age) and according to levels of literacy – the low, middle and highly educated. The differences in socio-economic characteristics also influence consumers’ satisfaction with the wooden furniture. For instance, consumers within the middle (500, 000 – 1000, 000 UG

shillings) and high incomes (> 1000, 000 shillings) were less satisfied especially with design and finish than their counterparts in the lower income category (<500, 000 shillings). The low satisfaction especially among the middle income class is indicative of better quality preference. The reason could be that their expectations were higher for quality and when they were not met dissatisfaction resulted (Spais, and Konstantinos, 2006; Radman *et al.*, 2002). Likewise the low income earners have shown higher price consciousness than the middle and high income consumers who were mostly quality conscious.

Satisfaction also varied significantly with age. The young (18-34years) and middle aged (35- 44 years) consumers were generally less satisfied than the older consumers (> 45 years). Significant differences were found with satisfaction on product attributes. The young and middle age consumers were on average less satisfied by the design and finish compared to their older counterparts (figure 4.3). This difference in satisfaction may be explained based on the differences in lifestyles. Where as the young group preferred more contemporary styled or fashioned furniture the old consumers are interested in durability of the product.

Significant interactions also existed between the between education and income. The highly educated respondents also on average had higher incomes. The combined effect on satisfaction was that educated (tertiary level) and economically empowered (household income > 500,000 shillings) consumers were overall less satisfied than respondents with low income (< 500,000). Likewise, there were also significant interactions between age and income. The effect of this interaction was that the young consumers within the middle income category preferred more details of design and style and this is why they show lower scores on satisfaction than the older consumers.

Initially gender of the consumer had no influence on satisfaction but when combined with income, it significantly exerts influence on consumers' satisfaction. Women especially within the middle income class showed significant preference for finish and design more than men who mostly prefer durability (Table 4.9). More surprisingly family size and marital status did not have any significant effect on the consumers' attained satisfaction. However, the interaction of family size and income gave a slight impact on overall satisfaction ($p = 0.061$) where medium size families falling within the middle to high income categories were overall less satisfied than the other counterparts. The implication of the finding are that produces need to orient both production and marketing strategies to serve the different segments based on age, income class and education levels. They need to develop specialty products to effectively target needs of different segments.

5.3 The furniture attributes in explaining consumer satisfaction

As hypothesized, the relationship between overall satisfaction and product attributes satisfaction was positive. From the logistic regression model, partial satisfaction on design details, finish, durability and price explains up to 66 percent of variability in overall satisfaction with wooden furniture (Table 4.11). Tukey's post hoc test revealed that there is a positive relationship between partial satisfactions on product attributes. The relationship implies that for every unit increase in satisfaction with design, durability and finish would be expected to yield an increase in over all satisfaction with furniture. The highest influence on overall satisfaction was exerted by durability of the product ($\beta = 3.46$), design ($\beta = 3.46$) and finish ($\beta = 2.87$). These product attributes were also the most considered by consumers as the most important when buying wooden furniture.

One reason could be that design and finish mainly describe the visual attraction of a given product while durability mainly provides security to a consumer that his/her product will last long given the cost foregone in its acquisition. Some evidence exists in literature supports the explanation. For example in their study of consumers' furniture preferences in Slovak Republic, Drlikova *et al.*, (1999), mention that the most influential aspects that always attracts consumers into purchasing furniture is its appearance and image of durability. The authors highlight that 75% of the appearance attribute is dependent on design and value (finish) added. Likewise, Ozanne and Smith, (1999) highlight that the demand drive for furniture depends significantly on the distinct product features such as its design and finish.

The high positive coefficient for durability asserts that furniture consumers value quality furniture basing on the expected durability, meaning that they will not need to buy new furniture soon, while on the other hand, durability leads directly to deep personal satisfaction. The positive coefficient for design attribute gives insight that design details (such as shape, size, fashion and style, etc) are important to customers. Their importance can be explained by a functional and aesthetic benefit. The functional benefit of good design detail reported by respondents included "good use of space" which is important because of the opportunity to store more things in limited space. The aesthetic benefit frequently reported was beautifying the home.

The positive coefficient for product finish described the consumers' preference for visual attraction of given furniture item. However, the attribute seems to be important to women than men (see Table 4.9). This is because of the psychological benefit of being "surrounded by beautiful things" and afterward having a "beautified home" two benefits that are strongly attached to famine instincts. The price attribute had a negative coefficient signifying the inverse

relationship or influence on consumer satisfaction. The price influence was such that consumer satisfaction decreased with increase in price especially among the lower educated who were also associated with lower incomes. This category was more price conscious. The reason is only logical they valued low prices for economy “saving money” and where price was perceived high compared to the benefit after purchase and use dissatisfaction resulted. The main argument is low price and high quality may not be compatible. The middle and high income categories showed less price consciousness meaning satisfaction did not proportionately vary with the initial product cost but mainly determined by design and finish detail (Table 4.9).

The implication of this part of the finding to the small scale furniture industry is that producers need to employ market intelligence. They need respond to the fact that consumer satisfaction with furniture is to a great extent dependent on their satisfaction on design detail, durability and finish. However, attempts to redress the problem may require the adoption of new working practices that can counteract the weaknesses to value addition in these aspects.

5.4 The Effect of Quality Expectation Fulfillment on Consumers' Satisfaction

There is a high and positive correlation between level of consumers' quality expectations and their level of satisfaction with furniture. The higher the score on quality expectation fulfillment the higher the level of satisfaction achieved ($r = 0.73$) (Table 4.4). This is in line with the expectation confirmation models (Churchill and Suprenant, 1983). According to the expectation fulfillment theories, consumers follow their preconceived expectation cues in the purchase process. The level at which they derive satisfaction from a product consumed is determined by the distance between these prior-purchase-expectations and the actual performance evaluations.

From the expectation index result, consumers' expectations were only met for durability and price. For design and finish consumers' expectations were not met. This is indicative poor performance particularly ineffectiveness in meeting the consumers needs and desires. The implication to small scale producers is that there is need to carry out a continuous market surveillance of consumer expectations because these keep changing. Notably there is need to maintain a consumer data base so that collection of feed back can be easier.

5.5 The Cause of Dissatisfaction with Wooden Furniture

From the three quality aspects examined in this study (design, durability and finish) producers only managed to meet consumers' expectations on durability. The implication is that the quality offered is still below consumers' expectation. According to Kityo and Plumptre (1997), the manufacture of high quality furniture requires the use of high grade, well-seasoned and durable timber species. Previous studies also reveal that, besides species used, the quality of furniture also depends on other attributes such as price, workmanship and design and nature of finish (Bumgardner *et al.*, 2001; Bigsby *et al.*, 2003; Schular and Buehlmann, 2003). The complaints (causes of dissatisfaction) (Table 4-7) can be categorized into; (i) those related to workmanship (skill and innovativeness) (ii) those related to poor timber management (iii) those related to furniture storage before sell and (iv) those related to the raw material used.

5.5.1 Poor Timber Management Practices

Due to shortage of timber and underdeveloped wood seasoning industry in Uganda, small scale furniture producers use wet or partially seasoned wood for production of furniture. Focus group discussions with small scale carpenters revealed that; (i) the high demand for furniture does not

allow for time to dry the wood especially that majority of them use conventional air drying method (ii) wet wood is used because it easier to nail and mortise than when it is dry.

Although these reasons make sense to carpenters, the use of wet wood has several disadvantages and greatly affects the quality of the end product. For instance, partially seasoned wood is readily attacked by wood borers. According to Din Woodie, (1987), use of partially seasoned wood makes it susceptible to insect attack especially the powder post beetles. Partially seasoned wood also undergoes dimensional changes due to uneven drying in service resulting into distortion.

In addition, when varnished or jointed with glue, wet wood forms weak varnish and glue bond interfaces (Thelandersson and Larsen, 2003). According to Thelandersson and Larsen (2003), when a varnish, paint or glue is applied on a wet surface the formation of an adhesive interphase is interfered the bulk moisture. The adhesive molecules tend to bond with the bulk water molecules instead of being adsorbed by the wood. At drying, as moisture is lost, tension stresses are developed in the adhesion layer resulting into failure (Din Woodie and Praxton, 1983). This phenomenon explains the peeling off of varnish or paint from the surface of wood and the loosening of joints which nearly 50 per cent of the respondents complained about.

The other common phenomenon reported by dissatisfied consumers was joint failure during service. This is also related to use of wet wood. Before drying the wood in the joint is swollen with the bulk moisture and on drying the wood then shrinks thereby opening up the joint.

5.5.2 Use of Inappropriate Species for Furniture

The other explanation for dissatisfaction is the use of inappropriate tree species for furniture making. Schuler and Buehlmann, (2003), point out that wood species used in making a furniture item explains up to 60 percent of the consumer's preference and intention to purchase. The authors further make an argument that where there is a wide range of species used, consumers tend to form their own cues of species preference with which they use to choose one product over the other. In Uganda, the range of high quality furniture making species has declined due to over harvesting in the recent past (Kityo and Plumptre, 1996; Mugabi, 2002).

Some examples of scarce species are shown below (see plates 1a, 1b, and 1c). Because the traditionally known furniture making species are scarce, most small scale producers have switched to the use of previously lesser known species such as *Celtis spp*, *Albizia spp*. Kirundu(*Antaria toxicaria*) Musizi(*Maesopsis eminii*) and Ffene(*Artocarpus heterophyllus*) for furniture production (Zziwa *et al.*, 2006)(see plate 2). Although use of these less previously utilized species has helped reduce the wood deficit, uncertainty about their suitability for furniture production still remains a challenge. For instance the glue bonds formed, load bearing capacity and durability when used for furniture is not documented.



Mahogany (*Khaya ivorensis*)



Mvule (*Milicia excelsa*)

Plate 1: Some of the scarce hardwood species previously used for high quality furniture making



Mugavu (*Albizia coriaria*)



Muwafu (*Canarium schweinfurthii*)



Kirundu (*Antiaris toxicaria*)



Nkuzanyana (*Blighia unijugata*)



Mujwa (*Alstonia boonei*)



Grevillea robusta

Plate 2: Some of the new entrant (previously lesser utilized) species for furniture making by small scale furniture producers in Kampala

5.5.3 Poor Workmanship

From consumer's complaint analysis, 40% of the dissatisfied consumers reported inadequate design and poor finish. Inadequate design and finish can be explained by the limitation in skills of the producers (Zziwa *et al.*, 2006). As argued by Drlikova *et al.*, (1999) production of modern design and good quality furniture requires high creativity and innovativeness and both aspects require high level skills in drawing and engineering drawing interpretation. This is the missing link within a majority of small scale producers. Usually the designs in form of pictures are

copied from furniture magazines reproduced and shared among carpenters within the same location. This phenomenon is common in the furniture retail outlets, where from a vast array of displayed products little design differentiation exists due to limited creativity (See plate 3).

Notably managers or proprietors of small enterprises need to pay attention to training. About 70% of the labour force in these small and micro enterprises is semi-skilled with no formal training in woodwork and joinery but rather have learnt through apprenticeship (learning on job) and this compromises their capacity of innovation and transferability of knowledge aspects that are very important in product design. The lack of innovativeness explains the inadequate product differentiation in most of the small scale furniture businesses and this also limits their competitiveness with bigger producers such as the local medium scale and importers.



Plate 3: A picture depicting similar design products on display

5.5.4 Poor Furniture Storage

The nature by which a furniture product is handled after production also has an impact on the quality. For the majority of small scale wood furniture retailers, outside display (with no shelter) of furniture is the commonest way of presenting the products being sold. Much as the method can be effective in making the product noticeable to a consumer, the quality of raw material (wood) is undermined by the exposure of furniture to elements of weather (see plate 4 and 5). For example the constant wetting by rain and drying cause distortion defects such as surface splitting, bowing and crooking especially for large timber span products such as beds and dinning tables. The surface quality is also compromised as the varnish layers peel off due to undulating temperature exposures.



Plate 4: Depicts outside storage of finished wooden furniture products



Plate 5: Roadside furniture display the most popular marketing strategy in Kampala

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Basing on the percent satisfaction, the results of this study confirm the earlier propositions of lessening competitiveness of small scale wood furniture producing enterprises in meeting the current demands of urban furniture consumers in Uganda. Given that the level of satisfaction is a proxy for delivered utility, it can then be concluded that small scale furniture enterprises are underperforming. From reconnaissance studies, the major cause of low satisfaction can be traced to limited value addition. Limited value addition was found to be due to the use of wet or partially seasoned wood, poor workmanship and poor product storage. Therefore to improve on the quality of products, entrepreneurs need to pay attention to timber seasoning, appropriate product storage (indoors) and invest in capacity building especially formal training in wood work and joinery to scale up their level of workmanship.

Regarding what furniture attributes are mostly preferred by consumers, design detail, finish and durability of the furniture product are the most preferred product attributes especially among the highly educated middle income furniture consumers. However, within the low educated and low income category consumers price seemed to be a major decision variable during judging satisfaction more than the design detail or finish preferred by the middle and high income consumers.

The age, education level and income of a consumer are the socio-economic factors that influence or rather are associated with satisfaction for furniture. The age effect was such that different age

groups i.e. the young (18 – 35), middle age (36-56) and old above 56 years display differences in product preferences. The middle age consumers also associated with contemporary lifestyles preferred more stylish design detail and finish than the young and old age consumers. The effect of income was similar with that of education, where the wealthier and highly educated consumers showed high preference for modern design and paid much attention to finish detail. Meanwhile, the low income earners who were in most cases also associated with low level education showed more price consciousness.

Therefore to attain higher satisfaction, small scale producers need to employ market intelligence most importantly to understand differences in consumer behavior based on market segmentation. Understanding the needs of each of the different segments may be helpful in product and price differentiation to effectively serve the high potential segments and avoid unnecessary competition.

6.2 Recommendations

Based on the study findings the following are recommend.

6.2.1 Development recommendation

Small scale furniture producers need to do the following if they are to achieve higher consumer satisfaction:

- (i). Improve on workmanship especially in the area of design and finish
- (ii) Develop self propelled quality control systems

(iii). Become responsive to changes in consumer preferences. They need to adopt an approach of customer oriented marketing.

6.2.2 Training recommendation

As a way to build capacity of the artisans to produce better quality products, training is recommended in the following;

- i. Timber selection and management
- ii. Furniture design, production and finishing
- iii. Handling and storage of finished wooden furniture products

6.2.3 Research recommendation

For purposes of scaling up, similar studies need to be carried out to validate the findings of this study that was limited in scope to Kampala district. Other areas that need research include;

- (i) Determination of consumer preferences of different wood species for furniture
- (ii) Quantification of volume of furniture sold by the small scale producers against furniture imports
- (iii). Improvement of value addition along the furniture production chain

6.2.4 Policy recommendation

There is need for a policy review especially the consumer protection bill to address the need for quality standards for the wood furniture industry sector. At present, the only quality control system for the wood furniture industry are timber grades which only specify quality for timber and not the finished product.

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APPENDICES

APPENDIX 1: CONSUMER SATISFACTION SURVEY QUESTIONNAIRE

Optional section

Interviewee Name

Signature of Interviewee.....

Interviewee Number

Interviewee contact.....

Name of interviewer.....

Date.....

Section 1: Biodata

1. Area of residence
Division..... Village/ Zone
2. Sex: Male: 41.8% Female: 58.2%
3. Age
18 - 35: 24.9% 36-45: 44% 46 -56: 18% 56+: 12.2%
4. Marital status
a. Single: 36% Married: 64%
5. Family size: 1-5 (34%), 5-10 (62.5%), >10 persons (3.5%)
6. Highest level of education completed
No formal education: (2.9%) Primary: (15.6%) Secondary level: (20%) Tertiary level (61.4%)
7. Are you employed?
Yes (86%) Not (14%)
8. If yes, what is your employment status?
Own a small business (43%)
Work in a private Company/organization/enterprise (30%)
Civil servant (18%)
Others (specify).....
9. Thinking about your total income combined from all sources; please indicate your average monthly income in Shillings
- 1 < 300,000 (9.8%), 2. 300,000-500,000/= (40.6%), 3. 500,000-1000, 000/= (33.6%)
4. > 1000, 000/= (16%)

Section 2: Purchase behavior

10. What type of furniture did you buy in the last 5 years?
 A. Synthetic furniture B. furniture made from natural wood C. both Synthetic and natural wood furniture D. don't know
11. What furniture item did you buy?
 A. Bed B. Chairs C. Office table or Dining Table D. Sideboard
 E. Wardrobe F. Others specify.....
12. Where did you buy your furniture from?
 A. Show room (23%)
 B. Small workshop around your place of residence (46.3%)
 C. Roadside furniture workshop (30%)
 D. Direct from Furniture Company (10%)
 E. Others specify.....
13. Why did you buy from this outlet?
 A. Low price (67%)
 B. Better quality (45%)
 C. low transport cost (70%)
 D. lack of information about other suppliers
 E. good consumer care
 F. Don't know
14. What was the reason for the choice of furniture that you purchased?
 A. Visual appearance (color, surface patterns, design, style) (75%)
 B. Price (being cheap) (80%)
 C. Perceived durability and performance (70%)
 D. Image of the seller or enterprise (29%)
 E. Species of wood used (60%)
 F. Others, please mention.....

15. Indicate how important the following product characteristics are when choosing which furniture product to buy. (Use 1 = very important, 2 = important, 3 = moderately important, 4 = not very important and 5 = not important at all)

a.	Durability	
b.	Quality of wood(species used)	
c.	Design (style, size, and workmanship)	
c.	Visual appearance (color, texture design, surface patterns)	
d.	Price (low/high)	
e.	Supplier characteristics (attitudes, actions, reliability etc)	
f.	Distance from the market	

16. Could you please mention why the attributes in 15 above are important to you

17. What would you consider as benefits of a good design for a particular furniture item.....

18. What would you consider as benefits of good finish for a particular furniture item.....
19. What would you consider as benefits of a durable furniture item.....
20. Prior to product purchase, did you get enough information about the product which guided you in making a choice?
 A. Yes (22%) B. No (78%)

SECTION 3: Expectation Measurement

21. Mention the expectations you had prior to purchase of the furniture item

22. After purchase and use, were your expectations met?
 A. Not at all met B. Somewhat met C. Completely met D. Exceeded
23. In which aspect(s) did the product(s) fail to meet your expectation?
 A. In service performance B. Quality of finish C. Durability
 D. others specify.....
24. How can you estimate the difference between what you expected and what you received?
 A. Extremely big difference B. Very big difference C. Big difference
 D. Not sure E. Small difference F. Very small difference G. No difference at all
25. Was your expectation influenced by the following?
 A. Friend B. Neighbor C. Advertisement D. Society E. Not any of these

SECTION 4: Perceptions' Measurement

26. In your opinion, comment on the quality of furniture you bought
 A. Very Poor B. Poor C. Good D. Very good E. Excellent
27. Could you agree that the furniture you purchased was worth the value of money used in its purchase?
 A. Yes (56%) B. No (44%)
 If No, why?.....
28. How do you rate/compare the quality of furniture made locally by small scale furniture makers such as those located on roadside with those sold in showrooms?
 A. Superior B. Inferior C. Equal. D. Very inferior E. Don't know

29. What effect did the price level have on your perception of the product?
 A. Significant effect B. Not significant C. little significance. D. don't know

SECTION 5: Satisfaction Measurement

30. Having purchased and used the product how satisfied are you with the following? Use 1= very satisfied. 2 = satisfied. 3 = dissatisfied. 4 = very dissatisfied

A	Product design	
B	Price	
C	Durability	
D	Finish	

31. Thinking about your total experience with the furniture product that you purchased, would you say overall you are satisfied?
 A. Extremely dissatisfied B. very dissatisfied C. Moderately satisfied D. Very satisfied E. Extremely satisfied F. Not sure/don't know
32. What are your areas of complaint if someone would report them back to the very place you purchased the product?
 A. Short service life B. Poor finish C. Poor quality of material used.
 D. Failure to serve its purpose E. Unstable quality
 F. Other specify.....
33. Mention your greatest disappointment with the product that you purchased

34. The next time you wish to purchase furniture would you go to the same supplier? A. No B. Yes
 If No/Yes give your reason.....
35. Mention any idea that you feel can be important in improving the quality of furniture products from the small scale producers

36. Would you like the government to establish wood furniture quality standards?
 A. No B. Yes
 Please give a reason for your answer.....
37. Would you also like Government to put in place furniture consumer guidelines?
 A. Yes B. No
 Give your reason.....
38. Do you have any other additional comments about the products and services provided by the Small scale producers?

***** END *****

APPENDIX 2: Bivariate Correlations

		SATIS	DES	Price	DUR	FIN	Gender	AGE	MAR	FSize	EDUC
OVERALL SATISFACTION	Pearson	1	-	-	-	-	-0.009	-0.018	.046	-.047	.129(*)
	Correlation		.701(**)	.691(**)	.769(**)	.780(**)					
	Sig. (1-tailed)		.000	.000	.000	.000	.443	.385	.226	.220	.016
DESIGN	Covariance	.242	-.159	-.169	-.173	-.185	-.002	-.007	.011	-.014	.054
	Pearson	-	1	.554(**)	.517(**)	.525(**)	-.025	-.018	-.045	-.003	-
	Correlation	.701(**)		.000	.000	.000	.342	.381	.227	.480	.142(**)
PRICE	Sig. (1-tailed)	.000		.000	.000	.000	.342	.381	.227	.480	.009
	Covariance	-.159	.214	.128	.109	.117	-.006	-.006	-.010	-.001	-.056
	Pearson	-	.554(**)	1	.606(**)	.612(**)	-.051	-.006	-.025	.005	-.135(*)
DURABILITY	Correlation	.691(**)			.000	.000	.200	.461	.341	.467	.013
	Sig. (1-tailed)	.000	.000		.000	.000	.200	.461	.341	.467	.013
	Covariance	-.169	.128	.248	.138	.147	-.013	-.002	-.006	.001	-.057
FINISH	Pearson	-	.517(**)	.606(**)	1	.689(**)	-.030	.036	-.064	.043	-.091
	Correlation	.769(**)		.000		.000	.309	.279	.146	.240	.066
	Sig. (1-tailed)	.000	.000	.000		.000	.309	.279	.146	.240	.066
GENDER	Covariance	-.173	.109	.138	.209	.152	-.007	.012	-.015	.012	-.035
	Pearson	-	.525(**)	.612(**)	.689(**)	1	.003	.014	-.074	-.006	-
	Correlation	.780(**)		.000	.000		.482	.405	.109	.462	.146(**)
AGE	Sig. (1-tailed)	.000	.000	.000	.000		.482	.405	.109	.462	.008
	Covariance	-.185	.117	.147	.152	.232	.001	.005	-.018	-.002	-.060
	Pearson	-.009	-.025	-.051	-.030	.003	1	.016	.001	.078	-.134(*)
AGE	Correlation	.443	.342	.200	.309	.482		.394	.495	.100	.013
	Sig. (1-tailed)	.443	.342	.200	.309	.482		.394	.495	.100	.013
	Covariance	-.002	-.006	-.013	-.007	.001	.244	.006	.000	.023	-.056
AGE	Pearson	-.018	-.018	-.006	.036	.014	.016	1	-	.696(**)	-
	Correlation								.224(**)		.199(**)
	Sig. (1-tailed)	.385	.381	.461	.279	.405	.394		.000	.000	.000

MARITAL STATUS	Covariance	-.007	-.006	-.002	.012	.005	.006	.578	-.085	.318	-.128
	Pearson Correlation	.046	-.045	-.025	-.064	-.074	.001	-	1	-	.008
	Sig. (1-tailed)	.226	.227	.341	.146	.109	.495	.224(**)	.	.282(**)	.448
								.000	.000	.000	
FAMILY Size	Covariance	.011	-.010	-.006	-.015	-.018	.000	-.085	.250	-.085	.003
	Pearson Correlation	-.047	-.003	.005	.043	-.006	.078	.696(**)	-	1	-.123(*)
	Sig. (1-tailed)	.220	.480	.467	.240	.462	.100	.000	.282(**)	.	.021
								.000	.000	.	
EDUCATION	Covariance	-.014	-.001	.001	.012	-.002	.023	.318	-.085	.362	-.063
	Pearson Correlation	.129(*)	-	-.135(*)	-.091	-	-.134(*)	-	.008	-.123(*)	1
	Sig. (1-tailed)	.016	.142(**)	.013	.066	.008	.013	.199(**)	.448	.021	.
								.000	.000	.448	.021
	Covariance	.054	-.056	-.057	-.035	-.060	-.056	-.128	.003	-.063	.723

** Correlation is significant at the 0.01 level (1-tailed).

* Correlation is significant at the 0.05 level (1-tailed).

APPENDIX 3: Kruskal-Wallis Test of ranks

	Overall satisfaction with the product	N	Mean Rank
Age bracket of the respondent	Extremely dissatisfied	19	119.18
	Very dissatisfied	34	127.49
	Dissatisfied	58	132.78
	Moderately satisfied	23	132.54
	Just satisfied	68	128.54
	Very satisfied	52	121.08
	Total	254	
Marital status of the respondent	Extremely dissatisfied	19	114.74
	Very dissatisfied	34	117.87
	Dissatisfied	58	139.16
	Moderately satisfied	23	148.41
	Just satisfied	68	135.09
	Very satisfied	52	106.28
	Total	254	
Family size of the respondent	Extremely dissatisfied	19	119.74
	Very dissatisfied	34	134.28
	Dissatisfied	58	140.16
	Moderately satisfied	23	138.76
	Just satisfied	68	122.79
	Very satisfied	52	112.96
	Total	254	
Highest education level attained	Extremely dissatisfied	19	107.50
	Very dissatisfied	34	119.40
	Dissatisfied	58	115.55
	Moderately satisfied	23	134.93
	Just satisfied	68	124.78
	Very satisfied	52	153.70
	Total	254	
Average monthly income combined	Extremely dissatisfied	19	113.58
	Very dissatisfied	34	125.50
	Dissatisfied	58	122.02
	Moderately satisfied	23	147.33
	Just satisfied	68	123.39
	Very satisfied	52	136.62
	Total	254	

APPENDIX 4: Post Hoc Tests: differences in overall satisfaction

	(I) INCOME	(J) INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	<300,000-500,000	500,000-1000,000	-.03	.065	.964	-.20	.14
		> 1,000,000	-.02	.093	.998	-.26	.23
		missing value	.08	.205	.976	-.45	.61
	500,000-1000,000	<300,000-500,000	.03	.065	.964	-.14	.20
		> 1,000,000	.02	.096	.999	-.23	.26
		missing value	.12	.206	.944	-.42	.65
	> 1,000,000	<300,000-500,000	.02	.093	.998	-.23	.26
		500,000-1000,000	-.02	.096	.999	-.26	.23
		missing value	.10	.217	.967	-.46	.66
	missing value	<300,000-500,000	-.08	.205	.976	-.61	.45
		500,000-1000,000	-.12	.206	.944	-.65	.42
		> 1,000,000	-.10	.217	.967	-.66	.46
Dunnett C	<300,000-450,000	500,000-1000,000	-.03	.065		-.20	.14
		> 1,000,000	-.02	.095		-.27	.24
		missing value	.08	.228		-.75	.92
	450,000-1000,000	<300,000-500,000	.03	.065		-.14	.20
		> 1,000,000	.02	.097		-.24	.27
		missing value	.12	.229		-.72	.95
	> 1,000,000	<300,000-500,000	.02	.095		-.24	.27
		500,000-1000,000	-.02	.097		-.27	.24
		missing value	.10	.239		-.75	.95
	missing value	<300,000-500,000	-.08	.228		-.92	.75
		500,000-1000,000	-.12	.229		-.95	.72
		> 1,000,000	-.10	.239		-.95	.75

Based on observed means.

APPENDIX 5: Correlation Matrix

		Constant	DES	Price	DUR	FIN	AGE	EDUC	INCOME
Step 1	Constant	1.000	-.539	-.238	-.308	-.401	-.373	-.566	-.025
	DES	-.539	1.000	-.173	.076	.294	.112	.107	.005
	Price	-.238	-.173	1.000	-.184	-.128	-.008	.110	.042
	DUR	-.308	.076	-.184	1.000	-.196	-.075	-.154	.121
	FIN	-.401	.294	-.128	-.196	1.000	.050	.239	-.287
	AGE	-.373	.112	-.008	-.075	.050	1.000	.256	-.192
	EDUC	-.566	.107	.110	-.154	.239	.256	1.000	-.351
	INCOME	-.025	.005	.042	.121	-.287	-.192	-.351	1.000
Step 2	Constant	1.000	-.539	-.263	-.365	-.413		-.524	-.110
	DES	-.539	1.000	-.169	.085	.290		.081	.030
	Price	-.263	-.169	1.000	-.182	-.124		.117	.038
	DUR	-.365	.085	-.182	1.000	-.190		-.139	.108
	FIN	-.413	.290	-.124	-.190	1.000		.231	-.278
	EDUC	-.524	.081	.117	-.139	.231		1.000	-.314
	INCOME	-.110	.030	.038	.108	-.278		-.314	1.000
	Constant	1.000	-.584	-.238	-.525	-.348			-.342
DES	-.584	1.000	-.182	.104	.274			.060	
Price	-.238	-.182	1.000	-.169	-.157			.085	
DUR	-.525	.104	-.169	1.000	-.162			.075	
FIN	-.348	.274	-.157	-.162	1.000			-.227	
INCOME	-.342	.060	.085	.075	-.227			1.000	
Step 4	Constant	1.000	-.600	-.224	-.535	-.469			
	DES	-.600	1.000	-.186	.102	.292			
	Price	-.224	-.186	1.000	-.179	-.135			
	DUR	-.535	.102	-.179	1.000	-.142			
	FIN	-.469	.292	-.135	-.142	1.000			