Employed Women's Intentions to Purchase Apparel Sewing Services:

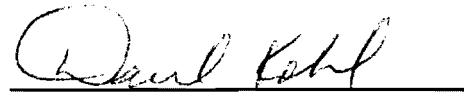**Beliefs, Attitudes, and Normative Influences**

by

Karen Bruck Watson

Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

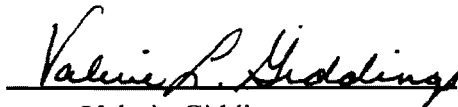in partial fulfillment of the requirements for the degree of

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IN

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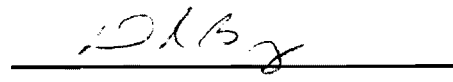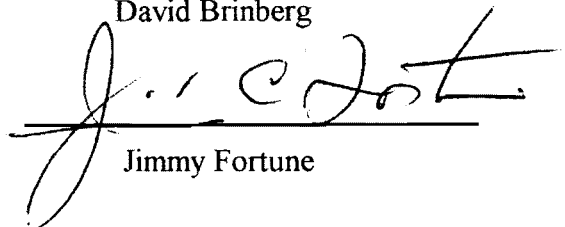
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Employed Women's Intentions to Purchase Apparel Sewing Services: Beliefs, Attitudes, and Normative Influences

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(ABSTRACT)

Historically, the construction, alteration, and mending of clothing was provided through household production activities, free of charge by the female members of the household or members of the extended family. These practices have changed in some families because of societal and cultural changes such as the increasing number of women who are employed outside of the household. Apparel construction, alteration, and mending are now available for purchase from service providers in the marketplace. Thus the overall purpose of this research was to examine the nature and foundation of the normative influences and attitudes of a sample of employed women toward purchasing apparel sewing services.

Ajzen and Fishbein's (1980) reasoned action model which theorizes four stable relationships provided the theoretical framework for the research. The four relationships were Behavior-Intention (BI), Attitude-Subjective Norm-Intention (ASNI), Behavioral Beliefs-Attitude (BBA), and Normative Beliefs-Subjective Norm (NBSN). Four corresponding objectives were investigated for three sewing services, clothing construction, alteration, and mending. A fifth objective for each apparel sewing service was used to explore the possible associations among a set of external variables and the employed women's estimated attitudes, estimated subjective norms, and the relative weights of the attitudinal and normative components in the ASNI relationship.

Questions to measure behaviors, intentions to purchase, attitudes, behavioral beliefs, subjective norms, and normative beliefs were developed according to Ajzen and Fishbein's (1980) guidelines. Additional questions were developed to assess fourteen external variables derived from the review of literature. Two thousand ninety two questionnaires were sent through Virginia Tech's campus mail; 657 (97%) of the 679 (32%) returned were useable for the study.

Kendall's Tau testing resulted in significant positive BBA relationships for all three sewing services. Multiple regression testing resulted in significant positive ASNI relationships for all sewing services. Significant positive BBA and NBSN relationships

resulted from Pearson Product Moment Correlations for all three sewing services. All four null hypotheses for all three sewing services were rejected and the research hypotheses were supported.

The fifth objective was investigated through three null hypothesis for each sewing service; each null hypothesis was tested with each external variable. The external variable, knowing someone who sews for pay, yielded statistically significant results for all three sewing services in the F-tests for the overall regressions, analysis of variance, and in the Tukey's post hoc test; however this variable did not lead to significant differences in the standardized betas for services of altering and mending clothes, according to the Chow tests. No other external variables had as many significant tests for all three sewing services as knowing someone who sews for pay had, even though there were other significant tests in some of the relationships tested.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice Hall.

Dedication

Over the years women have sewn for their families, extended families, and community members. Women who could not work outside of the home have often supplemented the family income using their sewing skills to earn pin money that was often squirreled away later to be used to buy food for their families, purchase children's birthday and Christmas presents, or to help get their families through tough times and emergencies. This "pin money" was never recorded in any family income statement and was never taxed through the IRS as wages.

These talented seamstresses were known for their extensive sewing talents and were often called upon to produce one-of-a-kind garments for others in their communities. They were recognized for their sewing skills with all types of fabrics and their fitting skills of each and every body that walked through their sewing room door. The prices these women charged for these one-of-a-kind garments were often minimal. The women were not paid for the sewing skill and the talent they possessed. Often for these seamstresses, the personal satisfaction offset the difference between the money they were paid and the value of the garment that they produced.

Seamstresses today are still known for their sewing and fitting skills, they often charge minimal prices for garments that used sewing and fitting talents worth two to three times the price that was paid for them. One thing has changed today. Often these seamstresses are operating formal businesses struggling to charge higher prices which would compensate them for being highly trained professionals they are employed to be. The seamstresses today are attempting to operate financially successful businesses that will support or supplement their families incomes.

This research has been my attempt to help these seamstresses understand their potential clients, specifically employed women and their attitudes toward paying seamstresses to make, alter or mend an item of clothing for them. I dedicate this research effort to the many extremely talented seamstresses and business owners who have earned a living a stitch at a time while attempting earn respect as professionals in their field utilizing creative sewing talents and skills possessed by very few people today.

Acknowledgments

Being a PhD student in the Department of Clothing and Textiles at Virginia Tech has been the greatest challenge to me and my soul. It has involved a learning and growing process that have been both painful and joyful. Many people, too numerous to mention here, have seen me through these years of growth. However, an individual acknowledgment is fitting for the following.

One constant throughout my many years has remained Dr. Marjorie Norton, my advisor. My deepest gratitude goes to her; for she has worn many hats throughout this process including: advisor, teacher, mentor, friend, problem solver, and colleague. She has always imparted wisdom and a depth of knowledge that has taken me years to really appreciate. I am sure that working with me through my many family emergencies has been frustrating to say the least. But she has always helped me regroup and push on, even after many months of absence. I will be grateful for many years for her willingness to wear these many hats, and I treasure the working relationship that has resulted from all that we have been through together.

Several committee members have advised me throughout this process and have contributed to this research. Those who were with me to the end, including Dr. Jimmy Fortune, Dr. David Kohl, Dr. David Brinberg, Dr. Valerie Giddings, and Dr. Rebecca Lovingood, have each given in their own way and have been helpful. Dr. Fortune helped me understand statistics. Dr. David Kohl taught me about small business, economic trends, and how economics trends impact small businesses. Dr. David Brinberg challenged me on the theoretical framework of this research and kept me thinking about how the results would be interpreted. Dr.'s Giddings and Lovingood stepped in during the 1998 summer school session to help guide me through the final defense so I could complete this research and my degree requirements. Thanks to all of you.

I also wish to recognize the role of the many respondents who took the extra time from their busy days to answer my questionnaire and return it to me. Their generosity with their time has meant a great deal to me; I know I could not have conducted this research without them. I am also grateful to the Statistical Consulting Center at Virginia Tech. Their guidance through my many statistical procedures was always clear and tremendously helpful.

The second person who has had unshakeable love and faith in me and has been a constant support is my husband, Steve. Over the years many things have challenged our marriage, this dissertation being one of them. Throughout this research process he has constantly tried to be supportive even when his own health was questionable. His many

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Chapter 1 Introduction

Sewing to produce clothing occurs in the forms of, home sewing, industrial

assembly, or paid sewing services. Home sewing, the making of garments for oneself,

family members, or friends to gain personal satisfaction or save money, has declined over

the years (Frings, 1987) as more women have entered the market work force. Industrial

assembly of ready-to-wear clothing is the number one means of clothing production today.

The third means of production, sewing services--individualized paid services offered by

tailor shops, dressmakers and seamstresses, and made-to-measure businesses--are

becoming a competitive alternative to home sewing and industrial assembly. Sewing

service customers are the focus of this study.

The search for information about sewing service purchasers and potential

purchasers is an aspect of service marketing research. A focus on the customer is crucial

in service marketing (Bitner & Zeithaml, 1987), and thus in sewing service marketing

research. Cowell (1984) stressed the importance of understanding why customers and

potential customers behave the way they do and what influences their choices. This

research began by posing several key questions about the sewing service customer.

What prompts a person to seek sewing services? What are the determining factors

for purchasing or not purchasing? What are the underlying beliefs and perceptions that

customers or potential customers have about sewing, sewing services, and service

providers? Do these beliefs influence the purchase decision? Why do some customers feel

the price of sewing services is too high, while others feel that the same price is acceptable

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or a real bargain? Is this affected by education, income, understanding of fit and the complexity of clothing, or the purpose of the garment? What makes a woman consider purchasing sewing services as an alternative to sewing for herself? How does an employed woman's time devoted to household activities influence the purchase of sewing services? Who influences the purchase decision--spouse, friends, peers, or work associates? How does one's amount of sewing education and skill influence the decision to purchase or not purchase sewing services? How do the consumer's attitudes about clothing fit, quality of available ready-to-wear, and price influence the purchase decision?

Such questions as those above often puzzle sewing service providers and appear to influence the demand for their services. This research attempts to answer these and other questions about employed women consumers. Male consumers are not included because they are thought to have different attitudes and purchase motivations concerning sewing services.

Background

The United States has had a service economy since the 1940s. Shelp reported in 1981 that "more than half its work force was employed in producing intangibles" (p. 14). Vast expenditures in the non-governmental service areas of consumer, business, and industrial services have contributed to the economic shift in the United States from a manufacturing economy to a service economy. Expenditures on consumer services account for more than half of consumer expenditures (Quinn, 1988; Stanton, 1981).

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With the economic prosperity of the 1940s and 1950s, consumers increased purchases for themselves as their level of living rose. From the 1940s to 1973, real wages paid to American workers doubled (Krugman & Lawrence, 1994). As consumers met basic needs for staple goods and had increasing discretionary income, they sought services they did not or could not purchase before, such as travel, personal, and professional services (Stanton, 1981).

In 1970 U.S. residents spent 46 percent of their outlays on goods (manufactured, grown or mined) and 54 percent on service and construction. By 1991 the shares were 40.7 and 59.3 percent, respectively as people began buying comparatively more health care, travel, entertainment, legal services, fast food and so on. (Krugman & Lawrence, 1994, p. 46)

The record number of women entering the marketplace to work is a factor that has created an increased need to purchase such services as child care and home care. Similarly, the increasing number of older Americans has created needs for many new services (Bitner & Zeithaml, 1987).

Expenditures on business services have increased as businesses have become more "complex, specialized, and competitive" (Stanton, 1981). Thus, one business is able to offer a particular service to a number of other businesses. An example is a business offering research services to others. Industrial (manufacturing) companies have offered services in order to profit from the service economy (Stanton, 1981). This dissertation focuses on sewing services purchased by household consumers; business services and

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industrial services are not examined though they are recognized as important components of the service economy.

Sewing services are available commercially through such businesses as dry cleaners, retailers, made-to-measure shops, and tailor shops, as well as home-based enterprises. The number of sewing service businesses has increased (Bureau of the Census, 1989b). From 1982 to 1987, a large enough number of seamstress and dressmaker businesses paid federal income tax that the U.S. government established a separate SIC code for seamstresses and dressmaking services. In 1987, 205 seamstresses and dressmakers paid federal income tax on receipts of $23,141,000 (Bureau of the Census, 1989a). Fostered by the increasing number of sewing services, a national guild called The Professional Association of Custom Clothiers was formed in 1991 and by 1992 had approximately 800 members with 21 chapters across the United States (Staff, 1992).

In addition, the range of sewing services offered has increased as the environment in the home has changed. Women working outside the home have less time in their day for household production activities. Thus, demand has increased for market purchased services (including sewing services) that women once performed in the household (Bellante & Foster, 1984; Courtless, 1989; Foster & Mammen, 1992; Gray, 1992; Jacobs, Shipp, & Brown, 1989; Soberon-Ferrer & Dardis, 1991; Vickery, 1979; Yang & Magrabi, 1989). The home environment has undergone a second change with fewer people being taught sewing skills in the home or in home economics classes in schools (Murphey & Stewart, 1990). This has resulted in fewer women possessing sewing skills and in an

actual decline in the home sewing market (Courtless, 1982). Because women possess fewer sewing skills and have a decreased amount of time available for sewing activities, new opportunities exist for businesses to offer sewing services.

The Problem

Entrepreneurs involved in sewing service businesses have difficulty pricing their services in order to make a profit. Previous research has focused on the seamstresses and their business skills (Bruck, 1988; Duggan, 1988; Duncan, 1991; Tondl & Thayer, 1991; Widney, 1985). Johnson, Littrell, and Reilly (1991) and Johnson (1989) conducted the only known studies focusing on the consumer of sewing services.

Bruck (1988) and Duggan (1988) both cited pricing as a home-based business marketing strategy which needed further research. Duncan (1991) characterized a successful home-based sewing entrepreneur as a person who had good marketing, pricing, and other business skills. She recommended that further educational effort be concentrated on developing business skills. Widney (1987) found that the entrepreneurs in her study needed more skills in financial planning for their businesses.

Tondl and Thayer (1991) identified the pricing information presented at a "Sewing as a Business" conference as the most helpful information given. Eighty-four percent of the participants in Tondl and Thayer's follow-up evaluation had adopted or improved their pricing practices. The percentage of participants who made pricing changes ranked a close third after the percentage that made time management changes (89% of participants)

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and professional image changes (85% of participants) as a result of involvement in the conference.

Bruck (1988) identified two aspects of the pricing problem: service providers' need to improve their pricing practices; and consumers' attitudes toward purchasing the sewing services. She found that consumers wanted expert sewing work but were unwilling to pay for the time and skill needed to produce a quality product.

According to the economic theory of supply and demand, as the demand increases for a service whose supply is limited, the price will increase. But in this market with an increasing demand for sewing services, the service provider has not been able to charge a higher price. Consumers resist paying prices that cover the costs and compensate the provider for the skills needed for the service, thus making it difficult for the businesses to be profitable. To help sewing service entrepreneurs understand the market, it is necessary to look deeper into the problem and investigate what is motivating consumer behavior as it relates to purchase.

Sewing services involve activities that use sewing skills associated with home economics, which may also contribute to the pricing problem (Bruck, 1988). Because of image problems regarding home economics (stitchin' and stirrin') and home sewing (homemade), people may equate sewing services with home sewing and lump sewing services and home sewing in the same negative category. These negative images of sewing may have influenced attitudes toward sewing overall and, thus, may have influenced attitudes toward purchasing sewing services including the price people are

willing to pay. Bruck (1988) questioned "how the image of home economics influences the prices that the seamstress can charge for the sewing services, since sewing is considered a home economics skill" (p. 76).

Historically the promotion of home sewing emphasized economic savings as an important reason for engaging in sewing activities (Courtless, 1982). Thus, customers may extrapolate to believe that they can purchase a custom sewn garment for less than it would cost to purchase a ready-made garment at retail. Similarly, they may expect to pay minimal amounts for clothing alterations or repairs. Dry cleaners, for years, have offered alterations and repairs for very low prices along with cleaning services. Furthermore, many people see sewing only as a leisure activity (Berheide, 1976), and that view may influence attitudes toward purchasing sewing services. If an activity is seen as a leisure activity, why should someone be paid for carrying out that activity?

Ajzen and Fishbein (1980) explained that attitudes about an activity, such as sewing, are based on specific beliefs held by the consumer about certain attributes of the activity. Some beliefs are stronger than others, thus certain attributes exert more influence on the purchasing decision than do others. Attributes might include what a consumer thinks that a family member believes she should do, or what she believes about the outcome of the activity or the resulting product produced by the activity in which she will engage. Such beliefs are better understood by looking at the determinants that have their foundations in past experiences and information concerning the behavior.

Changes that have occurred in the household have created a need for sewing

services and perhaps are determinants of the beliefs about paying someone to sew. One

identified problem resulting from these changes is that there has not been a clear process

to follow in pricing sewing activities which were formerly household production activities

and often categorized as services of the household. Other family members who have

distinct beliefs may also influence the homemaker who is seeking to purchase or otherwise

provide these sewing services. Their influence could be a determining factor in whether

the homemaker purchases the service or provides it herself, or in deciding how much she

is willing to pay for these services. On the other hand, some of the homemaker's personal

beliefs about home sewing may influence attitudes toward purchasing sewing services and

her willingness to purchase them. The sewing service provider could benefit from

knowing the foundations of the beliefs and how they influence the attitudes of employed

women regarding the purchase of sewing services.

Justification

The establishment of small, profitable businesses contributes to the economic

development of communities. When the businesses are not profitable, research focused on

the factors contributing to the lack of profitability can assist in understanding problems

and identifying possible solutions to address profitability issues.

This research provides insight into the consumer side of the pricing problem that

owners of sewing services are experiencing. It contributes to the existing information on

household production activities and the changes taking place as women participate in the

paid labor force. This research also contributes to the marketing information research base for small businesses selling sewing services.

Research Objectives

The overall purpose of this study was to examine the nature and foundation of the normative influences and attitudes of a sample of employed women toward purchasing apparel sewing services. To accomplish this purpose, the following objectives were investigated. The objectives address the four sequential relationships in Fishbein and Ajzen's (1975) theoretical model. The objectives are:

1. To determine the relationship between the women's intentions to purchase apparel sewing services in the next year and their past apparel sewing services purchasing behavior.

2. To determine the relationship among the women's attitudes toward purchasing apparel sewing services, subjective norms regarding the purchase decision, and intentions to purchase apparel sewing services in the next year.

3. To determine the relationship between the women's salient behavioral beliefs and their attitudes toward purchasing apparel sewing services in the next year.

4. To determine the relationship between the women's normative beliefs and the subjective norms regarding the purchase of apparel sewing services in the next year.

5. To explore the possible associations between certain external variables of the employed women and their estimated attitudes, estimated subjective norms, and relative weightings of the attitudinal and normative components.

Chapter 2 Review of Literature

Clothing and Textiles is an applied field which utilizes research, theory, and

methods from many fields. The review of literature in this chapter draws from the fields of

marketing, clothing and textiles, psychology, family economics, and sociology. First, the

review introduces the concepts of services and household production and the role they

play in the present research. Next, the review summarizes research on household

production and services marketing. The concluding section discusses the basic construct

of attitudes and the research on attitudes involving the purchase of apparel and sewing

services. The extensive review of the subject areas of services, household production, and

services marketing is to introduce concepts pertaining to the attitudes, intentions,

subjective norms, behavioral beliefs, and normative beliefs which are central to the

Reasoned Action Theory of Fishbein and Ajzen (1975). The Reasoned Action Theory

provides the theoretical framework for this study.

Services

General Services

In a service economy, the type of economy in which the United States has

functioned since the early 1950s, more than half of the labor is employed in service jobs or

jobs that produce intangibles (Albrecht & Zemke, 1985; Shelp, 1981). According to

Albrecht and Zemke (1985), "Service has become a powerful economic engine in its own

right -- the fast track of the new American economy" (p.1). Employment in U.S. service

industries has increased since the 1950s, and as of mid-March 1987 the Census of Service

Industries showed more than 1.8 million people employed in these industries. Counted in the industries were firms subject to federal income tax and ones exempt from federal income tax (Bureau of the Census, 1989).

Definition and Classification

The concept of services is difficult to define. Establishing a definition has been complicated by the intangible nature of the services themselves and by an on-going debate over whether actual differences exist between goods and services. For marketing professionals, the unclear distinction between goods and services can cause problems in service marketing research. For the purposes of this study, it is assumed that a significant difference exists between goods and services; therefore, the marketing of each would be different. This review presents several definitions, explains the problems with these definitions, and identifies a theoretical definition which is acceptable for use in this research.

Various approaches have been taken to define services: a) the use of the characteristics of services as the definition; b) the use of the actual activity, such as clothing alterations, as the definition; and c) the use of service classifications, such as alteration, mending and repair, as a way to define services. Shelp (1981) noted that the two most historically common ways to define services were either to focus on the output with an emphasis on the intangibility of the service or to focus on the "...activities which are neither manufacturing, mining, nor agriculture" (p.10). Shelp considered all of these ways to define services as inadequate. He states, "The most that can be said at the general

level is that services encompass an extremely heterogeneous group of economic activities often having little in common other than their principal outputs which are for the most part intangible products" (p.10).

In contrast, Rathmell (1966) distinguished between goods and services by asserting that a service is intangible and a good is tangible. He further described a service as "an act, ... a deed, a performance, or an effort" (p.33). However, services may require supporting tangible goods in order to be delivered, and goods may require services in order to deliver utility. For example, a custom sewing service is of no value until fabric is supplied for the service to be rendered; and a garment bought at retail may need alteration services in order to deliver utility to the consumer.

Sibson (1968) defined a service business as "... a business which essentially sells the knowledge or talent of people. Its product is, therefore, what people know or what they do. Either no physical product is involved at all, or it is incidental to the services performed by people" (p.146).

Thomas (1978) did not try to define services, but identified the difficulty that service providers encounter when they try to describe their services in the same manner as a business owner would describe a product. In doing this, he succeeded in limiting the conceptual scope of the service business. Thomas provided a model that can be used to distinguish different types of service businesses. This model separates service businesses into two categories: equipment-based service businesses and people-based service businesses. Thomas then separated each of these two categories into three subcategories.

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The three equipment-based subcategories are automated, monitored by relatively unskilled operators, and performed by skilled operators. He categorized people-based businesses into unskilled labor, skilled labor, and professional.

Stanton (1981) provided the American Marketing Association's definition of services:

> Services are those separately identifiable, essentially intangible
> activities that provide want-satisfaction and that are not necessarily
> tied to the sale of a product or another service. To produce a
> service may or may not require the use of tangible goods.
> However, when such use is required, there is no transfer of the title
> (permanent ownership) to these tangible goods. (p. 441)

According to this definition, no transfer of title occurs because the service remains separate from the good; in fact, a tangible good might not even be required to deliver the service. Most importantly, this definition identifies the important characteristic of a service as composed of intangible activities. For these reasons, this definition is utilized in this research.

Service Characteristics

Services often are defined according to their characteristics - intangibility, inseparability, heterogeneity, perishability, and fluctuating demand. Zeithaml, Parasuraman, and Berry (1985) reviewed the literature on services marketing and provided a chart of 26 references detailing the characteristics of services. All 26 articles

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identified intangibility as a characteristic of services. Twenty-three cited inseparability of production and consumption as a characteristic, and seventeen cited heterogeneity. Only 10 cited perishability as a characteristic.

In discussing these characteristics, Bitner and Zeithaml (1987) observed four fundamental differences between goods and services. In illustrating the intangibility of services as a characteristic, they state, "We cannot see, feel, taste or touch services" (p.8). Secondly, they list the inseparability of the production and consumption of services (in contrast to the production and consumption of a product which occur at different times). When the production and consumption of the service are inseparable, the consumer may affect the delivery of the service and thereby may cause variability of the service. Thirdly, they identify the problem of heterogeneity: the service may vary from one producer to another, or it may vary over time for one producer. Heterogeneity arises from the simultaneous production and consumption of the service, the involvement of the consumer in the process, and the intangibility of the service, which all make quality control difficult. As a final distinction, Bitner and Zeithaml note that services are a perishable commodity that cannot be stored or inventoried.

Inconsistent use and lack of clarity in terminology often cause problems in understanding service marketing, as will be discussed later in this review of literature.

Household Services

It is important to distinguish between household services and household production. Household services are those services purchased in the market because

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"circumstances such as income, market conditions or personal inclinations permit the service being delegated to someone outside the household group" (Reid, 1934, p. 11). Household production, to be covered later in this review, is considered to comprise ..."unpaid activities carried on by and for the members of the household" (Reid, 1934, p.11).

Definition and Classification

Household production literature has provided definitions and classifications for household services. In 1976, Walker and Woods grouped 13 household activities into five categories in order to measure household production. They established the following categories and corresponding activities, which met Reid's (1934) definition of household work:

CATEGORY	ACTIVITIES
Food preparation	Regular meal preparation After-meal cleanup Special food preparation
All house care	Regular house care Special house care Yard and car care
All family care	Physical care Nonphysical care
All clothing care	Washing Ironing Special clothing care
Marketing and management	Marketing or shopping Management and record keeping

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These household activities somewhat parallel the areas of services available in the marketplace today, and they represent most housework activities today. In research on the purchase of household services, different combinations of these 13 household activities have been studied. Because of the large number of research articles on these 13 household services, the articles included in this review are limited to those which explicitly included some type of clothing service in the analyzed purchases. Table 1 summarizes research on expenditures for household service activities.

Household services can cover the range of activities that otherwise may be performed by household members for the benefit of the members. If the activities were conducted within the household by a household member, they would be considered household production, but, if they were purchased in the marketplace for and by the household, they would be considered household services. Household services are distinguishable from business and industry services which are services provided solely to business and industry and are not a part of this study.

Clothing Services

The Bureau of Labor Statistics (BLS) regularly collects data on expenditures for apparel services, defined as including "...coin-operated laundry and dry cleaning (coin-op services), other laundry and dry cleaning (full-service facilities), clothing storage, shoe repair, clothing repair, watch and jewelry repair, and clothing rental" (Courtless, 1989, p. 10). Any clothing service research utilizing the data from the BLS would be reporting on any or all of these services. These research reports are reviewed later in this chapter.

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Table 1. Research on Expenditures for Purchased Household Services

Author (year)	Household Services Activity
Vickery (1979)	Meal preparation, Household operations, Child care, Clothing care.
Bellante, Foster (1984)	Food away from home, Child care, Domestic services, Clothing care, Personal care.
Weagley, Norum (1989)	House cleaning, Car repair, Home repair, Lawn care, Exterior painting, Interior painting, Wall papering, Food preparation, Clothing construction, Clothing repair, Clothes laundering, Day care for children.
Yang (1988)	Meals in restaurants, Clothing care, Child care, Domestic services.
Yang, Magrabi (1989)	Meals in restaurants, Clothing care, Child care, Domestic services.
Courtless (1989)	Apparel services.
Rubin, Riney, Molina (1990)	Apparel services, Food away from home, Personal care.
Soberon-Ferrer, Dardis (1991)	Child care, Clothing care, Domestic services, Food away from home, Personal care.
Zhang (1991)	Food away from home, Clothing care, Domestic care, Child care.
Foster, Mammen (1992)	Food away from home, Child care, Domestic services, Clothing care, Personal care, Gardening services.
Wang, Abdel-Ghany, Sharpe (1993)	Food away from home, Apparel services, Transportation, Health care, Miscellaneous services, Personal insurance.

In Walker and Woods' 1976 research on time use, the clothing care category included three activities: washing by machine, ironing, and special care of clothing. Washing by machine activities include preparations for washing, any activities during the washing process, and the activities after the clothes dry such as folding and storing. Ironing activities include preparation activities, the actual time ironing, and the clean up activities after finishing ironing. Walker and Woods defined special clothing care: "The other types of work included in this category were dry cleaning, seasonal storage of clothing, mending, spot removal, shoe care, and construction, repair, or adjustment of clothing and household textiles" (p.185).

Clothing services consist of a variety of services including sewing services. For this review, clothing services is too broad a category; a subcategory of clothing services, sewing services, is needed. Sewing services consist of various sewing activities. The following section reviews the sewing service activities that are important to this study.

<div align="center">Sewing Services</div>

The purchase of sewing services as a source of apparel and of apparel maintenance predates the commercial manufacture of apparel as we know it today (Norton, 1984). However, the question often arises as to what constitutes a sewing service. Sewing services are embedded in a variety of clothing services involving maintenance, repair, and construction activities on clothing and accessories. Johnson, Littrell, and Reilly (1991) used factor analysis in investigating several customized sewing services and found the following three sewing service factors: mending services, alteration services, and

customized sewing and design services. They defined mending services to include such tasks as replacing zippers or buttons; alteration services as "...related to changing the size, length or fit of garments" (p. 12); and customized sewing and design services as relating to designing garments, choosing fabrics and patterns, and making complete garments.

Brinkley and Aletti (1976) identified alterations of ready-to-wear fashions as one profitable area of sewing. They define alteration as starting with a finished garment and working backwards in the construction process, using skills different from those used in constructing a garment.

Coats and Clark's Sewing Book (1976) contains sections which cover the altering of finished garments as well as mending of garments. According to the book, "An alteration is an adjustment made in one detail of a garment, either ready-made or home-sewn, that is otherwise satisfactory (more than one alteration may be needed, of course)" (p.11). "An alteration should not be confused with a make-over, which involves design" (p. 11). Mending, in this book, has two dimensions: a) repair of a garment with rips or tears, or replacement of items that have come off; and b) reinforcement of areas to prolong the life of the garment.

In the book Clothing Care & Repair (1985), published as part of the Singer Sewing Reference Library, clothing repairs include mending damaged garments, whereas "customizing for fit and fashion" (p. 100) includes altering a garment to fit and changing the style or silhouette of that garment to be similar to a current style.

Graber (1986), in her "Trends in Customer Service" supplement to Fabricare

News, discusses alterations and gives examples including updating of styles and making length changes such as altering hemlines. Duke and Voege (1986) studied the acquisition and provision of two groups of clothing services: clothing construction which is a way to acquire clothing; and clothing maintenance which they defined as altering, mending and repairing.

The U.S. government, through its Home and Garden Bulletins from the Cooperative Extension Service, also has provided references on clothing repairs. Clothing Repairs (1965) covers the following: basic repair stitches and their uses, reinforcing apparel items before wearing, patching and patches, and darning various fabrics. It concludes with 25 ways to mend common clothing damage such as rips, snags, holes worn in collars and cuffs, frayed seams, and the loss of elasticity in the elastic of garments.

The United States Census distinguishes between seamstress/dressmaking services, custom tailors, and dressmakers. Seamstress/dressmaking services listed in the 1987 Census of Service Industries are defined as "dressmaking services on material owned by individual customers, garment alteration and repair shops, reweaving textiles (mending service), and tailor shops, except custom or merchant tailors" (Standard Industrial Classification Manual, 1987, pp. 357-358). In contrast, the categories of custom tailors and dressmakers in the 1987 Census of Retail Trade are "Belts, apparel: Custom-retail; Custom Tailors - retail; Dresses made to order-retail; Dressmakers' shops, custom-retail; Merchant tailors-retail; Shirts, custom made-retail" (Standard Industrial Classification Manual, 1987, p. 324).

As demonstrated above, sewing services can include a range of activities from designing garments and constructing them, to making alterations for size and style changes, to mending garments. The lack of consistency and lack of uniform categories make it difficult to categorize sewing services. This study uses the categories revealed in the factor analysis by Johnson, Littrell and Reilly (1991):

1. Customized Sewing and Design Services

2. Alteration Services

3. Mending Services.

An overall understanding of services, general services, household services, clothing services, and sewing services is important to this study. Another important subject area is household production. Theoretical concepts and research findings involving household production contribute to a better understanding of the research problem.

Household Production

Theory

To understand the changes taking place in household production activities, especially in sewing activities, it is important to understand the basic theoretical background of household production.

Reid (1934) defined household production as consisting of:

... unpaid activities which are carried on, by and for the members, which

activities might be replaced by market goods, or paid services, if

circumstances such as income, market conditions, and personal inclinations

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permit the service being delegated to someone outside the household

group. (p. 11)

In 1976, Walker and Woods defined household work or household production as "purposeful activities performed in individual households to create the goods and services that make it possible for a family to function as a family" (p.xx). Of importance in Walker and Woods' and Reid's definitions is that household production activities take place without payment to the provider of the goods or services; no money is exchanged specifically for the production activities.

According to Reid, household production creates form, place, time, and possession utility. These types of utility play a role in the decision to either produce the service in the home or to delegate it to someone outside the household. If family members get a high level of utility, or satisfaction, from carrying out the activity, they will do the activity themselves. If family members do not get satisfaction from the activity, and circumstances permit the purchase of it as a service in the marketplace, they will choose the market alternative. Thus, utility plays a role in whether the service is performed by a family member or purchased in the marketplace.

Beutler and Owen (1980), in their household activity model, identify household production as separable or inseparable. Inseparable household production involves human attributes and relationships which cannot be purchased in the marketplace; examples are community service or the bonding between a parent and child when they play together. Separable home production consists of those activities within the home that can

be produced by the family members or can be substituted with market produced goods and services.

Beutler and Owen (1980) identify family resources as inputs which are used either directly in the production activity within the home, or indirectly to purchase market goods and services for use in household activities. "When the output from an activity is exchanged and ownership transferred to the user, it is considered to be market production. When the output from an activity has use value but does not enter into formal exchange, it is home production" (Beutler & Owen, 1980, p.18).

Income and time are important constraints in household production. Every household is constrained in its pursuit of utility by the amount of household income. The monetary income is what is available to purchase goods and services in the marketplace and plays a role in what is purchased. Income is important in the study of household production, but it is not reviewed as a household production variable here. Time constraints are also important variables in household production and are discussed next.

Amount-of-Time Variable

Time Constraint. The use and value of time are prevalent topics in the household literature (Ferber & Birnbaum, 1980). All families operate within a time constraint in household production activities. The amount of time available and the value of time directly affect the demand for, and the cost of, market produced goods and services that are substituted for household produced goods and services.

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Walker and Woods (1976) utilized time as a measure of household production for their study. They provided an equation based on time as the measure of household production, "...the time spent on the household work activities (input) equals the goods and services produced (output)" (p. 3). They further state,

> Since household work has no monetary value set in the marketplace, some
>
> resource has to be used on which a value can be placed. In this study, time
>
> has been the resource used to indicate household work loads, and the use
>
> of time has been expressed as the amount of time spent to perform certain
>
> household activities. (p. 3)

They did not use just a simple measurement of time in their research. Instead, they related time used in production activities and the composition of the family to measure production because the time involved in household production often varies depending on the composition of the family in the home. They calculated the average time spent on specific household activities by families of various compositions, which made comparison with previous research easier. They developed this production measure because it is difficult to use specific activities, such as number of loads of laundry and the time involved in the activity, as measures of household production.

Walker and Woods noted a limitation of the use of time as a measure of household production: the inability of most people to identify the specific beginning and ending times of household production activities. Often, more than one activity is carried out at the same time. However, the authors do provide evidence on the ability of people to estimate

the use of time in activities, therefore upholding the use of time as a measure of household production.

Time is an input and a family resource in Beutler and Owen's (1980) household production activity model. In their model, time has two dimensions: quantity of available time which is 24 hours per day for each family member; and quality of time which relates to human capital, such as sewing skills and sewing knowledge used in the activity.

Becker (1976) proposed a theory of the allocation of time which uses market goods and the dimension of time to determine how time is allocated. He points out that people spend more time away from market work than at market work. Part of the nonmarket time, which varies by the individual, is spent on household production activities. He theorizes that commodities, such as seeing a play or sewing, are a function of a single resource constraint called full income which is "...the maximum money income achievable..." (p.93). "This income could in general be obtained by devoting all the time and other resources of a household to earning income, with no regard for consumption" (p. 93-94). "This basic resource constraint states that full income is spent either directly on market goods or indirectly through the foregoing of money income" (p. 95). In other words, one is either working in the marketplace earning an income or is foregoing market earnings by engaging in nonmarket activities. In his theory of time allocation, Becker identifies the amount of time used per dollar of goods and the cost per unit of time as important determinants of foregone earnings, thus making amount of time and value of time important to allocation of time.

Value of Time. Both the number of hours and the value of time have been time variables in research. Compensation for time spent working in the marketplace is in dollars and cents (Walker & Gauger, 1973). Monetary compensation for time spent in household activities does not exist unless purchased from the marketplace as a service (Walker, 1979). The dollar compensation for the time spent in work is a measure of the value of that time. Therefore, because household work is not usually compensated monetarily, it is difficult to determine the dollar value of the time spent in household production. The value of the time women spend in household production is important.

Three methods for placing a value on the time for household production are discussed in the research literature. These three methods are the opportunity cost approach, the market cost approach (Ferber & Birnbaum, 1980), and the reservation wage approach (Zick & Bryant, 1983).

The opportunity cost approach sets the value of the time spent in household work equal to the wages that a person could earn in the marketplace. Ferber and Birnbaum (1980) mention the problems in using the opportunity cost approach: ". . . the opportunity cost approach at best only provides us with a lower limit of value of housework, fails to take into account the value of housework of the market worker, and includes the value of the homemaker's additional leisure" (p.391).

The opportunity cost approach also ignores the role that tradition plays in the choice of whether a woman stays home or whether she enters the marketplace. If she chooses to stay home because that is the tradition in her family, then Ferber and Birnbaum

(1980) believe it cannot be assumed that the value of home work activities for the time involved is equal to what she could earn in the marketplace. Also, the opportunity cost approach does not take into consideration the number of hours worked in the marketplace, which vary with the job the person is doing. Finally, Ferber and Birnbaum note the inability of the person out of the labor market to know how much could be earned if she were to enter the labor market, thus leaving her indecisive as to what her time at home is worth.

The market cost approach is used when the price of hiring someone from the marketplace to carry out the household activity determines the value of the time in that activity. Walker and Gauger (1973) describe it simply as:

When the household services are turned over to someone else to produce,

they have a money value--the value of the time spent by the worker. The

same services are just as valuable when provided by a family member.

Consequently, a money value can be given by valuing the time the family

spends on household work at the wage rates that would be paid to others

for the same services. (Walker & Gauger, 1973, p.9)

Walker and Gauger (1973) found that the market wage rates for workers to carry out household activities usually done by family members were "consistently conservative, and they provide a minimum estimate of value" (p.11). Ferber and Birnbaum (1980) concluded that the market cost approach was more acceptable than the opportunity cost approach for estimating the value of household work.

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Zick and Bryant (1983) reviewed the advantages and disadvantages of the market cost and opportunity cost approaches for placing a value on home work time. A disadvantage of the market cost approach is the exclusion of the management component in household work. If someone were hired to carry out the household activities, someone in the household would have to manage that person, a cost that is not considered. A second weakness is that, because not everyone purchases the market alternatives, many people fail to view the market alternative as a perfect substitute. Families who perform the household activities themselves believe that this is less expensive than hiring someone else to do it for them. A third weakness identified by Zick and Bryant is that time spent in household production varies from individual to individual, and this difference may be due in part to the type of equipment used. In the example of a paid substitute using capital equipment, the family perceives a higher marginal cost.

In reviewing the opportunity cost method, Zick and Bryant (1983) identified the market wage rate as the predetermined appropriate opportunity cost measure. They point out that the most serious objection, the use of wage rates which only provides "...an appropriate measure of the value of an individual's marginal time input" (p.135), is also a criticism of the market cost approach. The last weakness noted is that people who do not work in the marketplace do not have a wage rate and thus it is difficult to value their time.

Zick and Bryant (1983) presented the newly developed opportunity cost technique, the reservation wage, which treats homemaking as a full-time occupation similar to any self-employment occupation. They explain reservation wage through the use of a graph

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and conclude that, by using the reservation wage method, homemakers' wages are based on the marginal utility derived from the nonmarket time. The reservation wage has a higher value than the market wage because homemakers have chosen to stay home rather than get a job and draw a market wage. The reservation wage for the woman who works outside the home is her wage rate. The reservation wage for homemakers is a hidden wage that cannot be measured directly.

Zick and Bryant (1983) empirically compared the performance of the market cost alternative method and the reservation wage method for estimating the value of nonmarket time. They found much higher estimates with the reservation wage method. They explain that the two methods should yield different estimates because the methods are measuring two different constructs. The reservation wage method measures the cost for an hour of nonmarket work, whereas the market cost alternative measures the cost of purchasing market produced substitutes for the homemaker's activities. They state that research which employs the market cost method underestimates the value of the wife's home time.

Time has been an important variable in studying household production. The critical issue of how time is valued, and the various ways to place a value on the time used, in household production or in nonmarket time has been an ongoing topic of research. Nonmarket time is all time when a person is not involved in market work; thus, nonmarket time may include activities other than household production activities. Leisure time often is overlooked.

Leisure Activities vs. Household Work Activities

The majority of household production studies conducted by home economists and economists include the two categories of nonmarket and market time. Market time is the time spent in paid work. Nonmarket time is the remaining time and embodies household activities like child care, cooking, cleaning, and clothing care. No distinction is made between nonmarket household work activities and leisure activities.

Researchers in sociology, especially in feminist research, have looked at household work and leisure activities. In feminist research, sociologists have slowly come to recognize an interaction among three time uses: market work, unpaid work, and leisure activities (Wimbush & Talbot, 1988). The unpaid work activities identified in sociology are similar to nonmarket time activities in household production research.

Household work activities, as classified under household production, may not be work activities for every woman. Sociology research focuses on leisure activities and household work activities for women. A problem arises because some work activities in the household can be leisure activities, according to the individual. It is important to look at household work activities versus leisure activities in order to have a framework for investigating the activity of sewing.

Sewing is not considered a pure work activity nor is it considered a pure leisure activity. Deem (1986), in her book All Work and No Play? The Sociology of Women and Leisure, points out that at times sewing activities are work activities and at times they are simultaneously work and leisure. She points out that sewing is an in-home activity which

is difficult to separate into non-paid work activity or leisure activity for a woman. She states that sewing is enjoyable under certain conditions: "Knitting and sewing may be undertaken as a way of saving expenditure on clothes or as an activity which is itself enjoyable and can be done whilst talking, watching TV or in odd moments of time snatched from the daily routine" (p. 34).

Berheide's (1976) research on women's work and leisure activities used survey and diary schemes to collect data on household work and leisure activities. She resolved, "All the sewing tasks will be regarded as household work since they are home production and I am not making a distinction between the two" (p.133). In the diary aspect of the research, respondents used a work-leisure scale to rate activities as work, mixed, or leisure, giving the activity a 1, 2, or 3 respectively. On the feelings scale, they rated eight feelings toward the tasks which were scored 2, 1, or 0 indicating positive, neutral, or negative feelings, respectively. The correlation between the results with the feeling scale and the work-leisure scale was positive and high (r = .64).

Berheide reported on five sewing tasks that had the following mean ratings for the work-leisure and feelings scales (p.145):

Task	Work-Leisure Scale		Feelings Scale	
	Mean	Number	Mean	Number
Whole Sewing				
Process	2.40	15	1.75	16
Cutting Out	3.00	2	1.00	2
Pinning	2.00	2	1.00	2

Task	Work-Leisure Scale		Feelings Scale	
	Mean	Number	Mean	Number
Planning	2.00	1	2.00	1
Mending	1.56	16	1.60	17

Berheide noted that many hobby activities, such as sewing, received more leisure type scores, but also had dimensions that were considered work. This indicates that sewing has been considered both a work and a leisure activity.

She further investigated six characteristics of household work: task content, time of day, accomplishment, the work environment, feelings, and biographical characteristics, that could be used as predictors of work-leisure scores. She found that the characteristics of task content, feelings, and the time of day the task began explained most of the variance in work-leisure scores; however, there was difficulty with the feelings characteristic and the time characteristic. She was not sure whether the later in the day (time variable) an activity was started implied that it was a leisure activity, or whether it was first labeled as a leisure activity (feelings) and so it was usually carried out in the evening as most leisure activities are.

Beirheide concludes, "Women's perceptions of work and leisure may have important consequences on their actions" (p.399). For example, if a woman perceives the entire process of clothing construction as a leisure activity, she may choose to participate in that activity more than if she perceives sewing to be a work activity. Beirheide suggests using a more sensitive work-leisure scale of: 1) work, 2) primarily work-secondarily

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leisure, 3) mixed, 4) primarily leisure-secondarily work, 5) leisure, and 6) neither work nor leisure, for rating activities. Thus, one important finding is that unpaid work activities and leisure activities may not be mutually exclusive.

Researchers in the field of marketing also have been interested in women's leisure time use because of the implications for the way products are marketed. McCall (1977) found a difference in the use of leisure time for employed and nonemployed women. She found that the "workwife", the married woman working outside the home, enjoyed and valued leisure time activities and used those activities for her own pleasure. McCall hypothesized that the added income of the workwife had enabled her to participate in activities that "... compensate for the time consumed in her work" (p.58).

Home economists, sociologists, and marketing professionals are concerned with nonmarket activities in work or leisure and with the use of nonmarket time. The present research is concerned with the implications of where various sewing activities fall on the continuum between work activities and leisure activities. In household production, utility, the satisfaction gained from an activity, plays an important role in whether the activity is considered leisure or work.

An important result of Beirheide's research was the conclusion that "women perceive more utilities in labor force participation than in most housework tasks" (p.400). She further suggests that this could be investigated for its impact on the decision of women to enter the paid labor force rather than choosing the nonmarket route. Literature

on the relationship between market-employed women and household production activities is reviewed next.

Women Employed In The Marketplace

In the 1990s, it is unusual for a woman to be engaged in only nonmarket work activities since the norm is for women to work in the marketplace. In the 1940s, three out of 10 women were employed. In 1988, more than seven out of 10 women were employed, and it was projected that this participation would steadily increase until the year 2000 (Shank, 1988). "In 1989, 69 percent of all women 18 to 64 years of age, or 53.1 million women, were in the civilian labor force compared with 88 percent of all men in this age group" ("Facts On U.S. Working Women", 1990, p.1). The Bureau of Labor Statistics projected that women's labor force participation rates would be as high as 47% of the labor force by the year 2000, which is an increase from 39% in 1972; 60% of the growth in the total labor force would be because of women entering the paid labor force (Fullerton, 1987).

Not only has the sheer number of women employed in market work increased, the number of hours and the number of weeks per year that women spend in market work are more than they were 10 or 20 years ago. Full time is considered to be 35 or more hours per week. In 1986, 88% of all employed women worked full time, for an average of 37 hours per week. Year-round employment of 50 to 52 weeks on a full time basis for women 25 to 54 years old has increased; in 1986, 57% of all employed women worked

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year round (Shank, 1988). The dramatic change in women's labor market participation is "...clearly both a product and a cause of many profound social and economic changes that have occurred in the United States over the last 40 years" (Shank, 1988, p. 3). One institution that has felt the effect is the household, and thus the household production activities.

The changes in the number of employed women and the number of hours and weeks they spend in market work mean less time is available for household production (Nickols & Metzen, 1978; Vickery, 1979). McCall (1977) indicated that the time involved in household activities could drop by 25% when a woman engages in market work. Women's loss of time for household production can have great implications for increased involvement of other family members in household production activities and for the purchase of goods and services to replace the lost production of women (Vickery, 1979).

McCall (1977) coined the term workwife to describe the woman who works in the marketplace and is a member of a husband-wife family with children under the age of 18. In the past the majority of employed women were either single, or they had husbands who had left them or were unable to provide adequate income. According to McCall (1977), workwives wield substantial consumer power over families and the marketplace, they look for convenience in items, and they contribute to the financial stability of the family.

In 1984, McCall identified the growth in number of household types besides those with workwives used in her 1977 study. "Singles represent a 40 percent growth, and elderly (age 65 and over) show a 25 percent increase. Most acceleration in household type, however, has occurred in the number of unmarried couples living together, which has tripled, and in the number of divorced persons, which has doubled" (pp. 91-92). However, McCall focused on the workwife and the consumer power that she has in relation to the marketing of products.

No research was found on the time use of single working women. Most research is conducted on husband-wife family units. More women than ever are working in the marketplace. This includes women who have never been married, are married, have families, and are divorced. McCall (1984), in drawing conclusions from her 1977 workwife study, stated, "work affects the consumer behavior of females not solely because of the act of work itself but rather because of the time consumed by work" (p.94).

Vickery (1979) outlined the differences in consumption patterns between a woman engaged in nonmarket work and a woman just entering the marketplace to work. She states, "Theoretically, the wife will want to buy some of the household services she no longer has time to provide, but realistically such options may be limited" (p.169). The areas where services are purchased include meal preparation, household operations, child care, and clothing acquisition and care. An important relationship between household production and the working woman is that the workwife has fewer hours for household

production activities; therefore, all activities cannot be done by her, or the family must be satisfied with a lower quantity or quality.

Household Decision Making

Household production literature focuses on the decision-making household as a consuming and producing unit. Consumption and production decisions are made by maximizing utility under income and time constraints. Researchers recognize that the members of the household unit participate in consumption and production activities and that some members participate in some activities more than others. It is the household unit's decisions that are important (Beutler & Owen, 1980; Gerner & Zick, 1983; Reid, 1934; Walker & Woods, 1976). But how are those decisions made and who has more influence in those decisions--the husband, the wife, or perhaps the children? Who influences the decisions made by the single person? What role do traditions and preferences have in decisions? How many decisions are made because the member responsible for making the decision perceives that other members of the family or friends want her to carry out an activity in a certain way? These questions are important to this study.

Rational decision-making occurs when a person consciously weighs alternatives by searching for available information on each. From the information available, the person can identify the consequences and then make a decision. "Knowledge of a decision's consequences can come from experience, experimentation, a search for information or any

combination of these" (Deacon & Firebaugh, 1989, p.66). Looking for alternatives, weighing those alternatives, perceiving the consequences, and making the decision are conscious acts in rational decision-making; whereas, in intuitive decision-making all of the steps are conceptualized and the decision is made without looking at each step individually. Individual decisions can be influenced by experiences. Deacon and Firebaugh (1989) explain, "Facts or experience may provide some insight, but an interrelating of unknowns may occur and result in a conscious sense of rightness or wrongness about some situation" (p.71).

In Deacon and Firebaugh's book, Family Resource Management Principles and Applications, they discuss heuristics as guidelines for decision-making and how people process information from experiences and facts. The three types of heuristics they discuss for making judgments are "familiar objects or subjects", "availability", and "adjustment and anchoring" (p. 71). An example of familiar objects or subjects is deciding to have the dry cleaner hem a dress because of knowledge of that service from previous experience. An example of availability is knowing that a certain dressmaker is able to make a wedding gown because she made a friend's wedding gown. An adjustment and anchoring example would be to start decision-making with the anchor of wanting to have a suit custom-made similar to one that had been made before. Further decisions on the new suit are made according to what fabrics and notions are obtainable and at what prices they are available. These individual decision-making processes are important because it can be an individual

within a family or a single person making decisions; however, the dynamics of family decision-making also need to be examined.

Three types of family decision-making are discussed by Deacon and Firebaugh (1989). The first is consensual which involves all family members coming to a consensus on the decision. The second is accommodation in which a dominant person gets the family to accept his or her desires even if the other family members do not support the decision entirely. The third is de facto in which a decision is made because there is a "lack of dissent rather than by active assent, and more important, commitment is by the course of events rather than by acceptance" (p.72).

It is important to look at how decisions are made both individually and in the family setting because decisions do not just happen. This review has pointed out that family members can have input into the decision-making process, that preferences and traditions may play a role in the process, and that the preferences and traditions of the influencing family members may be determining factors in making a decision. Key points made by Deacon and Firebaugh (1989) are that, in families, individual preferences and shared preferences can play a role in decision-making, and that the formerly dominant influence of husbands in family decisions is changing as the wife increasingly has equal influence.

Clothing Acquisition and Consumption

The household activities pertinent to this study are embodied in the clothing consumption process. Winakor (1969) defines clothing consumption as "the whole process of acquiring, storing, using, maintaining, and discarding clothing" (p.629). This research focuses on the areas of acquisition and maintenance, or care and repair, of clothing. Of the various clothing sources stated by Winakor, the pertinent acquisition sources for this research are purchase of sewing services, home construction, and making over.

Clothing care includes general maintenance, mending, and repair. Clothing care, in Winakor's model, has a reciprocal relationship with active storage of clothes and inactive storage of clothes. Clothes move in and out of active storage as they are worn and maintained. Clothes move in and out of inactive storage for various reasons such as change of seasons, change in body size, special occasions, or making them wearable again by repair, remaking, or alteration. Once an item is wearable, it is then available to move back into active storage. The clothing inventory cycles through this consumption process as each piece of clothing is used, maintained, discarded, and perhaps replaced with another piece of clothing that is acquired.

Evaluative Criteria For Selecting Apparel

In reviewing clothing consumption, specifically the acquisition of clothing, it is important to look at the evaluative qualities for choosing apparel or the criteria that

influence women's purchase of clothing. A great body of literature exists on the quality of clothing and the evaluative criteria for choosing apparel. The literature cited here deals specifically with selection criteria used by employed women.

Employed women use a variety of criteria when evaluating clothing for purchase. Over 50% of the workwives in McCall's 1977 study were concerned with "how flattering" a garment looked on them; in contrast, only two percent were concerned with how fashionable the clothing was. "Less than 5% needed advice from their spouse or family member before purchasing personal clothing, reflecting strong independence" (p.61). McCall (1977) gave the following list of criteria used by the workwives in her study in considering clothing selection.

Working Status

Criteria	Nonemployed	Part-time	Full-time
Price	24%	16%	12%
Suitability for Work	2%	5%	23%
High Fashion	1%	4%	4%
How Flattering	61%	69%	47%
Family Approval	4%	2%	5%
Don't Know	1%	-	1%
Other	7%	4%	8%

Cassill and Drake (1987a) factor analyzed female consumers' apparel selection

criteria, lifestyles, and social and employment apparel. One set of variables clustered as

evaluative criteria for employment apparel. Three evaluative criteria factors formed for

social apparel. The evaluative criteria that emerged for employment apparel included the

following variables in descending order of loading:

Good Fit
Comfort
Suitability to Individual
Appropriate for Occasion
Quality of Construction
Durability
Fabric Type and Quality
Beautiful or Attractive
Fashionable
Color
Good Buy
Ease of Care
Price
Fiber Content
Pleasing to Others
Prestige
Brand and Store
(Cassill & Drake, 1987a, p.24)

In their sample, 80% of the women were employed outside of the home and were used as

a subsample for determining factors. Cassill and Drake concluded, "Working women look

for a host of benefits in their apparel for employment with good fit, comfort, suitability,

appropriateness, quality, durability, and attractiveness being high on their list" (p. 27).

Cassill and Drake (1987b) analyzed the relationship between four employment

orientations and the three evaluative criteria factors for social apparel. They defined

employment orientation as "a person's attitude toward employment outside of the home"

(p.24). Each respondent categorized herself in one of four designated employment

orientation groups: Career-Oriented, Just-a-Job, Plan-to-Work, or Stay-at-Home. The

three evaluative criteria for social apparel included appropriateness, economic, and other-

people directed. The following variables clustered into the three evaluative criteria:

Appropriateness:	Suitability to individual, good fit, beautiful or attractive, quality of construction, appropriateness for occasion, comfort, fabric type and quality
Economic:	Good buy, price, ease of care, durability
Other-People Directed:	Brand and store name, sexy, prestige, fashionable

Cassill and Drake (1987b) statistically evaluated the data by contrasting the mean

values of the three evaluative criteria at the poles in each of the following sets of

respondent categories: (1) job versus career, (2) plan-to-work versus stay-at-home, and

(3) employed versus nonemployed. They found that the participants' social apparel

evaluative criteria were influenced by the women's employment orientations. The

appropriateness factor was significantly more important to the career oriented women than

to the just-a-job women. These two employed groups also differed significantly on the economic factor, with the just-a-job women testing highest on this factor.

Cassill and Drake (1987b) concluded that employment orientation influenced evaluative criteria but other variables may be influencing those criteria. They based their explanation on the theoretical framework used for the study in which reference groups and family, along with employment orientation, could influence evaluative criteria. "Reference group/family influences (i.e., one's peers, work associates, relatives) may intervene in the consumer decision process to modify, inhibit, or inactivate criteria" (p.32).

Wright and Francis (1987) found that career women were willing to trade off styling options in career dressing for a greater number of size options. As the career women experienced more fitting problems, they became less satisfied with their career clothes. Wright and Francis (1987) found that some of the measures taken by their respondents to achieve proper fit included "...altering their own garments, wore poorly fitting garments, sewed their own career clothing, and paid to have ready-to-wear altered" (p. 137). Two other options included refusing to purchase ready-to-wear that fit poorly or hiring a seamstress to make custom clothing for them.

In research on the relative importance of selected purchasing factors for women in five occupational categories, Van Slyke (1988) found that all women in the sample ranked "feels comfortable" and "fits well" as very important in purchasing work apparel. Additionally, five factors including "I like it," "easy care," "in a price range I can afford,"

"quality construction and fabric," and "good color on me" were ranked as important. "Expressed individuality", "meets employer expectations," "fashionable garment," and "similar to what co-workers are wearing" were the four least important factors to these employed women.

In open-ended questions asked of store patrons after trying on garments, Eckman, Damhorst, and Kadolph (1990) assigned responses to 16 categories of evaluative criteria. They further grouped these 16 responses into four general categories: (1) aesthetic criteria, (2) usefulness criteria, (3) performance and quality criteria, and (4) extrinsic criteria. When asked about evaluative criteria used when buying garments in general, 57% of the respondents identified styling, workmanship, appearance, fit, and color/pattern. "Styling, color/pattern, fit, fabric, appearance, and price in that order were the most frequently mentioned criteria for evaluating specific garments" (Eckman, Damhorst, & Kadolph, 1990, p.18). The researchers found that respondents were especially concerned with the performance criteria related to fit. It is important to note that 60% of the sample in this study were holding mid-level white collar, managerial, and professional jobs.

As evidenced from the six articles reviewed above, employed women use a variety of evaluative criteria for the selection and purchase of apparel. A general finding is that they identified good fit as a common criterion; however, according to Cassill and Drake (1987b), just-a-job women did not cite good fit as a significant criterion in choosing social apparel. Four of the articles cited quality of construction as another common criterion

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along with fabric, comfort, suitability for the individual, price, and beautiful or attractive.

When these criteria are not met, the alternatives to purchasing ready-to-wear include not

purchasing anything and wearing the existing clothing in the wardrobe, substituting

purchased ready-to-wear with home sewn garments, or finding a custom seamstress to

make individualized garments.

Home Sewing Trends

Sewing new items and mending are traditional household production activities

(Norton, 1984). Historically, clothing production and mending were done almost entirely

in the pioneer home. Gradually during the 19th century, factories were established that

produced men's and boys' ready-to-wear clothing. Women's ready-to-wear manufacturing

took longer to develop. In the 19th century, sewing remained a necessary homemaking

skill for women and was often the center of women's social activities. Even as ready-to-

wear became more popular as the means for obtaining garments, mending still remained a

female household activity. Throughout history, dressmakers, tailors, and seamstresses

have provided clothing services only as alternatives to home sewn and factory made

garments (Norton, 1984; Tamburrino, 1992). The home sewing industry, which furnishes

sewing equipment and supplies to users, declined gradually during the 20th century and

then went into a steep decline in the 1970s that lasted until 1986 (Ambry, 1988). One part

of the sewing industry is retail fabric sales which in 1980 exceeded $2.5 billion; through

the 1980s, sales dropped to approximately $1.9 billion, but in 1990 rebounded to a solid $2.5 billion (Strom, 1992).

Against this background, this review of sewing trends includes information on the amount and types of home sewing being performed, changes in sewing education related to home sewing, the impact of working women on home sewing, and the change in purpose of home sewing from a household work activity to a leisure activity.

Amount of home sewing and mending. In 1982, Courtless concluded from research on expenditure data that home sewing had declined for such reasons as women taking jobs outside the home, a decrease in home space alloted for sewing, and the lack of sewing education in schools. Courtless (1985) cited a time study which showed that only 15% of the women subjects who recorded activities in a seven day period reported time in sewing activities, even though 40% of the women in the study listed sewing as a hobby. She concluded, "Apparently, many sewers do not sew every week" (p.1).

Ambry (1988) reported from the Bureau of Labor Statistics Consumer Expenditure Survey that from 1973 to 1985 the percent of households who purchased sewing notions, patterns, and fabric decreased from 44% to 13%. Based on marketing research, Ambry (1988) surmised that the major person sewing is the highly educated woman employed outside the home in the age range of 25 to 44.

Huston (1986), in her research entitled Home Clothing Production of Utah Professional Women, ascertained that 57% of her sample sewed. Fifty-five percent of the

women who worked full time outside the home sewed, in contrast to 70% of the women who worked part time. Mending comprised over 90% of sewing done by the women who sewed, with approximately 85% indicating they sewed other items such as crafts, costumes and household furnishing items. Seventy percent of the sewers indicated that they altered clothing, sewed for family, or sewed for themselves. They gave as reasons for sewing, in descending order of frequency: economy, enjoyment, self-accomplishment, and the need to obtain a better fit. The nonsewers' reasons for not sewing, in descending order of importance, included: lack of time, lack of desire to sew, lack of enjoyment of the sewing activity, and dissatisfaction with the final garment. Only approximately 20% of the nonsewing women did not own a sewing machine.

Huston (1986) tested for a significant difference between the time the women spent sewing before and after entering the paid labor force. She found a significant difference, and also significant differences in four of the five types of sewing done by the women before and after they worked outside of the home.

Sewing education. Because of the lack of formal sewing training in the public school system, an entire generation of people lacks sewing skills (Forman, 1986; Samuels, 1994). Murphey and Stewart (1990) identified six reasons for a decreased amount of time spent on sewing education in the public schools in Virginia. These reasons included: students being home less time than formerly, therefore having less time for sewing; students choosing to spend their money in ways other than purchasing sewing supplies and

equipment; difficulty in locating patterns simple enough for beginners; decreased availability of fabrics and notions due to fewer fabric stores; and students seeing sewing as "old-fashioned".

The reduction of clothing construction classes in schools has created a need for teaching sewing in other ways. Retail fabric stores and independent teachers have capitalized on this need by creating businesses, in-store classes, and marketing opportunities for fabric stores to fill the gap (Bogart, 1987; Forman, 1986; Gardner, 1992; Samuels, 1993, 1994).

1990s home sewing focus. Caldwell and Jernigan (1988) attribute the late-1980s revitalization in the home sewing industry, after a steady decline in the 1970s, to the change in how home sewing was marketed to sewers. The change reflected the changes in lifestyles and interests of the home sewing enthusiasts. The popular areas of home sewing in 1993 included home decorations, wearable art, and dollmaking (Samuels, 1994). Home sewing has slowly emerged from the decline of the 1970s and early 1980s as primarily a leisure activity (Gardner, 1993). Economy is not a primary reason for women to take up sewing. Therapeutic reasons, such as mental therapy and the satisfaction of working with one's hands, are identified as primary reasons for women to sew in the 1990s (Forman, 1986; Gardner, 1993; "Sewing's Comeback," 1991). Kean and Levin (1989) found, through a 30-year review of literature, that the two major reasons for sewing were economy and creativity.

Because of the decline in the number of women sewing, the overall number of

stores offering fabrics and sewing supplies, whether department stores, chain stores or

independent stores, has decreased. According to Frings (1987), "In the United States, the

independent retail fabric store has replaced the department store as the primary supplier of

fabrics, patterns, and supplies to the home sewer" (p. 242). The surviving stores have

changed their emphasis from mainly fabrics for sewing apparel to fabrics and supplies for

sewing home decorations and crafts (Ambry, 1988; Samuels, 1994). Based on an analysis

of fabric store purchasers, Caldwell and Jernigan (1988) profiled three retail fabric

customers as follows:

> **Fabric Chain Store Customers**: They were most likely to be married,
> 20-29 years of age, and have one child under five years of age. The
> majority were employed full time, had completed some college, and
> reported family incomes of $10,000-$30,000.

> **Home Sales Representatives' Customers:** The majority were married, 25
> year of age or older, and most likely to have one child. Their ages were
> equally distributed between the ranges of 30-39, 40-49, and 50-59. Most
> had attended some college, and a large number had completed graduate
> degrees.

> **Independent Fabric Store Customers:** They were most likely to be
> married, 40-49 years of age, and have one child 25 years of age or older.
> Most were employed full time, had completed some college, and reported
> family incomes of $50,000 and over.

Each of these three groups of customers in this study ranked different reasons for sewing. The reasons ranked number one, which were statistically significant, were economy for fabric chain store customers and personal satisfaction for independent fabric store customers. Home sales representative customers had no reasons that were statistically significant in this study. Caldwell and Jernigan (1988) recommended that, in order to survive in the future, fabric stores will need to focus their marketing strategies on the benefits of sewing including personal satisfaction, time savings, and aesthetic expression.

Kean and Levin (1989) studied orientations toward home sewing through a survey containing an opinion measure. This measure consisted of 60 statements, 27 of which dealt with orientations toward home sewing, answered on a 5-point Likert scale. Participants rated their own sewing skill level as novice, intermediate, or expert, and they answered demographic questions. Seventy percent of the participants were employed outside of the home. Using factor analysis and test-retest validation, seven sewing factors were isolated: economic, practical, use of resources, craft interest, fashion interest, satisfaction, and knowledge. Using cluster analysis, five sewing clusters were identified: Utilitarian, Practical, Craft-oriented, Upscale, and Indifferent. Analysis of variance on the five clusters, using the seven orientations, showed significant differences between the clusters but no differences between the groups' demographic profiles. In contrast, Morales' (1989) study on home sewers, with a majority of the sample consisting of married, full-time homemakers aged 31-40, showed that these homemakers sewed for economic and creative reasons. Neither reason was statistically significant in relation to

the type of sewing equipment owned. Women who owned sergers had more incidence of sewing women's clothing than did those who only owned a regular sewing machine.

The decline in the home sewing industry in the 1970s and early 1980s and the resurgence in the 1990s forced the home sewing machine industry to focus on updating equipment and machines. The new sewing machines are easier and more fun to use compared to grandma's "no-frills" machines. The new sewing machines must compete with the home electronics market and the high technology of kitchen appliances, home computers, and video games (Bogart, 1987; Forman, 1986).

As technology drives change in the home sewing industry, new methods for solving old problems, such as successful fitting of nonstandard figures, are being developed. Caldwell and Workman (1993) investigated the concept of developing and selling personalized, custom fitted patterns. Using Likert scaled questions, they surveyed fabric retailers' reactions to the concept. One advantage identified was the opportunity to have custom fitted garments without employing a seamstress at a considerable cost.

Even though Norton (1984) concluded that, compared to the past, fewer 20th century women have learned sewing skills, Ambry (1988) projected that "the prime markets for home sewing should grow through the year 2000, as the number of households headed by 35-to-54 year-olds increases by 41 percent" (p.38). It is evident that the home sewing industry has become upscale and focused on the three prime areas of crafts, home decoration, and fashion sewing. Also, the industry recognizes four areas that

will be important to them in the future: education, store attrition, new product

development, and niche marketing (Samuels, 1994).

Important to this research is an overall understanding of household production

theory with emphasis on the construct of time, women's employment and the changes it

causes in household production, household decision-making, and the process of clothing

consumption in relation to apparel services. All of these were reviewed in the previous

section. The subsequent subject area to review is household production research, which

integrates and interrelates the four areas introduced in this section of the review.

Household Production Research

Time Research

"Time use is of ultimate concern because time is the ultimate resource" (Nickols,

1986, p.173). Household production time use in relation to clothing care and acquisition

is important to this study. The concepts of time value and time allocation in the

household were introduced earlier in this review along with methods of measuring the

value of household production time. The methods, which use the market cost and

opportunity cost approaches, and the research related to these two concepts are all based

on economic evaluations. Thus, no research is available which applies to these two

concepts as they are used in the present research.

Studies on time use fall along a continuum ranging from research focusing solely

on household production time use to research covering the total time distribution among

household production, leisure, and market work. The relationships concerning the time

spent in household production, leisure, and market work and the influences on the

distribution of time among the three, are aspects of the review to follow.

Amount of Time

The time available to each woman is 24 hours per day. How a woman allocates

her time among household production, market work, and leisure, how this allocation has

changed over time, and what influences the distribution among the three are important and

will be addressed in concluding this household production research review. Also

important is the amount of time spent on individual household production activities, which

will be examined first with an emphasis on clothing care and construction activities.

Time spent in clothing related activities. Two comprehensive studies of time

allocation in household production, which include clothing care and construction, are

significant. Little comprehensive time use research is found in the literature due to the

large expense of such research. Walker and Woods (1976) report a study conducted on

data they collected in 1967-1968, and Lovingood (1981) reports on a Northeastern

Regional Research Project of the USDA Science and Education Administration conducted

in 1977-1978. Since the Northeastern project, no large household time use studies have

appeared in the research literature. However, the data from the Northeastern Regional

Research Project (NE-113) have been analyzed in various ways using either the entire data

set or subsets of it. These studies all include clothing care and construction either as

individual variables or in an aggregate household work variable (Abdel-Ghany & Nickols, 1983; Bryant & Wang, 1990; Gerner & Zick, 1983; Hilton, 1990; Key, 1990; Lovingood & McCullough, 1986; Mauldin & Meeks, 1990; Nickols & Abdel-Ghany, 1983; Olson, Ponzetti, & Olson, 1989; Zick & Bryant, 1983). Because the studies varied in purpose and results, they yielded no one general statement about time use even though they utilized the same data set or subsets of the data.

Walker and Woods' (1976) research included the three clothing care activities of washing, ironing, and special clothing care. Of these, special clothing care is most relevant to this review. Special clothing care, which comprised clothing construction, repair, alterations, and various other clothing care activities not included in washing and ironing, was weakly related to the education of wives: the higher the education level, the more time was spent on this activity. However, when the wife was employed the time spent on special clothing care decreased, as it did when young children were present. The presence of young children also decreased washing and ironing time, but not by as much. The average daily time spent on special clothing care by households with either nonemployed or employed wives was 0.4 hour and increased with the age of the youngest child. Using the Walker and Woods data, Stafford (1983) found that, as employed women increased their time spent in the marketplace, they decreased the time spent in clothing care activities in the household.

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Sanik (1981) reproduced Walker and Woods' (1976) study in 1977 and compared her data with the original Walker and Woods (1976) data. She found that the amount of total family time which two-parent, two-child households spent in clothing care and construction was less. The average time spent in clothing care, which included clothing construction activities, was 0.9 hour per day as compared to 1.3 hours per day in Walker and Woods' study. The decreases are directly related to the wives' decrease in time spent on household production activities.

Lovingood (1981) found that the average minutes per day spent in construction of clothing and household linens by homemakers in two-parent, two-child households were similar, and showed high variability, for urban and rural homemakers. Urban homemakers spent a mean of 18 minutes per day in construction of clothing and household linens, and rural homemakers spent 21. The mean number of minutes these homemakers spent in paid work also was highly variable, though generally low. Overall, urban homemakers spent a mean of 109 minutes per day in paid work, and rural homemakers spent 102 minutes.

Hiatt and Godwin (1990), using data independent of the NE-113 data, discovered that women's mean time allocation to clothing care was 44 minutes on weekdays and 1 hour 16 minutes on weekend days. Participants judged clothing care to be time consuming, and few wanted to increase the amount of time they spent in clothing care.

Using NE-113 data, Lovingood and McCullough (1986) found that the proportion of families owning sewing machines did not depend on the family income level and that the

proportion of owners to nonowners remained fairly constant over all income levels;

however, the number of families owning sewing machines did increase as the age of the

youngest child increased. The time spent in clothing construction activities increased

significantly for families who owned sewing machines over families who did not own

sewing machines.

Hilton (1990) utilized the California segment of the NE-113 two-parent/two-child

household data in conjunction with a new sample of 81 one-parent/two-child households

in order to look at clothing care and construction activities. She found that, as the age of

the youngest child increased, families increased the amount of time spent in clothing

construction. Both family types, single-parent and two-parent, did not significantly reduce

the amount of clothing care time when the parents in each family type were engaged in

market work. Using the NE-113 data, Key (1990) found that dishwashing and clothing

care activities were complementary activities for homemakers: when the homemaker

allocates more time to one of these activities, the time allocated to the other activity

increases. Clothing care activities in this study included both care and construction.

From the studies reviewed, it can be concluded that time in the household is

allotted to clothing activities and that the amount of time alloted may vary according to

such variables as women's employment outside of the home, number of parents present,

age of the youngest child, and sewing machine ownership.

<u>Overall Time Allocation Research</u>. Nickols (1986) reviewed household time

allocation research conducted from 1953 through 1978 at Agricultural Experiment

Stations. Her chronological research record shows that the focus moved from including

only nonemployed homemaker's time involvement in household production to later

including the time of the entire family, husbands, children, and full-time employed

homemakers. She points out that two critical groups need to be researched more in depth:

one-parent households and households of older couples which constitute a large part of

our present population. A few recent studies, such as those of Hilton (1990), Mauldin and

Meeks (1990), and Rowland, Nickols and Dodder (1986), which were conducted on one-

parent families will be included in this review. Nickols (1986) made further

recommendations for research in the household time allocation area: revision of the list of

household activities to include more contemporary activities; and research on the time

involvement of males and females in the paid labor force versus in household work,

leisure, and personal care. Several recent studies have investigated women's distribution

of time between paid labor, household work, and leisure (Abdel-Ghany & Nickols, 1983;

Bryant & Wang, 1990; Hafstrom & Schram, 1983; Hiatt & Godwin, 1990; Mauldin &

Meeks, 1990; Nickols & Abdel-Ghany, 1983; Nickols & Metzen, 1978; Rowland et al.,

1986; Stafford, 1983).

Nickols and Metzen (1978), and later Hafstrom and Schram (1983), based their

independent variables on the theory that household production activities are a function of

"pressures toward greater time inputs," "constraints on time inputs," and "facilitators of

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household activity" (Hafstrom & Schram, p.252). Pressures were measured using the variables of family size, presence of younger children, and a chronic health condition of the wife. Constraints were measured using the variables of the wife's usual number of hours in the labor force per week and her occupation. Facilitators of housework activities were measured using the variables of the number of times per month a family eats out, family income before taxes, and number of stories in the house. These concepts and variables were chosen because of previous supporting research.

Nickols and Metzen (1978) found that nine of the independent variables which were considered pressures, constraints, or facilitators accounted for 25.5% of the variance in the wife's time allocation to household production. Those nine variables, ordered by their descending contribution to total variance, were wife's annual labor force hours, family size, wife's average hourly earnings, husband's annual labor force hours, age of youngest child, family money income, husband's average hourly earnings, wife's education, and wife's occupation. Hafstrom and Schram's (1983) findings included six significant independent variables which explained 33% of the variance. In descending order of contribution to total variance, they were: wife's weekly labor force hours, family size, wife's health condition, number of times family eats out per month, number of stories in house, and family income before taxes.

Table 2 summarizes other research findings on measured variables similar to those of Nickols and Metzen (1978) and Hafstrom and Schram (1983) for assessing the

Table 2 Published Research Findings on Variables Influencing Women's Time Distribution Among Household Production, Leisure, and Market Work[a]

Independent Variable	Reference		Statistically Significant Relationship
Hours of Wife in Paid Work	Nickols & Metzen (1978)	-	effect on household work hours
	Sanik (1981)	-	effect on total household production time
	Nickols & Abdel-Ghany (1983)	-	effect on leisure time and household work time
	Stafford (1983)	-	effect on total household production time and leisure time
	Rowland, Nickols, Dodder (1986)	-	effect on time mothers in one-parent households spent on family care, personal maintenance, and miscellaneous activities
		-	effect on household work time for mothers in two-parent households
	Hilton (1990)	-	effect on time in food preparation, dishwashing, housecleaning, maintenance, and physical care of family members
	Martin (1994)	-	Important predictor of time use for wife in 1965, 1975, 1985
Family Structure (One-Parent vs Two-Parent; Family Size)	Nickols & Metzen (1979) (family size)	+	effect on annual housework hours
		-	effect on annual labor force hours
	Hafstrom & Schram (1983) (family size)	+	effect on housework time
	Mauldin & Meeks (1990) (family structure)	+	Significantly related to mother's time allocated to household production for two parent families
Family Income	Nickols & Metzen (1978)	-	effect on housework time
	Hafstrom & Schram (1983)	+	effect on household work hours
	Bryant & Wang (1990)	-	effect on solitary leisure time and household work time
Age of Youngest Child	Sanik (1981)	-	effect on household time use
	Nickols & Abdel-Ghany (1983)	+	effect on leisure time
	Hilton (1990)	+	effect on time spent in shopping, maintenance, clothing construction
		-	effect on time spent in physical/nonphysical care of family members
	Martin (1994)	-	Important predictor of time use in 1965, 1975, 1985
Mother's Education	Nickols & Metzen (1979)	-	effect on housework hours
	Abdel-Ghany & Nickols (1983)	-	effect on time spent in household work
	Mauldin & Meeks (1990)	+	Effect on the probability of participation in market work
Wife's Wage Rate	Nickols & Abdel-Ghany (1983)	-	effect on leisure time
		+	effect on paid work time
	Bryant & Wang (1990)	-	effect on solitary leisure time

[a] - denotes negative relationship, + denotes positive relationship

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relationship of the pressure, facilitator, or constraint variables to household production time, market work time, and leisure time. Some of the variables that Nickols and Metzen (1978) and Hafstrom and Schram (1983) found to be significant are included. Other variables, such as wife's health condition, number of times family eats out per month, and stories in house, have not been used as consistently in other research and are not reported in the table. Family structure, though not significant in either the Nickols and Metzen (1978) study or the Hafstrom and Schram (1983) study, is included because it has been significant in other research on the distribution of time among household production, market work, and leisure.

From Table 2 it can be seen that wife's hours in paid work, family structure, family income, age of youngest child, mother's education, and wife's wage rate have been found to influence significantly women's distribution of time among household production, leisure, and market work. Thus, future research should include those independent variables, at least as control variables.

Hiatt and Godwin's (1990) research differs from other economics studies because, along with actual time use, one of the main variables was women's preferences for time use. They discovered that wives wanted more time for leisure, recreation, family tasks, and family responsibilities. "The majority are either satisfied or want to spend a little less time in employment" (p.177). The participants preferred more leisure time by reducing employment time rather than by reducing household work time.

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Nickols and Abdel-Ghany (1983) recognized that a discussion of leisure time cannot center on economic measures alone. They identified the importance of family roles and relationships in the use of leisure time. They found that the economic measures of wage rate, family income, and social class were ineffective in explaining the use of leisure time. They suggested the inclusion of a variable called household producer, which incorporates the hours in household production and constitutes a constraint in the use of leisure time. Abdel-Ghany and Nickols (1983) examined the roles of husbands and wives in households and found that time in housework tasks differed for men and women; When the characteristics of each were used in the analysis for the other sex, there was still a significant difference between the time that men and women would spend in those tasks. They concluded that this difference may be based on sex roles, but that sex roles still did not fully account for the difference in the time spent in household production by husbands and wives.

Thus, the distribution of wives' time among household production, market work, and leisure is influenced by measurable economic factors; however, the distribution decision also can be influenced by other variables such as traditions (Ferber & Birnbaum, 1980), household work roles , and other sex-related roles within the household. Hoaving summarized the research on time allocation in household production, and on time allocation among household production, leisure and market work, it is now appropriate to review research which contributes to the development of consumer profiles and purchase patterns for household services.

Consumer Profiles and Purchase Patterns

Consumer profiles and purchase patterns for household services and clothing

services will be reviewed together for specific reasons. First, few studies report household

services and clothing services separately. Second, the criterion for inclusion of a research

article in this section was that it as least included a variable on clothing services; research

that ignored clothing services or focused on clothing acquisition was excluded. Profiles

and purchase patterns of consumers of sewing services will be reviewed in a subsequent

section.

Household Services and General Clothing Services

Table 3 summarizes research on determinants of apparel service expenditures

utilizing the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CES) data.

The table is organized chronologically by the BLS sampling years from 1972 to 1989.

The CES defines clothing care/apparel services as including "coin-operated laundry and

dry cleaning (coin-op services), other laundry and dry cleaning (full-services facilities),

clothing storage, shoe repair, clothing repair, watch and jewelry repair, and clothing

rental" (Courtless, 1989, p.10). Thus, the data reflect an aggregate of many apparel

services including the sewing service of clothing repair. The CES is one of the few

expenditures data bases which separates sewing services from other apparel services for

the entire United States.

Table 3. Research, using BLS Data, on Determinants of Apparel Service Expenditures by Husband-Wife Households [a]

Reference	BLS-CES Sampling Year	Significant Independent Variables
Vickery (1979)	1972-1973	+ employed wife's wages for HWHH
Bellante & Foster (1984)	1972-1973	+ family income; wives aged 45-54 and 55-64; wife's education; blacks more for HWHH - family size (excludes children under age 6); race x income; homeowner, wife's hours in market work per week for PPW
Rubin, Riney & Molina (1990)	1972-1973 & 1984	Expenditure shares are the Dependent Variables - expenditure share on apparel services, 1972 to 1984 + income and NNW in 1972-73 & 1984 + income and PWW in 1972-73 + income and FWW in 1972-73 & 1984 + PWW and wife's age in 1984 + region; family size; wife's work status at income <$20,000 in 1972-73 + wife's age at income $20,000-$40,000 in 1984 + region at income $40,000-$60,000 in 1984
Yang & Magrabi (1989)	1984-1985	+ annual after tax family income; wife's education (some graduate school); for FWW + annual after tax family income; wife's some college education; wife's some graduate school education; nonrural households; for HWHH
Soberon-Ferrer & Dardis (1991)	1984-1985	+ husband's & wife's total market work hours; husband's wage rate; level of education; blacks; renters for HWHH - children ages 3-5; family size; for HWHH
Zhang (1991)	1984-1985	+ unearned income; wife's market work hours; husband's wage rate; husband's work hours; husband's age squared; wife's education; blacks; for HWHH - children x market hours of wife; husband's age; home ownership; for HWHH

Table 3. (continued)

Reference	BLS-CES Sampling Year	Significant Independent Variables
Foster & Mammen (1992)	1986	+ family income; college graduate; postgraduate; wife's ages 35-44, 45-54, 55-64; metropolitan statistical area residency; for HWHH - home ownership; midwest or west residency; for HWHH
Wang, Abdel-Ghany & Sharpe (1993)	1989	+ NWW; marginal propensities to spend; expected to allocate more if budgets change + NWW; average propensities to spend for apparel services (if had sociodemographic characteristics of FWW)
Wang (1992)	1989	Budget shares are the Dependent Variables + NWW, PWW, and FWW for each family type + NWW and PWW differences are significant + NWW and FWW differences are significant

Note. All dependent variables were dollar expenditures unless otherwise noted in the table.
[a] +, - denote positive or negative coefficients;
NWW = nonworking wife family;
PWW = part time working wife family;
FWW = full time working wife family;
HWHH = husband-wife households

The sample in most of the studies in Table 3 consisted of husband-wife families in which husband and wife were less than 65 years old and the husband was employed full time (35 hours or more per week) for at least 48 weeks per survey year. The only exceptions were Wang, Abdel-Ghany, and Sharpe (1993) and Wang (1992) in which full time employment for the husband was considered 40 hours per week.

Much of the research in Table 3 reported mean apparel services expenditures. Changes over time in the mean expenditures were reported, through results from different studies may not be entirely comparable. The mean clothing service expenditures for husband-wife households (HWHH) increased form $61.21 in 1972-1973 (Bellante & Foster, 1984) to $143.00 in 1989 (Foster & Mammen, 1992). However, mean expenditures were greater with employed-wife families in both time periods. For household with full-time working wives (FWW), in 1984-1985 the means reported were $133.54 (Zhang, 1991) and $123.00 (Soberon-Ferrer & Dardis, 1991); in 1989 the mean expenditure was $2,005 (Wang, 1992; Wang, Abdel-Ghany, & Sharpe, 1993). For households with nonworking wives (NWW), the 1984-1985 figure was $110.29 (Zhang, 1991) and in 1989 the mean expenditure was $1,506 (Wang, 1992; Wang, Abdel-Ghany, & Sharpe, 1993). In these studies it is difficult to compare dollar amounts across CES data years due to the lack of accounting for inflation. Thus, we can see patterns of greater expenditures for employed-wife families than by nonemployed-wife families within year and of expenditure increases over time but cannot conclude actual increases in expenditure amounts over time.

Income is a determinant of apparel service expenditures and expenditure shares in

HWHH (Bellante & Foster, 1984; Foster & Mammen, 1992; Rubin, Riney, & Molina,

1990; Yang & Magrabi, 1989), as seen in Table 3. Courtless' (1989) compilation of

descriptive statistics using the 1985 CES data showed that HWHH with incomes of

$40,000 and more had the largest expenditures for apparel services. Vickery (1979)

compared the differences in expenditures when a working wife contributed $5,000 to a

HWHH income versus when a husband in a HWHH with a nonworking wife had an

increase in pay of $5,000. When the working wife contributed the added money to the

family income, there was a significant positive relationship of the extra income to apparel

service expenditures. Wang, Abdel-Ghany, and Sharpe (1993) found that NWW spent

more on apparel services if their budgets changed with an increase in earnings. Zhang

(1991) found that unearned income, the non-wage income earned by the household, was a

positive determinant of expenditures on apparel services.

In HWHH, the presence of a wife aged 35 to 64 positively affected apparel service

expenditures (Bellante & Foster, 1984; Foster & Mammen, 1992; Rubin, Riney, &

Molina, 1990). Courtless (1985) also found this expenditure pattern in her study of

HWHH. In contrast, Zhang (1991) found the husband's age to negatively affect

expenditures for clothing services.

Women's education levels were determinants of apparel service expenditures; those

with some college to past four years of college spent more than those with no college

education (Bellante & Foster, 1984; Foster & Mammen, 1992; Soberon-Ferrer & Dardis, 1991; Yang & Magrabi, 1989; Zhang, 1991).

When race was considered for all families, it was a determining factor for apparel service expenditures for African American HWHH families (Bellante & Foster, 1984; Soberon-Ferrer & Dardis 1991; Zhang, 1991). Family size in HWHH was significant only in the study by Soberon-Ferrer and Dardis (1991), and that was a negative relationship. Home ownership and apparel service expenditures were negatively related in the studies of Foster and Mammen (1992) and Zhang (1991), whereas home rental and apparel service expenditures were positively related in the Soberon-Ferrer and Dardis (1991) research. Courtless (1989) found that homeowners spent more than renters.

Foster and Mammen (1992) found a significant positive relationship with the demographic variable of metropolitan statistical area residency, which is similar to Yang and Magrabi's (1989) finding of a positive relationship between expenditures for apparel services and nonrural households. The sample was HWHH in both cases.

Five of the studies listed in Table 3 examined the effect of the wife's work status (Bellante & Foster, 1984; Rubin, Riney & Molina, 1990; Yang & Magrabi, 1989; Wang, 1989; Wang, Abdel-Ghany & Sharpe, 1989). Because so few researchers tested the same demographic variables it is difficult to draw any broad conclusions about their influence on clothing expenditures. Similarities between the work status groups and HWHH can be noted, however. Income and apparel services budget shares have been found to be

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positively related for nonworking wife families (NWW), (Rubin, Riney & Molina, 1990; Wang, Abdel-Ghany & Sharpe, 1989), as have been income and either apparel service budget shares or dollar expenditure amounts for HWHH (Bellante & Foster, 1984; Foster & Mammen, 1992; Rubin, Riney, & Molina, 1990; Yang & Magrabi, 1989). For part-time working wife families (PWW), family size, home ownership, and the race-income interaction were negatively related to apparel service expenditure (Bellante & Foster, 1984). Rubin et al. (1990) found income in 1972-73 and wife's age in 1984 to each have a positive effect for NWW families; this is similar to patterns found for HWHH families in general. For full-time working wife families (FWW), a positive relationship between expenditures and income (Rubin, Riney & Molina, 1990; Yang & Magrabi, 1989) and between expenditures and wife's education (Yang & Magrabi, 1989) were found, relationships which are similar to those found for HWHH in general.

Based on this review, the profile for husband-wife households that purchase clothing services is a small family with a wife aged 35 to 65 and educated past four years of college, with a family annual, after-tax income of over $20,000, often black, and living in a rented urban home. The determinants of clothing service expenditures identified were the ones selected or available for investigation. Foster and Mammen (1992) make an important point that other variables, such as the availability of services and the prices of available services, could also be significant determinants of clothing service expenditures. Research which included the service price or the availability of clothing services was not found.

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Norum (1989) utilized the 1980-1981 CES data and aggregated expenditures for clothing and clothing services into one dependent variable; thus, clothing expenditures and clothing service expenditures cannot be disentangled though clothing expenditures likely dominate. A good example is found in Vickery's (1979) study where clothing, clothing services, and seven other expenditures for wives in four-person families were estimated according to wife's work status (NWW, FWW), using a regression equation and the 1972-1973 CES data. Clothing expenditures for NWW and FWW families accounted for 11% and 12% of the total expenditures, respectively. Dry cleaning/clothing care accounted for only 2% of expenditures in both work status categories. Thus, if the two clothing variables were combined, the overall clothing expenditure category would overpower the dry cleaning/clothing care category.

Substitutions for Ready-To-Wear

The practice of sewing garments at home is often identified as an alternative to purchasing ready-to-wear and is marketed as an economical way to acquire clothing (Frings, 1987; Kalka, 1984; Kean & Levin, 1989). Purchasing custom sewing services is another alternative to purchasing ready-to-wear garments (Bendel, 1989; Crutsinger & Seitz, 1991; Katz, 1991) and can also substitute for home sewing. The question is whether home sewn or custom sewn garments are accepted as good substitutes for ready-to-wear garments, or whether they are complements to purchased ready-to-wear garments.

Economic reasons for sewing are often cited (Ambry, 1988; Caldwell & Jernigan, 1988; Courtless, 1985; Holmes, 1986; Huston, 1986; Kean & Levin, 1989; Morales, 1989). If economic reasons, i.e., saving money, are important to a woman, she may consider home sewing as a substitute for buying ready-to-wear. However, Courtless (1982) found households where, as household spending on sewing increased, so did spending on ready-to-wear garments. She concluded, "Apparently home sewers were not substituting sewn garments for ready-to-wear as would be expected if the motive for sewing was to save money " (Courtless, 1982, p. 19).

The key to the difference in Courtless' two articles cited above is that in 1985 the analysis was on time spent in sewing, whereas in 1982 the analysis was on consumer expenditure data and the relationship of home sewn garments to the purchased clothing acquired for the household. Women's incomes, having time for sewing, and having sewing as a hobby were most related to home sewing time in the 1985 study. In the 1982 study, as expenditures for sewing increased so did the expenditures for clothing. Thus, whether home sewn clothes are a substitute for ready-to-wear may depend on economic factors, time factors, or hobby or leisure time activity factors. In both articles, Courtless characterized home sewing as a leisure activity acting as a creative outlet for the women involved.

Norum (1989) constructed a sewing-income interaction variable composed of household income and expenditures on sewing materials and notions. Norum then used

the sewing-income interaction term as one of a set of independent variables, and she tested its relationship to the dependent variable of expenditures on apparel. A positive relationship was shown between the sewing-income interaction and expenditures on apparel; Norum interprets this finding to indicate that as expenditures on sewing-related materials increased so did expenditures on apparel. She thus supported her hypothesis that sewing had become an upscale activity.

A second possible substitution is custom sewn garments for home sewn garments. Weagley and Norum (1989) determined that purchased clothing construction services were a substitute for home produced clothing construction. They predicted that, as the population ages, the need for market produced sewing services will increase.

The third possible substitution is purchasing custom sewn garments instead of ready-to-wear. Crutsinger and Seitz (1991) discuss custom-sewing services as an alternative to purchasing ready-to-wear garments. They indicate that, with lower prices and better workmanship than ready-to-wear, a custom sewn garment could be a real bargain. Along with these two advantages they state, "Custom sewing offers consumers individual style, fit and quality at reasonable cost" (p. 26). Katz (1991) and Yule (1991) identified the combination of economic savings and exceptional workmanship as a reason for purchasing custom sewn clothing to substitute for ready-to-wear.

Weagley and Norum (1989) found that clothing repair services were separable household production activities, i.e., activities which households substituted with market

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purchased services. Larson (1993) reported that 23% of 1,000 Americans in a telephone

poll hired a professional to do apparel mending for them. Forman (1986) recommended

that women focus sewing time on "gourmet sewing" and hire someone else to do the

mending. The acceptability of substituting paid seamstresses to do alterations and

mending is a given for at least some consumers, considering the large number of retail and

dry cleaning establishments that depend on these added services to lure customers into

their stores (Bayor, 1983; Gardner, 1993).

Sewing services can act as substitutes or complements to the purchase of ready-to-

wear clothing. The next step in this review is to examine the purchase patterns and

profiles of the consumers of sewing services.

Sewing Services

Sewing services were defined earlier in this review. They have been the subject of

a limited amount of research. As noted in relation to Table 3, the BLS collects

expenditure data on the sewing service of clothing repair, but those data are embedded in

larger expenditure categories used in research. This review of sewing services will include

consumer purchase profiles and patterns.

Larson (1993) reported on a telephone survey conducted with 1,000 adults over

the age of 18. Twenty-three percent of the men and women had hired a professional for

apparel mending. The reasons for hiring, in descending order of percentage hiring,

included: not knowing how to do it themselves; not having time to do it themselves;

feeling that the professional was more knowledgeable or qualified; the project was too big or too difficult; wanting to see that the repair was done right; or not feeling like doing it themselves. Larson found that persons aged 25-34 and 45-54 had higher probabilities of hiring someone to mend or alter a garment than did the younger and older age groups represented in the sample.

Duke and Voege (1986) reported that more clothing alteration services than clothing construction services were purchased in the marketplace by people in a midwestern university community.

Johnson et al. (1991) profiled users and non-users of customized sewing services by comparing the two. Users of customized sewing services were concerned about the intangible aspects of custom clothing services, such as the resultant clothing fit and quality of construction. They were more likely to use other customized services such as house cleaning services or lawn services, had less access to a sewing machine, had fewer sewing skills and assessed their sewing skills as lower than did non-users, and had higher levels of education and income. Non-users were less concerned about how clothing made them feel, did not use as many customized services as users, and had more sewing skills and lower education and income levels than did users.

In analyzing the frequency of purchase of mending services, alteration services, and customized sewing and design services, Johnson et al.(1991) identified five different groups of users of sewing services. They were (1) mending and alteration users, (2)

mending users, (3) alteration users, (4) customized garment and alteration users, and (5) comprehensive users. The first three groups are self explanatory. A comprehensive user was a person who used all three services, with two services being used more than the third service. A customized garment and alteration user was someone who primarily hired a custom seamstress and designer who also completed alterations. Such a person purchased few or no mending services.

In summary, some documentation of purchase patterns exists but it is difficult to draw general conclusions at this time. A global profile with distinguishable purchase patterns may not emerge for all sewing services now, but eventually a consumer profile may emerge with notable purchase patterns for each sewing service category.

Services Marketing

The fundamental characteristics of services -- intangibility, inseparability, heterogeneity, perishability, and fluctuating demand -- underlie the cited differences between marketing products and marketing services. These differences have implications for service marketing (Bateson, 1992; Bitner & Zeithaml, 1987; Stanton, 1981; Zeithaml, 1984).

Services Marketing Problems

Stanton (1981) maintained that service companies had not engaged in marketing strategies as readily as companies selling products because they lacked an overall

marketing orientation. Service companies may see themselves only as the producers of the service and not as "sellers" of the service, and this limited thinking results from the intangible nature of services (Stanton, 1981). This makes promotion difficult because the service provider must then rely on personal selling as a main promotional tool. In conjunction with the personal selling, the service provider may base a large part of the service promotion on intangible service benefits which are much harder to promote than tangible products (Bitner & Zeithaml, 1987; Stanton, 1981). The intangible nature also may lead consumers to base quality service evaluations on the physical facilities where the service is delivered (Zeithaml, 1984).

The service characteristic of inseparability creates service marketing problems within the channels of distribution. Because middlemen are not used in selling most services, the geographic area of distribution is limited (Stanton, 1981).

The heterogeneity in services directly affects the ability of the service provider to provide guarantees in standardization, which often is seen as a lack in quality. According to Bitner and Zeithaml (1987), because services are produced and consumed simultaneously, have a human element, and are intangible products, a service provider often has difficulty in producing services that are similar in quality or standards. Stanton (1981) suggests that customization of services might be a more useful measure of quality than standardization of services.

Difficulties in pricing of services directly relate to the perishability, the fluctuating demand for the services (Stanton, 1981), and the intangible nature of services; i.e, it is difficult to trace the costs of basic inputs of services (Bitner & Zeithaml, 1987). In addition, the price of the service is used often as an evaluative criterion for quality of the service (Zeithaml, 1984).

Berry (1984) discussed two problems, those of heterogeneity and intangibility of services, and stressed the importance of "how" the service is provided. He made two important suggestions. First, he suggested that the service provider must make the customization of services as important as possible to overcome the lack of standardization and to de-emphasize the heterogeneity of the services. Secondly, he related the consumer's perception of tangible aspects of the service with his/her perception of the service. Specifically, he identified the physical services environment, the appearance of service providers, and the price of the services as "manageable" tangible aspects of a service on which the customers will base their perceptions of the nature and quality of the service provided.

Because the inherent characteristics of services also affect the consumer's information search processes, Zeithaml (1984) assumed that three inherent characteristics -- intangibility, nonstandardization, and inseparability -- give services more experience and credence qualities than search qualities. Experience qualities are those that the purchaser experiences during or after purchasing. Credence qualities are those that consumers

generally are not qualified to evaluate even after purchasing the service (e.g., some medical procedures), in contrast to search qualities (e.g., physical qualities such as fit, style and price). Zeithaml hypothesizes that, because services and products differ in qualities and evaluation processes, consumers' information searches also differ depending on whether they are going to purchase a good or a service. Zeithaml (1984) also hypothesizes that, due to the difficulty in the information search for services, the consumer may be aware of a limited number of service providers. In some services, such as sewing, one of the alternatives may be self provision.

Zeithaml et al. (1985) tested the actual perceptions of service providers as to whether the service characteristics created a need for special services marketing. They discovered that the providers perceived only one characteristic as a problem area: fluctuation in the demand for services. This was a globally perceived problem among all the polled types of service providers. The main strategy these firms used in times of low demand was contacting customers. They neither reduced prices nor developed new services to attract new customers, two marketing techniques used in firms producing products. However, in times of high demand, they did hire extra employees, offered overtime to employees, and trained employees to carry out multiple tasks.

Zeithaml et al. (1985) also surveyed the service businesses concerning their business practices and found that a large number used cost-oriented pricing, encouraged word-of-mouth advertising, and emphasized personal selling and image creation focused

on the images of the institution and the personnel representing the institution. In addition, they discovered that the firms serving institutional customers used more marketing techniques than did firms serving final individual consumers. In contrast to other researchers, Zeithaml et al. (1985) stated they did not find the service marketing problems that were earlier stated in the literature, indicating that service firms were effectively using the strategies suggested in the literature to solve marketing problems. As the services marketing literature has evolved, the focus has moved from illustrating the differences between marketing services versus marketing products to suggestions and testing of services marketing theory.

<div align="center">

<u>Services Marketing Theory and Research</u>

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Bitner and Zeithaml (1987) proposed an expanded concept of the marketing mix, for application to services marketing, that would include the product, price, place, and promotion elements, along with three new elements: physical evidence, participants, and process. The physical evidence includes tangible cues in the environment where the services are produced and consumed; examples of the tangible cues are the noise levels, odors, music and temperature of the area in which the service is produced and consumed. The participants element includes the service purchaser, any other service purchasers in the purchasing environment, and the service provider. All play a role in determining the outcome of the service purchase. The last element, process, represents the culmination of the delivery of the service and the elements which influence that delivery: the procedures

used to deliver the service; the flow of activities to deliver the service; and the mechanisms used in delivering the service. The new elements of the marketing mix essentially shift what were generally seen as operations activities of a firm to the marketing activity, which would communicate to the customer the strong customer oriented image of the firm. This shift also may represent a change in the service firm's perception of their own business from being a service provider to being a service marketer.

Bitner and Ziethaml (1987) stress the importance of service marketing firms' focus on the customer since the firms rely on both new and repeat customers to keep their businesses going. Because the consumer becomes significant in the production process of services, the consumer's evaluation and choice processes must be understood (Bateson, 1992). Murray (1992) tested services marketing theory and consumers' service information needs. He found that service purchasers have extended information searches in comparison to the information search for the purchase of goods. He also found that consumers of services felt that personal information sources were preferred, were more meaningful, and elicited more confidence in purchase decisions for services than in decisions for goods. Personal observation and trial were not preferred sources of information on services; these were more preferred sources of information for goods. Lastly, he found that experience as an information source was more preferred for the purchase of services than of goods.

Ostrom and Iacobucci (1995) found the four attributes of price, quality, friendliness of service personnel, and customization to be key measures of utility or satisfaction of service purchasers. These sources of satisfaction differed according to the type of service purchased and whether the purchaser evaluated a service with anticipated satisfaction, value, or likelihood of purchase. The results showed that friendliness was an important attribute when purchasers evaluated a service according to value and likelihood of purchasing, but was not important when purchasers evaluated a service according to anticipated satisfaction. On the other hand, when consumers used satisfaction as the evaluation criterion, customization utility was important. No significant differences were found when the three types of evaluation were tested with respect to the utility measures of price and quality.

Ostrom and Iacobucci (1995) also examined the relationship of the utility measures to risk; risk was gauged by the type of service as to having experience qualities or credence qualities. They found that the utilities varied as the amount of risk varied. They stated, "Specifically, as risk increases consumers may seek benefits (such as high quality, friendly service providers, and customized service attention), whereas in situations of relatively less risk, consumers may seek competitive costs" (p. 26). They suggested managerial methods that are supported by these findings, such as higher prices for riskier services with promotion focusing on quality customization and on friendliness rather than pricing.

Christensen (1988) identified the workplace for many women, specifically the home-based business, as being a cause of great concern for service providers because it is not viewed as a paid work space. Participants in her study indicated that the physical environment created problems in interactions with both clients and other businesses. She identified difficulties in pricing services, in being recognized as a business, and in being taken seriously by clients.

Goffee and Scase (1985) found that the service purchaser's image or perception of the female entrepreneurial service provider did impact the business. They discussed what they termed the "domestic trader": a woman engaged in an entrepreneurial venture utilizing a domestic skill such as sewing, floral arranging, or interior design. Such women entrepreneurs are involved in their businesses for the self-fulfillment and personal autonomy rather than for profit. Goffee and Scase (1985) found that, to these women, family took priority over the business operations, profit, and business growth. Projection of such an image could influence the customer's evaluation of the business.

In summary, the customer's information search, evaluation, and eventual purchase of services can differ from those of products. Customers' service purchases can be influenced by such variables as the physical environment, the service provider, and the other activities occurring in the immediate environment at the time of the service purchase.

So far this review has covered general services, household production, and services marketing literature. These topics are important for the justification and design of

this research. The next and concluding review section, on attitude theory and research, will provide background for the theory and framework for the research.

Attitude Theory and Research

Research on attitudes, the foundation and focus for explaining and predicting behavior in a variety of subject matter areas, has its roots in investigating the construct: attitudes, their nature, formation, and effect on behavior (Shaw & Costanzo, 1983). Investigation of the construct requires defining it. Defining the concept of attitudes has been a challenge to social psychologists for many years (Ajzen & Fishbein, 1980). Allport (1935) reviewed the beginning formulation of thought and theory on attitudes, and listed 16 different definitions known at that time. Allport concluded the discussion with a definition of his own: "An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 810).

A widely used definition of attitude in the past three decades is that of Fishbein and Ajzen (1975): "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p.6). Several key aspects of this definition are important to the understanding of attitudes. First, attitudes are learned over time (Fishbein & Ajzen, 1975; Lutz, 1981). Secondly, Fishbein and Ajzen's (1975) definition points out that an attitude precedes any action, and thirdly, it indicates that an attitude is either positive or negative toward the object. Zanna and Fazio (1982) and

Ajzen (1989) note that all of the attitude definitions have a common feature of an evaluative dimension.

As definitions have evolved, so have a number of theories about attitude formation and the relationship of attitudes and behavior. Ajzen and Fishbein's (1980) theory of reasoned action is one of the theories. This theory has two parts. The first is the formation and nature of attitudes, and the second is the prediction of the behavioral intentions. Before reviewing the reasoned action theory, it is important to look at the development of attitude theory and previous discussions on whether attitudes really do predict behavior.

Using an interpretive framework, Zanna and Fazio (1982) discussed previous research on the consistency of the attitude-behavior relationship. The first research question on this topic was "Is there a relationship between attitudes and behavior?" (p. 284). Zanna and Fazio (1982) concluded that, because the research answers have had great variation across a spectrum from very strong "yes" to very strong "no", researchers moved to the next question, "When is there a relationship between attitudes and behavior?" (p. 285). They labeled this "when" question as a second generation question and concluded that progress had been made in answering it. According to Zanna and Fazio, a third generation question being researched is, "How are attitudes and behavior related?" They concluded that research findings on the consistency of the attitude-behavior relationship would be stronger if researchers would consider "when" and "how"

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questions simultaneously rather than as separate questions. The theory of reasoned action by Ajzen and Fishbein (1980) is one that addresses the "when" and "how" questions.

Theory of Reasoned Action

The theory of reasoned action is based on the assumption "that human beings are usually quite rational and make systematic use of the information available to them" (Ajzen & Fishbein, 1980, p. 5). The basis for this assumption is the premise that people use the information available before they engage or not engage in a behavior; however, before any prediction of engagement or nonengagement in a behavior is made, the behavior being investigated must be defined.

Behaviors are defined in terms of action, target, context, and time. Direct observation of the behavior is not used to predict whether the person will engage in the behavior; rather the prediction is based on the intention of the participant to engage or not engage in the behavior. In order for the behavior and intention to be consistent, the intention also must be defined in similar terms of action, target, context, and time. Prediction of the behavior is only one aspect of this theory, and understanding of behavior is another aspect (Ajzen & Fishbein, 1980).

The "understanding" aspect of this theory has two parts. The first is the formation and nature of attitudes, and the second is the influence of subjective norms. Fishbein (1963) first hypothesized that a person's attitudes are a summation of evaluative beliefs. Beliefs are the factual or nonfactual information about the object (Petty & Cacioppo,

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1981). Each belief constitutes an attribute of the attitude. An attitude can be composed

of many beliefs with many attributes, and all of the beliefs and attributes of an object can

be summed to give an overall attitude (Wilkie, 1986). The formula for this is:

$$A_o = \sum_{i=1}^{n} b_i e_i$$

where: A_o = the attitude toward some object o
                   b_i = the belief i about o
                   e_i = the evaluation of belief i
                   n = number of beliefs
                                  (Fishbein & Ajzen, 1967, pp. 394)

Using this model in which he measured the attitude toward an object, Fishbein (1963)

supported his hypothesis through empirical research.

Fishbein and Ajzen (1975) expanded their first attitude model to include subjective

norms, and they focused their research on the attitudes toward performing the behaviors

rather than on the specific object. Thus the formula above changes, the A_o becomes A_b,

attitude toward the behavior rather than the specific object. The subjective norm variable

was added to the model to account for the influence of the person's social climate.

Subjective norm is the person's perception of what behavior an important generalized

group of people think he or she should do. That group is composed of five to nine relevant

others, who are specific individuals such as immediate family members or peers. The

person has a normative belief about each relevant other and some level of motivation-to-

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comply with that normative belief. The subjective norm is the summation of the products

of the normative beliefs and the motivations-to-comply, for example, if the person has

strong normative beliefs and is motivated to comply with the normative beliefs, that

individual will perceive social pressure and this will contribute to her subjective norm.

The formula for the subjective norm is:

$$SN = \sum_{i=1}^{n} b_i m_i$$

where:

SN = Subjective norm
b_i = Normative belief
m_i = motivation-to-comply with the normative belief
i = individual

(Fishbein & Ajzen, 1975, pp.302)

By adding the normative beliefs, motivations-to-comply with the normative beliefs, and

thus the model accounts for the influence of significant people individually and as a group.

The formula for this expanded model is:

$$B \sim I = (A_B)w_1 + (SN)w_2$$

where:

B = the behavior
I = the intention to perform behavior B
A_B = the attitude toward performing the behavior B
SN = the subjective norm
w_1 and w_2 = empirically determined weights

(Fishbein & Ajzen, 1975, pp. 301)

The two factors, attitude and subjective norm, act as weighted variables in the equation above, functioning to influence the person's intention toward performing the behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Thus, intention to engage in a behavior can be understood as a function of attitudes and subjective norms and the beliefs that are the foundations of those constructs.

Sheppard, Hartwick, and Warshaw (1988) conducted two meta-analyses on research which utilized Fishbein and Ajzen's (1980) expanded model of reasoned action illustrated in the third formula above. They investigated the following sets of candidate moderator variables: (a) goals versus behaviors, (b) choice among alternatives, and (c) intentions versus estimates. Sheppard et al. (1988) hypothesized that these three limiting conditions affected two of the relationships proposed by the reasoned action model, the intention-behavior relationship and the attitude-subjective norm-intention relationship. Eighty-seven empirical studies, sourced from nine marketing and psychology journals, were used in testing five hypotheses concerning the effect of the moderator variables on each relationship. Overall, Sheppard et al. (1988) supported their hypotheses on the two relationships, showing significant correlations and thereby demonstrating a significant intention-behavior relationship and a significant attitude-subjective norm-intention relationship. They concluded that these findings supported the predictability of the Ajzen and Fishbein model.

In both relationship categories, Sheppard et al. (1988) found that the Ajzen and Fishbein model had been used outside its originally established limits. When those conducting the studies asked respondents to estimate future performance of their behaviors, as opposed to giving intentions of engaging in the behavior, they found that the relationship was stronger between estimates and actual behavior than between intentions and actual behavior. In the attitude-subjective norm-intention relationship, the researchers found the opposite was true; i.e., the relationship was stronger among intentions of engaging in the behavior, attitude, and subjective norm than among estimates of engaging in the behavior, attitudes, and subjective norms.

When it came to considering both relationships in the context of research conducted using the reasoned action model, Sheppard et al. (1988) found that predicting behavior as opposed to predicting goals was stronger. They also found that, when respondents were asked to choose among behavioral alternatives, instead of being asked to predict their behavior, the reasoned action model worked more effectively in its predictive ability. The researchers went further in the meta-analysis by looking at the "choice among alternative" moderators in the context of the intention to perform the behavior and the estimation measures for engaging in the behavior. They suggested from their findings that the attitudes and subjective norms were better predictors of intention than intention was in estimating their behavior. Three moderator variables were studied in the meta-analysis, a) type of activity, goals versus behaviors; b) type of choice for the activity, choice among alternatives; or c) type of intention measure. Of these three

moderator variables, the type of intention measure, and specifically, intentions versus

estimates, accounted for 43.7% of the variance in the intention-behavior relationship and

64.4% of the variance in the attitude-subjective norm-intention relationship. Sheppard et

al. (1988) recommended further research on the original Fishbein and Ajzen model (1975)

with focus on goals, intentions, choice situations, and differences between intention and

estimation measures.

<div align="center">Consumer Attitude Research</div>

Consumer research has contributed substantially to knowledge of attitude

formation (Ajzen & Fishbein, 1980; Sheppard et al., 1988). Consumer researchers are

interested in the development of consumers' attitudes and in the role of these attitudes in

buyer behavior. Most consumer research on attitudes toward clothing does not apply here

because measured attitudes were toward an object, clothing, not towards such behavior as

acquiring clothing. Few studies exist on attitudes toward purchasing clothing, and no

research on attitudes toward purchasing sewing services was found. The next body of

literature reviewed will be those few studies on attitudes toward purchasing clothing.

Consumer Research On Attitudes Toward Purchasing Clothing

DeLong, Minshall, and Larntz (1987) successfully utilized the Ajzen and Fishbein

model to predict behavioral intention for purchasing fashion apparel and to identify salient

variables that influenced attitudes and the purchase intention. They found that, by

changing the specificity of context, time, and product category level (e.g., specific types of

sweaters versus the general unspecified category of sweaters), the significant influencing beliefs and norms varied.

For example, when DeLong et al. (1987) used pictures of specific sweaters in asking a participant's intention to purchase a similar sweater for herself, her attitude toward purchasing and the normative influences were each found to significantly correlate with the behavioral intention of purchasing a sweater. When they asked whether the participant intended to buy any sweater in general, statistically significant but weaker correlations were found between attitude and behavioral intention and between subjective norms and behavioral intention. DeLong et al. (1987) also found in their analysis that previous experience in purchasing the identified apparel product predicted future purchasing better than did the behavioral intention; however, the additional previous experience variable was not significant in the prediction equation containing the behavioral intention.

Shim and Drake (1990) utilized the Fishbein Behavioral Intention Model to analyze a relationship between behavioral intention and belief. Respondents with high intentions to purchase apparel through mail order had a more favorable attitude toward purchasing through mail order than did those with low intentions. Using the Engel, Blackwell and Miniard Consumer Decision Process Model, Shim and Drake distinguished between consumers with high intentions to purchase apparel through mail order and those with low intentions to purchase. Persons with high intentions to purchase apparel by mail

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order had previous experience in doing so, were influenced by someone in their social group, had preschool children in the home, had a higher income level, tended to be more self-confident and venturesome, had a higher level of time pressures, and were younger, married, and dissatisfied with local shopping facilities; those characteristics are listed in the descending order of importance that was found.

In research on mothers as consumer socialization agents for daughters and their role in the development of daughters' clothing shopping attitudes, Francis and Burns (1992) found that adult daughters' shopping attitudes differed from their mothers'; however, the clothing acquisition methods and clothing satisfaction were similar. Clothing shopping attitude was measured by fashion involvement and shopping enjoyment. Age differences were cited as a probable contributor to the differences in clothing shopping attitudes.

In a second objective, Frances and Burns (1992) found clothing satisfaction to be independently related to fashion involvement and clothing shopping enjoyment. Clothing shopping attitudes were found to differ according to clothing satisfaction for groups of mother-daughter pairs. Because of the consistency between mothers' and daughters' clothing satisfaction and clothing shopping practices and between their clothing shopping attitudes (involvement and shopping enjoyment) and clothing satisfaction, Frances and Burns (1992) concluded that clothing shopping attitudes may be rooted in childhood and

that mothers play a significant role in the development of these attitudes of their daughters.

Young and Harp (1994) found a trend toward individuals' personality influencing shopping attitudes and a significant relationship between shopping attitudes and personal values. From these findings, they concluded that a relationship exists between personal traits and shopping attitudes.

Summers and Wozniak (1991) found that the purchase attitudes of consumers shopping for apparel items determined which stores (discount, nondiscount, or multiple stores) the consumers would patronize. Purchase attitudes were measured through perception variables of extrinsic clues of price, quality, and store image. Purchase attitudes were better predictors of store patronage preference than were apparel quality perceptions or demographic variables.

In summary, consumer research on attitudes toward purchasing clothing has been a direct application of the reasoned action theory. Sewing services are directly related to clothing, i.e., as a means to acquire or maintain clothing. It then can be assumed that the reasoned action model is an appropriate framework for investigating attitudes toward purchasing sewing services.

Summary

Five broad subject areas have been reviewed for this research, specifically: services; household production theory and research; sewing service consumer profiles and

purchase patterns; services marketing; and attitude theory and research. Each of these subject areas provides constructs for this research, with the attitude theory providing the basic foundation.

The services section of the review provided an introduction to the services industry and the role it plays today in United States business. Definition and delineation of clothing services and sewing services were important in order to set parameters for this research.

The theory and research on household production are vital to understanding the role of women in household production and the impact on household activities, especially clothing acquisition and maintenance, when women's time for household production activities decreases by being employed. Household production research provides insight into the household as the interactions of less time, more money, and the availability of substitutes are interjected into household decisions of employed women. Household production theory and research also provide a basis for attributes, behavioral beliefs, normative beliefs, and external variables that helps in understanding attitudes, intentions to purchase, and purchase behavior.

Information on consumer profiles and purchase patterns indicates actual purchase behavior and characteristics of purchasers of sewing services. The limited research available demonstrates the need for further research. The services marketing section of the review illustrates problems already discovered in the services marketing area, and it

suggests attributes of services that can influence beliefs and helps in understanding attitudes toward purchasing.

Attitude theory and research provide the framework for conducting this research. Applications of the theory in research on clothing purchases were reviewed, thus providing more insight into how to design and conduct the study in order to adhere to the theory and obtain valid results.

Chapter 3 Setting of the Research Problem

This chapter delineates the research problem by establishing the theoretical framework and conceptual definitions. The purpose statement and objectives are conveyed, and the research hypotheses and their justification are described. The chapter concludes with the assumptions and limitations of the study.

Purpose Statement

The overall purpose of this study was to examine the nature and foundation of the normative influences and attitudes of a sample of employed women toward purchasing apparel sewing services.

Theoretical Framework

The framework for this study is derived from Ajzen and Fishbein's (1980) Reasoned Action Model. Figure 3.1 outlines the application of their general theoretical framework in this research. Each relationship corresponds with an objective of the study. These relationships are based on the premise that employed women utilize the information available to them when making decisions to purchase or not to purchase apparel sewing services, thus using reasoned action. "In the next year" is the time frame used in the research because a year's time encompasses all four seasons in which clothing is purchased (Winakor, 1969) and could influence planning, purchase, and maintenance of clothing.
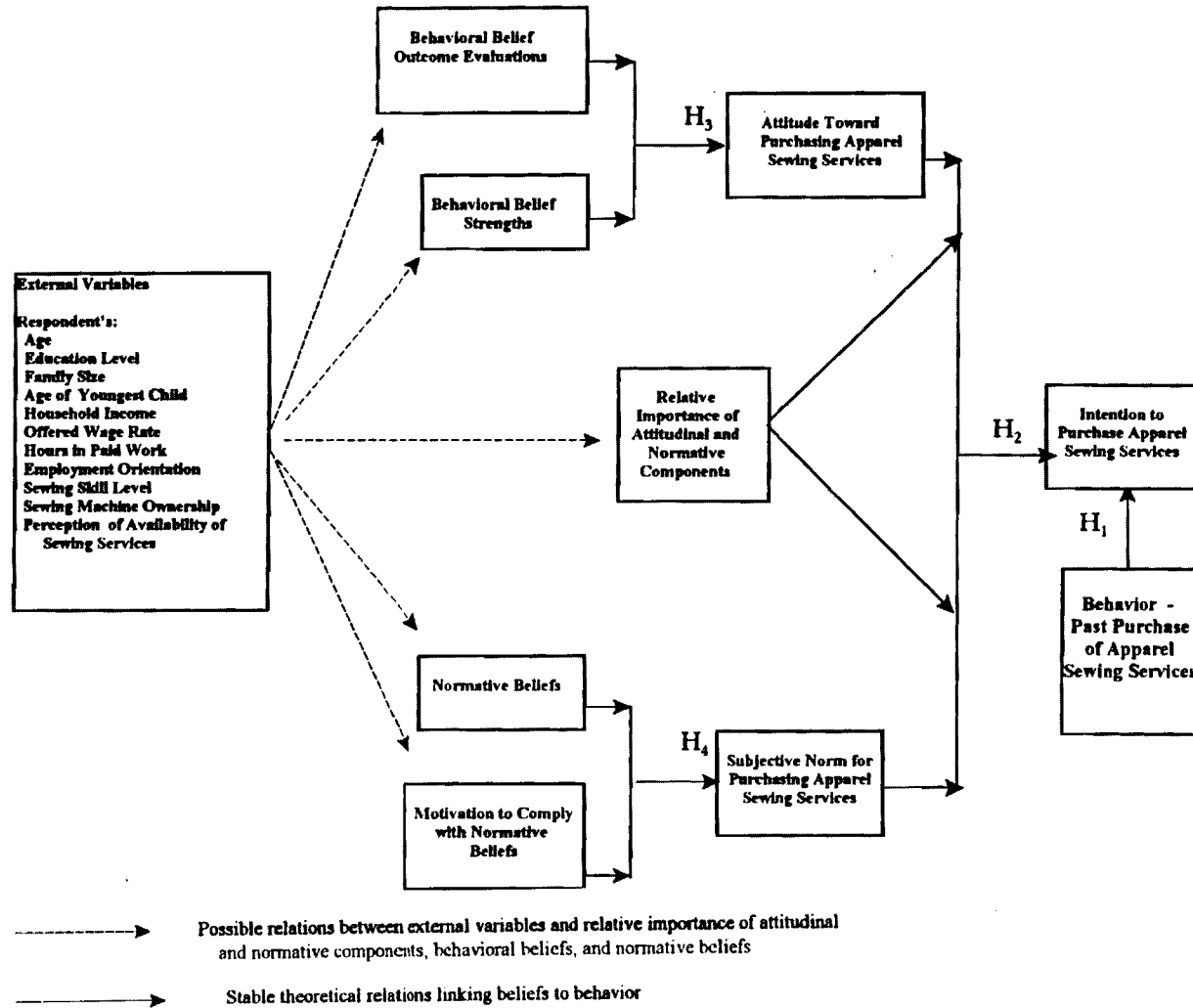
Figure 3.1
Theoretical framework: Application of the Ajzen and Fishbein reasoned
action model to the purchase of apparel sewing services

Behavior-Intention Relationship

Behavioral intention is assumed to predict behavior (Ajzen & Fishbein, 1980);

thus, employed women's intentions to purchase apparel sewing services in the next year

predict the behavior of purchasing apparel sewing services. It is assumed that the stronger

the intentions of employed women to purchase apparel sewing services, the more likely

they would actually exhibit purchasing behavior.

Attitude-Subjective Norm-Intention Relationship

The reasoned action theory postulates that two components--attitude toward a

behavior, and a subjective norm--are determinants of behavioral intentions (Ajzen &

Fishbein, 1980). Thus, the more positive employed women's attitudes toward purchasing

apparel sewing services and the more strongly positive the subjective norm, the higher the

women's intentions to purchase.

Attitude is the individual's favorable or unfavorable feelings, in this case, toward

performing the behavior of purchasing apparel sewing services. The more favorable the

attitude toward purchasing apparel sewing services, the stronger the intention to purchase

sewing services; and the more unfavorable the attitude, the weaker the intention to

purchase apparel sewing services.

A subjective norm is defined as the "person's perception that important others

desire the performance or nonperformance of a specific behavior; this perception may or

may not reflect what the important others actually think she [sic] should do" (Ajzen &

Fishbein, 1980, p.57). Thus, the more a respondent perceives that important others feel

she should purchase apparel sewing services, the stronger will be her intention to purchase sewing services in the next year. Likewise, the more she perceives that those important others feel she should not purchase apparel sewing services, the weaker her intention will be.

Along with the attitude and the subjective norm, the relative importance of the individual's attitude and subjective norm play a role in the relationship. The relative importance of these two variables tells which one plays more of a role in the intention-attitude-subjective norm relationship. For example, one may perceive that important others, her subjective norm, feel she should purchase apparel sewing services though she herself has a slightly unfavorable attitude toward purchasing apparel sewing services. If this woman's subjective norm has a higher relative importance than her attitude, the subjective norm would be more of a determinant of intention than would attitude. The opposite also could be true; if the woman's favorable attitude toward purchasing had a higher relative importance than her subjective norm, then her attitude would be more of a determinant of intention than would her subjective norm.

The relative importance of an attitude and a subjective norm can also be in agreement. Persons who have a favorable attitude toward purchasing apparel sewing services also may perceive that those important to them feel they should purchase apparel sewing services; thus, each could have the same relative importance in determining intention to purchase.

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Behavioral Beliefs-Attitude Relationship

Fishbein and Ajzen (1975) theorized that behavioral beliefs determine attitude. Several beliefs about a behavior may exist and are either salient or nonsalient, with only five to 11 behavioral beliefs being salient. Salient behavioral beliefs are those used in understanding and predicting attitudes.

Individuals develop beliefs about "objects", which may or may not have physical form, and the objects are associated with attributes which are characteristics, consequences, or outcomes (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). In this research, the object of interest is the behavior of purchasing sewing services and the attributes are outcomes of the purchasing behavior. Behavioral beliefs can form as a consequence of engaging in such purchasing. Understanding what behavioral beliefs are salient is step one to being able to understand and predict a person's attitude.

Ajzen and Fishbein (1980) theorized that, in order to understand behavioral beliefs, one must understand two aspects of the beliefs: the evaluation of the consequences of engaging in the behavior that is the object of the belief, and the strength of the belief. A consequence is evaluated on a continuum of degree of desirability, such as from good to bad. The belief strength refers to the likelihood of the behavior having that same consequence. Each behavioral belief is a product of the respective belief evaluation and strength. The sum of all such products, for the beliefs about a certain behavior, indicates a person's favorable or unfavorable feelings about the behavior and constitutes the attitude about the behavior.

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Based on the literature, as reviewed in the previous chapter, several possible areas of employed women's salient beliefs about purchasing apparel sewing services were identified. Those areas are sewing, household production, service marketing, and clothing; each has corresponding attributes or outcomes such as the sewn product appearing to be homemade. According to the theory, a woman who expresses positive feelings about various outcomes of purchasing sewing services, along with high expectations of the outcomes' occurrence, would evidence a positive attitude toward purchasing apparel sewing services.

Normative Beliefs-Subjective Norm Relationship

The determinants of subjective norms are normative beliefs and the motivation to comply with those beliefs in reference to relevant others. Normative beliefs are based on beliefs or perceptions of how specific individuals or groups of people in one's life think one should behave, i.e., relevant others. "Normative beliefs are thus similar to subjective norms, except that they involve specific individuals or groups rather than a generalized important other" (Ajzen & Fishbein, 1980, p. 73).

Analogous to behavioral beliefs, the belief about each relevant other is a product of two measures, the normative measure and the corresponding motivation-to-comply measure. The sum of all such products indicates a person's likely or unlikely belief about a group of others and constitutes the subjective norm for the behavior.

If a woman has strong positive normative beliefs that immediate and extended family members, friends, or work associates favor her purchase of apparel sewing services

and if she is motivated to comply with her normative beliefs in the purchase of apparel sewing services, then she also would have a strong positive subjective norm toward purchasing such services. The review of literature, in the sections on household decision-making, attitudes, and services marketing, showed evidence of the possible importance of such individuals in the purchasing of apparel sewing services.

External Variables

Ajzen and Fishbein (1980) speculated that attitudes and norms can be understood better by including external variables in the analysis. The authors maintain that external variables do not improve the prediction of the behavior, but do increase understanding. Examples of external variables, which they include, are those variables that many researchers have tried to use to explain behavior, such as demographic and social role variables (Ajzen & Fishbein, 1980).

Unlike the hypothesized relationships between intentions, attitudes, behavioral beliefs, subjective norms, and normative beliefs, no relationships are assumed with the external variables because the relationships that might result are not as consistent in effects as the hypothesized relationships: In one population a significant relationship with certain external variables may be found, and in another population no relationship may be found or the relationship that exists could change over time. This situation differs from the hypothesized relationships in the model in that the relationships between the several variable sets--behavior and intention; intention, attitude and subjective norm; behavioral belief and attitude; and normative belief and subjective norm--are believed to be stable no

matter who the population is and what the period of time is.

Demographic, sewing skill, and service provider availability variables could help in understanding behavioral beliefs, attitudes, subjective norms, and normative beliefs toward purchasing apparel sewing services. Thus, the external variables included in this conceptual framework are demographic variables, sewing skill, and service provider availability.

Conceptual Definitions

Sewing Services - the paid provision of customer services to design sewn items and to construct, alter, or mend apparel, home furnishings, crafts, or other items with no transfer of permanent ownership of the item to the service provider.

Apparel Sewing Services - the paid provision of customer services to design apparel items and to construct, alter, or mend apparel, by sewing, with no transfer of permanent ownership of the apparel to the service provider.

Intention to Purchase Apparel Sewing Services - an individual's intent to purchase clothing design/construction, mending, or alteration services in the next year.

Attitude - an individual's favorable or unfavorable feelings toward performing a behavior (Ajzen & Fishbein, 1980). In this study, the attitude of interest is the individual's favorable or unfavorable feelings toward purchasing apparel sewing services in the next year.

Subjective Norm - an individual's perception of what he or she thinks a generalized important group of others believes he or she should do (Ajzen & Fishbein, 1980).

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In this study, the subjective norm of interest is an employed woman's perception of what an important group of others thinks about her purchasing apparel sewing services in the next year.

Salient Behavioral Belief - An individual's prominent belief resulting from direct experience or from outside information (Fishbein & Ajzen, 1975).

Salient Normative Belief - an individual's perception of what she thinks specific individuals or groups believe she should do (Ajzen & Fishbein, 1980).

External Variables

External variables are those that may in some way affect the intention-attitude-subjective norm, behavioral belief-attitude, and normative belief-subjective norm relationships. Respondent's age, education level, family size, household income, offered wage rate, and hours per week in paid work, and the age of her youngest child if children are present are basic demographic variables that serve as external variables. Four other external variables are included in this study:

Employment Orientation - an individual's perception of her employment as "just-a-job" or as a "career" (Bartos, 1977; Cassill, 1986, 1990).

Sewing Skill Level - an individual's self evaluation of her sewing skill level as novice, intermediate, or expert.

Sewing Machine Ownership - whether an individual or her household has a sewing machine that the individual may use.

Availability of a Sewing Service Provider - an individual's perception of the availability

of some other person who can provide apparel sewing services for her to purchase.

Research Objectives

Each research objective was addressed with respect to the sample of employed women. The objectives are:

1. To determine the relationship between the women's intentions to purchase apparel sewing services in the next year and their past apparel sewing services purchasing behavior.

2. To determine the relationship among the women's attitudes toward purchasing apparel sewing services, subjective norms regarding the purchase decision, and intentions to purchase apparel sewing services in the next year.

3. To determine the relationship between the women's salient behavioral beliefs and their attitudes toward purchasing apparel sewing services in the next year.

4. To determine the relationship between the women's normative beliefs and the subjective norms regarding the purchase of apparel sewing services in the next year.

5. To explore the possible associations between the external variables of the employed women and their estimated attitudes, estimated subjective norms, and relative weightings of the attitudinal and normative components.

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Research Hypotheses

<u>Intention-Behavior Relationships</u>

The intention-behavior relationship is the foundation of the reasoned action theory; it is the first step to testing and supporting the hypothesized relationships between beliefs and behavior. The behavior-intention relationship must be tested first and supported before any of the other relationships in the research framework are tested. If there is no relationship between the behavior and the intention to purchase, there is no reason for testing the remainder of the relationships.

The theory predicts that an employed woman's intention to purchase sewing services determines her purchasing behavior. Knowing that an employed woman is a consumer of one of the sewing services is not enough for this research; knowing that she is a purchaser and understanding what role her attitude and subjective norm have played in that purchase decision would give information to the service provider to help better meet the consumer's needs. Thus, in the first step to understanding the employed women's purchasing behavior, the following hypotheses were posed for this research:

H_{1a}: Employed women's intentions to purchase clothing construction services in the next year and their previous purchase of clothing construction services will be positively related.

H_{1b}: Employed women's intentions to purchase clothing alteration services in the next year and their previous purchase of clothing alteration services will be positively related.

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H_{1c}: Employed women's intentions to purchase clothing mending services in the next year and their previous purchase of clothing mending services will be positively related.

<u>Attitude-Subjective Norm-Intention Relationship</u>

To understand the factors that determine an employed woman's intention to pay someone to construct, alter, or mend clothing, the woman's attitude toward such purchasing must be known. This research has its beginnings in previous research which raised questions about the influence of people's attitudes and subjective norms on purchasing sewing services (Bruck, 1988). Understanding the influences of attitudes and subjective norms and their relationship to the behavior of purchasing sewing services has been a driving force behind this research. Most employed women will not pay someone to make, alter, or mend clothing if they have a negative attitude about doing so, or if they believe that the people around them do not want them to pay someone to make, alter, or mend clothing. Thus, the hypotheses concerning this relationship are:

H_{2a}: Employed women's intentions to purchase clothing construction services in the next year will be positively related to their attitudes toward purchasing clothing construction services and to their subjective norms for purchasing clothing construction services.

H_{2b}: Employed women's intentions to purchase clothing alteration services in the next year will be positively related to their attitudes toward purchasing clothing

alteration services and to their subjective norms for purchasing clothing alteration services.

H_{2c}: Employed women's intentions to purchase clothing mending services will be positively related to their attitudes toward purchasing clothing mending services and to their subjective norms for purchasing clothing mending services.

Behavioral Beliefs-Attitude Relationship

According to the reasoned action theory, the determinants of attitude are salient behavioral beliefs. A salient behavioral belief is one of nine to eleven behavioral beliefs that are assessed as contributing to attitude development. Each behavioral belief is the combined product of the outcome evaluation and the belief strength about the relevant behavior. The sum of the behavioral belief products is an estimated attitude. Thus, a test of the relationship between the estimated attitude and the attitude as measured by a direct question can be conducted to understand how the underlying salient behavioral beliefs contribute to attitude. If one understands the behavioral beliefs through the outcome evaluations and the belief strengths that comprise them, it may be possible to develop marketing strategies to increase intention to purchase sewing services and perhaps see an increase in purchasing behavior. To test the behavioral belief-attitude relationship, the following hypotheses were posed:

H_{3a}: For the employed women, the summed products of the outcome evaluations and the belief strengths will be related to the directly-measured attitudes about purchasing clothing construction services in the next year.

H_{3b}: For the employed women, the summed products of the outcome evaluations and the belief strengths will be related to the directly-measured attitudes about purchasing apparel alteration services in the next year.

H_{3c}: For the employed women, the summed products of the outcome evaluations and the belief strengths will be related to the directly-measured attitudes about purchasing apparel mending services in the next year.

Normative Beliefs-Subjective Norm Relationship

According to the reasoned action theory, the determinants of a subjective norm are normative beliefs and motivation-to-comply in reference to relevant others. It is important to know not only that a subjective norm, or a generalized important group of people, influences intention to purchase sewing services, but also to gain a better understanding of these subjective norms. Identifying the relevant others, the normative belief about those other persons, and the strength of the consumer's motivation-to-comply with those normative beliefs will help in understanding who has influence on the purchase intention and behavior. Thus, the following hypotheses were used to test this relationship:

H_{4a}: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will be related to the directly-

measured subjective norm for purchasing clothing construction services in the next year.

H_{4b}: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will be related to the directly-measured subjective norm for purchasing clothing alteration services in the next year.

H_{4c}: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will be related to the directly-measured subjective norm for purchasing clothing mending services in the next year.

Limitations

The following are limitations of this study:

1. Personal recall is a possible limitation because respondents may not accurately remember the apparel sewing services previously purchased, or they may not remember if they have purchased the services at all.

2. The cost of administering the instrument limited the size and location of the sample that could be surveyed.

3. The findings may not be generalizable to the larger population of employed women because of using a convenience, nonrandom sample.

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Assumptions

This research was undertaken with the following assumptions:

1. The intention to purchase apparel sewing services in the next year was assumed to lead to the actual purchase of the services in the next year.

2. It was assumed that respondents understood the questions and accurately reported their responses to them.

3. Men were assumed to differ from women in their attitudes, subjective norms, behavioral beliefs, and normative beliefs about paying someone to make, alter, or mend clothing. Thus, men were excluded from the research.

4. Other sewing services, such as for custom made draperies and household furnishings, were excluded from the research because it was assumed that consumers hold different attitudes, subjective norms, behavioral beliefs, and normative beliefs about purchasing such services as compared to the services of making, altering, or mending clothing.

Chapter 4 Research Procedure

This chapter describes how the research was designed and carried out.

Specifically, this chapter delineates the development, scoring, and pilot testing of the

survey instrument. The discussion on the instrument shows the operationalization of the

variables which were outlined in Figure 3.1. This chapter also describes sampling

procedures and the method of data collection. It concludes with the procedures for data

analysis.

Instrument Development and Scoring

Behavior Measure

Defining the behavior to be measured was the first step in instrument development.

The behavior category was defined in terms of an action, target, and time frame. The

behavior category measured was purchasing. Apparel sewing services, specifically

clothing construction, alterations, and mending services, were the targets for purchasing.

The purchase of these apparel sewing services could have been measured in dollar

amounts or by the number of times these services were purchased. For the purposes of

this study, the purchase of each service was measured as a single-action purchase

behavior.

Each of the questionnaire sections B, C, and D (See Appendix B) opens with a

self-recall item to measure the single-action purchase behavior. Each respondent was

asked whether she had or had not previously purchased clothing construction, alteration,

or mending services with no time limit indicated. The scoring of each of the three

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behavior questions was 1 when a respondent had purchased the service, and 0 when a respondent had never purchased.

Defining the time frame for the behavior measure was not as crucial as defining the time frame for the remainder of the variables because of the self-recall aspect of the behavior measure. If the behavior measure were to be a direct observation of the behavior, then a specific time frame would have been required (Ajzen & Fishbein, 1980). For this research the behavior measure was not a direct observation; each respondent was asked to indicate if she had or had not purchased the services in the past.

The remainder of the variables measured in the model, excluding the external variables, were measured with questions formatted using the semantic differential technique. This technique will be discussed next.

<u>Semantic Differential Technique</u>

The semantic differential technique is a standard scaling procedure used for attitude measurement (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Semantic differential questions measure meaning. Fishbein and Ajzen (1975) explain that Osgood, Suci, and Tannenbaum (1957), the developers of the semantic differential technique, found three dimensions underlying semantic differential ratings: evaluation, potency, and activity. With this in mind, we recall that attitude measures tap respondents' favorable or unfavorable feelings toward a behavior. Those feelings are then seen as evaluations of the behavior. Thus, when a person responds to a semantic differential question with terms that load on the evaluative dimension, his or her evaluation is being given, the respondent

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is expressing his or her attitude toward the object or behavior in question (Fishbein & Ajzen, 1975). Fishbein and Ajzen recommended the use of the good-bad scale or the favorable-unfavorable scale for the measurement of attitude because such scales are usually highly correlated with attitude.

Fishbein and Ajzen (1975) suggested the use of the semantic differential technique for measuring the strength and outcome evaluations of salient behavioral beliefs, normative beliefs, attitudes, subjective norms, and intention. They considered intention to be a form of a belief where the person performing the behavior is the object and the behavior is the attribute. In order to have a valid measure of the beliefs, they suggest that the measure should relate the object with the attribute along a dimension of subjective probability, as can be done with the semantic differential technique.

Intention, attitude, subjective norm, behavioral beliefs and outcomes, and normative belief scores measured by the semantic differential technique are at the interval quantification level. Using such interval quantification measures, Ajzen and Fishbein (1975) provide empirical results that support the semantic differential technique as a reliable and valid technique for measuring intention, attitude, subjective norm, behavioral beliefs and outcomes, and normative beliefs. Thus, the semantic differential technique was used in this research for measuring the intention to purchase, attitudes toward purchasing, subjective norms, strengths and outcome evaluations of behavioral beliefs, and normative beliefs. Starting with the intention measure these variable measures will be discussed next.

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Intention Measure

The intention measured was purchase intention (See Figure 3.1). The intention

targets were three sewing services: clothing construction, alteration, and mending

services. The time element was within the next year. For the clothing consumption

process, Winakor (1969) suggested a one-year period for examining acquisition, use, and

discard of apparel because this time frame covers a "full cycle of seasons" (p. 632).

Because clothing construction, alteration, and repair are activities of acquisition and care,

two of the major activities in Winakor's model of the clothing consumption process, one

year was appropriate for measuring the intention to purchase. Norum (1989) also made a

point of using a one-year period in her clothing expenditure research, utilizing

cross-sectional data, because of the difficulty of detecting expenditure variation in less

than one year and because one year captures the seasonal effects.

Intention and behavior measures should have a high degree of correspondence in

terms of action and target, in order assess a relationship between intention and behavior;

however, correspondence of the time element is not a concern here because the behavior

measure was a self recall of any previous purchases and the intention measure was for

future purchases. Each subject responded to a semantic differential question of how likely

to unlikely her intention was to pay someone to make, alter, or mend apparel within the

next year. The second question in sections B, C, and D of the questionnaire (See

Appendix B) measured the respondent's intention to purchase one of the sewing services

in the next year. Each intention was then scored on a +3 to -3 scale, from extremely likely to extremely unlikely.

Attitude Measure

As to the attitude measure, the reasoned action model is based on the premise that a simple measure, a direct question of favorable versus unfavorable or good versus bad, is sufficient to measure the attitude toward performing a behavior and to use in predicting behavioral intention. The underlying beliefs that determine attitudes are not included in such a measure, as can be seen in Figure 3.1.

The attitude measure must correspond with the intention measure in terms of action, target, and time elements. Thus, three attitudes were measured in this research. The respondent indicated her favorable or unfavorable attitude toward purchasing each of the three target services within the next year through question three in sections B, C, and D of the questionnaire (See Appendix B). The semantic differential question format was used and scored with extremely favorable at +3 and extremely unfavorable at -3.

Subjective Norm Measure

Similar to the measure of attitudes, the measure of the subjective norm variable in the reasoned action model is a simple direct question. In each of these questions, the respondent indicates what she thinks most people who are important to her think she should or should not do in reference to the behavior in question. In framing the subjective norm question, the correspondence between the action, target, and time of the intention and the subjective norm measures is important. Accordingly, this research used three

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subjective norm questions; question 12 in section B and 13 in sections C and D were each worded so the action, targets, and time elements corresponded with the intention measure for that particular sewing service. The questions were in the semantic differential format and scored from +3 to -3, with one pole being extremely likely to "think I should pay someone" to perform each of the services in the next year and the other pole being extremely unlikely to "think I should do so."

Attitude Determinant Measures

Fishbein and Ajzen (1975) theorized that attitudes are based on behavioral beliefs. Approximately five to 11 salient behavioral beliefs are used in understanding attitudes, and each belief is connected to the behavior through an attribute. Each attribute is an outcome of engaging in the behavior and is referred to as the outcome evaluation. Each behavioral belief has an evaluative strength, how strongly the person believes that engaging in that behavior will result in that specific outcome. By multiplying each outcome evaluation by its corresponding strength score and summing these products, an estimated attitude can be calculated. Thus, two variables were measured through the questionnaire: behavioral belief strengths and evaluations.

Behavioral Beliefs for Apparel Sewing Services

The salient behavioral beliefs associated with the attitudes toward purchasing each of the three apparel sewing services were determined according to Ajzen and Fishbein's (1980) process. Twenty women employed in a range of positions at three local colleges and universities, including Virginia Polytechnic Institute and State University, were

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surveyed through open-ended questions as to their beliefs about the advantages and disadvantages of purchasing clothing construction, alteration, and mending services in the next year (See Appendix A). Again, the correspondence of action, target, and time elements was important to enable development of the appropriate questions for the behavioral beliefs. The responses of the 20 women were grouped by similar beliefs, then ranked according to those that these women indicated most often and least often. The five to eleven of those behavioral beliefs indicated most often were taken as the salient behavioral beliefs and were used to construct outcome evaluation and behavioral belief strength statements for the questionnaire.

The salient behavioral beliefs for the behavior of paying someone to make clothes were determined to be beliefs about time involvement for purchasing construction services; the significance of clothing fit; price of the service; customization of the garment; quality of apparel construction; free time availability for other hobbies and projects; and level of risk for purchasing the service. The salient behavioral beliefs for paying someone to alter and mend clothing were about time saved by paying someone to alter or mend clothes; alteration or mending costs of the service; level of alteration or mending workmanship; extended clothing wear expectation; the use of time to hire someone to alter or mend clothing; the expectation of professional alterations or mending skills; the significance of the clothing fit; and the money savings realized by hiring someone to alter or mend clothing.

Behavioral Belief Outcome Evaluations

As shown in Figure 3.1, each behavioral belief is associated with the behavior through an outcome evaluation, i.e., the respondent's indication of how good or bad the outcome is from engaging in a specific behavior.

The semantic differential question format was employed, and the questions were scored in a range of +3 to -3. Such a scale gives the respondent the opportunity to indicate either a good or bad outcome. Marking the positive pole, +3, would indicate that the outcome was extremely good. The negative pole, -3, would indicate that the outcome was extremely bad. All outcome evaluation questions were formulated keeping action, target, and time elements in agreement with the attitude questions.

Table 4 cites the sections and specific questions of the final questionnaire (See Appendix B) which were used to measure respondents' behavioral belief outcome evaluations about the three sewing services. The questions are based on the salient beliefs identified through the previously described preliminary survey of the 20 women.

Behavioral Belief Strength

Each outcome evaluation measure is used with a measure of the behavioral belief strength to calculate the behavioral beliefs. This section describes the way of assessing the behavioral belief strengths in the questionnaire.

Each behavioral belief is evaluated as to its strength, i.e., the respondent's belief about how likely or unlikely it is that the behavior will lead to certain outcomes. The framing of the strength questions corresponded with the same action, target, and time

Table 4. Behavioral Belief Determinants and Corresponding Questions on the Questionnaire

		Placement on Questionnaire			
		Belief Strength		Belief Outcome	
Sewing Service	Behavioral Belief	Section	Number	Section	Number
Apparel Construction	Time Involvement	B	4a	B	5
	Clothing Fit	B	4b	B	6
	Price	B	4c	B	7
	Customization	B	4d	B	8
	Apparel Construction	B	4e	B	9
	Free Time Availability	B	4f	B	10
	Level of Risk	B	4g	B	11
Apparel Alterations	Time Savings	C	4a	C	5
	Alterations Cost	C	4b	C	6
	Workmanship	C	4c	C	7
	Clothing Wear Expectancy	C	4d	C	8
	Time Use	C	4e	C	9
	Professional Alterations	C	4f	C	10
	Clothing Fit	C	4g	C	11
	Money Savings	C	4h	C	12
Apparel Mending	Time Savings	D	4a	D	5
	Mending Cost	D	4b	D	6
	Workmanship	D	4c	D	7
	Clothing Wear Expectancy	D	4d	D	8
	Time Use	D	4e	D	9
	Professional Mending	D	4f	D	10
	Clothing Fit	D	4g	D	11
	Money Savings	D	4h	D	12

Note. See Appendix B for sample questionnaire.

element as the questions about intention, attitude, subjective norm, and behavioral outcome evaluations. Semantic differential questions were once again employed to assess the behavioral belief strengths for purchasing the three sewing services. The questions were scored on bipolar scales with + 3 being the score for "extremely likely" and -3 being the score for "extremely unlikely". Such a scale gives the respondent the opportunity to indicate either a negative or positive belief strength. It should be noted that, if a respondent indicates a negative strength of a purchasing the three sewing services. The questions were scored on bipolar scales with + 3 being the score for "extremely likely" and -3 being the score for "extremely unlikely". Such a scale gives the respondent the opportunity to indicate either a negative or positive belief strength. It should be noted that, if a respondent indicates a negative strength of a belief and also a negative outcome evaluation, the positive calculated product of the two will result in the salient behavioral belief evidencing as a positive influence on attitude (Ajzen & Fishbein, 1980).

Table 4 cites the sections and specific questions of the final questionnaire (See Appendix B) which were used to measure respondents' behavioral belief strengths about the three sewing services. The questions are based on the salient beliefs identified through the previously described preliminary survey of the 20 women.

Subjective Norm Determinant Measures

The subjective norm and its determinants were measured in a manner similar to attitude. Subjective norms are a person's perception of what she thinks a generalized important group of others, called referents, believes she should do. The determinants of

subjective norms are normative beliefs with respect to specific referents and the respondent's motivation-to-comply with those normative beliefs. Normative beliefs are not based on beliefs about the behavior in question, but rather on perceptions of how specific individuals or groups of people in one's life

think she should behave. "Normative beliefs are thus similar to subjective norms, except that they involve specific individuals or groups rather than a generalized important other" (Ajzen & Fishbein, 1980, p. 73).

As in the cases of attitudes and behavioral beliefs, many referents are present but only the salient referents are determinants of the subjective norm. Knowing the salient referents and the normative beliefs is the first step. Next, an understanding of the respondent's motivation-to-comply with the normative belief is necessary. By multiplying the normative belief scores by their corresponding motivation-to-comply scores and summing these products, an estimated subjective norm product can be calculated. Thus, two variables were measured through the questionnaire: normative beliefs and motivation-to-comply.

Salient Referents for Purchasing Sewing Services

To determine the salient referents for inclusion in the final questionnaire, the representative sample of employed women that was used to identify salient behavioral beliefs was also asked open-ended questions about persons whom they believed would approve or disapprove of the purchase of clothing alteration, mending, or construction. These referents were elicited for each of the three apparel sewing services by specifically

asking, "Are there any groups of people who would approve or disapprove of your paying someone to (make, alter, or mend) clothing for you or your family?" (See Appendix A.) The answers to each question were tabulated, and the three to four answers given most often for each service were taken as the salient referents for that apparel sewing service. The salient referents then were used to construct normative belief statements that were in agreement with intentions, attitudes, and behavioral belief strengths and outcomes in action, target, and time elements for the final questionnaire. The normative beliefs for this study were specifically about the following salient referents: business, retailer, family, and friends who sew. Because this method was used to identify the salient referents, henceforth it is to be understood that when salient referents are named they are modal salient referents.

Normative Beliefs for Apparel Sewing Services

Table 5 cites the sections and specific questions of the final questionnaire (See Appendix B) which were used to measure respondents' normative beliefs about the three sewing services. The section on making clothes was the only one of those three sections that included a normative belief question about the referent "friends who sew."

All the questions on normative beliefs were in the semantic differential format, on the extremely likely to extremely unlikely scale scored from +3 to -3 respectively.

Motivation-To-Comply Measure

For each of the referents in the normative beliefs to be relevant to the research, the respondents' motivation-to-comply with each normative belief must be measured. Thus, a

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Table 5. Subjective Norm Determinants and Corresponding Questions on
the Questionnaire

		Placement on Questionnaire			
		Subjective Norm		Motivation-to-Comply	
Sewing Service	Relevant Others	Section	Number	Section	Number
Apparel Construction	Business	B	13	D	17
	Retailer	B	14	D	18
	Family	B	15	D	19
	Friends Who Sew	B	16	D	20
Apparel Alterations	Business	C	13	D	17
	Retailer	C	14	D	18
	Family	C	15	D	19
Apparel Mending	Business	D	13	D	17
	Retailer	D	14	D	18
	Family	D	15	D	19

Note. See Appendix B for sample questionnaire.

corresponding motivation-to-comply question for each normative belief was phrased as to how much the respondent wanted to do what that specified group or person thought she should do. The response format was a scale from "not at all" to "very much", scored from +1 to +7. Responses resulted in scores which functioned as weights for the normative beliefs as to how likely respondents were to comply with each normative belief. To alleviate repetition and excessive length of the questionnaire, the motivation-to-comply questions were placed at the end of section D of the questionnaire and were questions 17, 18, 19, and 20 (See Appendix B). Table 5 also illustrates the fact that these questions were only asked once.

The remaining variables that may play a role in the purchase of sewing services are the external variables. According to Ajzen and Fishbein (1981) these variables have possible relations with the other variables in the model, as represented by the broken lines in Figure 3.1. Discussion of the measurement and scoring of these variables follows.

External Variables

Ajzen and Fishbein (1980) recognized that external variables often affect the behavioral belief-attitude, normative belief-subjective norm, and intention-attitude-subjective norm relationships. The review of literature identified variables that could act as external variables in this study. Several such variables have previously been shown to influence the purchase of, or expenditures on, apparel sewing services. They include employment orientation, sewing skill level, sewing machine ownership, age of youngest child, hours in paid work, family structure (single or married),

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family size, family income, education level, wage rate, age, and perception of availability of service provider. For discussion purposes, these variables are grouped according to demographic variables and sewing-related variables.

Questionnaire section A contained questions to provide data on some demographic variables: question 5, employment orientation; question 6, weekly work hours in career or job; and question 7, highest education level completed. Section A also contained questions for the sewing skill variables: question 1, personal sewing skill; question 2, availability of sewing machine in home; and question 3, presence of other people in home who could sew. The questions for the service provider availability formed the two-part question 4 in section A. Questions 1 through 6 in section E of the questionnaire dealt with the remainder of the demographic variables. These variables are marital status, number of people in the household, age of the youngest child, household income, and respondent's income and age. (See Appendix B.) After the instrument was developed, it was evaluated and pilot tested as discussed next.

Instrument Evaluation and Pilot Test

The instrument was pilot tested as follows. First, the instrument was examined by three Clothing and Textiles faculty members for clarity and ease of completion. Then a test-retest method was used in pilot testing to determine respondent consistency. The same instrument was administered twice, 10 days apart, to the same 13 employed women. The instrument was administered to 13 women employed at New River Community College and various other agencies in the New River Valley of Virginia. One of the goals

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of the pilot testing was to determine the approximate amount of time respondents would take to complete the questionnaire; the average respondent in the initial pilot test took 18 minutes to complete the questionnaire. Clarity was assessed during this initial pilot test by asking respondents if the questions were clear. No written feedback was received but some verbal feedback was, and changes were made accordingly. The most significant change was placement of the motivation-to-comply questions in only one section on the final questionnaire. The pilot test questionnaire included these questions in sections B, C, and D, but the final questionnaire included these questions only in section D (See Appendix B).

After the second administration of the instrument to the same 13 women, the percent of agreement was calculated for each question. The results of that calculation indicated that, on average, 51.5% of the women's responses to the questions were exactly the same in the pre- and post-tests. Upon this finding, a second percent of agreement was calculated by rescoring each respondent's questionnaire and counting any questions in the post-test in which any of the women indicated an answer that was adjacent to the original answer on the first testing. For example, if a respondent answered an intention question as slightly unlikely on the first test and answered the question on the second test as quite unlikely, those answers were counted as agreeing. With this change, the average percent of agreement rose to 74.6% It was important to establish that respondents were answering the pre- and post-test questions in a similar manner, and the results showed that this was happening.

Sampling Procedures

The population for this research had to meet two criteria. First, only women were questioned. The exclusion of men was based on the assumptions that men have different attitudes toward purchasing the services under study as well as different belief systems and that they could be purchasing somewhat different services than women. Only women employed outside the home, either full or part-time employed, was the second criterion for the women in the population. This criterion was established because much of the basis for this research is drawn from household production literature and the impact of women being employed outside of the home on household production. The increased purchase of services to replace household production activities as women enter the paid workforce makes employed women a potential target market for apparel sewing service providers.

For the research, a nonrandom convenience sample was drawn from the women employed at Virginia Tech. The Virginia Tech sample of women was expected to reflect a broad range of education levels, income levels, ages, and employment hours. These variables were thought to play some role in the purchase of apparel sewing services, and they were accounted for as external variables. As well, the proximity of this sample increased the possibility that the response rate would yield an adequate number of respondents, a minimum of approximately 105, needed for the statistical analysis. This sample also eliminated the cost of postage because the questionnaire could be sent through campus mail.

An incentive for answering the questionnaire was offered. Each respondent was eligible to win a drawing for four hours of free apparel sewing services valued at $74.00 (4 hours @ $18.50 per hour). These apparel sewing services were provided by a highly skilled local sewing service provider. The winner would be free to designate how she wanted to use the four hours. Four hours allows, for example, enough time for the fitting and construction of a simple lined skirt (the fabric and pattern supplies for the skirt were to be provided by the winner), or for the alteration or repair of approximately three lined skirts or three pairs of lined pants.

Data Collection

In order to utilize the sample described above, permission for conducting research involving human subjects was sought from the Institutional Review Board at Virginia Tech. (See Appendix C.) After approval was obtained from the Institutional Review Board, names and campus addresses of the female faculty and classified staff members listed in the 1995-96 Virginia Tech University telephone directory were requested from the publications office at Virginia Tech. This listing was subsequently compiled by the campus computing center and electronically sent to the researcher.

The questionnaires were mailed via campus mail to all the women listed as on-campus employees. The Virginia Tech University telephone directory includes the names and telephone numbers of women employed off campus such as in Cooperative Extension Offices around the state; the questionnaire was not sent to these women.

Before the questionnaires were sent, each was coded with a number that corresponded to a coded listing of the on-campus employed women. As each questionnaire was returned, the person's number was marked as returned. A return address label was enclosed with each questionnaire to facilitate the return of the questionnaire to the Clothing and Textiles Department.

Two weeks after the initial mailing of the questionnaire, follow-up post cards were sent reminding each person of the questionnaire, thanking them for participating if they had already returned it, and asking those who had not yet completed it to do so and return it to the Clothing and Textiles Department via campus mail (See Appendix D).

Respondents were told that, in order to be eligible for the drawing, their questionnaires had to be received back in the Department within three weeks of the initial mailing. In the end, all questionnaires received within four weeks of the mailing were included in the drawing. The drawing was held by having nine students in a fashion merchandising course at New River Community College each pick and write down one number between 1 and 2,089. Then one number at a time was randomly picked from the nine numbers and checked against the master list to see if the questionnaire had been returned. This process continued until a number was chosen that corresponded to a returned questionnaire. The winner of the drawing was notified by mail, and permission was requested to release her name as the winner. She agreed to allow her name to be released to announce the winner of the sewing services.

A non-respondent survey was conducted a few months after the initial questionnaire was sent. The purpose of this survey was to compare the overall sample of respondents with the non-respondents to ascertain possible differences between the two, which could indicate the possibility of non-observation errors. Twenty women were called at work by telephone and asked six questions on sewing skill level, education level attained, age, number of people in the household, age of the youngest child at home, and personal income. The 20 women who were called were randomly selected by taking every 104th woman on the mailing list; if the woman selected had returned the questionnaire, the next woman on the list was called. One hundred four was calculated by dividing the number of women on the list (2,089) by 20, the target number for the survey. One disadvantage of calling, as opposed to mailing the non-respondent survey, was that women employed in the housekeeping staff were unreachable at their phone numbers listed in the phone directory. Thus, the non-respondent survey does not include any of the women on the housekeeping staff who are generally among the lowest paid employees at Virginia Tech.

Table 6 presents a comparison of the percentage distribution of respondents and non-respondents in the categories of each of the six external variables measured on the non-respondent survey. Similar percentage distributions for the respondents and non-respondents are shown for the categories of the number of people in the household and the age of the youngest child at home. The percentage distributions of respondents and non-respondents are dissimilar for the women's education levels, ages, and incomes. A

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Table 6. Comparison of External Variables for Overall Sample and Non-respondent Survey Participants

	Percentage Distributions	
Demographic Variables	Overall Sample	Non-respondents
Highest Education Completed	$\underline{N} = 655$	$\underline{N} = 20$
Some high school or graduated	9	40
Some College	19	20
Associate Degree	6	15
BA/BS	24	10
MA/MS	21	10
PhD/EDD	18	5
Other	3	0
Respondent's Age (Years)	$\underline{N} = 643$	$\underline{N} = 20$
Under 25	3	10
25 to 29	11	40
30 to 39	28	35
40 to 49	37	10
50 to 59	17	5
Above 60	3	0
Number of People in Household	$\underline{N} = 650$	$\underline{N} = 20$
One	15	25
Two	43	25
Three	22	25
Four	15	15
Five	4	10
Six or more	1	0
Age of Youngest Child	$\underline{N} = 643$	$\underline{N} = 20$
No children in household	59	65
Infant to 2 Years	9	5
3-5 years	5	15
6-12 years	14	10
13-15 years	6	0
16-18 years	7	5
Respondent's Income ($)	$\underline{N} = 634$	$\underline{N} = 20$
Under 20,000	24	15
20,000 to 29,999	43	60
30,000 to 49,999	21	25
50,000 to 69,999	9	0
70,000 or above	4	0
Sewing Skill Level	$\underline{N} = 651$	$\underline{N} = 20$
No Skill	16	45
Novice/Basic	45	25
Intermediate	31	30
Expert/Advanced	9	0

Note. Percentage distribution totals may not equal 100 because of rounding.

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contrast becomes evident when the percentage distributions for the education levels of BA/BS, MA/MS, PhD or EdD, and other professional degree are summed and compared to the summed percentage distributions in the education categories high school, some college, and Associate Degree. A larger percentage of the respondents had bachelor's or advanced degrees, and a larger percentage of the non-respondents had less than a bachelor's degree. Comparisons of the age distributions shows that the respondents were generally older than the non-respondents. A striking difference seen in Table 6 is that 50% of the non-respondents were below the age of 30, whereas only 14% of the respondents were below the age of 30. When incomes for the two groups are compared on the whole, the non-respondents had lower incomes than the respondents. There were differences between the non-respondents and the respondents to the survey which suggests the possibility of a self-selection bias. The research respondents might have responded to the questionnaire because they were more aware of, or able to, purchase these apparel sewing services. The inclusion of the non-respondents might have changed the research results. A larger non-respondent survey would have to be completed in order to draw more definitive conclusions.

Analysis of Data

The data gathered from the questionnaire were entered into a computer data base, and several statistical packages were used to accomplish the data analysis. Three apparel sewing service purchase behaviors were analyzed according to the model in Figure 3.1.

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Four relationships in this model were tested, as described subsequently. This section is organized by the four relationships for which research hypotheses were stated.

The data analyses and testing of the hypothesized relationships followed the order designated by Azjen and Fishbein (1980) who based their theory on the premises that (a) there must be an intention-behavior relationship before testing for an intention-attitude-subjective norm relationship, and (b) an attitude-subjective norm-intention relationship must be present before testing for a behavioral belief-attitude relationship or a normative belief-subjective norm relationship. The null hypotheses for testing each relationship are presented, followed by the statistical procedure used. The null hypotheses parallel the research hypotheses stated in the previous chapter. The established significance level for rejecting all null hypotheses was .05.

Intention-Behavior Relationships

According to Ajzen and Fishbein (1980), intention is the immediate determinant of behavior. The following null hypotheses were the first to be tested in the entire statistical analysis:

H1a: Employed women's intentions to purchase clothing construction services in the next year and their previous purchase of clothing construction services will not be significantly related.

H1b: Employed women's intentions to purchase clothing alteration services and their previous purchase of clothing alteration services will not be significantly related.

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H1c: Employed women's intentions to purchase clothing mending services and

their previous purchase of clothing mending services will not be significantly

related.

Each of these relationships was tested with the Kendall's Tau Correlation, a

nonparametric statistic, to determine the direction and strength of that relationship. (See

Figure 4.1.) A nonparametric statistic was used because the behavior variable was

measured with a nominal (yes/no) scale. Kendall's Tau Correlation analyzes the

association between pairs of variables. The correlation is concordant and positive when

both variables in the pair either increase or decrease. If the correlation is discordant and

negative, then one variable increases while the other decreases. The tau value is actually

the difference between the number of concordant pairs and discordant pairs divided by the

total number of pairs, and the value can be anywhere between +1 to -1.

Attitude-Subjective Norm-Intention Relationship

Ajzen and Fishbein (1980) proposed that the determinants of intention be tested

after testing for the intention-behavior relationship. In the reasoned action model, the

intention determinants are the attitude toward performing the behavior and the subjective

norm about the behavior. The following null hypotheses relate to the attitude-subjective

norm-intention relationships that were tested for the three apparel sewing services:

| Intention to Purchase Apparel Construction Services | H_{1a} → | **Behavior** - Past Purchase of Apparel Construction Services |

| Intention to Purchase Apparel Alteration Services | H_{1b} → | **Behavior** - Past Purchase of Apparel Alteration Services |

| Intention to Purchase Apparel Mending Services | H_{1c} → | **Behavior** - Past Purchase of Apparel Mending Services |

→ Stable theoretical relations linking beliefs to behavior

Figure 4.1
Intention-Behavior Relationships

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H2a: Employed women's intentions to purchase clothing construction services will not be significantly related to their attitudes toward purchasing clothing construction services nor to their subjective norms for purchasing clothing construction services.

H2b: Employed women's intentions to purchase clothing alteration services will not be significantly related to their attitudes toward purchasing clothing alteration services nor to their subjective norms for purchasing clothing alteration services.

H2c: Employed women's intentions to purchase clothing mending services will not be significantly related to their attitudes toward purchasing clothing mending services nor to their subjective norms for purchasing clothing mending services.

Each of these relationships was tested using multiple regression with the intention to purchase as the dependent variable and attitude and subjective norm as the independent variables (See Figures 4.2, 4.3, and 4.4).

The standardized regression coefficients for attitudes and subjective norms serve as relative weights for the variables and indicate the relative importance of the variables in the prediction of the purchase intention. The variable with a larger standardized Beta has more weight and plays a larger role in the prediction of intention to purchase sewing services. The standardized Beta is used instead of the beta because the standardized Beta values can be compared to each other, whereas the differing units of measure for the variables render regular beta values noncomparable.

```
┌─────────────────────┐
│ Attitude Toward     │──────────────────────┐
│ Purchasing Apparel  │                      │
│ Construction Services│                     │
└─────────────────────┘                      │
                                             ▼
┌──────────────────────────────────┐   ┌─────────────────────┐
│ Relative Importance of Attitudinal│  │ Intention to Purchase│
│ and Normative Components          │  │ Apparel Construction │
└──────────────────────────────────┘  │ Services             │
                                       └─────────────────────┘
┌─────────────────────┐
│ Subjective Norm for │
│ Purchasing Apparel  │
│ Construction        │
│ Services            │
└─────────────────────┘
```

H_{2a}
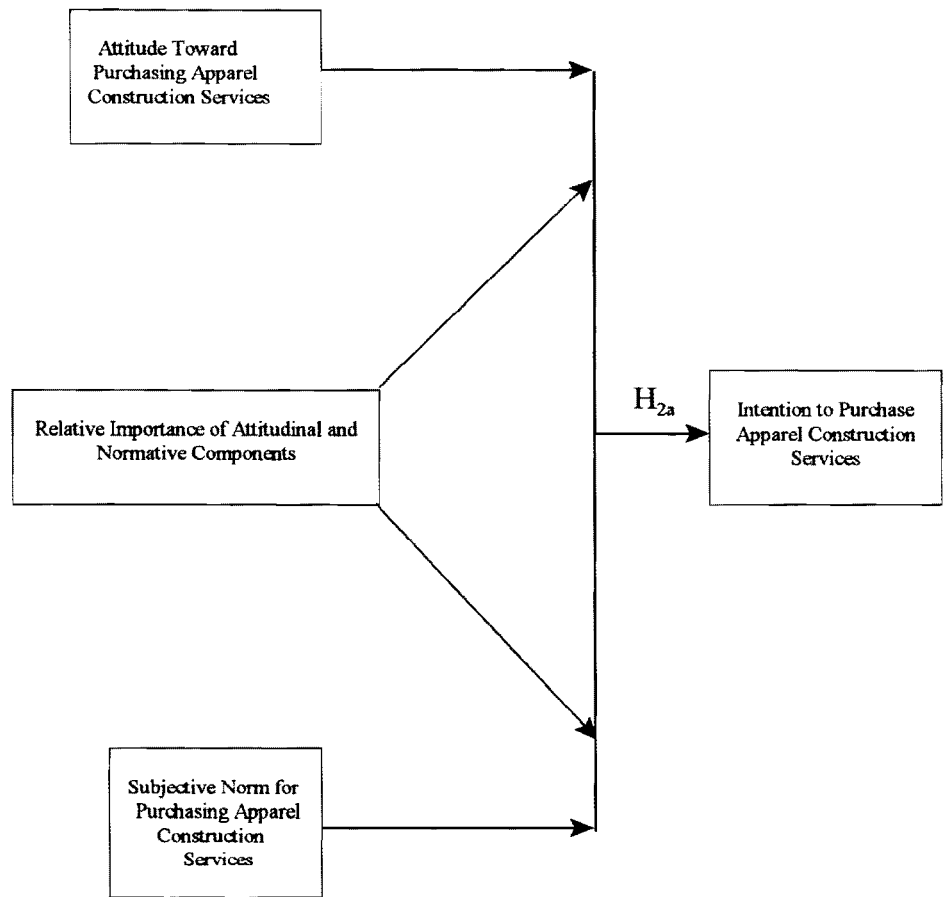
──────────► Stable theoretical relations linking beliefs to behavior

Figure 4.2
Attitude-Subjective Norm-Intention Relationship:
Purchasing Apparel Construction Services

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Attitude Toward
Purchasing Apparel
Alteration Services

Relative Importance of Attitudinal
and Normative Components

Subjective Norm for
Purchasing Apparel
Alteration
Services

H_{2b}

Intention to Purchase
Apparel Alteration
Services

→ Stable theoretical relations linking beliefs to behavior
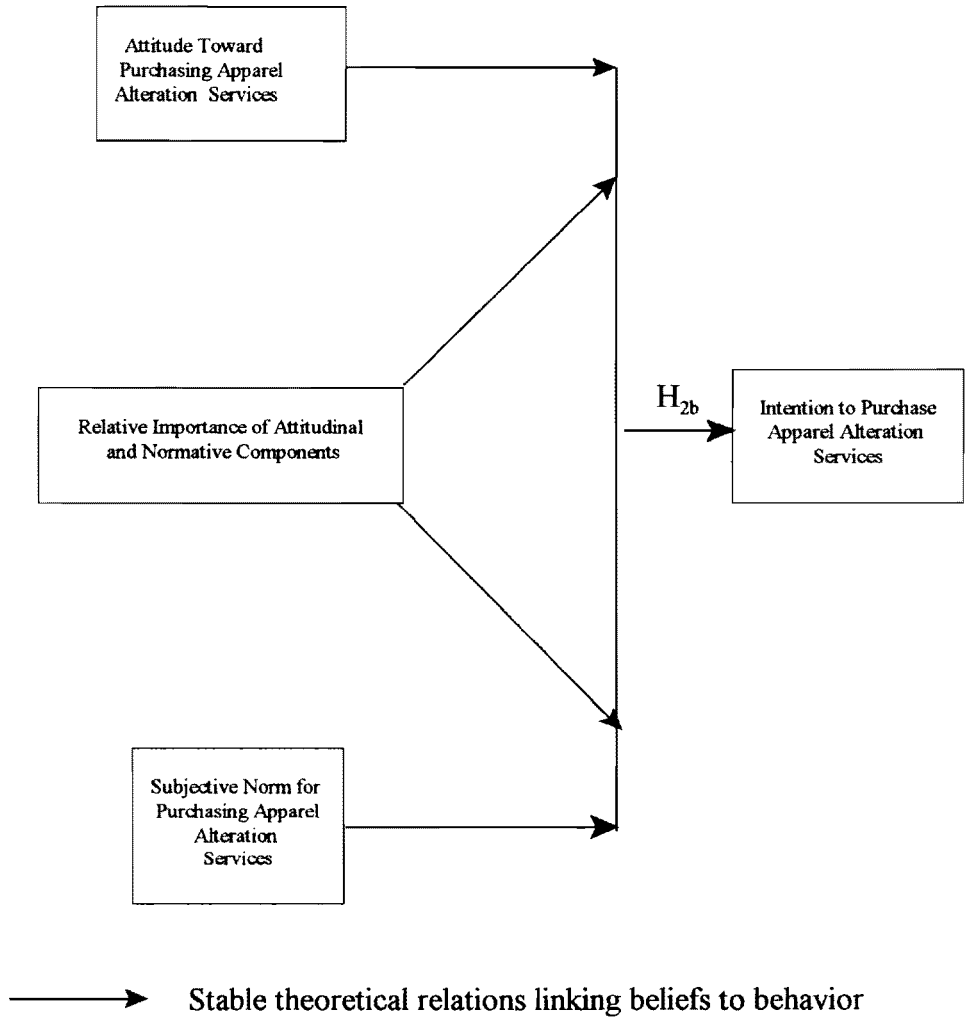
Figure 4.3
Attitude-Subjective Norm-Intention Relationship:
Purchasing Apparel Alteration Services

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Attitude Toward Purchasing Apparel Mending Services		
Relative Importance of Attitudinal and Normative Components	H_{2c}	Intention to Purchase Apparel Mending Services
Subjective Norm for Purchasing Apparel Mending Services		

Stable theoretical relations linking beliefs to behavior
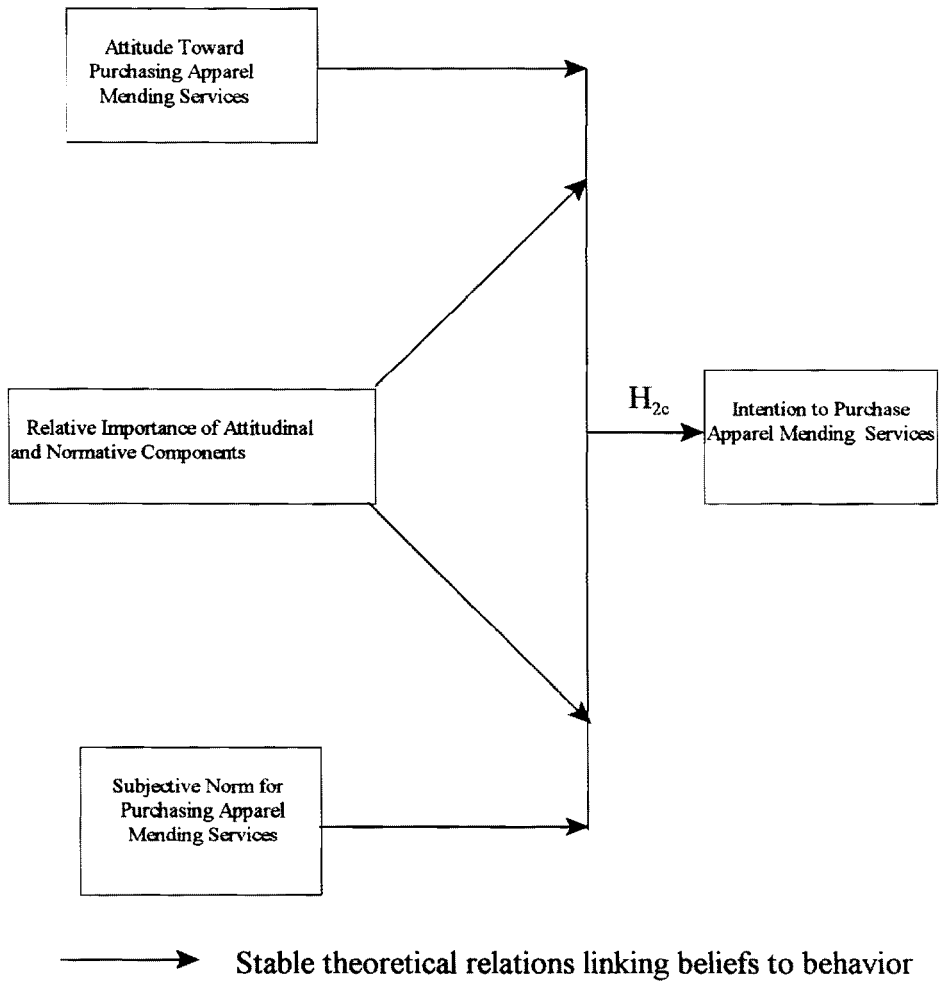
Figure 4.4
Attitude-Subjective Norm-Intention Relationship:
Purchasing Apparel Mending Services

Behavioral Beliefs-Attitude Relationship

Behavioral belief outcome evaluations and belief strengths are the determinants of attitude, and the summed product of behavioral beliefs is an estimate attitude (Ajzen & Fishbein, 1981). Calculation of behavioral belief measures was necessary before the behavioral beliefs-attitude relationship could be tested. The initial step in that calculation, according to Ajzen and Fishbein (1981), is to produce products for each salient behavioral belief by multiplying the score for an outcome evaluation by the score for the corresponding belief strength. The sum of those products is the estimated attitude.

Figures 4.5 and 4.6 illustrate the calculation of the behavioral beliefs and the summed attitude for each of the three sewing services. The making-clothes beliefs were about time involvement, clothing fit, price, customization, apparel construction, free time availability, and level of risk. The altering-clothes beliefs were about time savings, alteration costs, workmanship, clothing wear expectancy, time use, professional alterations, clothing fit, and money savings. The mending-clothes beliefs were about time savings, mending costs, workmanship, clothing wear expectancy, time use, professional mending, clothing fit, and money savings. After the summed attitude for each sewing service was calculated, the relationship between those summations and the directly-measured attitudes were tested using the Pearson Product Moment Correlation. The following null hypotheses were tested for the apparel purchasing behaviors:
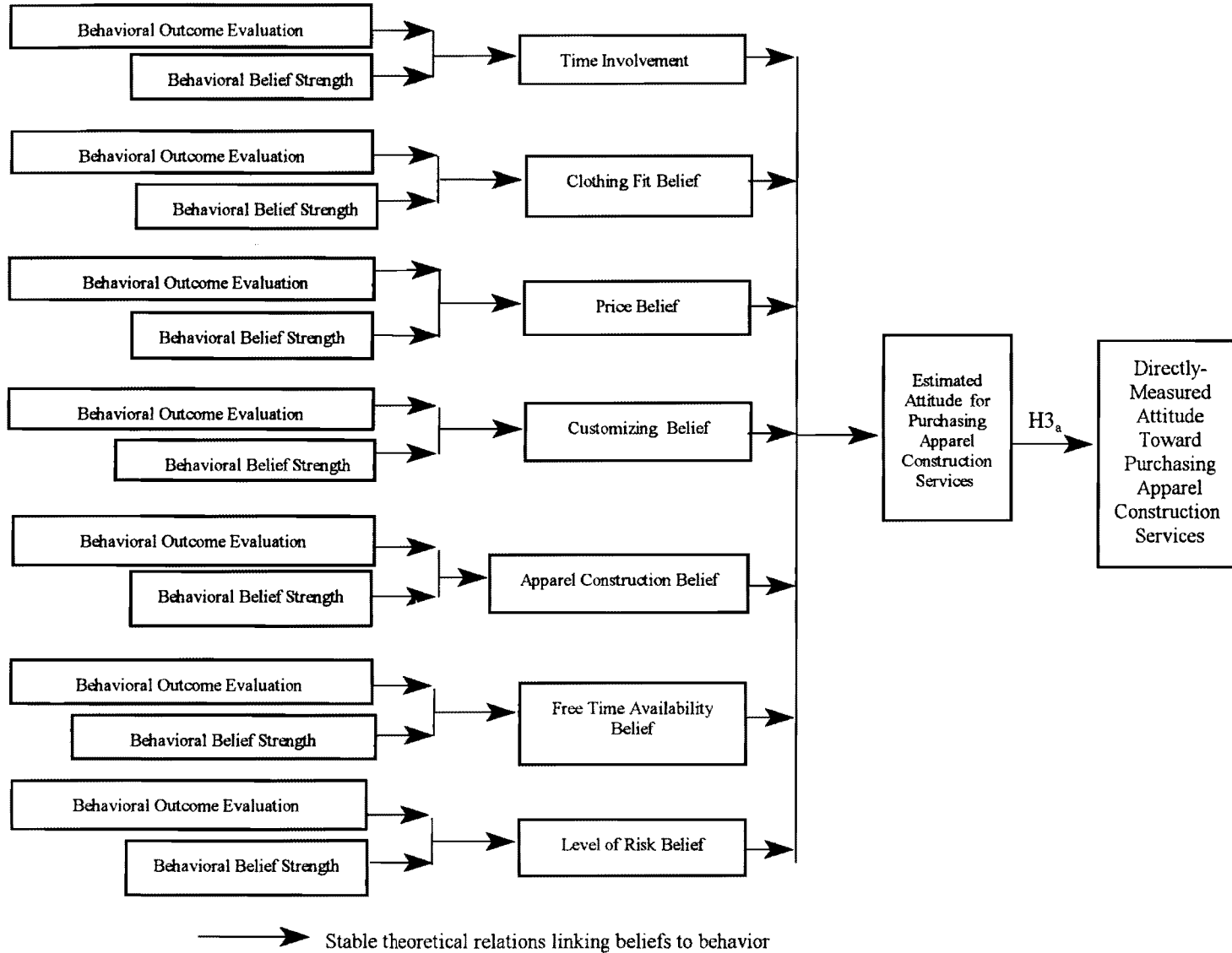
Figure 4.5 Behavioral Belief –Attitude Relationship: Purchasing Apparel Construction Services
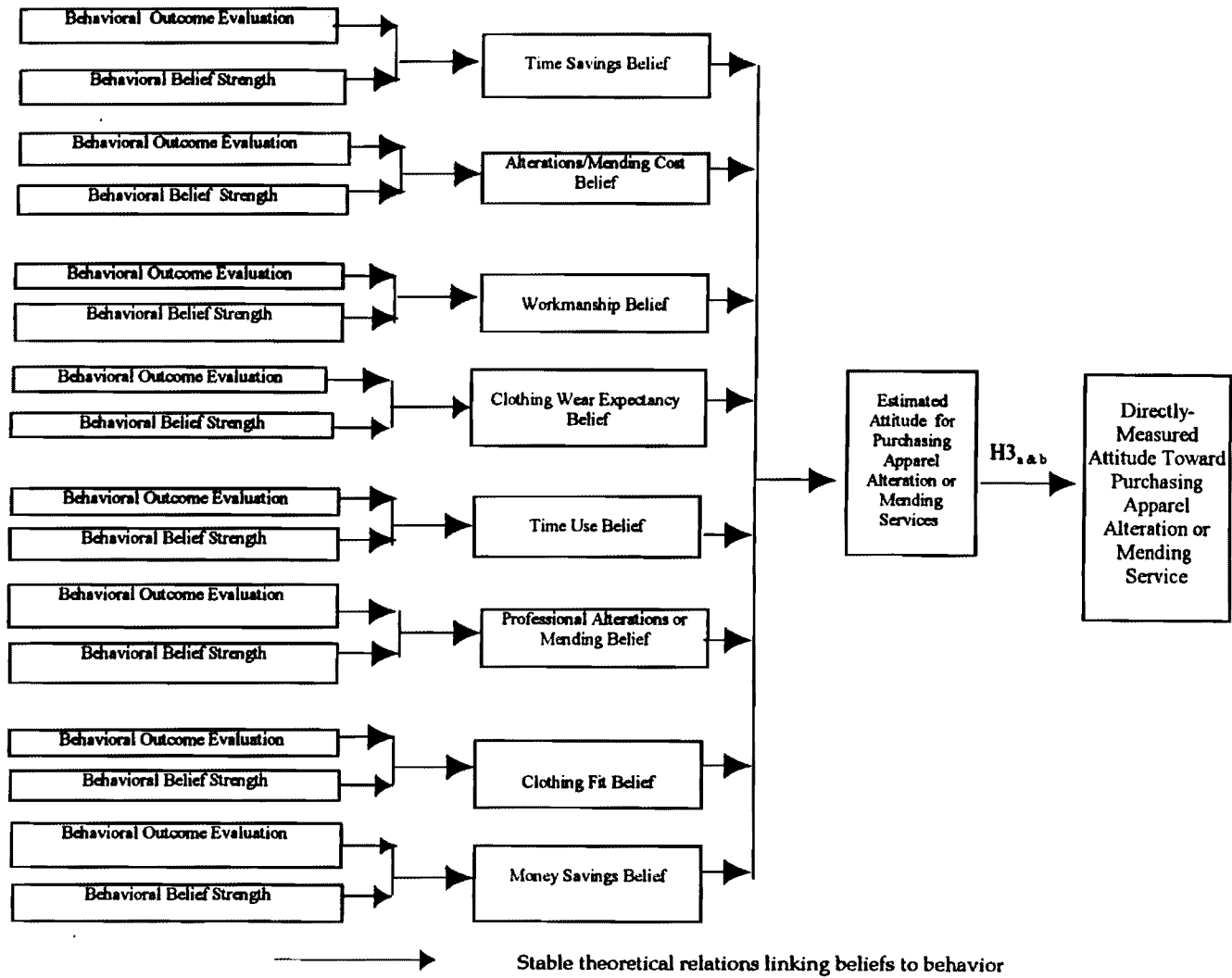
Figure 4.6 Behavioral Belief –Attitude Relationship: Purchasing Apparel Alteration or Mending Services

H3a: For the employed women, the summed products of the outcome evaluations

and the belief strengths will not be significantly related to the directly-measured

attitudes about purchasing clothing construction services in the next year.

H3b: For the employed women, the summed products of the outcome evaluations

and the belief strengths will not be significantly related to the directly-measured

attitudes about purchasing clothing alteration services in the next year.

H3c: For the employed women, the summed products of the outcome evaluations

and the belief strengths will not be significantly related to the directly-measured

attitudes about purchasing clothing mending services in the next year.

<u>Normative Beliefs-Subjective Norm Relationship</u>

Calculations and testing for the normative beliefs-subjective norm relationship

were similar to those for the behavioral beliefs-attitude relationship. Normative beliefs and

motivation-to- comply are the determinants of subjective norm; the measurements for

those two variables for each salient referent are used to calculate a estimated subjective

norm product (Ajzen & Fishbein, 1981). Before that calculation could be completed,

however, products for each salient referent were produced by multiplying the scores from

the normative belief and the motivation-to-comply measures (See Figures 4.7 and 4.8).

The making-clothes salient referents were business, retailer, family, and friends who sew.

The altering- and mending-clothes salient referents were business, retailer, and family.

After the estimated subjective norm for each sewing service was calculated, the

relationships between those summations and the directly-measured subjective norms were

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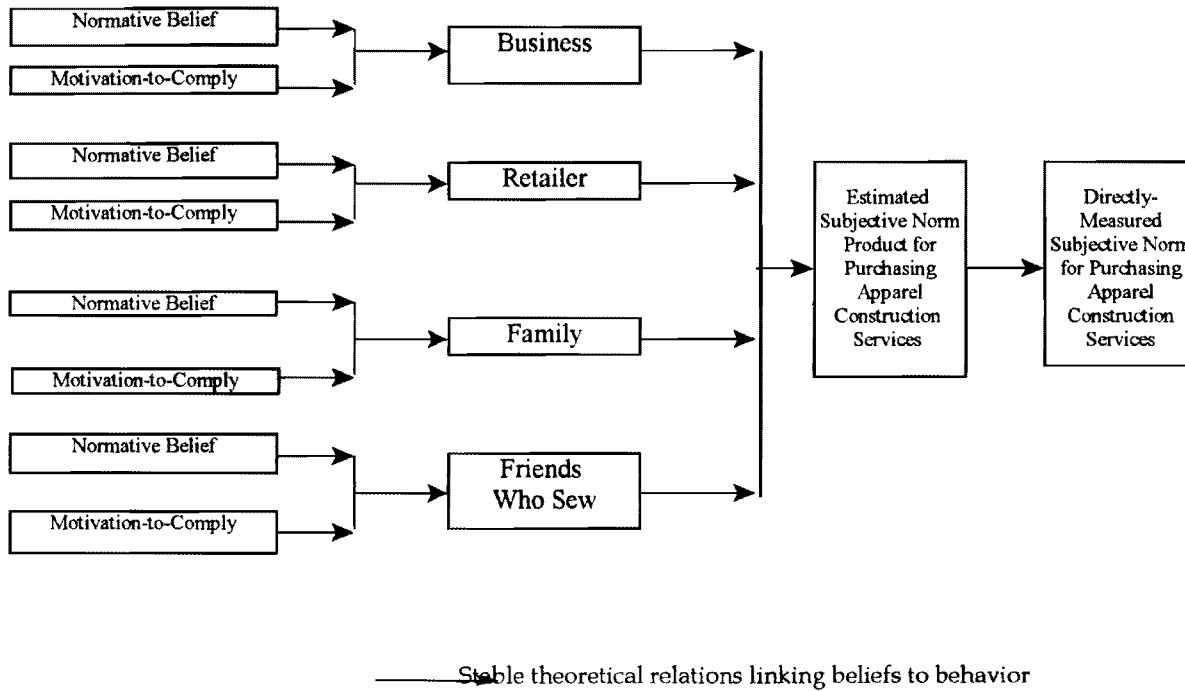
Figure 4.7 Normative Belief-Subjective Norm Relationship: Purchasing Apparel Construction Services
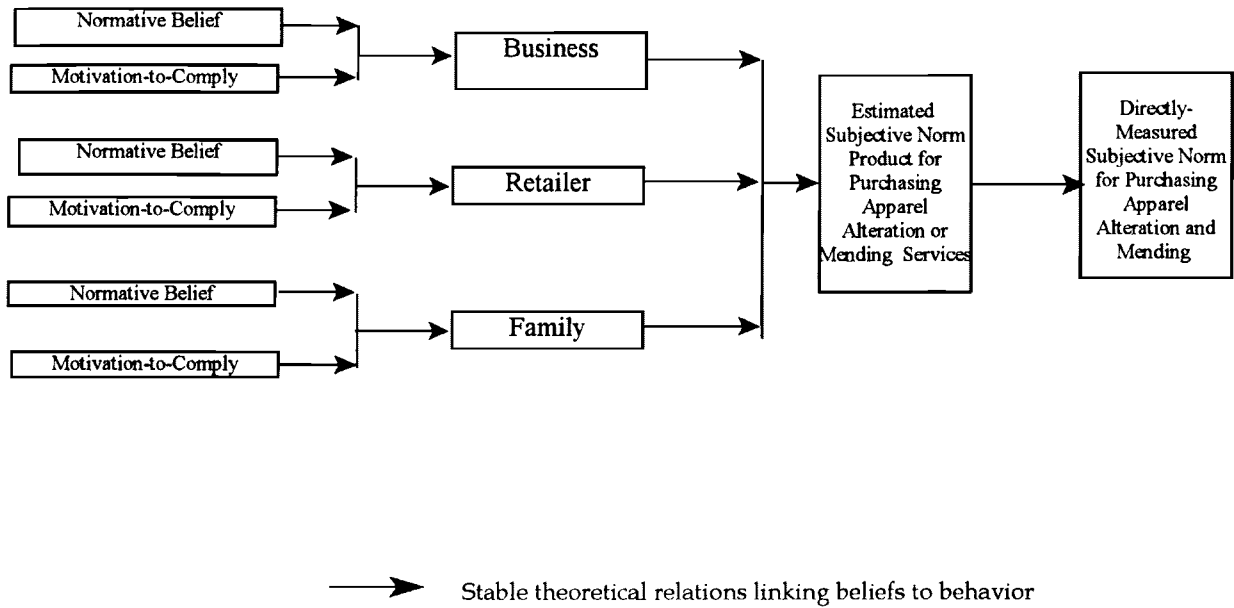
Figure 4.8 Normative Belief-Subjective Norm Relationship: Purchasing Apparel Alteration and Mending Services

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tested using the Pearson Product Moment Correlation. The following hypotheses were tested for the respondents' subjective norms:

H4a: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will not be significantly related to the directly-measured subjective norm for purchasing clothing construction services in the next year.

H4b: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will not be significantly related to the directly-measured subjective norm for purchasing clothing alteration services in the next year.

H4c: For the employed women, the summed products of the normative beliefs and their motivation-to-comply with those beliefs will not be significantly related to the directly-measured subjective norm for purchasing clothing mending services in the next year.

External Variables

The external variables served to describe the sample. As well, the intention-attitude-subjective norm relationship, the estimated attitude, and the estimated subjective norm were each tested with the external variables for the purpose of increasing understanding of those relationships and constructs incorporated in the reasoned action model. Chow tests were conducted to determine if the Beta weights, the standardized Betas, for the attitude and subjective norm variables differed significantly when the

regression model included versus excluded any one of the external variables. For each

sewing service two null hypotheses were tested by the Chow tests as follows:

(1) No significant difference will be found between the overall F-values for

the following two regressions, (a) the regression of purchase intention on

directly-measured attitudes and subjective norms and (b) the regression of

purchase intention on directly-measured attitudes, measured subjective

norms, and one of the external variables.

(2) Each pair of corresponding standardized betas in the two regressions

noted in (1) will be equal.

For the estimated attitude and estimated subjective norm each relationship was

tested by analysis of variance followed by Tukey's HSD post hoc test. A separate one-

way analysis of variance, for each of the 14 external variables and for each of the three

sewing services, was conducted to test the following null hypotheses:

1. The means of the estimated attitudes about some of the three sewing

services are equal for each external variable under consideration.

2. The means of the estimated subjective norms about some one of the

three sewing services are equal for each level of the external variable under

consideration.

The analysis of variance tested whether the means were equal according to the F-

value. Thus, 84 analyses of variance were conducted in total, 28 for each of the three

sewing services. When significant differences in the means were found, Tukey's HSD was

used to test the equality pairs of means. Tukey's HSD test was chosen because it uses a larger, more conservative critical value than other post hoc tests when comparing the means of all possible pairs; its more conservative critical value lessens the chance of committing a Type I error, the rejection of the null hypothesis when it is true. This is important when a variable has more than two levels, thus more than two possible pairs to compare (Howell, 1992). In this research, the number of levels for the external variables ranged from two to seven.

The chapters to this point have intricately detailed the research problem, related research and literature, the theoretical framework, and the design of the research. The next chapter will convey and discuss the research results.

Chapter 5 Research Results And Discussion

The purpose of this research was to examine the nature and foundation of the normative influences and attitudes of a sample of employed women toward purchasing apparel sewing services. Questionnaires were sent to 2,092 women employed at Virginia Tech, and 679 (32%) of the questionnaires were returned. After eliminating those completed incorrectly and those returned by respondents who did not wish to complete them, 657 questionnaires were retained for the study yielding an overall response rate of 31%. The retained questionnaires include some that were deemed useable even though they did not have all questions answered. Thus, the number of respondents used in different parts of the analysis varied; the computer programs used for any one part of the statistical analysis eliminated respondents with missing values for any variable included in that statistical procedure.

The results are presented, discussed, and conclusions drawn in the following order: 1) External Variables, 2) Intention-Behavior Relationship, 3) Attitude-Subjective Norm-Intention Relationship, 4) Behavioral Beliefs-Attitude Relationship, 5) Normative Beliefs-Subjective Norm Relationship, and 6) the external variable testing.

External Variables

The external variables are discussed according to demographic and sewing-related variables. These two areas serve to describe the sample. Later, the statistical analysis of these variables will be discussed in reference to understanding the behavioral and normative beliefs and the changes in the Beta weights of the attitude and subjective norm

variables.

The percentage distribution of the respondents in the categories of the external variables is similar for the overall sample and, in most cases, for the purchasers and nonpurchasers of each apparel sewing service. Thus, the following discussion of the percentage distribution of respondents in the categories of the external variables focuses on the overall sample. For any variable which diverged between respondents who had or had not purchased a sewing service in the past, the different percentage breakdowns are presented.

Demographic Variables

As seen in Table 7, 65% of the overall sample were 30 to 49 years old, 62% had a "career" employment orientation, and 65% worked 40 to 49 hours per week. A college degree of some type, from an associate degree and up, was the highest education level attained by 72% of the sample. The majority of the respondents (69%) were currently married; 43% lived in households of only two people; 59% had no children in the household. Among the respondents with children, the largest percentage (14%) had children 6 to 12 years of age. Of the women who provided information about income, 82% indicated annual household incomes of $30,000 or more, and 88% said their own earnings in the previous year were $49,999 or less. See Table 7 for additional details of the demographic characteristics of the respondents.

Table 7. Demographic Variables for Overall Sample and By Sewing Service

		Percentage Distributions					
	Overall sample	Making clothes		Altering clothes		Mending clothes	
Variable	N=657	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers
Respondent's Age (Years)	N = 643	n = 311	n = 332	n = 493	n = 146	n = 286	n = 356
Under 25	3	2	3	2	4	1	4
25-29	11	10	12	11	14	9	13
30-39	28	29	29	29	29	24	33
40-49	37	36	38	37	38	41	34
50-59	17	19	14	18	13	20	14
Above 60	3	4	3	4	3	4	3
Employment Orientation	N = 653	n = 315	n = 338	n = 501	n = 148	n = 291	n = 361
Career	62	62	63	64	57	63	61
Just-a-Job	38	38	37	36	43	36	39
Weekly Work Hours in Career/Job	N = 647	n = 312	n = 335	n = 496	n = 147	n = 287	n = 359
15-19	0	0	0	0	0	0	0
20-29	4	4	3	4	2	3	3
30-39	3	2	3	3	2	2	3
40-49	65	66	65	63	73	65	66
50-59	16	17	14	17	11	17	14
60-69	11	8	13	11	10	9	11
70-80	2	2	2	2	2	2	2
Highest Education Completed	N = 655	n = 315	n = 340	n = 503	n = 148	n = 293	n = 361
Some high school or graduated	9	9	10	8	14	8	10
Some college	19	24	14	19	20	22	17
Associate degree	6	8	5	6	7	7	6
BA/BS	24	23	26	24	23	23	25
MA/MS	21	19	22	21	20	22	20
PhD/EdD	18	15	20	18	14	14	20
Other professional degree	3	3	3	3	2	4	2

(table continues)

Table 7 (continues)

Variable	Percentage Distributions						
	Overall sample	Making clothes		Altering clothes		Mending clothes	
	N=657	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers
Marital Status	N = 650	n = 312	n = 338	n = 501	n = 145	n = 291	n = 358
Never married	13	11	15	12	18	10	16
Married	69	70	68	70	65	68	69
Divorced	11	13	9	11	11	13	9
Separated	2	2	2	2	2	1	2
Widowed	2	3	1	0	1	3	1
Living with someone	4	3	4	4	3	5	3
Number of People in Household	N = 650	n = 312	n = 338	n = 500	n = 146	n = 290	n = 359
One	15	14	14	14	14	13	15
Two	43	42	45	45	38	47	41
Three	22	26	19	22	23	20	24
Four	15	13	18	14	19	14	16
Five	4	4	3	0	3	5	3
Six or more	1	0	1	0	1	1	1
Age of Youngest Child in Household	N = 643	n = 308	n = 335	n = 494	n = 145	n = 284	n = 358
No children in household	59	59	59	60	57	63	56
Infant to 2 years	9	10	9	10	8	7	12
3-5 years	5	4	5	6	1	4	5
6-12 years	14	12	17	13	20	13	16
13-15 years	6	8	4	7	5	8	5
16-18 years	7	8	5	6	9	6	7

(table continues)

Table 7 (continues)

Variable	Overall sample N=657	Making clothes Purchasers	Making clothes Nonpurchasers	Altering clothes Purchasers	Altering clothes Nonpurchasers	Mending clothes Purchasers	Mending clothes Nonpurchasers
			Percentage Distributions				
Household Income ($)	$N = 632$	$n = 306$	$n = 326$	$n = 488$	$n = 140$	$n = 283$	$n = 348$
Under 20,000	4	4	5	4	6	5	4
20,000-29,999	14	14	13	13	16	13	14
30,000-49,999	32	32	33	30	41	30	34
50,000-69,999	25	28	23	26	24	24	26
70,000-above	25	23	26	28	14	28	22
Respondent's Income ($)	$N = 634$	$n = 307$	$n = 327$	$n = 489$	$n = 141$	$n = 283$	$n = 350$
Under 20,000	24	21	27	22	31	23	24
20,000-29,999	43	48	39	44	42	44	43
30,0000-49,999	21	21	22	23	16	22	21
50,000-69,999	9	9	9	8	10	7	9
70,000 or above	4	3	4	4	2	4	3

Note. Percentage distribution totals may not equal 100 because of rounding.

Table 8 compares the demographics of the sample with those of civilian employed women in the United States and of women employed at Virginia Tech. Relative to civilian employed women in the United States, this sample of employed women is much more educated. This discrepancy is not surprising given the high educational qualifications required for many positions at Virginia Tech. A larger percentage of the women in the research sample was married than was the case for the women in the total United States civilian labor force (Bureau of the Census, 1995): 69% versus 55% respectively. The sum of the percentages of employed women in this research who gave their marital status as divorced, separated, widowed, or living with someone was almost equal to the 20% in the "other" marital status category of women in the United States labor force. A larger percentage of the female U.S. civilian labor force was single as compared to the percentage of the sample who had never married. As to income, the only available comparison is between married-couple households in this research and employed-wife families in the Census data; the incomes of the households in this research were generally higher. The distribution patterns across age groups are similar for the sample and for the employed women in the U.S., with a large concentration in the middle age groups for both. These patterns indicate that the research sample's age distribution is similar to that of U.S. civilian employed women. In contrast to this similarity is the age distribution of nonrespondents in which 85% were between the ages of 20 to 39 (See Table 6). In comparison to all women employed as faculty and staff at Virginia Tech, the research sample is similar in the age distribution and in the respondents' income

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Table 8. Comparison of the Overall Sample with Employed Women in the U.S. and Virginia Tech on Five
Demographic Variables

Demographic Variables	Percentage Distributions					
	Overall Sample N=657		U.S. Civilian Employed Women[a] N=60.2 Million		Women Employed at Virginia Tech[b] N=2,148	
Age	Under 25	3	16-19	6	Under 25	1
	25-29	11	20-24	11	25-29	5
	30-39	28	25-34	26	30-39	25
	40-49	37	35-44	27	40-49	33
	50-59	17	45-54	19	50-59	20
	Above 60	3	55-64	9	Above 60	7
			Over 65	3		
Highest Education Completed	Some HS or Grad	9	Less than HS	9	Some HS or Grad	44
	Some College	19	High School Grad	35	Assoc. Degree	9
	Assoc. Degree	6	Some College	30	BA/BS	17
	BA/BS	24	College Grad	26	MA/MS	16
	MA/MS	21			Adv. Cert.	1
	PhD/EdD	18			PhD	11
	Other Prof. Degree	3			Other Prof. Degree	2
Marital Status	Never Married	13	Single	25		
	Married	69	Married	55		
	Divorced	11	Other	20	--	
	Separated	2				
	Widowed	2				
	Living w/someone	4				
Respondent's Personal Income ($)	Under 20,000	24			Under 20,000	28
	20,000-29,999	43			20,000-29,999	41
	30,000-49,999	21	--		30,000-49,999	21
	50,000-69,999	9			50,000-69,999	9
	70,000 or above	4			70,000 & above	2
Household Income ($)	Overall Sample:		Married Couples with employed wives:			
	Under 20,000	4	Under 14,999	4		
	20,000-29,999	14	15,000-24,999	5	--	
	30,000-49,999	32	25,000-34,999	14		
	50,000-69,999	25	35,000-49,999	22		
	70,000 or above	25	50,000-74,999	28		
	------------		75,000 & over	23		
	Married Respondents:					
	Under 20,000	2	Information on other HH types with			
	20,000-29,999	4	employed women not available			
	30,000-49,999	31				
	50,000-69,999	30				
	70,000-above	33				

Note. -- = No available information.
[a] From Bureau of The Census (1995). Statistical Abstract of the United States, The National Data Book (115th Ed). Washington DC: U. S. Department of Commerce.
[b] From Virginia Polytechnic Institute and State University [Electronic payroll tape]. (June 1996). Blacksburg, VA: Associate Provost for Academic Administration.

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distribution but dissimilar in the distribution across the highest levels of education completed; the women in the research sample were more educated than were the overall group of women employed at Virginia Tech (See Table 8).

Because the sample for this research is drawn from the women employed at Virginia Tech, it is relevant to compare the total group of Virginia Tech women employees to the U.S. civilian employed women. The variables of age and highest education completed can be compared; data sets were not available for the rest of the external variables used in the previous comparisons. The two populations differ in age distribution, with a greater concentration of Virginia Tech women employees in the 30 and above age categories than seen among U.S. civilian employed women. For the highest education completed, the percentages are the same, 44%, if the categories of less than high school and high school are collapsed into one for the U.S. civilian employed women population. (The Virginia Tech employed women population category of high school includes women who have less than a high school education.) In contrast, the percentage distributions differ when the college graduate category for U.S. civilian employed women, 26%, is compared to all those in the baccalaureate degree through the advanced degree categories, 47%, for the women employed at Virginia Tech. As noted previously, such a discrepancy is not surprising given the high educational qualifications required for many positions at Virginia Tech. An additional factor possibly contributing to this difference is that women employed at Virginia Tech may augment their education with employee tuition waivers which enable them to pursue degrees in higher education. In contrast to

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the high educational level of the survey respondents, most women who participated in the nonrespondent survey said their highest educational levels were in the categories of some high school or a graduate, some college, and Associate Degree. If more of the nonrespondent women had participated in the original survey, the women in the research sample might have been more similar educationally to the civilian employed women in the United States.

It can be concluded that the research sample is representative of employed women in the United States and of employed women at Virginia Tech in age, marital status, and personal income level. The following differences exist. The married respondents, who make up 69% of the research sample, are in more affluent households than married households with employed wives in the United States. The research sample is more educated than the population of employed women in the United States and on the Virginia Tech payroll tapes. The nonrespondent survey supports this conclusion (See Table 6). Reasons why employed women at Virginia Tech who had only some high school or high school diplomas failed to participate in this study can only be speculated. Possibly they had never purchased sewing services nor had any intention of paying someone to sew for them, so they may have felt the study did not pertain to them. Other possible reasons may be that these women lacked the time to complete the survey because of the pressures of the work that they do, or perhaps individuals with lower education levels would be less likely to complete a questionnaire than would those with more education due to less familiarity and appreciation for the research process.

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Further comparison of the research respondents and the nonrespondents was discussed in Chapter 4 with respect to Table 6. As was concluded before, there were differences between the nonrespondents and the respondents to the survey and the inclusion of the nonrespondents might have changed the research results. Now that the research sample has been described according to the demographic variables and compared to larger populations of employed women, the discussion will next focus on the sewing-related external variables.

Sewing-Related Variables

The percentage distribution of each variable related to sewing is similar for the overall sample, and, for the most part, for the purchasers and nonpurchasers of each apparel sewing service, as also occurred with the demographic variables. Thus, the discussion of the sewing-related variables focuses on the overall sample, but also points out the few variables for which there were differences between the purchasers and nonpurchasers of any individual sewing service. The sewing skill level for the overall sample and the sample of nonrespondents will also be discussed.

As shown in Table 9, the largest percentage of the women in the overall sample, 45%, rated themselves as having novice/basic sewing skills, and 85% of the respondents, including those who rated themselves as novice/basic, indicated having some level of sewing skills. Looking at the sewing skills of only the sewing-service purchasers, the tallies over the novice/basic, intermediate, or expert/advanced skill levels total more than 80% for each of the three services. This is consistent with Johnson's (1989) research

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Table 9. Comparison of Sewing Related Variables for Overall Sample, Nonrespondent Survey Participants, and Sewing Services

			Percentage Distributions					
	Overall Sample	Nonrespondent Survey Participants	Making Clothes		Altering Clothes		Mending Clothes	
Sewing Related Variable	N = 657	N = 20	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers	Purchasers	Nonpurchasers
Sewing Skill Level	N = 651		n = 314	n = 337	n = 499	n = 148	n = 291	n = 359
No skill	16	45	17	14	16	11	20	12
Novice/Basic	45	25	47	42	46	39	51	39
Intermediate	31	30	29	33	31	32	24	37
Expert/Advanced	9	0	6	11	6	18	5	12
Access to Sewing Machine	N = 656	–	n = 316	n = 340	n = 504	n = 148	n = 294	n = 361
Yes	69		66	72	67	76	74	75
No	31		34	28	33	24	25	25
Others in Household Sew	N = 654	–	n = 314	n = 340	n = 502	n = 148	n = 293	n = 360
Yes	19		20	19	19	22	16	22
No	81		80	81	81	78	84	78
Service Provider Availability								
		–						
Know someone who sews	N = 656		n = 316	n = 340	n = 504	n = 148	n = 294	n = 361
for pay	54		65	44	58	43	60	50
Yes	46		35	56	42	57	40	50
No		–						
Availability to hire	N=365		n = 210	n = 158	n = 501	n = 68	n = 177	n = 187
Unavailable	6		9	4	7	7	7	6
Not very available	27		24	31	26	31	28	27
Available	51		50	50	50	51	49	52
Very available	16		17	14	17	10	16	15

Note. Percentage distribution totals may not equal 100 because of rounding. - - = No data gathered for this variable.

where 87% of the sample of sewing-service purchasers rated themselves as having sewing skills. In contrast, 45% of the women in the nonrespondent survey rated themselves as having no sewing skill, only 55% rated their sewing skills as novice/basic or intermediate, and none rated their skills as expert/advanced (See Table 9). When the percentage distribution of respondents is tallied according to the purchasers and nonpurchasers by sewing service, a larger percentage of nonpurchasers consistently indicated they had intermediate or expert/advanced skill level; thus, fewer nonpurchasers of all of the sewing services indicated no skill or novice/basic skill.

Two additional sewing-related variables were sewing machine accessibility and the presence of someone else in the home who could sew. Sixty-nine percent of all the respondents reported they had access to a sewing machine at home, and 81% had no one else in their households who could sew.

The service-provider availability variable was measured with two questions: (a) whether a respondent knew someone who sewed for pay, and (b) if she did know someone, how available she thought that person was for hiring. Somewhat more than half of the respondents (54%) knew someone who sewed for pay; 51% of those respondents said that person was available to hire, and 16% said that person was very available to hire. Comparing the purchasers and nonpurchasers for each sewing service, more than half of all the purchasers of each service said they knew someone who sewed, but half or more than half of the nonpurchasers said they did not know someone who sewed for pay. One could speculate that not knowing someone who sewed for pay contributed to some

women's nonpurchase of the sewing services. One also could speculate that women's indications of not knowing anyone who sewed for pay were because of currently not knowing a paid seamstress, even if one was known formerly, or because of not regarding a dry cleaner or a seamstress in a commercial shop as "someone" they knew who sewed for pay under the assumption that the question referred to an individual outside of a commercial establishment.

The discussion of the external variables has given an overall description of the survey respondents in terms of demographic and sewing-related information. One of the important variables in this research is the respondent's past purchase behavior which is summarized in the next section.

Past Purchase Behavior

A seamstress, tailor, dry cleaner or someone else had been hired by 48% of the sample to make clothing, by 77% of the sample to alter clothing, and by 45% of the sample to mend clothing. The past purchase behavior for all three sewing services reported by the research sample differs dramatically from the reported past purchase behavior in other research. Hogge and Baer (1986) reported that 9% of their sample had paid someone to custom make garments, and Johnson (1989) reported that only 8% of her respondents had paid someone to make clothing. Johnson (1989) reported that 31% of her respondents had paid someone to alter clothing. Larson (1993) reported that 20% of her sample had paid to have apparel mended, whereas Foster and Mammen (1992) reported that 5.8% of the full-time employed women in their study had paid someone for

clothing care which included alterations and a variety of other services.

These broad percentage differences could result, in part, from researchers asking respondents about their purchases over limited time spans such as the five-year span in Johnson's research. In the present study, respondents were asked if they had ever hired someone to make, alter, or mend a garment. A second partial explanation for these differences could be the gender makeup of the samples; e.g., Johnson's sample was 80% female in contrast to the all female sample in this study. Other factors could include geographical differences, seasonal differences, and sample demographic differences such as in the ages, education levels, employment, or income levels.

No other research was found that reported the past purchase behavior for any of the three sewing services. There is evidence that women are paying for these apparel sewing services, such as in the research cited in Table 3. Those cited studies utilized expenditure data with clothing care data embedded in larger expenditure categories. The expenditure data indicate how much was spent by each family in a year whereas the question asked in this research was whether any apparel sewing services had been hired. The following discussion focuses on the three sewing services that respondents reported they had purchased. Each of the four relationships discussed will be related to each sewing service.

Results and Discussion of the Hypothesis Testing

All four hypothesized relationships of the theoretical model were positive and statistically significant for each of the three sewing services. Because each relationship,

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starting with the intention-behavior relationship, was significant, the successive analyses were conducted and revealed the possible influences of attitude and subjective norm on the intention to pay someone in the next year to make, alter, or mend clothing. Thus, it can be concluded that the testing was successful.

Following is a presentation of the results of the hypothesis testing and of the analysis with the external variables, along with discussion and conclusions for all three sewing services. The presentation begins with the results on the Intention-Behavior relationship and discussion for all three sewing services. This presentation is followed by the results and discussion on the Attitude-Subjective Norm-Intention relationship, the Behavioral Beliefs-Attitude relationship, and the Normative Beliefs-Subjective Norm relationship for all three sewing services. The results of the analysis with the external variables will be presented for each sewing service, followed by a summary of all the results for all of the sewing services.

Intention-Behavior Relationship

The respondents rated their intention to purchase each of the specific sewing services on a likely to unlikely semantic differential scale that was scored from +3 to -3. For comparison purposes, and in order to draw conclusions, the percentage distribution of respondents for intention will be discussed according to three collapsed response categories: extremely, quite, or slightly likely; extremely, quite, or slightly unlikely; and neither. Later in the discussion the percentage distributions in each category will be summed and discussed according to positive, negative, or zero intentions.

The percentage distributions of respondents who indicated an intention to pay someone to make clothes or mend clothes in the next year were similar. (See Table 10.) A majority of the respondents, 79% for clothing construction and 61% for mending services, indicated that it was "slightly, quite, or extremely unlikely" that they intended to pay someone in the next year for that specific sewing service. In contrast, 58% of the respondents indicated it was "slightly, quite, or extremely likely" that they would pay someone in the next year to alter clothing. The three null hypotheses tested were that employed women's intentions to purchase clothing construction, alteration, or mending services would not be significantly related to their past purchase of these, respectively. These three null hypotheses were stated as H_{1a}, H_{1b}, and H_{1c} in the previous chapter, and they are associated with the research hypotheses with the same numbers.

In testing these hypotheses, the Kendall's Tau Correlation revealed that the employed women's intentions to pay someone for clothing construction, alteration, or mending services in the next year were each significantly correlated with respondents' previous purchase of the respective apparel sewing service; clothing construction ($r = .13$, $p = .002$), alteration ($r = .31$, $p = .0001$), and mending ($r = .46$, $p = .0001$). The null hypotheses are rejected. The research hypothesis are supported; the employed women's intention to purchase a clothing construction, alteration, or mending services in the next year is positively related to their previous purchase of the respective service. The significant positive intention-behavior relationship indicates that when the employed women had paid a seamstress, tailor, retailer, dry cleaner, or someone else to make, alter,

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Table 10. Percentage Distributions of Respondents for Intention, Attitude, and Subjective Norm

Service and Measurement Scale	Intention	Attitude	Subjective Norm
Clothing Construction Services	N = 656	N = 655	N = 649
	Likely	Favorable	Likely
Extremely	3	7	2
Quite	6	16	2
Slightly	8	12	3
Neither	4	34	29
Slightly	6	8	2
Quite	23	10	13
Extremely	50	14	50
	Unlikely	Unfavorable	Unlikely
Clothing Alteration Services	N=653	N=653	N=651
	Likely	Favorable	Likely
Extremely	20	24	6
Quite	19	30	11
Slightly	19	12	11
Neither	5	15	31
Slightly	4	4	5
Quite	11	5	8
Extremely	21	10	29
	Unlikely	Unfavorable	Unlikely
Clothing Mending Services	N = 656	N = 655	N = 650
	Likely	Favorable	Likely
Extremely	8	11	4
Quite	9	17	7
Slightly	17	12	8
Neither	5	16	30
Slightly	5	9	3
Quite	14	12	12
Extremely	42	25	36
	Unlikely	Unfavorable	Unlikely

Note. Percentage distribution totals may not equal 100 because of rounding.

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of mend clothing they were more likely to have intentions to pay a service provider in the next year to carry out the respective sewing service.

Several implications of these findings are important to the marketing of apparel sewing services. First, if service providers are trying to attract clients for one of these services, they may be more successful at building a return clientele by directly targeting marketing efforts toward employed women who had previously paid someone for that particular sewing service than by appealing to those who had not paid someone to make, alter, or mend clothes. Secondly, if service providers can entice potential clients to purchase the service, they may increase the chances of those women having intentions in the future to pay someone to make, alter, or mend clothes, thus establishing possible return customers.

Duke and Voege's (1986) study was the only research found that included actual and desired acquisition of sewing services. In their research, clothing construction services had the largest discrepancy between the actual and desired receipt of the service. No further explanation of the discrepancy was given. No direct comparability or relevance of their research to the present research is evident.

The intention-behavior relationship for paying someone to make clothes was a weaker relationship ($r = .13$) than the relationships for paying someone to alter or mend clothes; several possible reasons for this weak relationship can be cited. First, women often pay someone to make clothes for special occasions such as weddings, as respondents stated in unsolicited written comments (See Appendix E). At the time of this research the

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respondents might not have been planning such a special occasion in the next year. Such a circumstance could make the intention to hire someone to make clothing extremely unlikely. Second, a woman's decision to have a garment made is often a spur-of-the-moment decision resulting from the frustration of not finding what she wants in ready-to-wear clothing, and she turns to the fabric store looking for a pattern, fabric, and names of persons who can sew the garment for her. Another factor unique to this sample is that sometimes women, or their husbands, in a university community purchase fabrics during foreign travels, or they receive fabrics as gifts from foreign students or visitors and then hire someone to make something, with clothing being one of those items. So they may not intend to have something made next year, but, if they were to receive fabric from someone's foreign travels, they might hire someone to make clothes from it.

By further understanding what influences employed women's intentions, i.e., what increases or decreases their intentions, the service provider gains information on how to focus marketing efforts towards possibly influencing, in a positive way, employed women's intentions to purchase sewing services in the next year. Two intention influences, attitude and subjective norm, were investigated through the testing of the attitude-subjective norm-intention relationship. The results on that relationship are discussed next.

Attitude-Subjective Norm-Intention Relationship

Attitude and subjective norm were each measured with a semantic differential scale scored from +3 to -3. Attitude was measured on a favorable to unfavorable scale, while subjective norm was measured on a likely to unlikely scale. Intention is the same variable

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as was used in testing the intention-behavior relationship. Table 10 presents the percentage distributions of respondents in the categories of favorable, neither, and unfavorable for attitude and in the categories of likely, neither, and unlikely for subjective norm. The three null hypotheses tested were stated as H_{2a}, H_{2b}, and H_{2c} in the previous chapter, and they are associated with the research hypotheses with the same numbers.

In testing the hypotheses, multiple regression analysis revealed that intentions to pay someone to make, alter, or mend clothing had significant positive relationships with the respective attitude and subjective norm toward purchasing clothing construction, alteration, or mending services (See Table 11). The null hypotheses were rejected. The research hypotheses are supported.

The regression analyses resulted in significant t-tests for both attitude toward and subjective norm for paying someone to make, alter, or mend clothing. Thus, the regression coefficient for each of these two independent variables is significantly different from zero. The significant F-value for each overall regression implies that employed women's attitudes toward paying someone to make, alter, or mend clothes and their subjective norms were good predictors of their intentions to pay someone to make, alter or mend clothing in the next year. (See Table 11.)

The obtained R^2 values indicate that, in the three regressions shown in Table 11, the attitude and subjective norm variables explain 44% of the variance in employed women's intention to pay someone to make clothes in the next year, 64% of the variance in employed women's intention to pay someone to alter clothes in the next year, and 71%

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Table 11. Regression Results, By Sewing Service, for Attitude-Subjective Norm-
Intention Relationship

Variables by Sewing Service Category	Results				
	$\underline{B}^a$	$\underline{SE\ B}^b$	β^c	t-Value	F Value
Make Clothes (N=643)					
Attitude	.5530	.0315	.5533	17.54*	
Subjective Norm	.2429	.0351	.2182	6.93*	250.54*
Adjusted R^2 = .44					
Alter Clothes (N=649)					
Attitude	.8034	.0321	.6862	25.01*	
Subjective Norm	.2229	.0322	.1901	6.93*	576.35*
Adjusted R^2 = .64					
Mend Clothes (N=648)					
Attitude	.7533	.0250	.7422	30.09*	
Subjective Norm	.1998	.0285	.1727	7.00*	809.22*
Adjusted R^2 = .71					

[a] $\underline{B}$ = Unstandardized Beta. [b] $\underline{SE\ B}$ = Standard Error for Beta. [c] β = Standardized Beta.
* $\underline{p}$ = 0.00

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of the variance in employed women's intention to pay someone to mend clothes in the next year. This finding is important to the service provider. If the service provider could increase the favorability of women's attitudes toward paying someone to make, alter, or mend clothes or could promote women's perception that their social groups felt they should pay someone to make, alter, or mend clothes in the next year, or both, the women's intentions to pay someone to make, alter, or mend clothes in the next year might increase.

Since both variables play a role in influencing the purchase intention, it is important to determine the relative influence of each of these variables. Using the β values in Table 11, it appears that attitude has more weight in determining the women's intentions than does subjective norm. For example, suppose an employed woman indicated she had a quite favorable attitude toward paying someone to make clothes and indicated she felt it was slightly unlikely that most people who are important to her thought she should pay someone to make clothes in the next year. Because her attitude toward paying someone to make clothes in the next year has a larger β than does her subjective norm, her positive attitude would have more influence than her negative subjective norm on her intention to pay someone in the next year to make clothes. Since, in this hypothetical case, her attitude is quite favorable and has more influence on her decision than does her subjective norm, she would be more likely than not to pay someone to make clothes for her.

The primary use of these findings can be for marketing purposes, specifically to formulate and improve the promotional aspect of the marketing mix and thereby attempt to increase the purchases by current clients and to attract new clients to purchase the

sewing service. By focusing promotional information on increasing the favorability of employed women's attitudes toward paying someone to make, alter, or mend clothes, the intention to pay someone to make, alter, or mend clothes in the next year could be influenced. By encouraging employed women to believe that others who are important to them think that they should purchase services in the next year to have clothes made, altered, or mended, their intentions to do so might increase. Bitner and Zeithmal (1987) suggested that the marketing mix of product, place, promotion, and price be expanded to include a fifth variable, the participant. These research results support this suggestion since the women's attitudes and subjective norms evidence as significant in determining intentions to purchase the sewing services. If the service provider had to choose between the two variables for a marketing campaign, the best variable to choose for a focus would be employed women's attitudes toward paying someone to make, alter, or mend clothes in the next year because attitudes play more of a determining role than the subjective norms.

Sewing service providers operate in businesses of all sizes and the usefulness of the significant positive attitude-subjective norm-intention relationship would be important to all, regardless of the size of the business. Applications for larger commercially based businesses are clear. For service providers who are self employed and who work one-on-one with clients, interacting with individual clients and learning about them is an important part of the provision of the service. Thus, communicating in the one-on-one meeting with the client could be a beneficial marketing tool for the provider. The service provider could make an effort to learn about a client's attitude toward purchasing and who this client

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thinks is wanting her to pay for this sewing service. By learning about these two aspects of each client, the service provider could focus future conversations with that client in the direction of increasing the favorability of the attitude toward purchasing or the likelihood of the subjective norm.

Other clothing researchers have found that attitude and subjective norm were significant determinants of intention to purchase specific items of clothes when using the reasoned action model of Ajzen and Fishbein. Chang, Burns, and Noel (1996) found that both attitude and subjective norm, in respect to purchasing brand-name casual apparel, were determinants of intention to purchase such apparel and that the attitudinal component was a more important determinant than the subjective norm. DeLong, Minshall, and Larntz (1987) found that attitude and subjective norm were influential in the purchase of "big sweaters" by college students.

Among the findings in this analysis were moderate correlations between attitude and subjective norm; $r = .35$ for making, $r = .51$ for altering, and $r = .52$ for mending, indicating potential multicollinearity problems which could affect the interpretation of the regression coefficients and thus make it difficult to predict using these variables. According to Pedhazur (1982), multicollinearity relates to whether variables are orthogonal and therefore independent of each other. He suggests using the inverse of a correlation matrix and its determinant to detect multicollinearity. The determinant of the correlation matrix can range from 0 to 1. When the determinant is equal to 1, the variables are orthogonal, thus no multicollinearity exists; when the determinant is equal to

0, the variables are not orthogonal, thus multicollinearity exists. The closer the

determinant is to 0, the more multicollinearity exists. Using the formula given by

Pedhazur, the determinant of the correlation matrix for attitude and subjective norm for

paying someone to make clothing was calculated as follows, where a, b, c, and d are the

correlation coefficients which make up the correlation matrix:

R = the correlation matrix of independent variables

$|R|$ = the determinant of R

$$R = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

$$R = \begin{bmatrix} 1.00 & 0.35 \\ 0.35 & 1.00 \end{bmatrix}$$

$$|R| = (a)(d) - (c)(b)$$

$$|R| = (1)(1) - (.35)(.35) = 1 - 1.225 = .8775$$

The determinant of the correlation matrix for attitude and subjective norm for paying

someone in the next year to make clothing is .88 which is near 1, thus indicating very little

multicollinearity between the two independent variables. The determinant of the

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correlation matrix for altering clothes is .74 and .73 for mending clothes. The small degree of multicollinearity that exists could cause problems in the estimation of the regression coefficients. The one suggested remedy, although controversial, is to eliminate the independent variable with the smaller standardized beta and see what the results are. Because the amount of multicollinearity appears to be small in this analysis for all sewing services, no remedy was attempted.

Throughout this research each of the three apparel sewing services have been treated as separate services even though there is a possibility that more than one service can be purchased at the same time. Further investigation of possible relationships between the sewing services is warranted. These possible relationships were tested with Pearson Product Moment Correlations. The relationships between each past purchase behavior, intention to purchase, attitude toward purchasing, and subjective norm were correlated the four correlation matrices generated are on Table 12.

All sewing services were significantly related for the four major variables. An overall pattern of increasing relationship strengths can be seen when the variables tested progress through the tested relationships found in the reasoned action model illustrated in Figure 3.1. Future research could focus on a combination of these three apparel sewing services instead of testing each service separately.

The theoretical framework of this research provides a means for understanding attitude through the behavioral beliefs-attitude relationship and the normative beliefs-subjective norm relationship once a significant attitude-subjective norm relationship has

Table 12. Intercorrelations Among the Behaviors, Intentions, Attitudes, and Subjective Norms for Paying Someone to Make, Alter, or Mend Clothing.

Sewing Service	Making Clothes	Altering Clothes	Mending Clothes
Past Purchase Behavior			
Making Clothes	–	.27***	.19***
Altering Clothes		–	.35***
Mending Clothes			–
Intention to Purchase			
Making Clothes	–	.38***	.31***
Altering Clothes		–	.51***
Mending Clothes			–
Attitude Toward Purchasing			
Making Clothes	–	.46***	.41***
Altering Clothes		–	.53***
Mending Clothes			–
Subjective Norm			
Making Clothes	–	.40***	.41***
Altering Clothes		–	.68***
Mending Clothes			--

*** p = .0001

been found. Having found significant attitude-subjective norm-intention relationships for all three sewing services, the analysis proceeded with the testing of the hypothesized relationships between the behavioral beliefs and attitude. The behavioral beliefs-attitude relationship analysis is a test of the correspondence between the directly-measured attitudes and the estimated attitudes. The results of that analysis are reported next.

Behavioral Beliefs-Attitude Relationship

The directly-measured attitudes, which are derived from responses on the favorable to unfavorable scale, are the same as those used in testing the attitude-subjective norm-intention relationship. The estimated attitudes are derived from a series of calculations performed on the data gathered from respondents about their behavioral belief strengths and outcome evaluations, as described in Chapter 4. For the apparel sewing service of making clothes, seven salient behavioral beliefs were calculated from the products of the behavioral belief outcome evaluations and strengths. For the sewing services of altering and mending clothes, a common set of eight salient behavioral beliefs was calculated for each. The sum of all of each respondent's behavioral belief products for each apparel sewing service yielded a measure of the estimated attitude for that service which was used to test three null hypotheses. These three null hypotheses were stated as H_{3a}, H_{3b}, and H_{3c} in the previous chapter, and they are associated with the research hypotheses with the same numbers.

Pearson Product Moment Correlation analysis revealed significant positive correlations between the directly-measured and estimated attitudes about purchasing all

three services: r = .30 for making clothes, r =.60 for altering clothes, and r = .65 for mending clothes. The null hypotheses were rejected. The research hypotheses are supported: the more favorable the employed women's estimated attitudes toward paying someone to make, alter, or mend clothes in the next year, the more favorable their directly-measured attitudes toward paying someone to make, alter, or mend clothes, respectively, in the next year.

For comparison purposes, and in order to draw conclusions, each estimated attitude, behavioral belief product, behavioral belief strength, and outcome evaluation will be presented according to three categories: "positive," "zero," or "negative". These three categories for each variable were calculated using the percentage distributions of respondents shown in Tables A1, A2, and A3 in Appendices F, G, and H. The percentage distributions of respondents who indicated answers in the "extremely, quite, or slightly" likely or good for belief strength or outcome evaluation categories were summed to yield a percentage of respondents for the category positive/favorable for the respective variable. The percentage distributions of respondents with positively scored behavioral belief products (See Table A2, Appendices F, G or H) or estimated attitudes (See Table A3 in Appendices F, G, or H) were each summed to yield the category of "positive" behavioral belief product or "positive" estimated attitude. The negative categories were calculated in the same manner using the percentage distributions for the categories "extremely, quite, or slightly" unlikely or bad for the behavioral beliefs or outcome evaluations, or the negative products for the behavioral belief product or estimated attitude. The percentages used for

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the "zero" category were read directly from the original tables (See Tables A2 and A3 in Appendices F, G, or H); no categories were summed to yield this category. Subsequent discussion of the percentage distributions in the positive, zero, or negative categories is aided with histograms. The first variable to be discussed is the estimated attitude for each sewing service.

Estimated Attitude. The means of the estimated attitudes were 8.4 for making clothes, 10.6 for altering clothes, and 14.9 for mending clothes. The respondents' estimated attitudes about making clothes ranged between -41 and +49, out of a possible range of -63 to +63. The possible range for the altering or mending of clothing estimated attitudes was -72 to +72, and the actual products ranged from -48 to +63 and from -57 to +59, respectively. (See Table A3, Appendices F, G, and H.)

The percentage distributions of respondents' estimated attitudes about the three sewing services are similar, in that a large percentage is positive for each (See Figures 5.1, 5.2, and 5.3). The percentage distributions of respondents' directly-measured attitudes about the three sewing services differ, however no other similarities or differences are evident, and the illustrated distributions cannot be used to understand the estimated attitudes or the directly-measured attitudes. Further understanding of the attitudes comes from exploring the determinants of attitude, that is the behavioral beliefs and their underlying behavioral belief strengths and outcome evaluations, which are discussed next.

Behavioral Belief Products, Strengths, and Outcome Evaluations

Understanding of the estimated attitudes comes from the numerical strength and
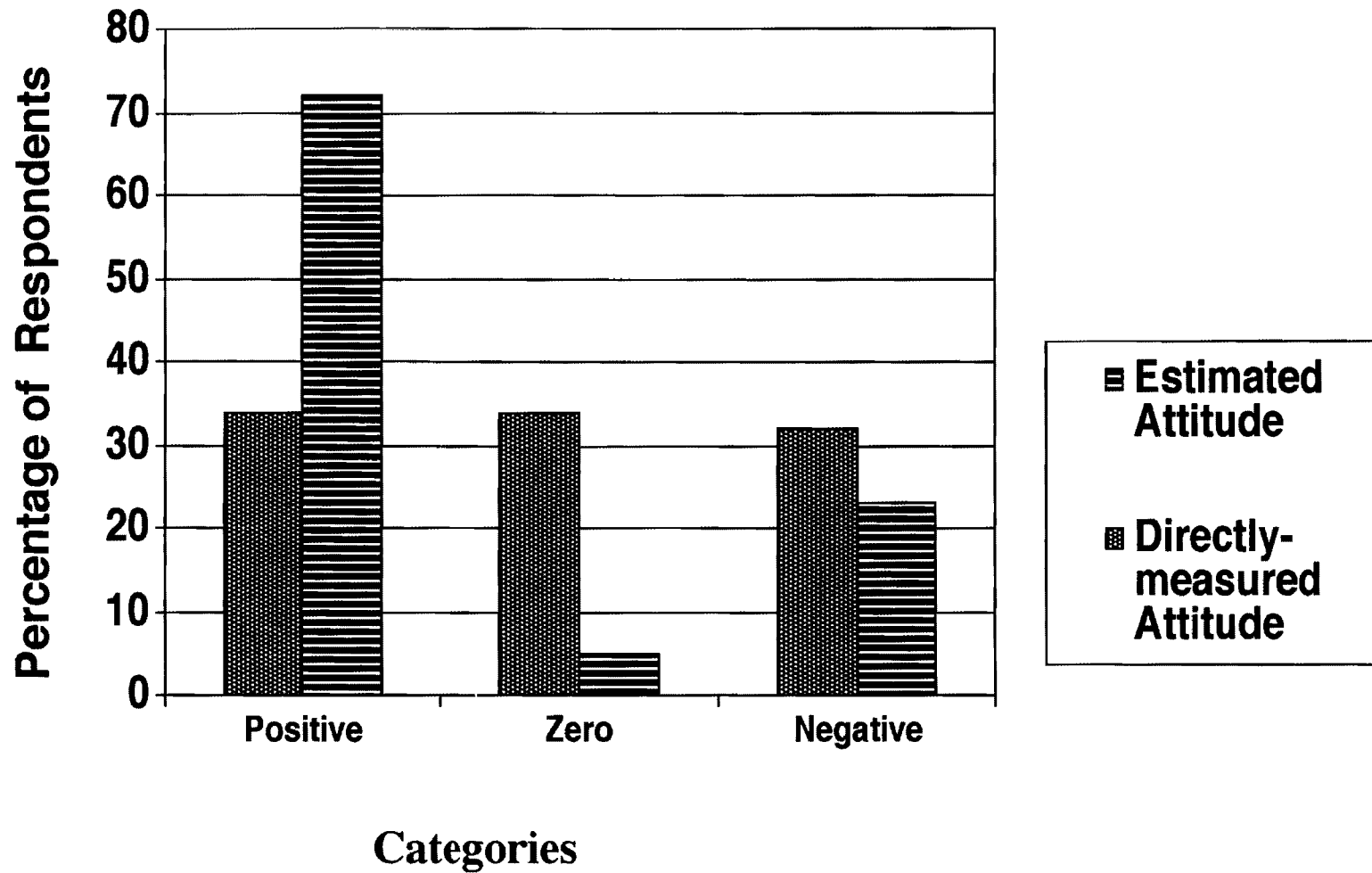
Figure 5.1   Paying someone to make clothes: Comparison of respondents' percentage distributions in the "positive," "zero," and "negative" categories for the estimated and directly-measured attitudes.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A3, Appendix F.
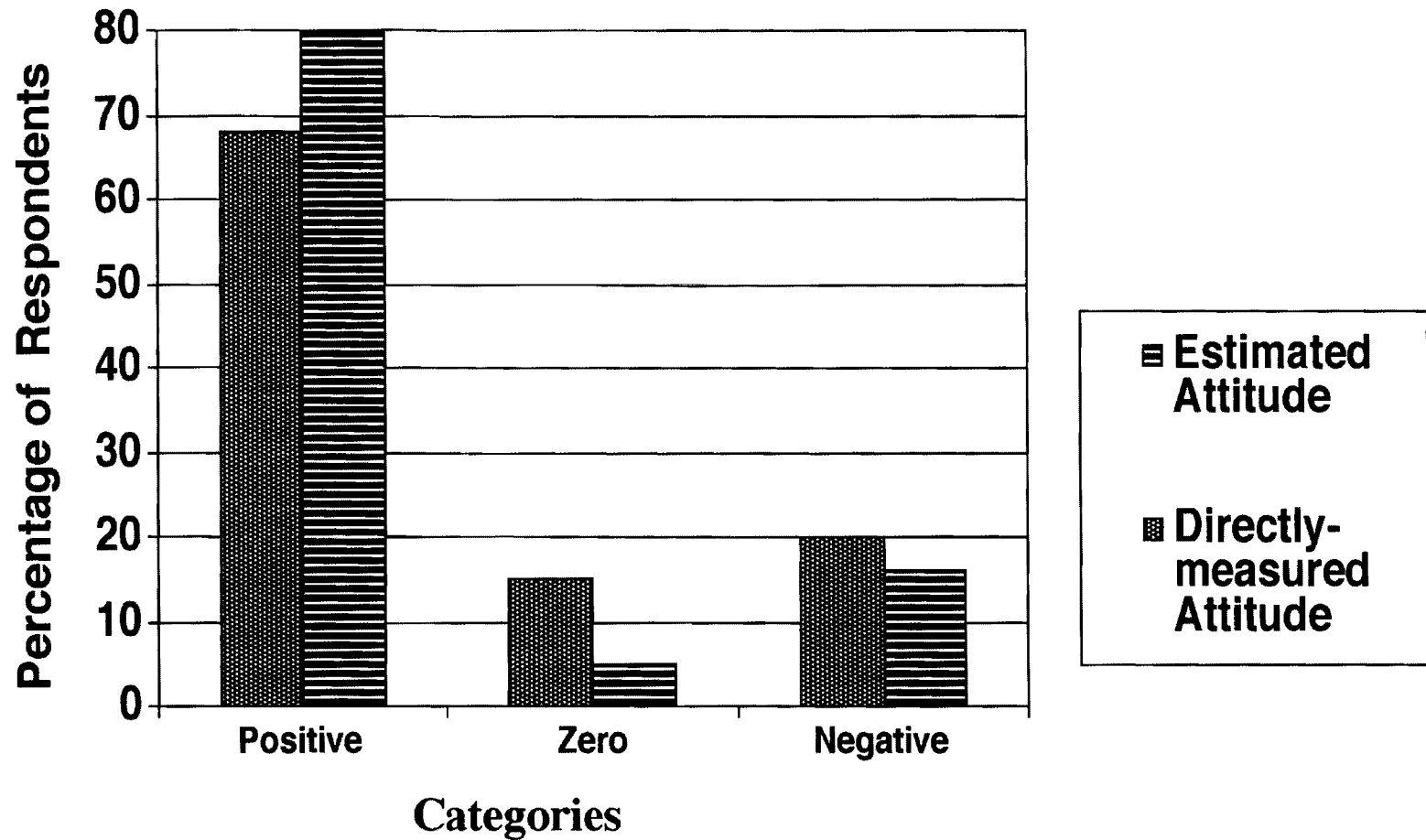
Figure 5.2 Paying someone to alter clothes: Comparison of respondents' percentage distributions in the "positive, " "zero," and "negative" categories for the estimated and directly-measured attitudes.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A3, Appendix G.

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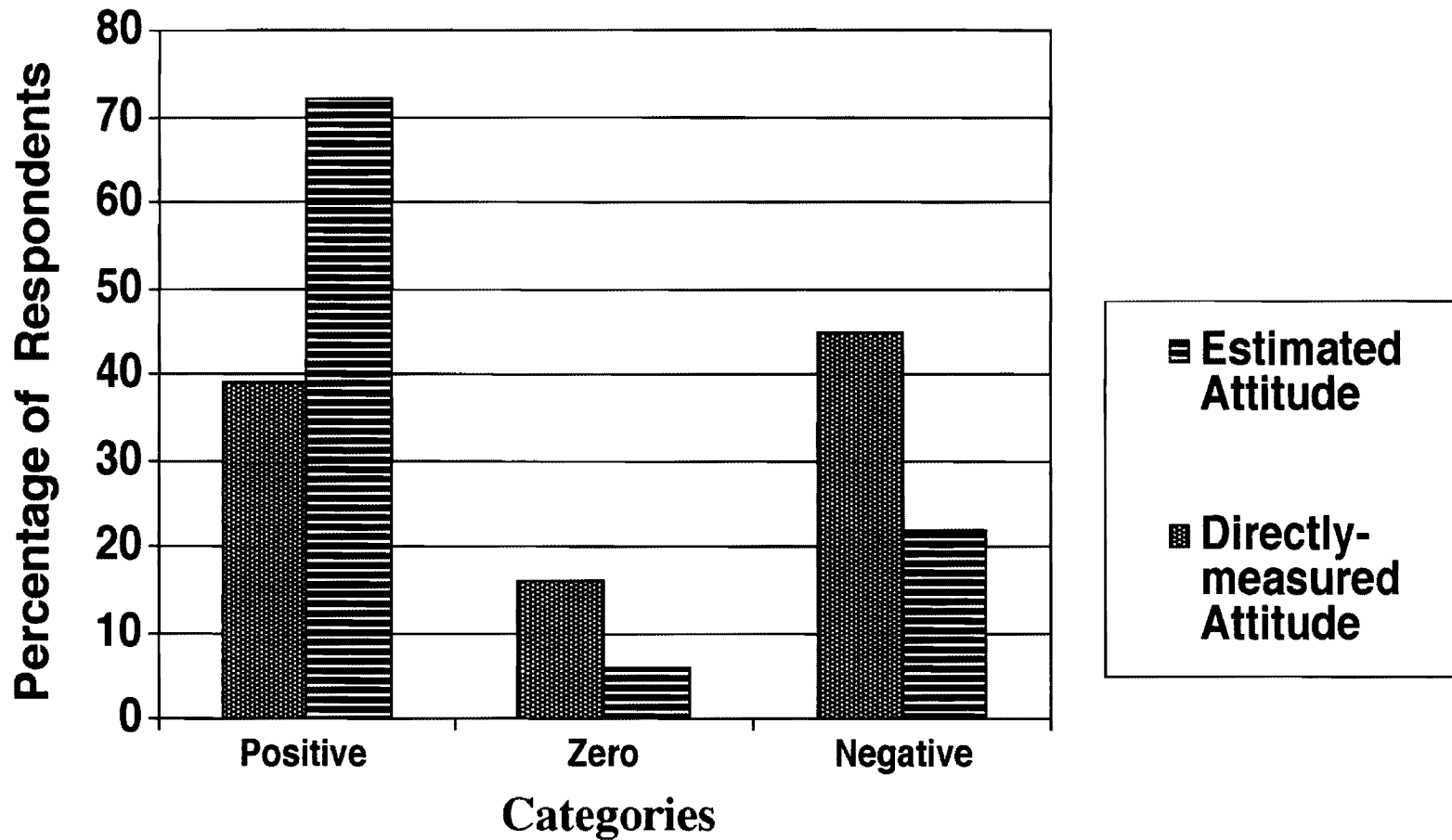
Figure 5.3 Paying someone to mend clothes: Comparison of respondents' percentage distributions in "positive,"zero," and "negative" categories for the estimated and directly-measured attitudes.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A3, Appendix H.

mathematical sign, positive or negative, of each behavioral belief product. Understanding of each behavioral belief product comes from the numerical strength (1, 2, or 3) and mathematical sign, positive or negative, of the related behavioral belief outcome evaluations and strengths and how they work together.

The mean value for each behavioral belief product is presented in Table A2 in Appendices F, G, and H. The behavioral belief discussion for the service of making clothes is organized according to the largest to smallest mean. The behavioral belief discussion for the services of altering and mending clothes are combined because the same behavioral beliefs were measured for each, however the means from the largest to smallest do differ somewhat. Following is a list of the means from the largest to the smallest.

Making Clothes	Altering Clothes	Mending Clothes
Customization	Clothing Fit	Clothing Wear Expectancy
Apparel Construction	Professional Alterations	Professional Mending
Clothing Fit	Time Savings	Clothing Fit
Time Involvement	Clothing Wear Expectancy	Time Savings
Level of Risk	Money Savings	Money Savings
Pricing	Workmanship	Workmanship
Free Time Use	Time Use	Time Use
	Alterations Costs	Mending Costs

Sewing service providers may be able to benefit from examination and interpretation of the percentage distribution of respondents for each behavioral belief, belief strength, and outcome evaluation. These distributions are presented in histograms in Figures 5.4 through 5.26 for easy comparison. Knowledge of this information could be useful to the provider if he or she wanted to influence a belief product by attempting to

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change a particular belief strength or outcome evaluation. For example, if a large percentage of respondents has negative beliefs, examining the percentage distribution of respondents in each of the determinants may provide more understanding of whether it is the behavioral belief strength or the outcome evaluation that is causing a large percentage of respondents to have negative beliefs. Thus, the service provider could focus promotional efforts on changing the behavioral belief strength or the outcome evaluation depending on which one is having the negative influence on the behavioral belief. If service providers were interested in attracting those in the study who had negative/unfavorable or zero/neither beliefs, they could focus marketing efforts on influencing the women's behavioral beliefs, belief strengths, and outcome evaluations in a positive way. They could possibly influence the attitude toward paying someone to alter clothes and thus influence the intention to pay someone to alter clothes in the next year. Understanding the behavioral beliefs for paying someone to make, alter, or mend clothing is important in this study because, as reported, the attitude toward purchasing any of the three services was found to be a stronger determinant of the purchase intention than was the subjective norm.

Next, the discussion of the research findings will focus on the individual behavioral beliefs in comparison to relevant research and publications relating to sewing services provision, and purchasing clothing. Marketing implications for the use of the behavioral belief strengths and outcome evaluations will also be identified. All of the behavioral beliefs for making clothes will be presented first followed by a joint presentation of the

behavioral beliefs for paying someone to alter or mend clothes.

Making-Clothes Beliefs

Seven behavioral beliefs about paying someone to make clothes were investigated. The beliefs are discussed here in order of largest to smallest mean contributions to the estimated attitude.

Customization belief. For the customization belief, the strong positive behavioral belief strengths, outcome evaluations and products of these, as seen in Figure 5.4, are consistent with a key selling point that service providers apparently are using to entice potential clients (Maslowski, 1995; Spike, 1991; Sykes, 1992; Yule, 1991). This finding has implications for niche marketing because the service provider can find a niche that utilizes aspects of customization which could contribute to the success of the business by attracting persons with favorable attitudes and thus more likely intention to purchase.

Abraham-Murali and Littrell (1995) suggest that designers of clothing sold in catalogs could use two categories of clothing attributes, physical appearance and expressive response, to promote the clothing in their catalogs. Included in these two categories are clothing attributes such as fabric and styling and purchasers' attributes including individual creativity. Marketing custom sewn clothes is similar to marketing clothing in a catalog: the client only sees pictures of garments, hears or reads garment descriptions, and is able to customize their garments through choices of colors and prints, i.e., exercising individual creativity. Service providers could promote their services through the use of the two categories of clothing attributes. By paying someone to make

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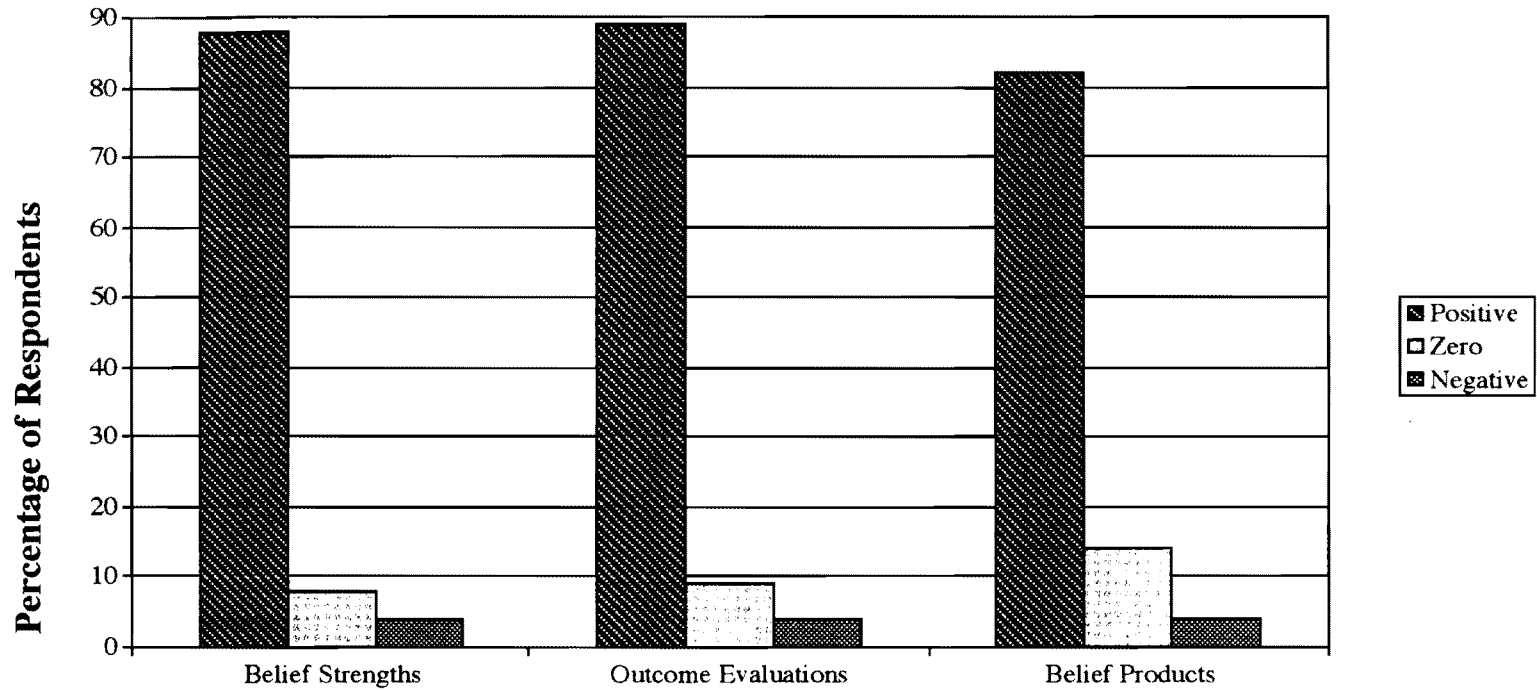
Figure 5.4 Customization belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

clothing, clients customize garments through fabric and style choices, and thus are expressing individual creativity through those choices.

Apparel-construction belief. Respondents indicated a belief that clothing made by someone who is paid to do so would be constructed better than clothing they could purchase at the store. (See Figure 5.5.) Employed women have identified clothing construction as one of several clothing selection criteria they used when purchasing clothing from a retail outlet or catalog (Abraham-Murali & Littrell 1995; Cassill & Drake, 1987a; Eckman, Damhorst, & Kadolph, 1990; Rogers & Lutz, 1990; Slyke, 1988). Sykes (1992) discusses the negative impact on clients when they pay for clothing in which the construction does not meet their standards. Some respondents in the present study volunteered comments on how disappointing past experiences had been when they paid someone to make clothes and the construction had not been acceptable; they said that the experience had deterred them from later hiring anyone to make garments. (See Appendix E.) Such experiences could have a negative impact on the behavioral belief, on the attitude toward paying someone to make clothes, and in the long run on intentions to pay someone to make clothing.

Abraham-Murali and Littrell (1995) discuss implications for retailers' marketing plans which utilize apparel attributes such as construction and workmanship. They note that consumers are concerned about physical appearance attributes of clothing which include the construction. As they suggest for catalog designers, persons providing clothing construction services could provide verbal information on construction detailing

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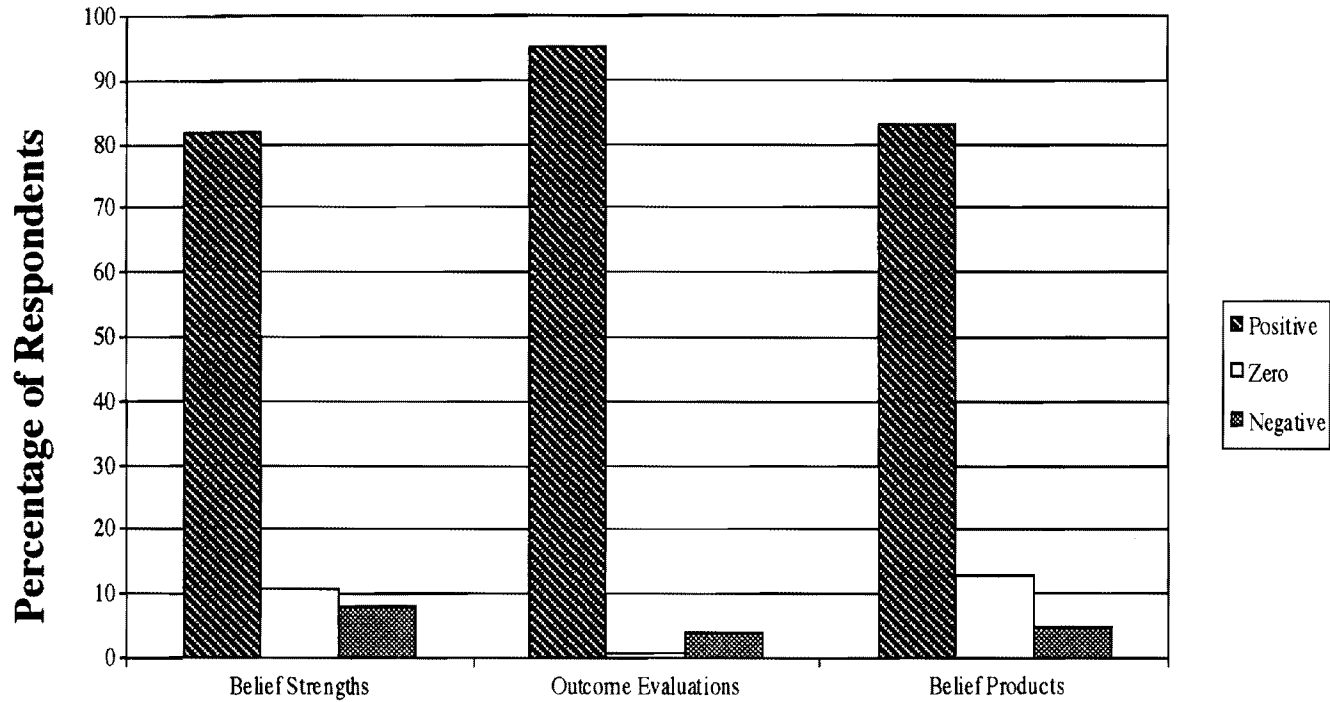
Apparel Construction Belief

Figure 5.5 Apparel construction belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive", "zero" , and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

when negotiating with a potential client or when promoting the service. Implications for niche marketing are that unique and well constructed garments could create new markets for the service provider.

Clothing-fit belief. The distribution of respondents (See Figure 5.6) in the clothing fit behavioral outcome evaluations and belief strengths and in the resulting clothing fit belief product is such that a large percentage of respondents expressed strong positive beliefs that clothing which they paid someone to make would fit better than store-bought clothing and that this was good. This finding supports the prevalent marketing promotion of the superior fit of custom sewn clothes over the fit of store-bought clothing (Ambry, 1988; Bendel, 1989; Katz, 1991; Maslowski, 1995; Spike, 1990). Clothing fit has also been found to be an important evaluative criterion for employed women when purchasing Figure 5.6 Clothing fit belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.apparel (Cassill and Drake, 1987a; Eckman, Damhorst & Kadolph, 1990; Wright & Francis, 1987).

Time-involvement belief. Over 50% of the respondents expressed positive belief strengths and over 60% expressed negative outcome evaluations about the time involvement belief (See Figure 5.7). Thus, a large percentage indicated that it would take too much time to engage in the activities required in order to get someone to make clothes, and they expressed negative outcome evaluations about taking time for those activities. These results are confusing because a service provider's business can benefit

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Figure 5.6 Clothing fit belief for paying someone to make clothes:
Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

Figure 5.7 Time Involvement belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

when potential customers have a negative belief strength or unlikely outcome evaluation such that it will take too much time investment in the activities for paying someone to make clothes, while on the other hand having a positive outcome evaluation, meaning it is good to invest time in this activity. From the results, the belief's contributions to the estimated attitude is difficult to interpret and the subsequent marketing strategy focus is hard to predict.

A strategy that service providers could utilize is to facilitate the participation of the client by reducing her time involvement in the shopping and fitting activities. Several services can influence the behavioral belief and make the service easy and less time consuming to use. They include offering to see the client at her residence or place of work, providing fabric shopping services, and providing all notions.

The service provider can also impact the outcome evaluation by educating clients that the time involved in having clothing made is good, i.e., positive. Maslowski (1995) puts this best, "A dressmaker must be able to educate her customer; educate her with regard to quality of workmanship, fabric, design and fit" (p. 11). Over a long period of time the practice of paying someone to make clothes could also reduce the amount of time spent in clothes shopping. Clients need to be educated that they are not just purchasing a service, they are investing in clothing that will last for many years. The service provider wants to show that the time involved is beneficial for the client.

A third marketing usage of these research findings for service providers would be to target employed women who are perceived to have zero behavioral belief strength or

outcome evaluation. The resulting time involvement belief in such cases is neutral, thus contributing nothing to the estimated attitude. Changing the belief strength or outcome evaluation could be a challenge. A consumer's belief strength or outcome evaluation may result from a variety of circumstances, including not knowing that this is an alternative to purchasing ready-made clothing, or being apathetic about the whole process and feeling that it is not an alternative especially when having no intention to pay someone to make clothes in the next year.

Level-of-risk belief. Paying someone to make clothes was said to be risky by almost 50% of the women in this study. (See Figure 5.8.) Johnson, Littrell and Reilly (1991), due to the finding that many of their respondents indicated the hiring of a custom seamstress to be a risky venture, suggest that the sewing professional could enhance the experience for the client by reducing the risk factor. Murray (1994) discussed the findings by other researchers that indicated the purchase of services is perceived as riskier than purchasing goods.

The service provider's approach to address this behavioral belief needs to be an integral part of the provider's marketing plan. In order to possibly influence the belief strength and outcome evaluation the service provider must lower the perceived risk. This can be accomplished in several ways including the provision of garment drawings and sketches which can now be produced through the use of CAD programs and computer based apparel design programs (Sykes, 1992). Service providers need to involve clients in the design process by having them pre-approve sketches, fabrics, and any changes that

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Figure 5.8 Level of risk belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

take place. The service provider can do mock-ups of the garment to test fit and design desirability with the client, especially if a client is new and is nervous about the service provider's skill level and products. The service provider also needs a professional portfolio, samples of her work, and well known references to share with the client.

The relatively large percentage of respondents who had neither a positive nor negative level of risk behavioral belief resulted from the multiplication of the approximate by 35% of the respondents who indicated neither on the belief strength measure and the 20% of the respondents who indicated neither on the outcome evaluation measure. (See Figure 5.8.) Marketing to employed women who hold neutral beliefs about the level of risk would be difficult, and more information would be needed on these women before they could be understood.

Price belief. A little over 50% of the women indicated a positive belief strength that paying someone to make clothes will result in clothing which costs more than store-bought clothing. (See Figure 5.9.) Similarly, in Johnson, Littrell and Reilly's (1991) study more than half of the respondents said that they expected custom-made garments to be more expensive than store-bought clothing. As seen in Figure 5.9, there were identical percentages of respondents with positive and zero pricing belief products; The negative belief products percentage of respondents differed from the positive and zero percentages by less than 10%. Somewhat more than 60% of the women indicated that it was bad to some degree that custom-made clothing costs more than store-bought clothes; This finding supports the findings of other researchers that the pricing of custom sewing

Figure 5.9 Pricing belief for paying someone to make clothes:
Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

services is a problem for service providers (Bruck, 1988; Duggan, 1988; Duncan, 1991; Tondl & Thayer, 1991; Widney, 1985). Several marketing implications of the behavioral beliefs and the outcome evaluations need to be discussed.

Women who believe that it is extremely likely that paying someone to make a garment will cost more than store-bought clothing are not the marketing concern here. As noted by Katz (1991), Maslowski (1995), Spike (1990), and Sykes (1992), such women are correct because the client is essentially paying for customized services, which should cost more given the labor intensity in creating a one-of-a-kind garment. Rather, the marketing concern, also indicated by service providers in Bruck's 1988 study, is the substantial percentage of consumers (30% of the women in the present study) who have said it was extremely, quite or slightly unlikely that paying someone to make clothes would cost more than store-bought clothing. Such women are perhaps operating on the old adage that sewing a garment will cost less than a store-purchased garment (Maslowski, 1995). The service provider must educate the customer about the features of custom clothing, such as fit, customizing, and construction, and perhaps influence the women's behavioral beliefs about these features to legitimize the higher price.

The service provider is also challenged to effect the outcome evaluation that paying more than the retail price for clothing is not bad. They can educate clients that paying more than the retail price for a garment is good because of such features as better fit and construction than the retail garments (Maslowski, 1995). Maslowski (1995) states,

"One of the hardest things about working with customers is getting them used to paying a dressmaker" (p. 18).

Free-time-availability belief. Few women in this study (20%) had positive belief strengths that by paying someone to make clothes for them would free up time for other hobbies or projects they enjoyed, and almost half of the women (40%) had negative belief strengths concerning this question (See Figure 5.10). Despite the large percentage of employed women in this study who felt that freeing up their time was positive, a large majority of the women expressed either negative or neutral behavioral beliefs. The large percentage of respondents who had negative or neutral free time availability beliefs might be because those women did not make their own clothes at home and so they already used no time involvement in that activity.

The findings on this behavioral belief could be used to market to home seamstresses who are looking to free up time for other activities but still want to have the options of good fit, quality construction, and a variety of design choices. Again, an aspect of niche marketing could be applied here by attracting employed women who sew to the service providers, as Diamond (1988) and Meyer (1986) also suggested. One respondent in this study volunteered that she sewed 30% of her clothes but hired a seamstress to make more expensive items for her (See Appendix E).

In conclusion, the three salient behavior beliefs that contributed the most to the estimated attitudes for making clothes were customization, apparel construction, and clothing fit; all have positive aspects of paying someone to make clothes and can be used

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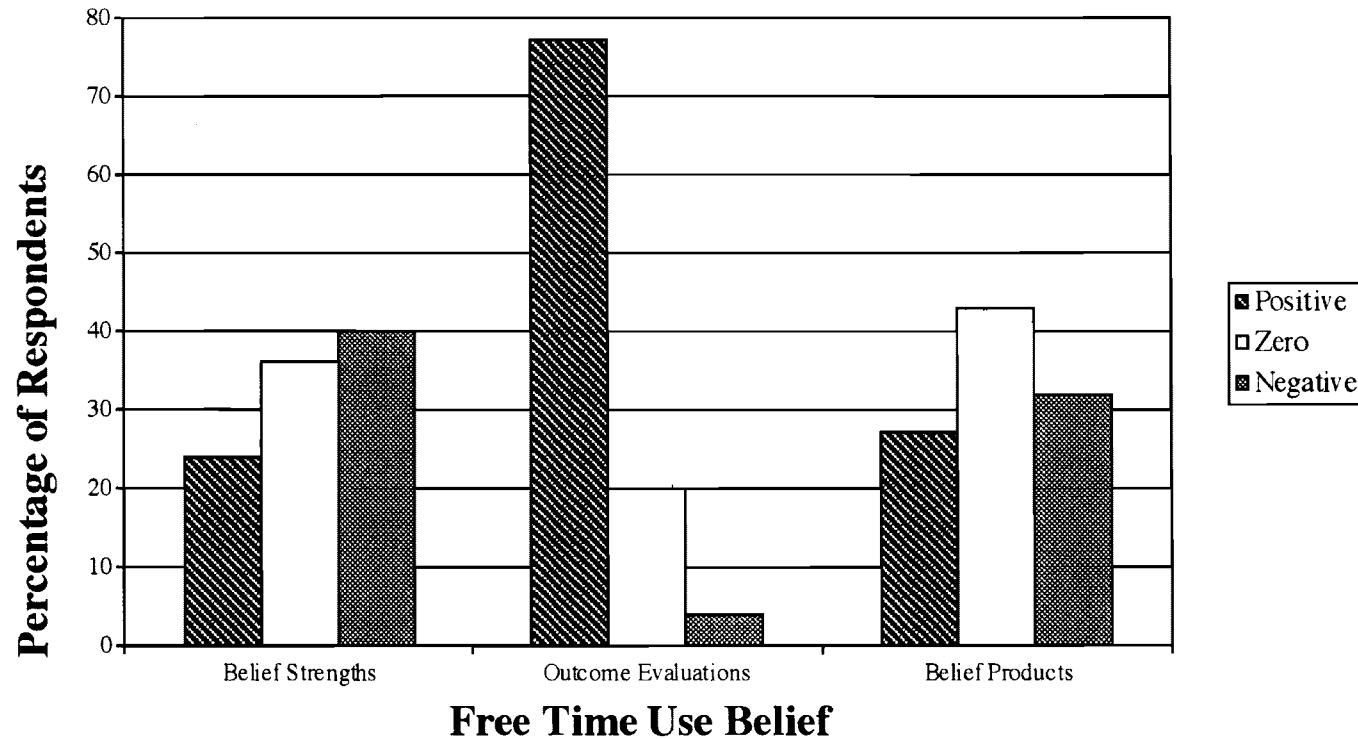
Figure 5.10 Free time use belief for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," " zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix F, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix F.

as marketing tools by the service provider to sell sewing services. Time involvement, free

time availability, pricing, and level of risk contributed small amounts to the estimated

attitudes about paying someone to make clothing. These latter four behavioral beliefs

provide insight into possible areas that could be used to try influencing attitudes toward

purchasing. They are areas that should be included in marketing plans as to how the

service provider will approach the possible negative behavioral belief strengths and

outcomes they may encounter in prospective custom sewing service clients.

Altering Clothes/ Mending Clothes Beliefs

The same set of eight behavioral beliefs was measured for the services of altering

clothes and mending clothes. The percentage distributions of respondents for the altering

clothes and mending clothes behavioral beliefs were similar, thus having the same

marketing implications for the service provider. Therefore, the behavioral beliefs for these

two services are discussed together.

Time-savings belief. Alteration or mending service providers could use time

savings beliefs to promote their services as time savers for the clientele, stressing that this

time savings was good (See Figures 5.11 and 5.12). The service providers could offer

additional time saving services to clients such as pick-up and delivery service or in-home

and office calls for pinning in alterations, conducting multiple fittings, or other services.

Maslowski (1995) profiles a seamstress who conducted concierge services at several

office buildings in her community; the services included on-site work and pick up and

delivery of garments for alterations.

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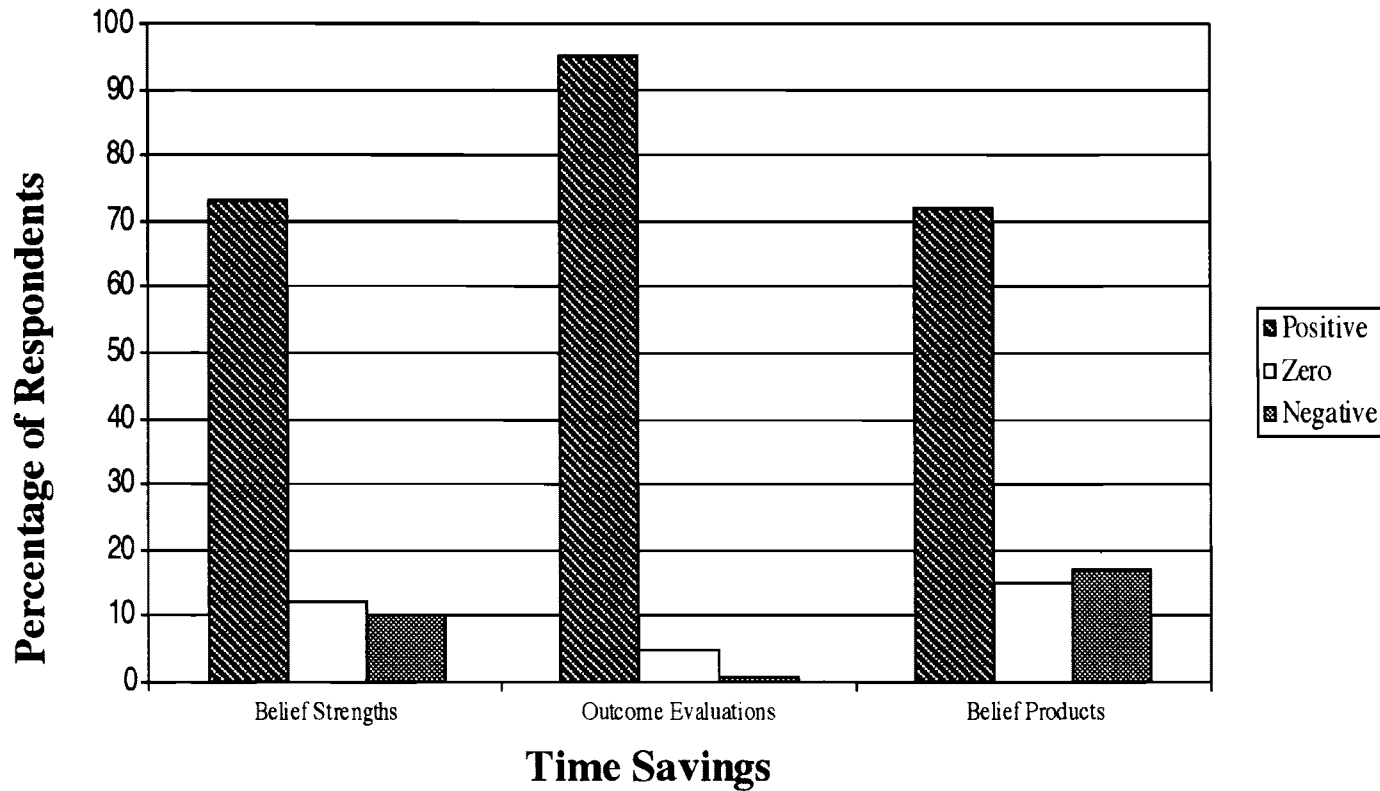
Figure 5.11 Time Savings belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," " zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.
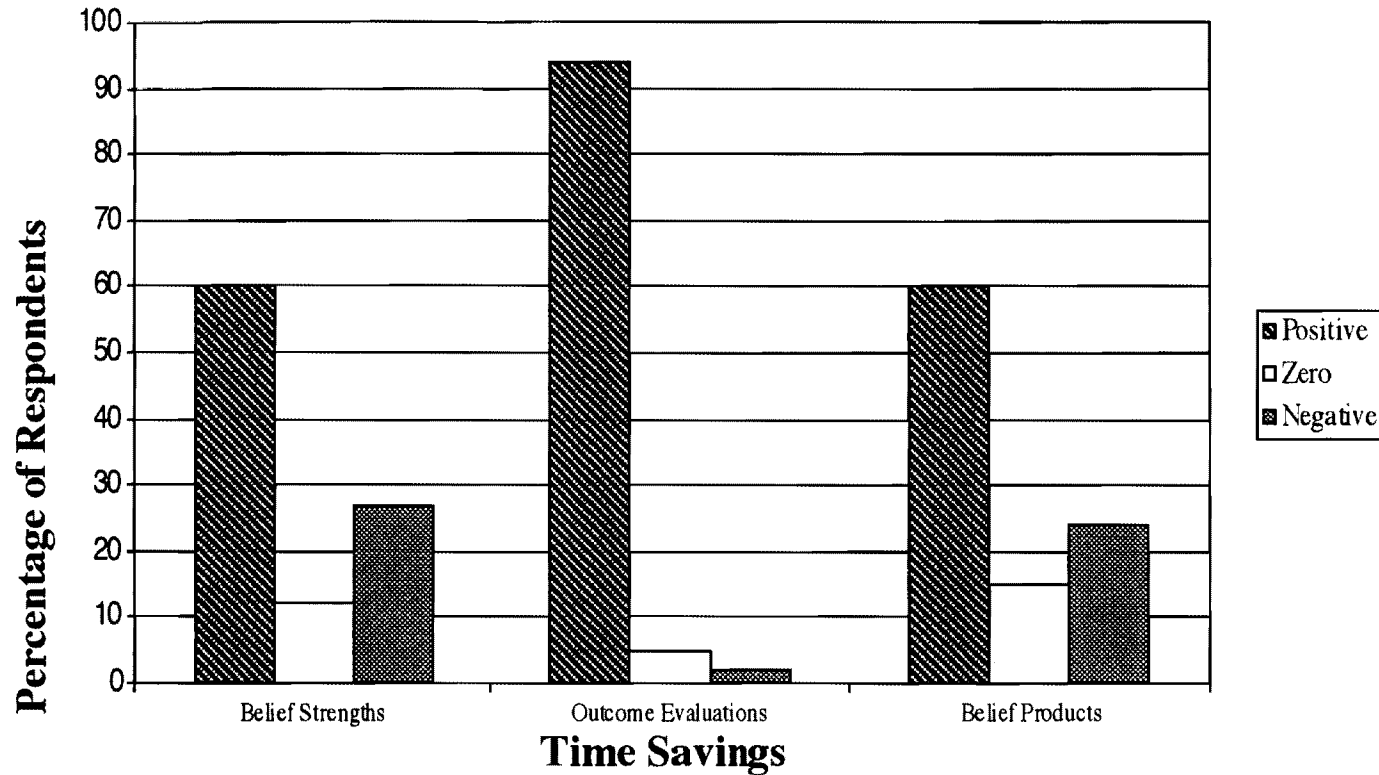
Figure 5.12 Time Savings belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.

Clothing-wear-expectancy belief. In Figures 5.13 and 5.14, the percentage

distributions of respondents for the belief strengths, outcome evaluations, and belief

products were similar. Attitudes toward paying someone to alter or mend clothes could

be influenced if the service provider were to focus marketing efforts on those employed

women having neither positive nor negative belief strengths that paying someone to alter

or mend clothes would extend the clothing wear expectancy. The role of fashion could be

influencing the women's answers. Often the wear expectancy of more fashionable

garments is shorter in comparison to the wear expectancy of less trendy or fashionable

garments. If women answered this question with their own wardrobes in mind or in

relation to the relative wear expectancy of specific garments, the women might have

indicated differing answers according to whether they were thinking of a broad category

of clothing they own or of a specific garment. The belief could also be different for items

of clothing depending on the initial cost of a garment when purchased (Maslowski, 1995).

Professional-alterations/mending belief. The percentage distributions in Figures

5.15 and 5.16 and the relatively large product means shown in Table A2, Appendices G

and H, for these beliefs are consistent with the general consensus in the literature that the

overall skill level of the service provider is important. Most of the employed women

respondents indicated that they expected correct and professional alterations and mending

and that being able to have clothes altered or mended correctly and professionally was

good. In her book, The Business of Sewing, Sykes (1992) identifies insufficient skill level

as an overwhelming problem that forces sewing service providers out of business.
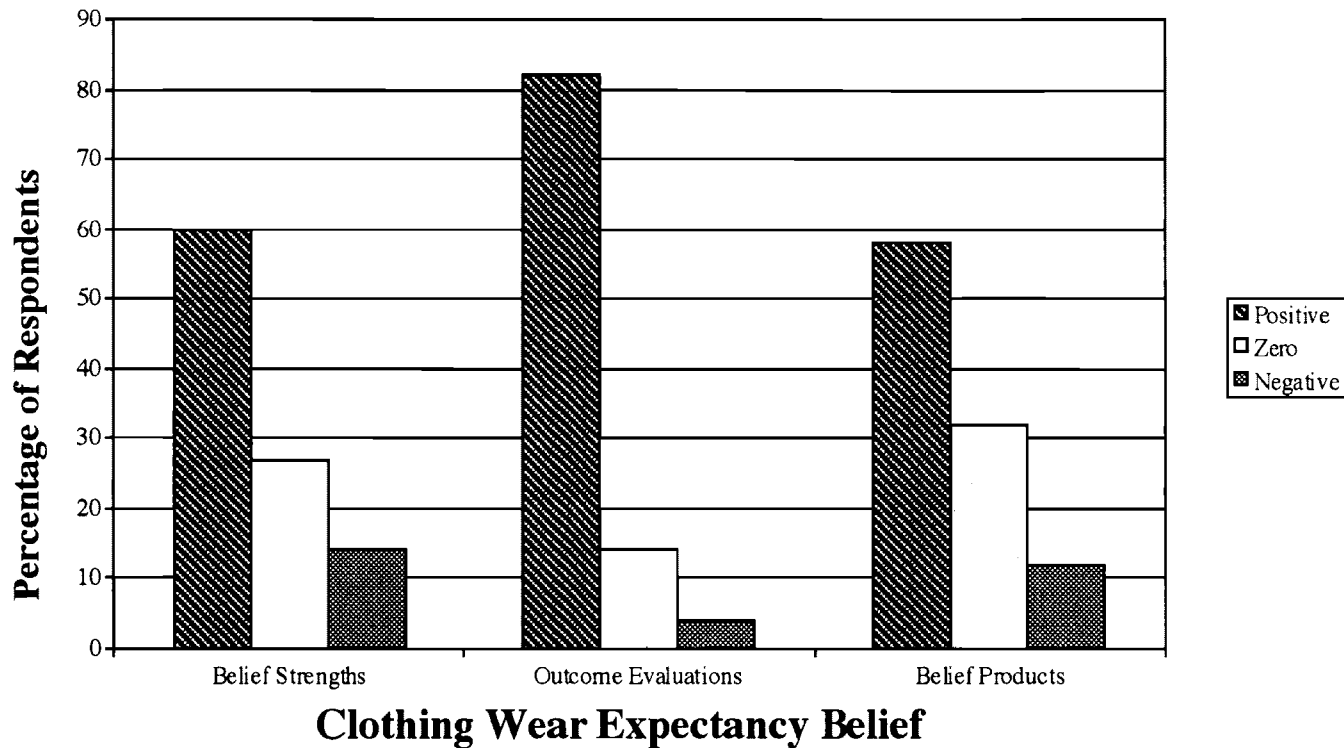
Figure 5.13 Clothing wear expectancy belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.
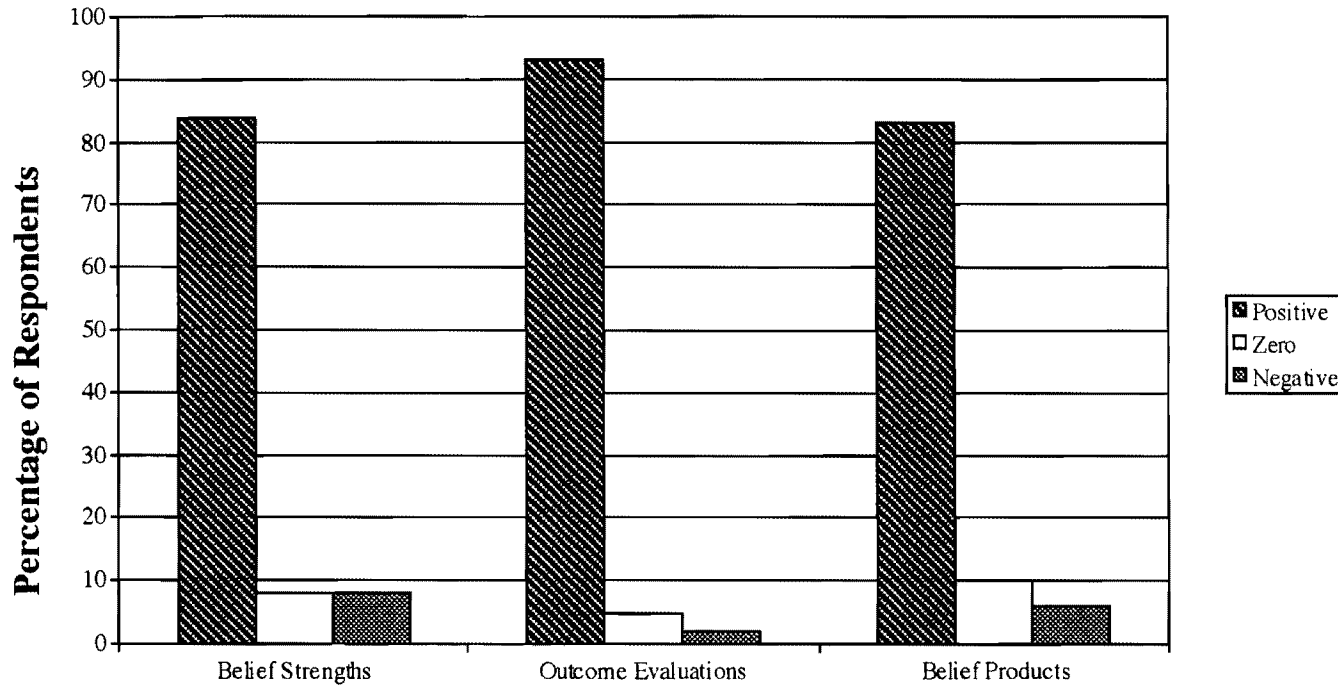
Clothing Wear Expectancy Belief

Figure 5.14 Clothing wear expectancy belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.
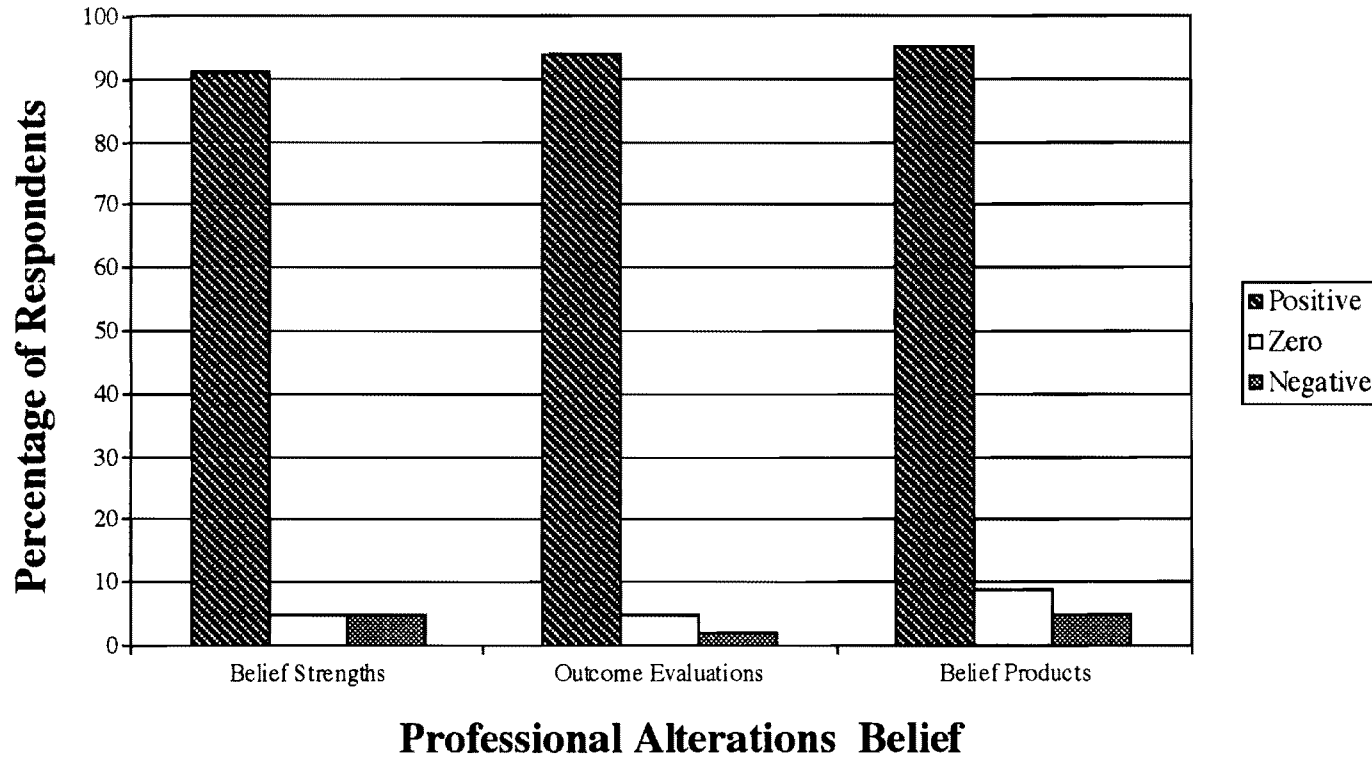
Figure 5.15 Professional alterations belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.
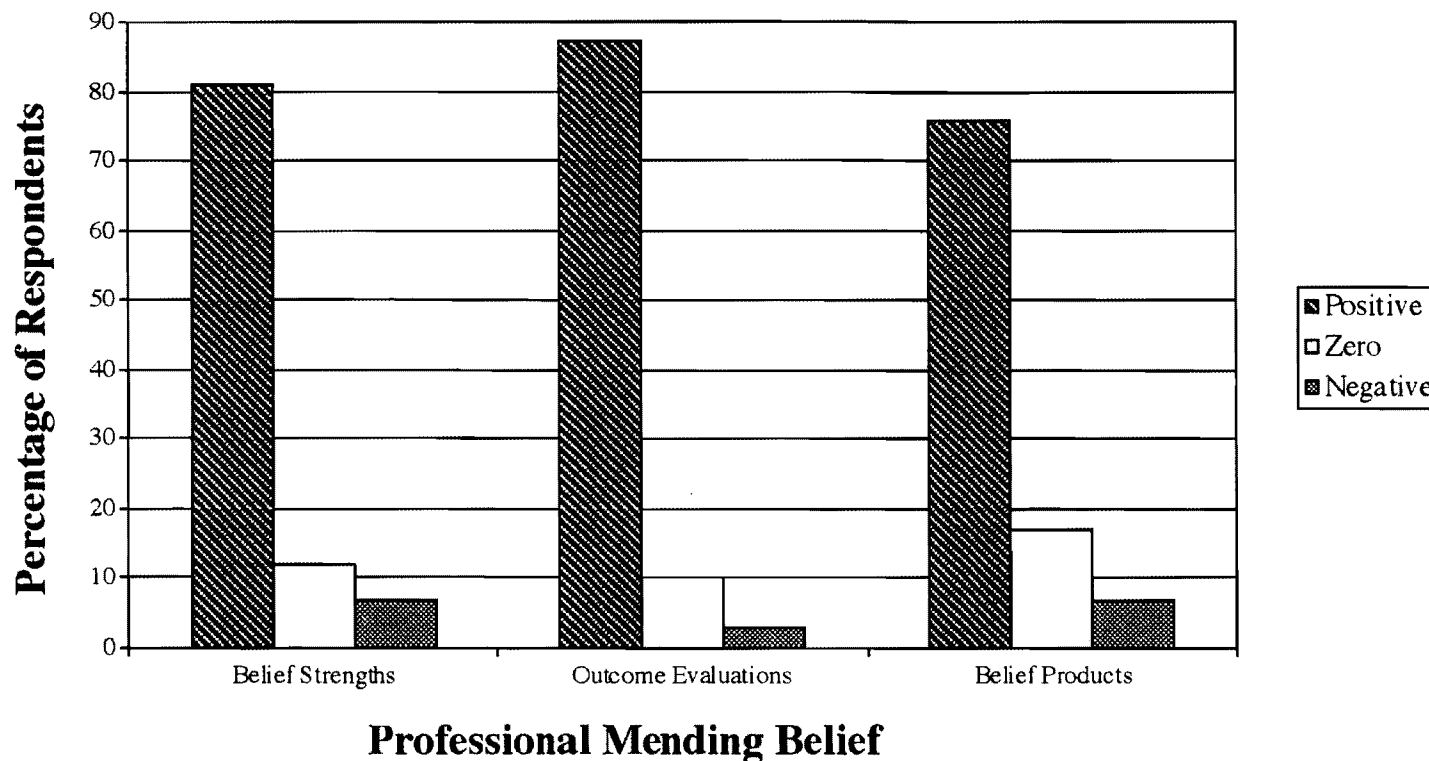
Figure 5.16 Professional mending belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.

Clothing-fit belief. The percentage distributions of respondents' outcome

evaluations for the clothing fit belief, shown in Figures 5.17 and 5.18, support the findings

of Cassill and Drake (1987a), Eckman, Damhorst and Kadolph (1990), Van Slyke (1988),

and Wright and Francis (1987), who all found that clothing fit was an important selection

criterion for employed women. This study goes further than these findings because the

employed women indicated that they could get better fitting clothes by paying someone to

alter them. The studies cited above do not address how women believed they would get

better fitting clothes.

The percentage distributions of respondents for the clothing fit beliefs about

mending and altering do differ. Mending procedures sometimes can affect the fit of

garments. The degree to which mending affects garment fit is often directly related to the

extent of the required mending. The percentage distribution of respondents for clothing fit

beliefs may reflect a perception that the mending would not affect garment fit. Otherwise,

the percentage distribution for mending might have been more similar to that for altering

clothes.

Alteration/mending-costs belief. The percentage distributions of respondents for

the belief strengths and outcome evaluations regarding costs of altering or mending are the

most different of all of the behavioral beliefs about these two services; however, the

distributions of respondents in the behavioral belief products are similar. (See Figures

5.19 and 5.20.)
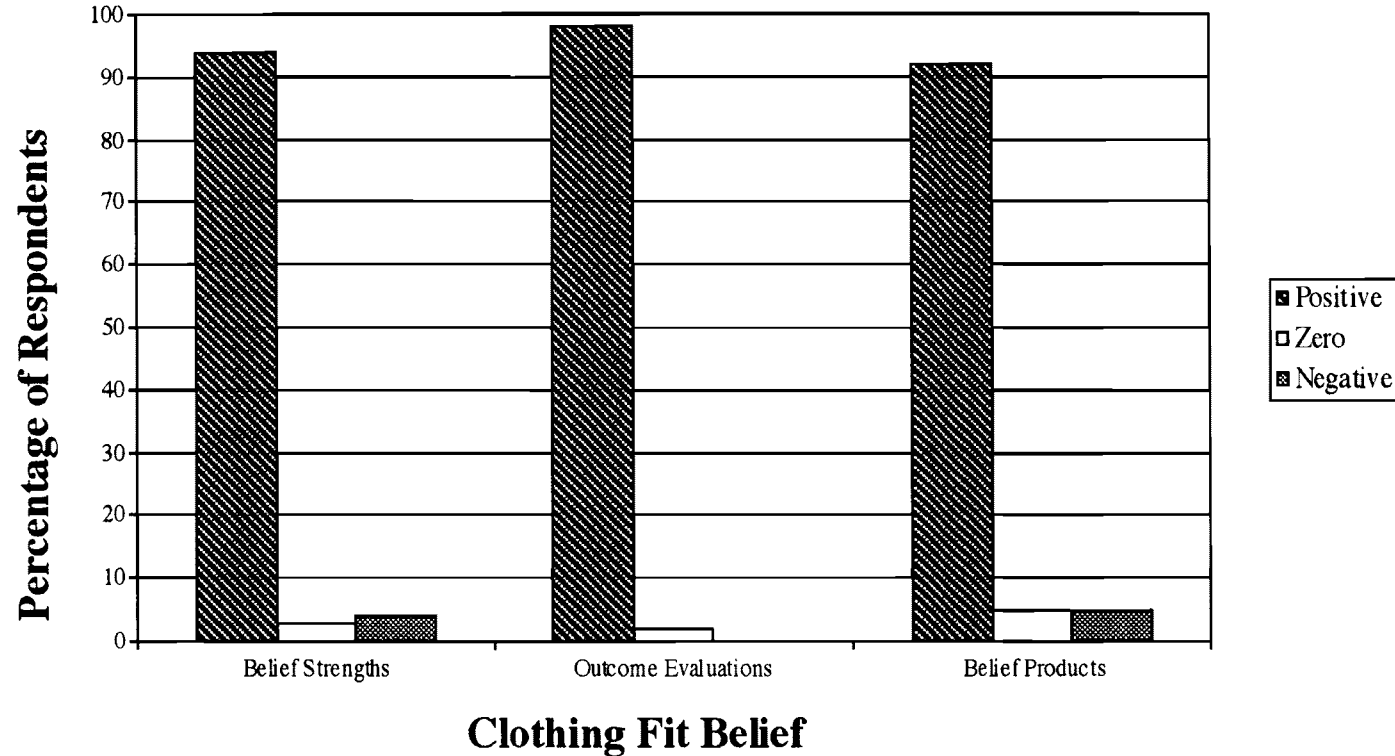
Figure 5.17 Clothing fit belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.
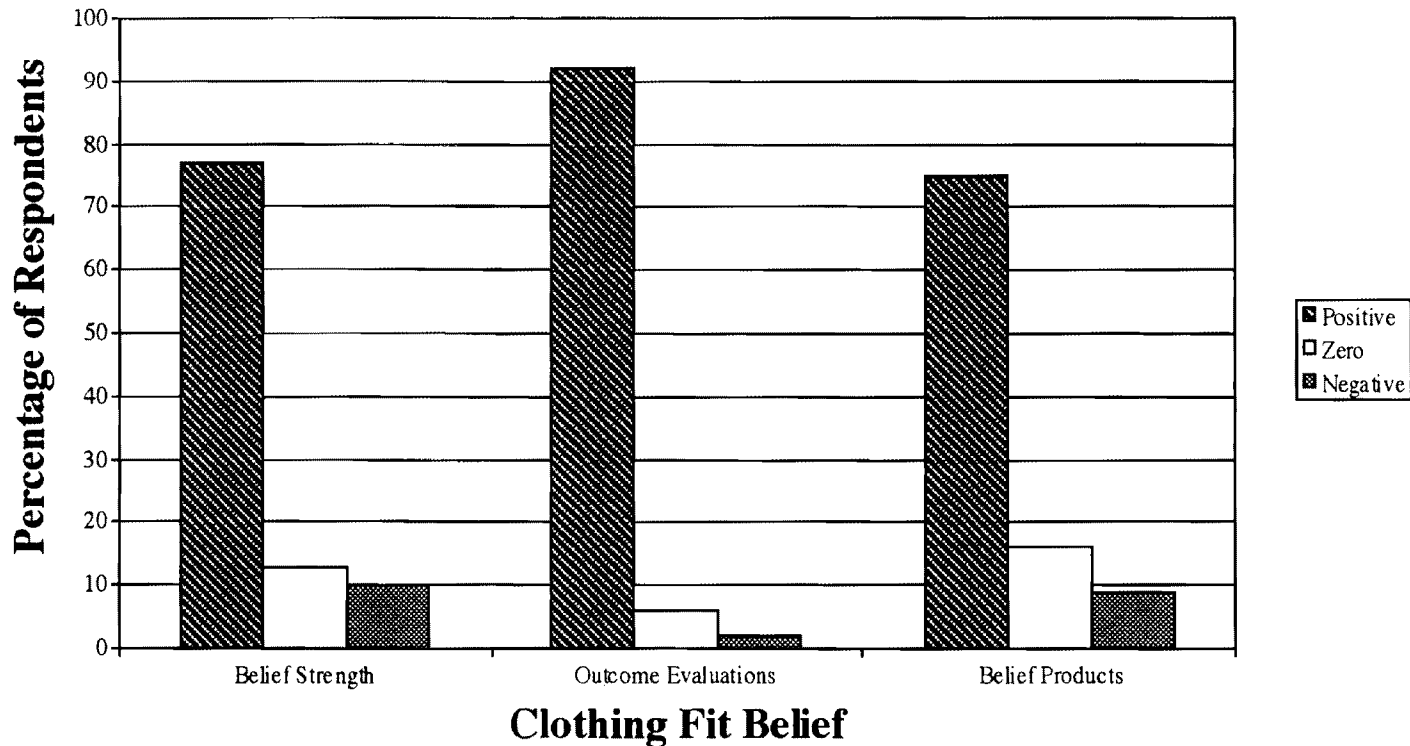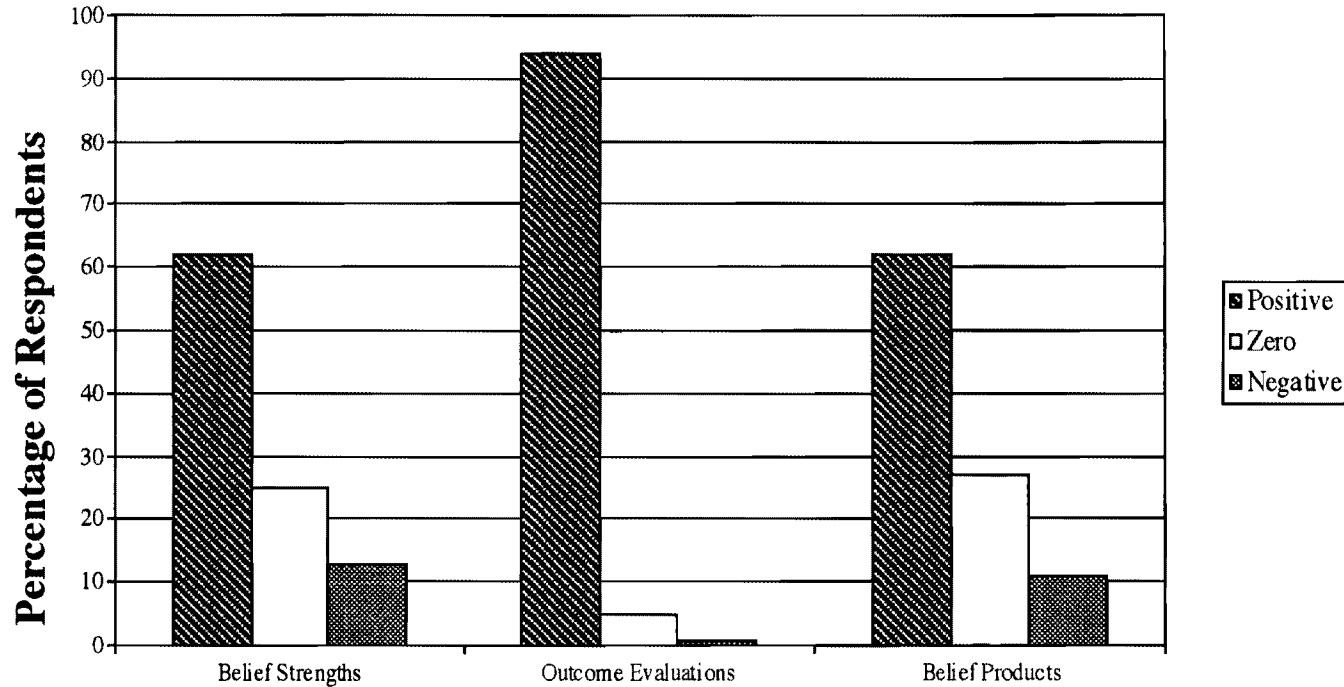
Clothing Fit Belief

Figure 5.18 Clothing fit belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.
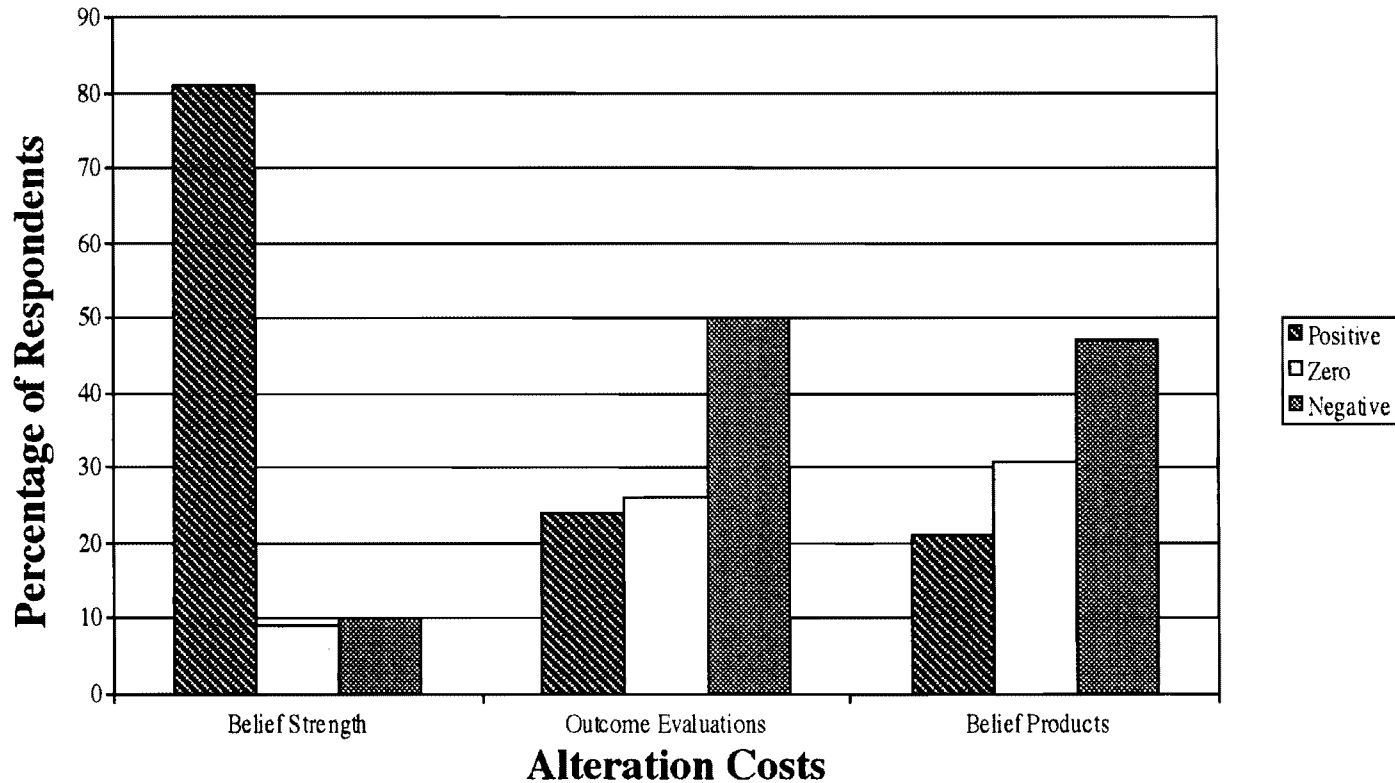
Figure 5.19 Alteration cost belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.
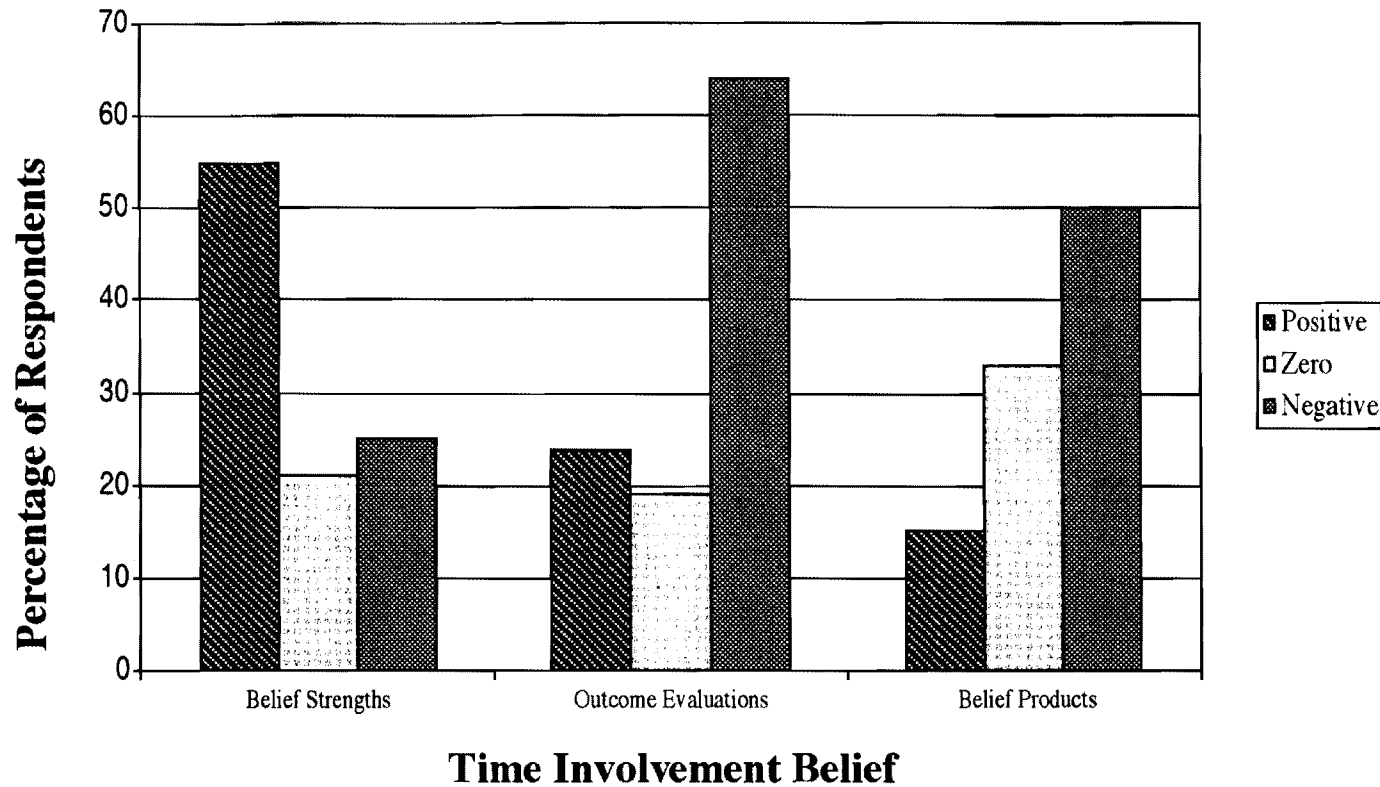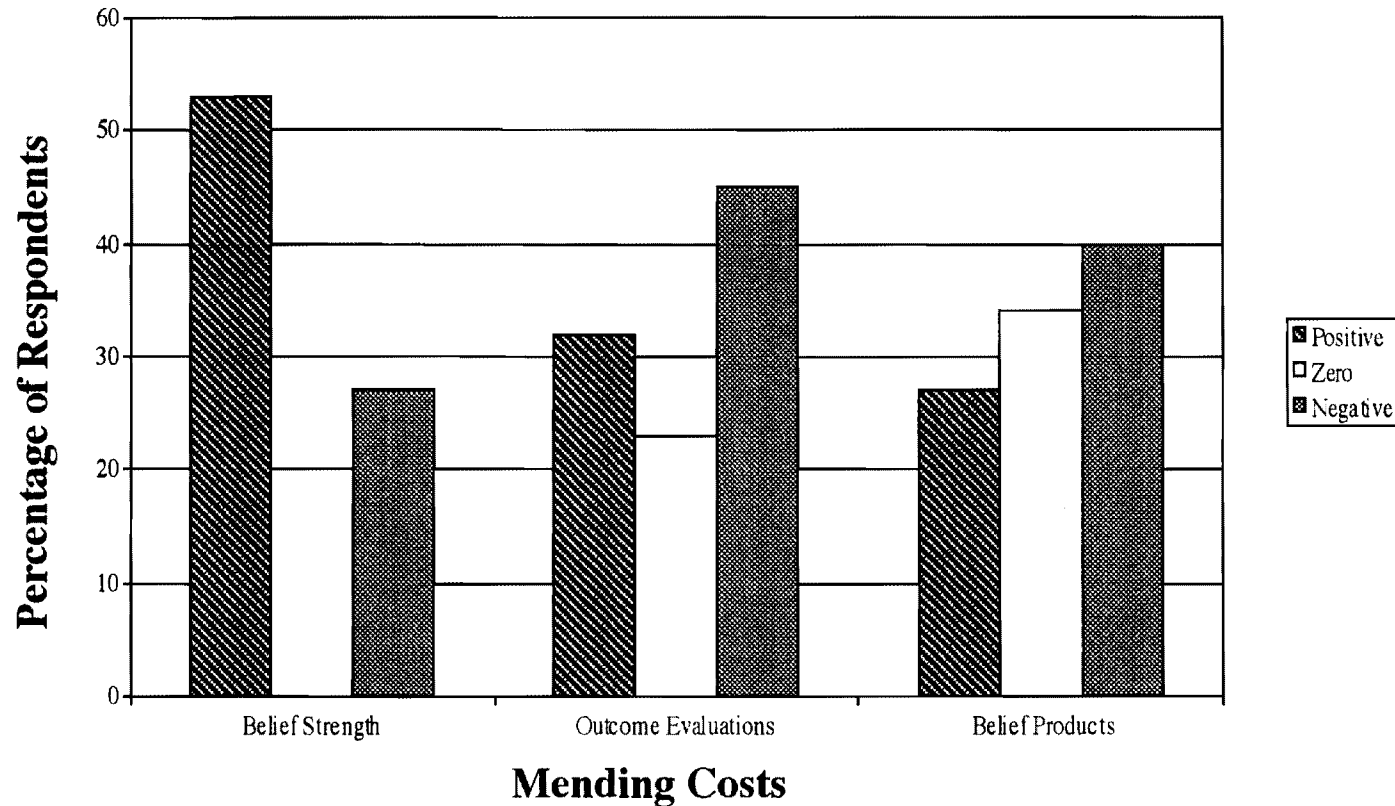
Figure 5.20 Mending cost belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.

The distributions in Figures 5.19 and 5.20 help in understanding the alterations

cost belief product mean of -.92 (see Table A2, Appendix G) and the mending cost belief

product mean of -.70 (See Table A2, Appendix H) which contributed very little to the

overall attitudes toward paying someone to alter or mend clothes in the next year.

However, knowledge of these distributions are also important information for the service

provider's marketing plan. If the service provider can focus marketing efforts on changing

the outcome evaluations of clients, more clients might have positive behavioral beliefs

which could then ameliorate their attitudes.

Workmanship belief. As shown in Figures 5.21 and 5.22, nearly equal percentages

of respondents indicated positive and negative behavioral beliefs that the alteration or

mending workmanship may not be up to their standards. Large percentages of

respondents, 60% for alterations and over 50% for mending, marked that it would be bad

if the workmanship were not up to their standards. These percentages resulted in almost

equal distributions of respondents in the positive, negative, and neither categories of the

belief products (See Figures 5.21 and 5.22). Because of these nearly equal distributions,

the means for the behavioral belief products were near zero, .15, for the workmanship

behavioral belief for altering clothes (See Table A2, Appendix G.) and .01 for the

workmanship behavioral belief for mending clothes (See Table A2, Appendix H).

Comments volunteered by some respondents (See Appendix E) further support these

findings; many people apparently have had negative experiences when they have paid to

have garments altered and mended. Alteration and mending service providers need to

Figure 5.21 Workmanship belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.

Figure 5.22 Workmanship belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for Belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.

become aware of the types of previous experiences the client has had in paying someone to alter or mend clothing and the expectations she has for the workmanship that will be provided to her. Whether a client has had good or bad experiences, her belief will probably be based on her past outcome evaluations.

Time-use belief. Figures 5.23 and 5.24 reflect the near consensus of the respondents about their behavioral belief strengths that, with some degree of likelihood, that paying someone to alter or mend clothing would require planning and time use to get the activity accomplished. In contrast, just over 40% of the respondents said it was bad to use time planning and working with a business to get clothing altered or mended. The small means of the belief products, -.12 for altering and -.47 for mending (See Tables A2, Appendix G, and Appendix H) reflect the disparate percentage distributions for the belief strengths and outcome evaluations. Time-use beliefs could have an important role in determining attitudes toward paying someone to alter or mend clothes if the service provider's marketing to employed women emphasized that taking the time to plan and work with a business to get clothes altered/mended is good use of their time because time spent would lead to a better outcome. Thus, time use beliefs could be used to positive effect on the attitude toward paying someone to alter or mend clothes.

Money-savings belief. Between 50% and 60% of the women indicated that paying someone to alter or mend clothes in the next year would be thrifty and economical and would save them money on clothes. The remaining respondents, who did not appear to agree with this money saving potential, influenced the percentage distributions of the
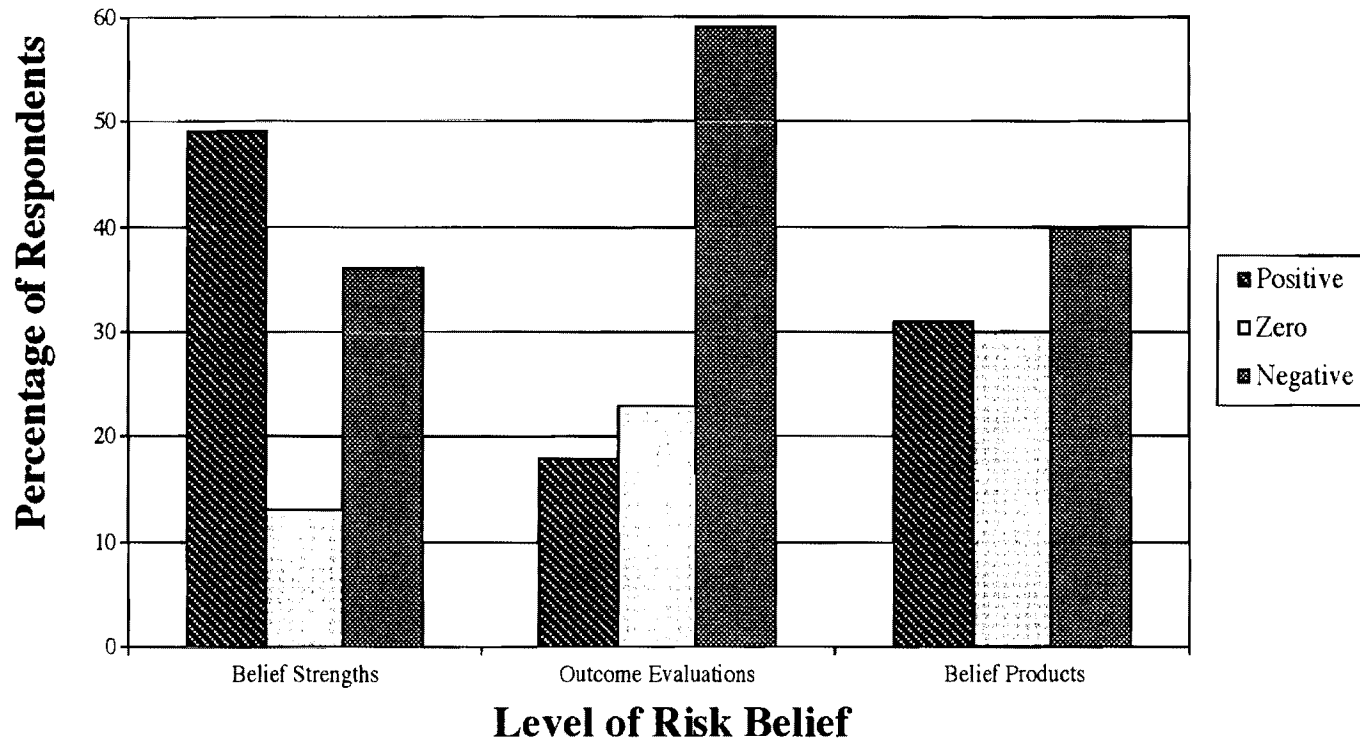
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Time Use Belief

Figure 5. 23 Time use belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.

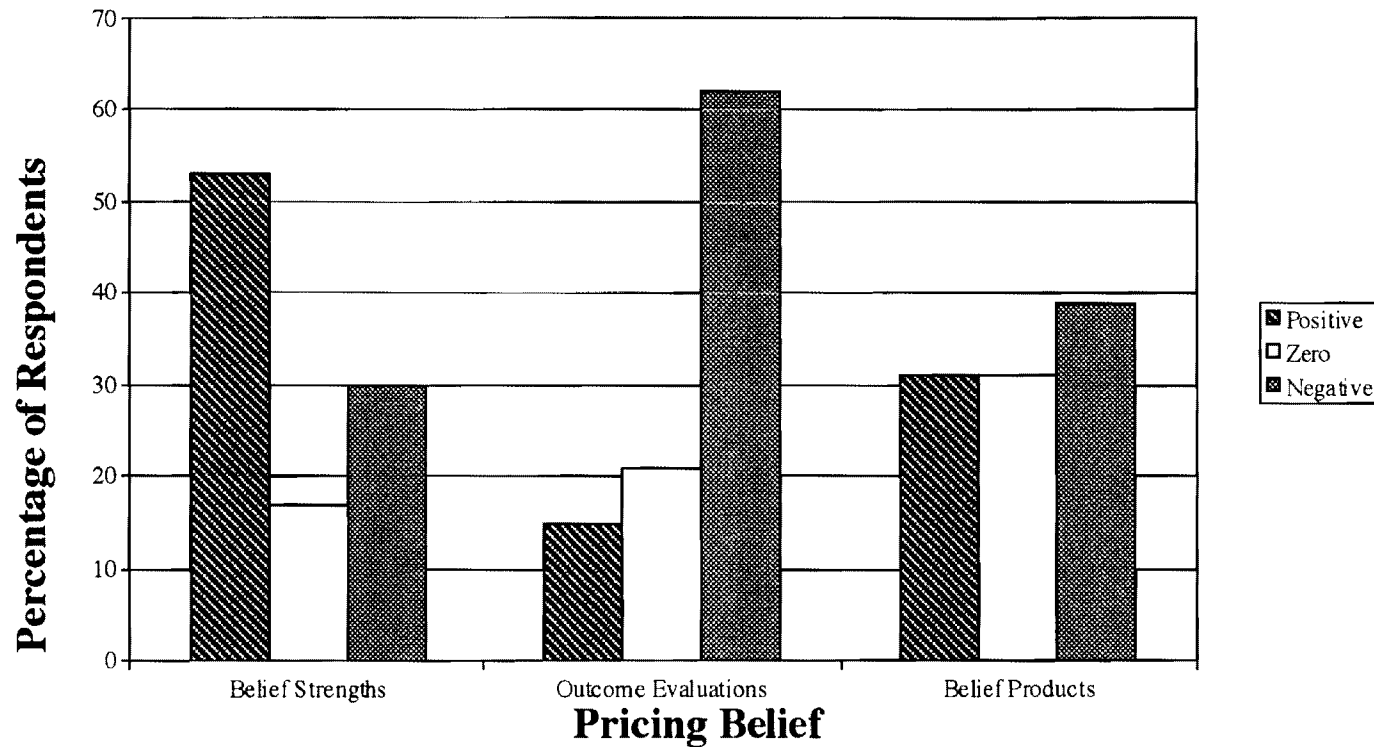**Figure 5.24** Time use belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.

money savings belief products by reducing the percentage of the respondents who had

positive beliefs despite having a positive outcome evaluation (See Figures 5.25 and 5.26).

There was almost 100% agreement among the women that these types of economical,

money saving measures are "extremely, quite, or slightly good."

A clear implication of these results is that the purchase of alteration or mending

services could be positioned as economical for consumers. This does not mean, however,

that the service provider should offer the services at extremely low prices. The prices

should reflect the cost and quality of the service. Promotional efforts could demonstrate

the cost savings through the comparison of the cost of having a garment altered or

mended versus the cost of purchasing a new garment.

Marketing applications of the behavioral belief outcome evaluations and strengths

data for sewing service providers can be increased by comparing the respondents who

indicated an intention to purchase the sewing service and those who indicated an unlikely

intention to purchase. Statistical analysis was carried out through six Multivariate

Analysis of Variance (MANOVA) to test the null hypothesis; the behavioral belief

outcome evaluations and strengths of the employed women who have likely intentions to

pay someone to make, alter, or mend clothing in the next year are not different from the

employed women with unlikely intentions for paying someone for the respective sewing

service in the same year. Two MANOVAs were conducted for each sewing service to

determine if those with likely intentions to purchase differed from those with unlikely

intentions; First a MANOVA involving the behavioral belief outcome evaluations relative

Money Savings Belief

Figure 5.25 Money savings belief for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix G, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix G.

Figure 5.26 Money savings belief for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for belief strengths, outcome evaluations, and belief products.

Note: Appendix H, Table A1 contains the belief strength and outcome evaluation data which are multiplied to yield the behavioral belief products in Table A2 in Appendix H.

to each service was processed then a MANOVA involving the behavioral belief strengths relative to each service was processed.

The MANOVAs for all three sewing services' intentions, behavioral belief outcome evaluations and strengths were found to be significant by the Wilks' Lambda Criterion and the null hypotheses were rejected. (See Table 13.) The behavioral belief outcome evaluations and strengths for the employed women who had likely intentions to pay someone for that specific sewing service differ from those held by the employed women who had unlikely intentions to pay someone for that same service. Table 13 also contains the univariate results for each behavioral belief outcome evaluation and strength showing which account for the differences between the two groups. Further analysis is needed to determine which behavioral belief outcome evaluations and strengths are different for each specific group of employed women in each sewing service.

Normative Beliefs-Subjective Norm Relationship

The subjective norm variable used in testing the attitude-subjective norm-intention relationship was also used in testing the normative beliefs-subjective norm relationship. Four salient referent products involving businesses, retailers, family, and friends who sew were calculated from the normative belief measures which were specific for making clothes and motivation-to-comply measures which were not specific to a sewing service. Three salient referent products involving businesses, retailers, and family were calculated from the normative belief measures which were specific for altering and mending clothes

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Table 13. Multivariate Analysis of Variance Results for Behavioral Belief Strengths and Outcome Evaluations for Persons with Intentions vs Nonintentions for Purchasing the Sewing Service.

Behavioral Beliefs	Degrees of Freedom	Type III SS	F-Value	Degrees of Freedom	Type III SSS	F-Value
	Behavioral Belief Outcome Evaluation			Behavioral Belief Strength		
	Making Clothes (F = 16.8*** df = 7/611)			Making Clothes (F = 18.538*** df = 7/606)		
Time Involvement	Intention 1	205.80	69.90***	1	271.27	114.21***
	Error 617	1816.68		612	1453.58	
Clothing Fit	Intention 1	49.44	23.38***	1	4.86	2.40
	Error 617	1304.66		612	1238.97	
Price	Intention 1	19.32	7.19**	1	19.40	8.21**
	Error 617	1657.25		612	1446.84	
Customization	Intention 1	33.08	21.95***	1	29.12	14.99
	Error 617	929.78		612	1188.62	
Apparel Construction	Intention 1	10.71	6.09*	1	4.58	6.11*
	Error 617	1085.12		612	458.38	
Free Time Availability	Intention 1	82.24	27.63***	1	0.98	.53
	Error 617	1836.50		612	1137.37	
Level of Risk	Intention 1	74.10	27.76***	1	30.42	16.84***
	Error 617	1646.80		612	1105.41	
	Altering Clothes (F = 31.08*** df = 8/609)			Altering Clothes (F = 18.30*** df = 8/609)		
Time Savings	Intention 1	483.21	190.22***	1	10.36	13.56***
	Error 616	1564.81		616	470.49	
Alterations Costs	Intention 1	6.57	3.09	1	62.07	29.39***
	Error 616	1310.08		616	1300.84	
Workmanship	Intention 1	24.19	8.24*	1	1.89	1.24
	Error 616	1807.69		616	939.38	
Clothing Wear Expectancy	Intention 1	52.12	23.33***	1	24.34	18.43***
	Error 616	1376.26		616	813.63	
Time Use	Intention 1	3.26	1.50	1	168.86	83.54***
	Error 616	1341.85		616	1245.12	
Professional Alterations	Intention 1	105.00	85.83***	1	60.92	73.91***
	Error 616	753.59		616	507.73	
Clothing Fit	Intention 1	92.09	87.15***	1	26.82	48.47***
	Error 616	650.97		616	340.86	
Money Savings	Intention 1	152.82	52.42***	1	1.76	1.87
	Error 616	1795.82		616	578.37	

Table 13 (continued)

Behavioral Beliefs	Degrees of Freedom	Type III SS	F-Value	Degrees of Freedom	Type III SSS	F-Value
	Behavioral Belief Outcome Evaluation			Behavioral Belief Strength		
	Mending Clothes (F = 48.80*** df = 8/607)			Mending Clothes (F = 25.56*** df= 8/607)		
Time Savings	Intention 1	721.15	233.93***	1	12.05	12.52***
	Error 614	1892.84		614	590.99	
Mending Costs	Intention 1	206.52	77.17***	1	131.05	55.48***
	Error 614	1643.14		614	1450.34	
Workmanship	Intention 1	31.05	11.78***	1	6.16	4.08*
	Error 614	1618.08		614	980.12	
Clothing Wear Expectancy	Intention 1	66.82	36.55***	1	35.07	44.24***
	Error 614	1122.71		614	486.77	
Time Use	Intention 1	2.56	1.28	1	217.43	113.98***
	Error 614	1228.00		614	1171.21	
Professional Mending	Intention 1	135.54	78.43***	1	91.20	80.85***
	Error 614	1061.18		614	692.64	
Clothing Fit	Intention 1	204.63	93.95***	1	24.67	31.19***
	Error 614	1337.41		614	485.77	
Money Savings	Intention 1	334.89	125.30***	1	5.35	5.60*
	Error 614	1640.98		614	586.66	

* p = .01. **p = .001. ***p = .0001

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and the motivation-to-comply measures which again were not specific to any one sewing service.

During the analysis, a problem surfaced in relation to the questions used to measure the motivation-to-comply with normative beliefs that was not detected during the pilot test. The respondents appeared not to understand the response scale of "not at all" to "very much." The respondents seemed to answer using the "extremely likely" to "extremely unlikely" scale as was done on the previous questions on the questionnaire. This problem was detected when the questions were scored; the respondents seemed to be consistently marking the middle answer on the "not at all" to the "very much" scale which was scored with a +4 on the normative belief answers. The respondents often indicated that they thought the particular referent individuals would be "neither likely or unlikely" to want them to pay someone to make clothes, and this led to being scored with a 0. A more consistent answer to the motivation question would have been "not at all," scored with a +1.

The data calculations contained one self-correcting aspect: when a respondent indicated the "neither" on the normative belief question, which was scored with a 0, then her referent product was also 0. If, however, a respondent answered the question as any degree of "likely" or "unlikely," then the problem was amplified. The upshot is that the measurement of some of the salient referents and the estimated subjective norms appeared to be inaccurate.

The sum of all of the salient referents yielded an estimated subjective norm per respondent for each service which was used to test the three null hypotheses stated as H_{4a}, H_{4b}, and H_{4c} in the previous chapter and associated with the research hypotheses with the same numbers.

Pearson Product Moment Correlation analysis revealed significant positive correlations between the directly-measured and estimated subjective norms about purchasing each of the three services: $r = .58$ for making clothes, $r = .69$ for altering clothes, and $r = .66$ for mending clothes. The null hypotheses were rejected. The research hypotheses are supported: the more positive the employed women's estimated subjective norms for paying someone to make, alter, or mend clothes in the next year, the more positive their directly-measured subjective norms toward paying someone to make, alter, or mend clothes, respectively, in the next year.

For comparison purposes, and in order to draw conclusions, each estimated subjective norm, salient referent product, and normative belief will be presented according to three categories: "positive," "zero," or "negative". These categories for each variable were calculated using the percentage distributions of respondents found on Tables A4, A5, and A6 in Appendices F, G, and H. The percentage distributions of respondents who indicated normative belief answers of "extremely, quite, or slightly likely" were summed to yield a percentage of respondents for the "positive" category; Those with "extremely, quite, or slightly unlikely were summed to yield a percentage of respondents for the negative category. The percentage distribution of respondents with calculated positive

referent products were summed to yield respondents for the "positive" category; the percentage distribution of respondents with calculated negative referent products were summed to yield respondents for the "negative" category. The percentages used for the "zero" category were directly taken from the original tables; no categories were summed to yield this category. The motivation-to-comply measures as seen on Table A4, Appendices F, G, and H will be discussed according to the sum of the percentage of responses in categories of +1 to +3 as "low motivation," +4 as "somewhat motivated," and +5 to +7 as "high motivation". Subsequent discussion of the percentage distributions in the positive, zero, or negative categories is facilitated with histograms (See Figures 5.27 to Figures 5.39). Histograms of the motivation-to-comply percentage distributions in the categories described above also will be used. Distributions will be discussed along with relevant research, conclusions and implications for persons who provide sewing services. The estimated subjective norms for all three sewing services will be discussed first.

Estimated Subjective Norms

The means of the estimated subjective norms were -11.59 for making clothes, -2.00 for altering clothes, and -5.02 for mending clothes. The respondents' estimated subjective norms for making clothes ranged between -84 to +46 out of a possible -84 to +84 for (See Table A6, Appendix F). The possible range was -66 to +66 for altering and for mending clothes, and the actual products ranged from -63 to +37 for altering clothes and from -63 to +36 for mending clothes (See Table A6, Appendices G & H). Figures 5.27, 5.28, and 5.29 show graphical comparisons of the percentage distributions for the

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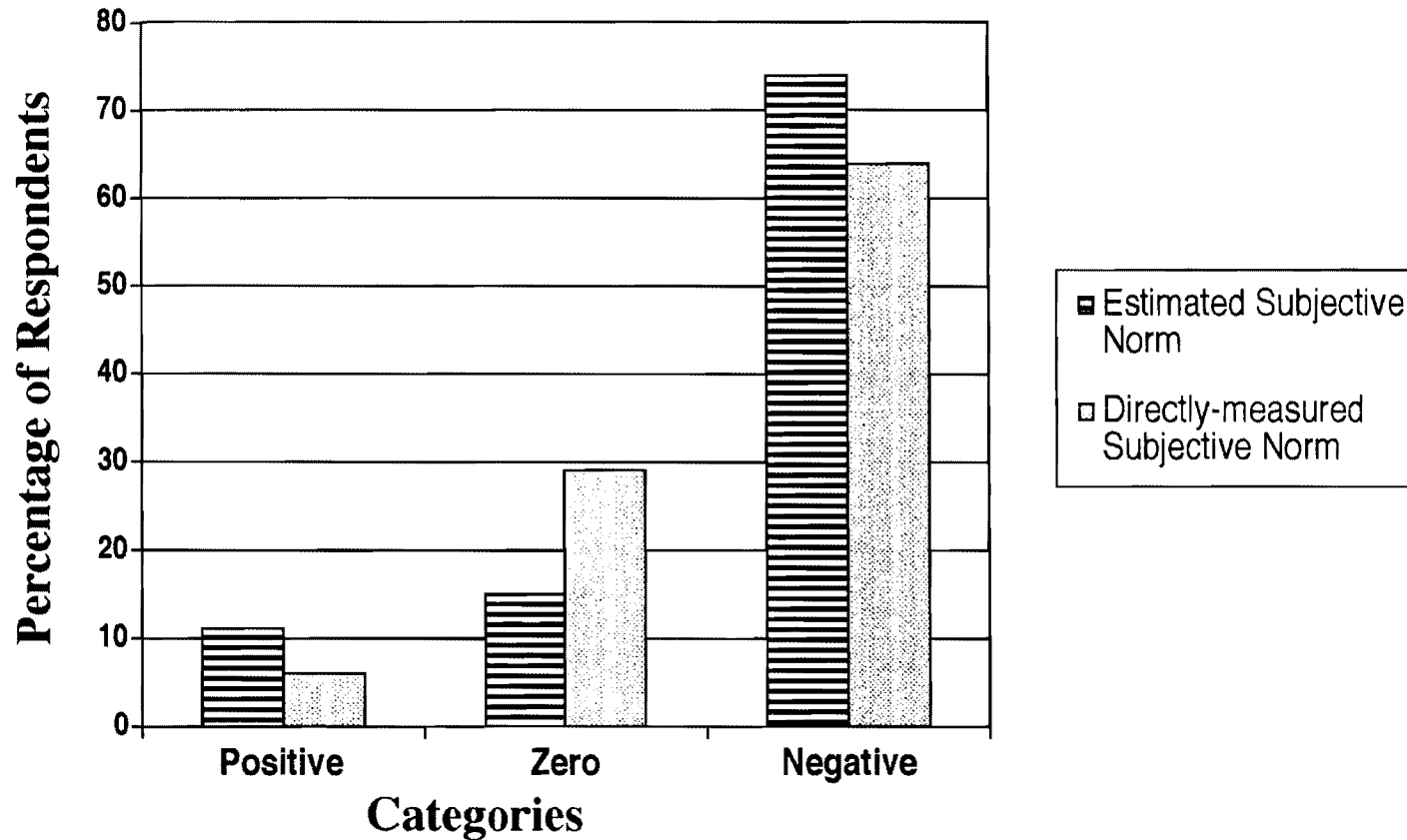
Figure 5.27 Paying someone to make clothes: Comparison of percentage respondent distributions in "positive," "zero," and "negative" categories for the estimated subjective norm and directly-measured subjective norm.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A6., Appendix F.
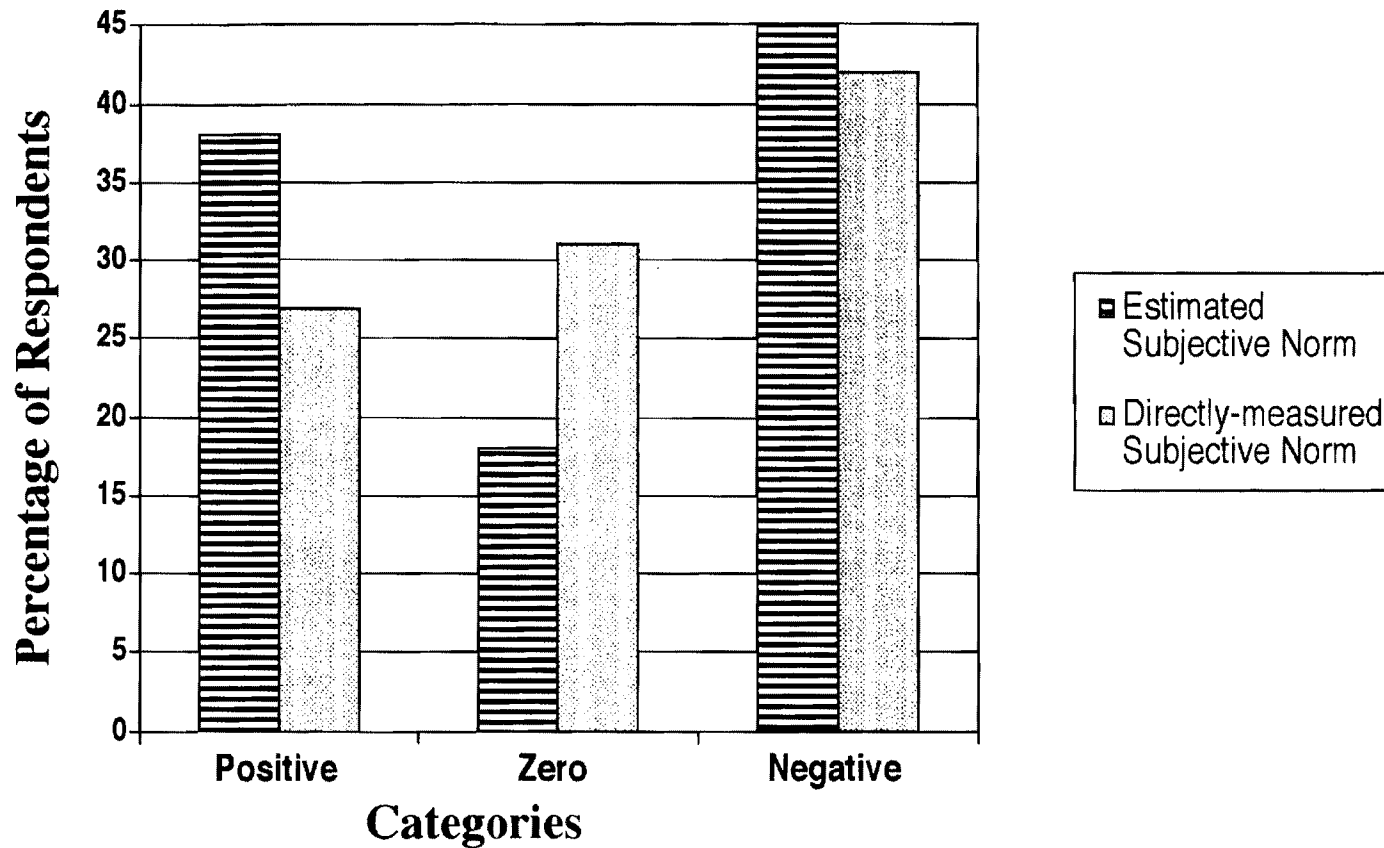
Figure 5.28 Paying someone to alter clothes: Comparison of percentage respondent distributions in "positive," "zero," and "negative" categories for the estimated and directly-measured subjective norm.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A6, Appendix G.
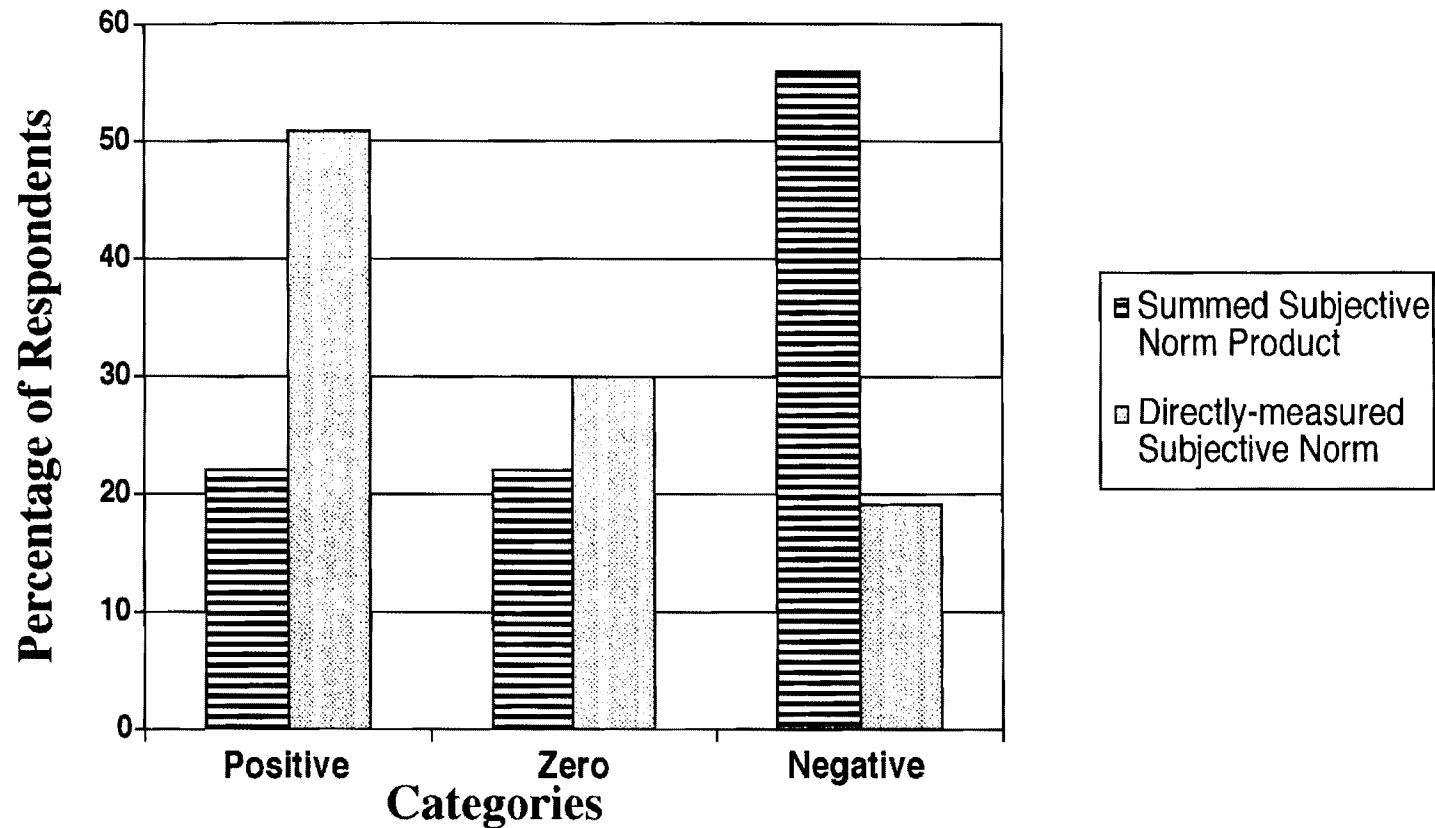
Figure 5.29 Paying someone to mend clothes: Comparison of percentage respondent distributions in "positive," "zero," and "negative" categories for the estimated and directly-measured subjective norm.

Note. The positive, zero, and negative categories are based on data in Table 10 and Table A6, Appendix H.

estimated and the directly-measured subjective norms for paying someone to make, alter, and mend clothing for the three categories of "positive," "zero," or "negative."

The percentage distributions of respondents for the estimated and the directly-measured subjective norm for all three services differ even though the correlation coefficients are similar. Thus, these distributions do not explain the moderately strong correlation coefficients. Further discussion of the percentage distributions for the referent products, normative beliefs, and motivation-to-comply will contribute more understanding to these results.

Referent Products, Normative Beliefs, and Motivation-to-Comply

Understanding of the estimated subjective norm comes from examining the numerical strength and mathematical sign, positive or negative, of each referent product. Understanding of each referent product comes from examining the numerical strength and mathematical sign, positive or negative, of the related normative belief along with the numerical strength (+1 to +7) of the motivation-to-comply.

The mean for each referent product is presented in Table A5, Appendices F, G, and H. Listed below are the referents according to the largest to the smallest mean for paying someone to make, alter, and mend clothes.

Makes Clothes	Alter Clothes	Mend Clothes
Friends Who Sew	Business	Business
Retailer	Family	Retailer
Family	Retailer	Family
Businesses		

However, because the majority of the referent products are negative and the positively scored ones were less than one, more understanding of this ranking can be garnered from examination of the respondents' percentage distributions across the corresponding normative beliefs and motivations-to-comply.

Friends-Who-Sew referent. This referent pertains only to the service of paying someone to make clothes. More than 50% of the respondents indicated a low motivation-to-comply with the normative belief that friends who sew wanted them to pay someone to make clothes (See Figure 5.30). The large percentage of respondents who indicated negative normative beliefs reflects the large percentage of respondents whose referent products were also negative. Even though the women in the original survey used for developing the questionnaire indicated that friends who sew were a salient referent group, who would approve of their hiring someone to make clothes, these research results generally do not indicate that the survey respondents considered friends who sew as positive normative beliefs nor that these respondents were highly motivated-to-comply with this belief. An explanation for this might go back to the fact that fewer women sew today than in years past, so the likelihood that they had many friends who sewed was small. If the women had no friends who sewed, ideally they would have marked neither on the survey and it would have calculated into a zero normative belief. This discrepancy could result from the women not understanding the normative belief question or from the earlier problem identified with the motivation-to-comply question.

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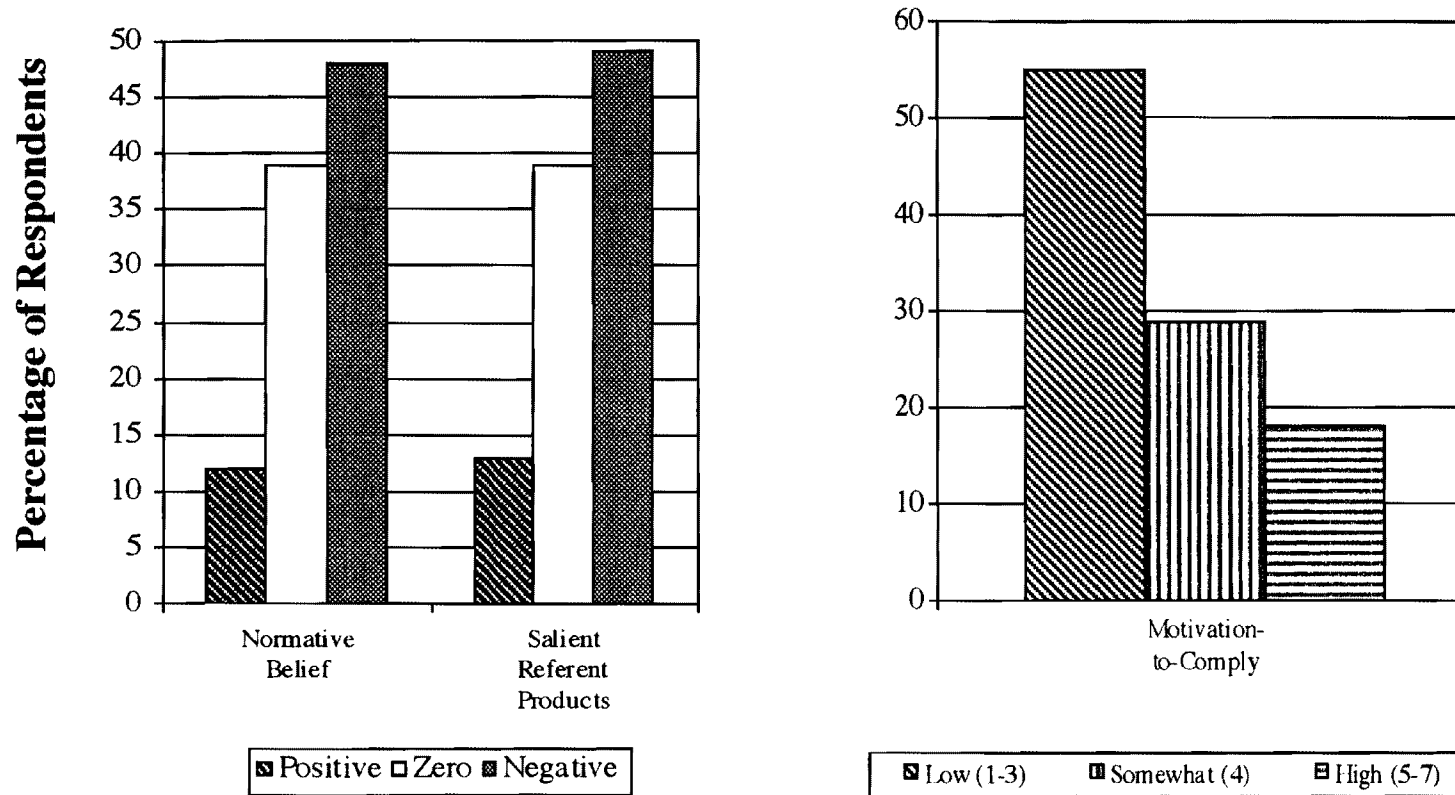
Friends Who Sew Referent for Making Clothes

Figure 5.30 Friends who sew referent for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix F, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix F.

Retailers referent. The percentage distributions of the respondents for this referent differ among the sewing services (see Figures 5.31, 5.32, and 5.33). The retailer referent product means for all of the sewing services were negative: -3.47 (See Table A5 , Appendix F) for making clothes with scores ranging from -21 to +21; -1.27 (See Table A5 , Appendix G) for altering clothes with scores ranging from -22 to +22; and -2.04 (See Table A5, Appendix H) with scores ranging from -22 to +22 for mending clothes. The possible range of scores for all referent products were -21 to +21. The retailers referent products made negative contributions to the respondents' estimated subjective norms for each sewing service. Sewing service providers could find it desirable if clients had positive normative beliefs about retailers wanting them to pay someone to make, alter, or mend clothing and the service providers would want the clients to be motivated to comply with those beliefs. The resulting referent product would be positive which would result in a large contribution toward the estimated subjective norms and thus making a positive contribution to the clients' attitude toward paying someone to make alter, or mend clothing in the next year.

Family referent. The means of the family referent products were -4.83 for making clothes, -1.18 for altering clothes and -3.1 for mending clothes (See Table A5, Appendices F, G, and H). No similarities among the percentage distributions for the family referent normative beliefs were seen for the three sewing services. No similarities among the percentage distributions for the family referent products were seen for the three sewing services (See Figures 5.34, 5.35, and 5.36). These results can be used for

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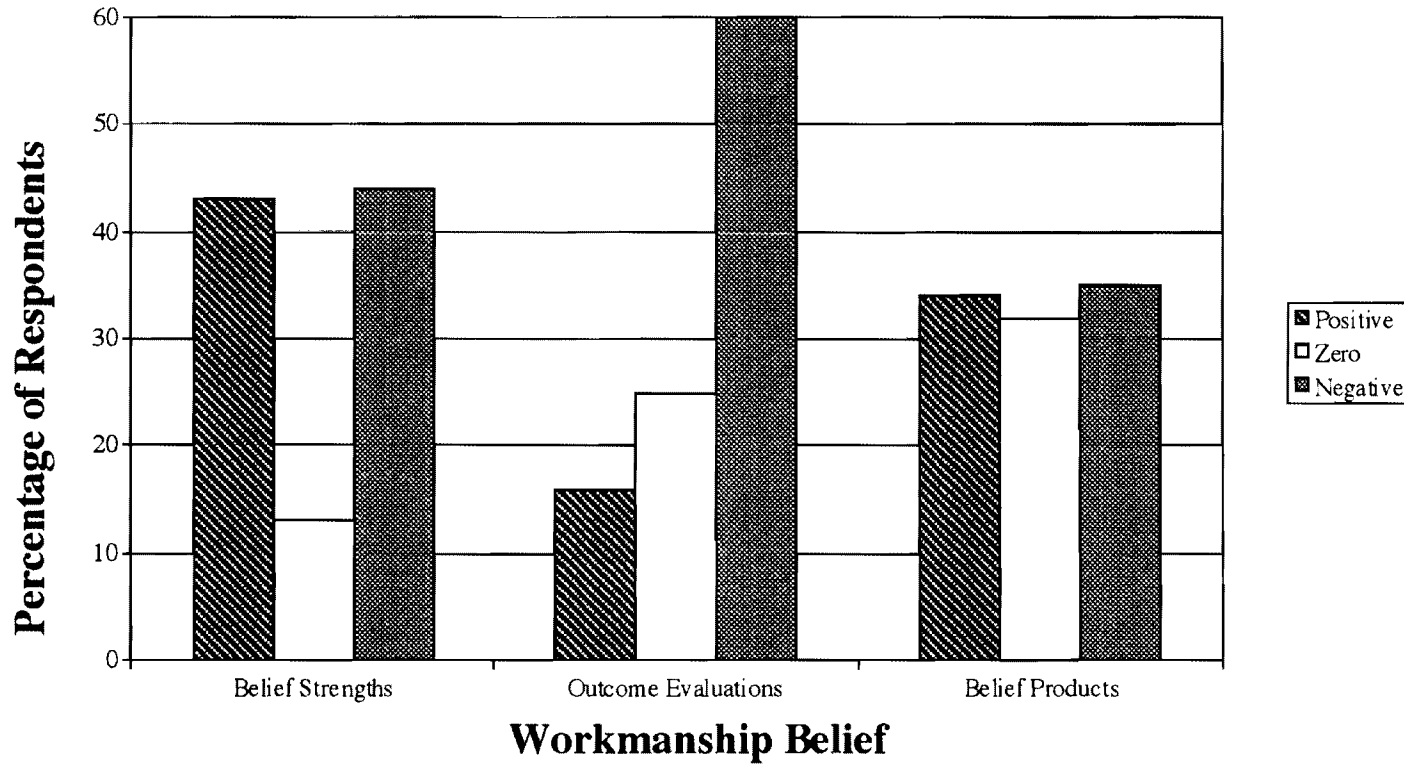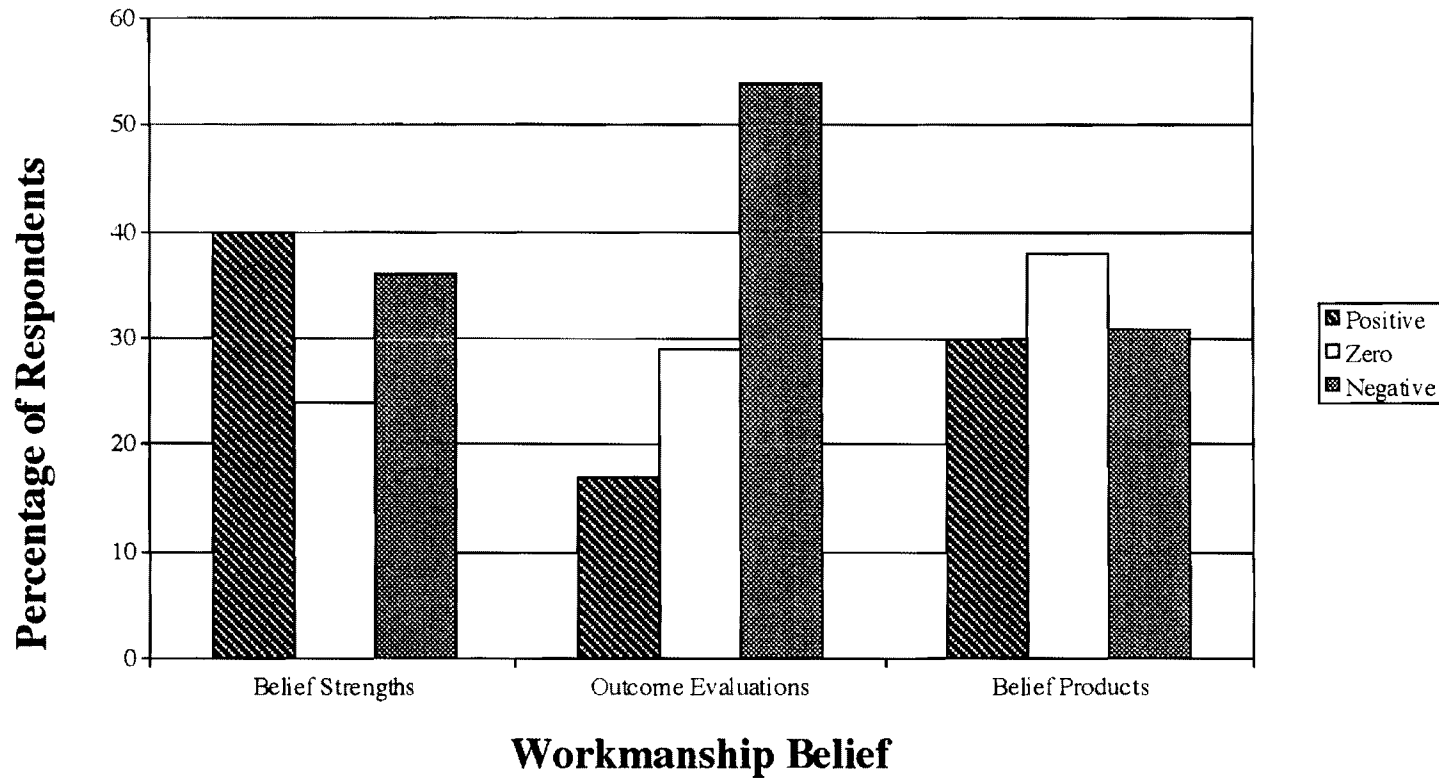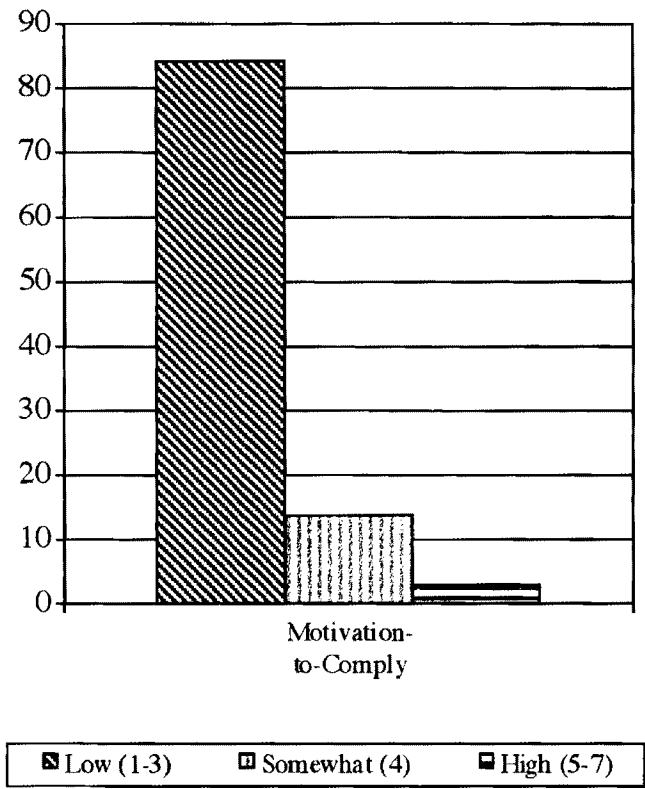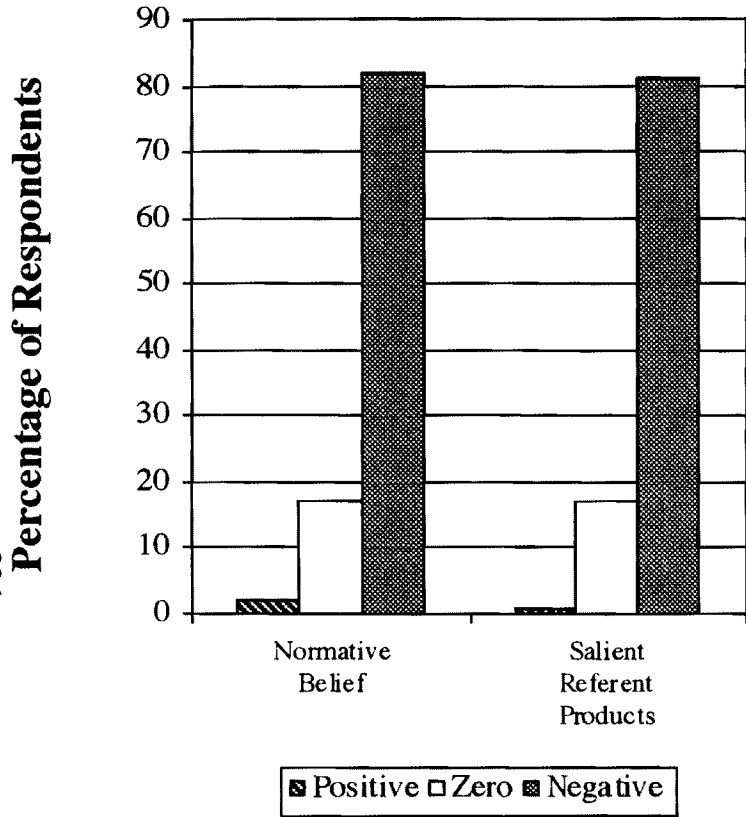
Retailer Referent for Making Clothes

Figure 5.31 Retailer referent for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix F, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix F.
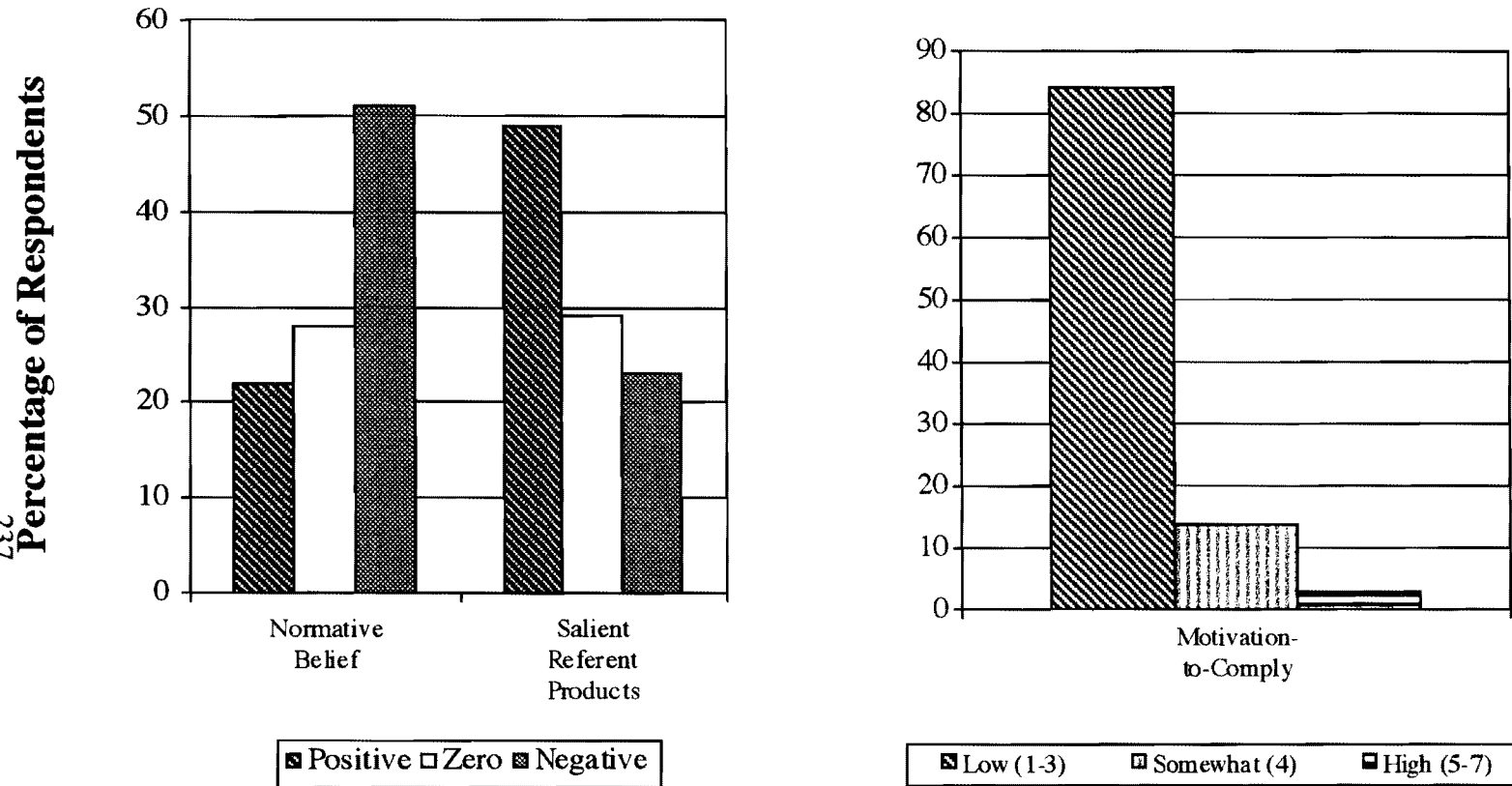
Retailer Referent for Altering Clothes

Figure 5.32 Retailer referent for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix G, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix G.
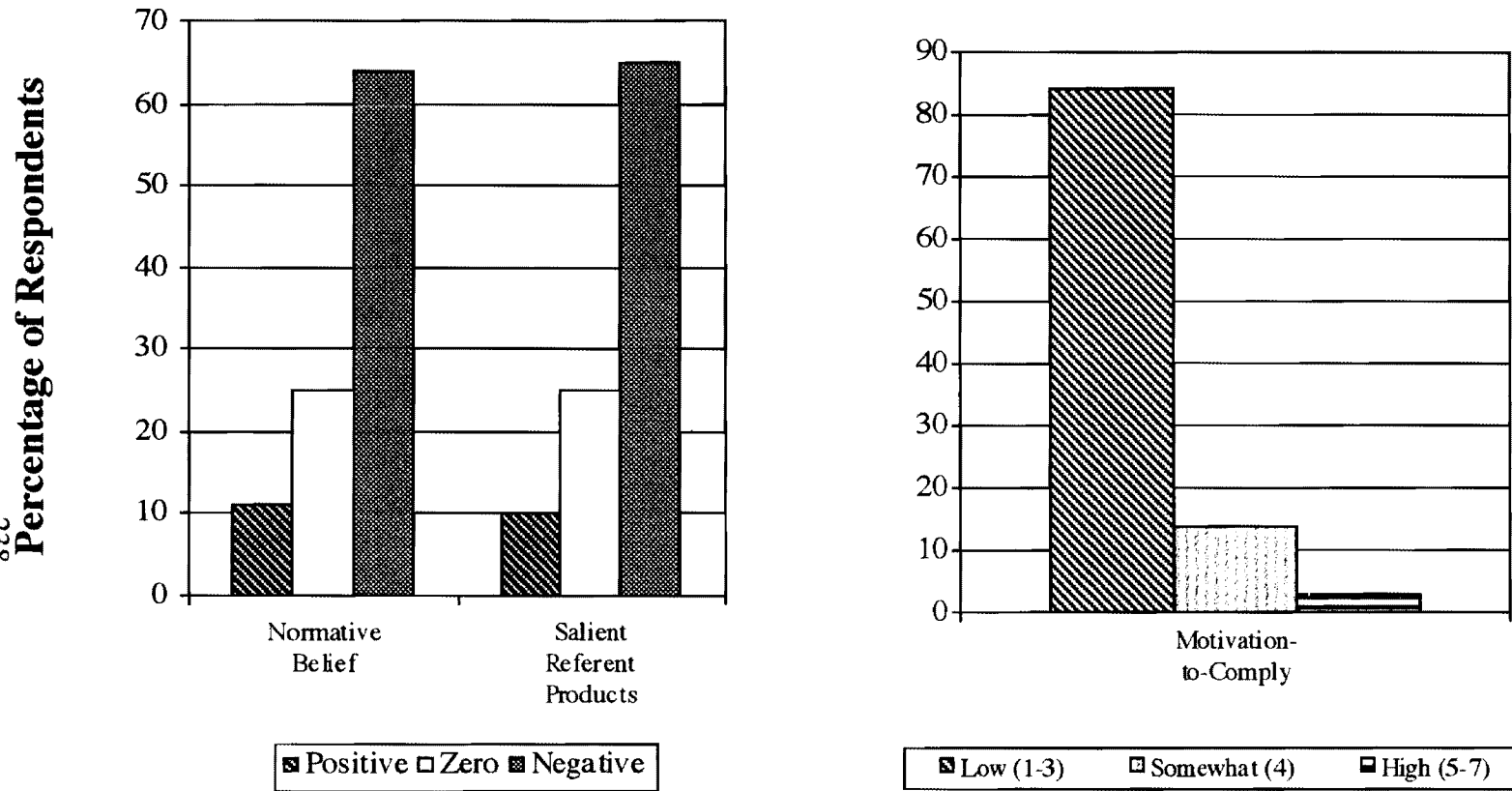
Retailer Referent for Mending Clothes

Figure 5.33 Retailer referent for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix H, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix H.
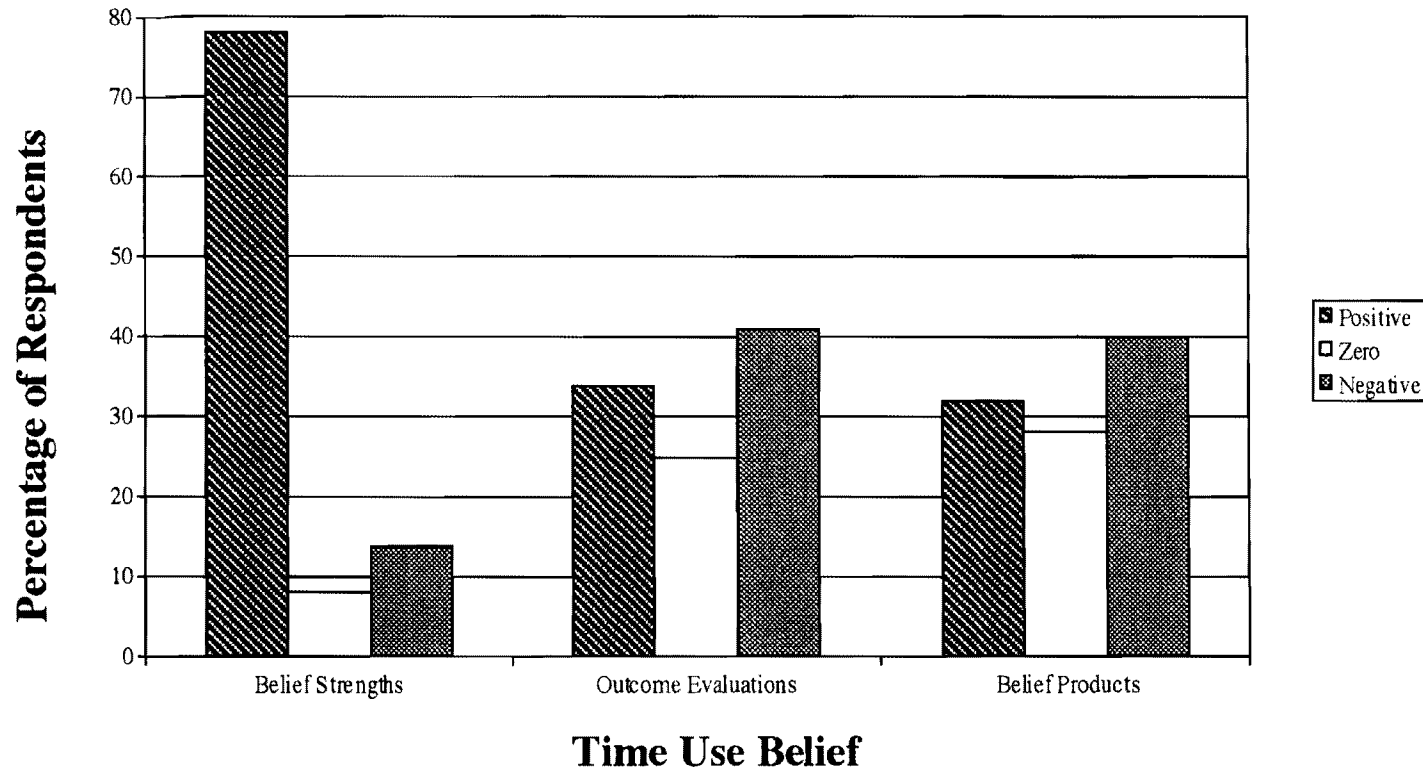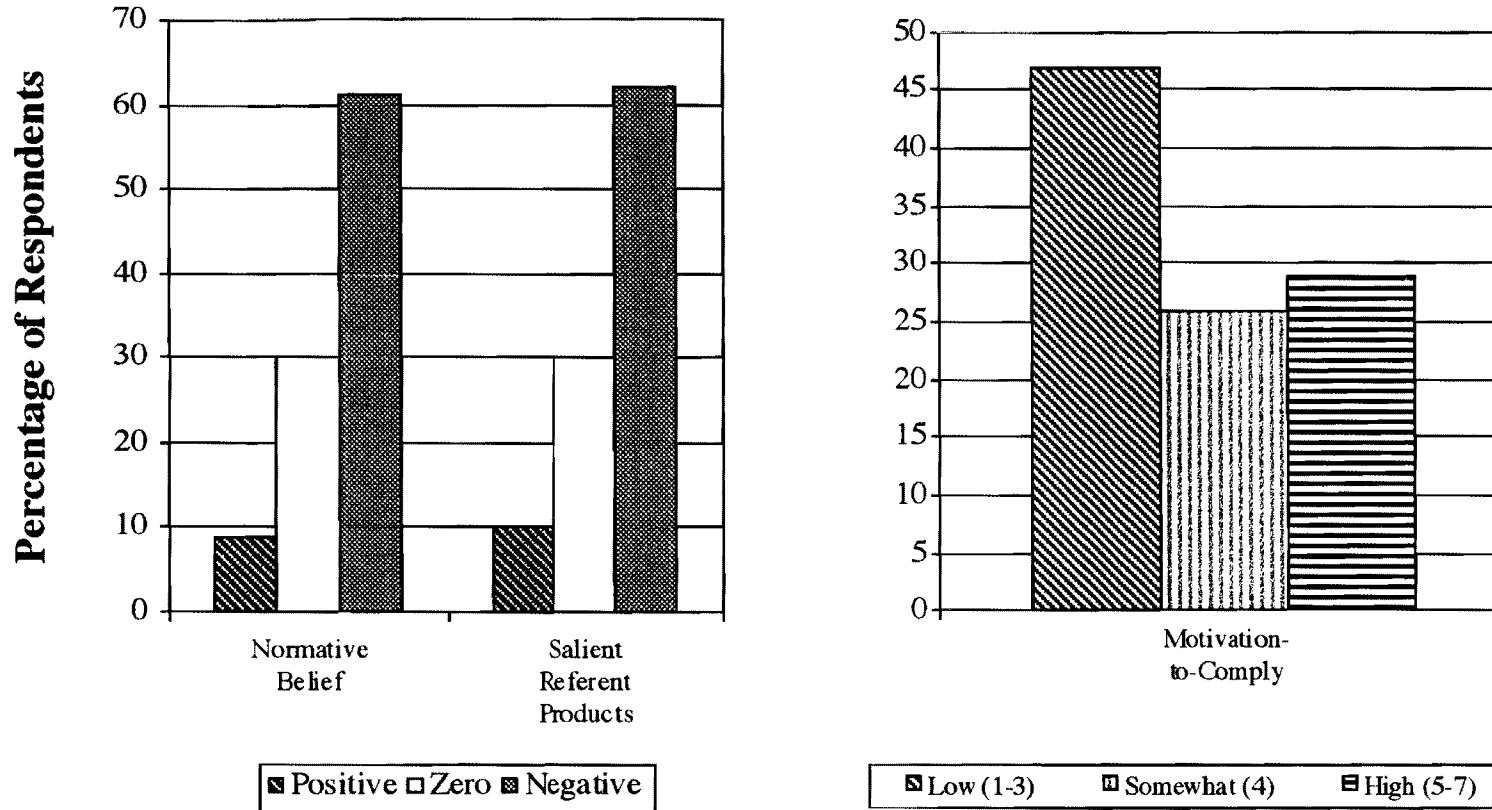
Family Referent for Making Clothes

Figure 5.34 Family referent for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix F, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix F.
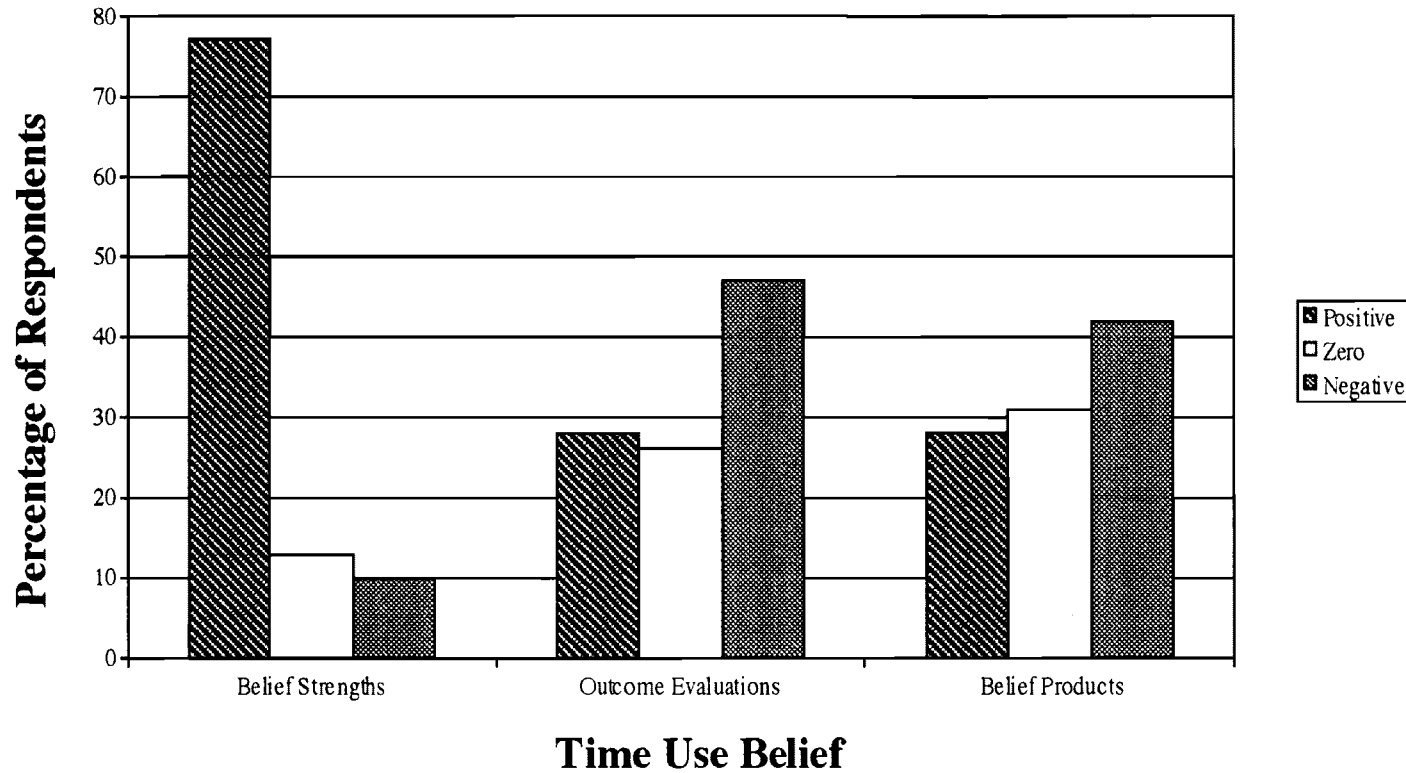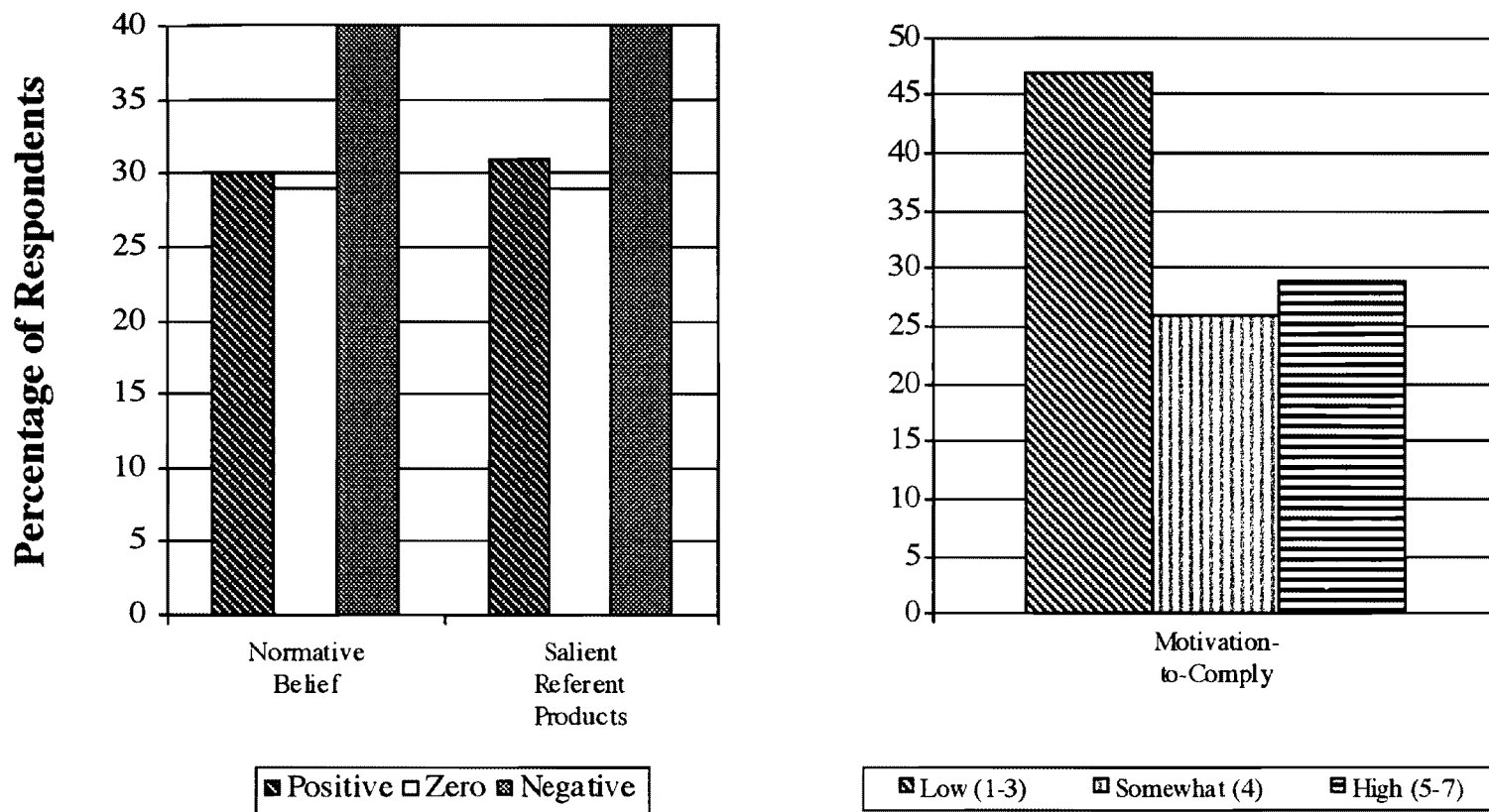
Family Referent for Altering Clothes

Figure 5.35 Family referent for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix G, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix G.
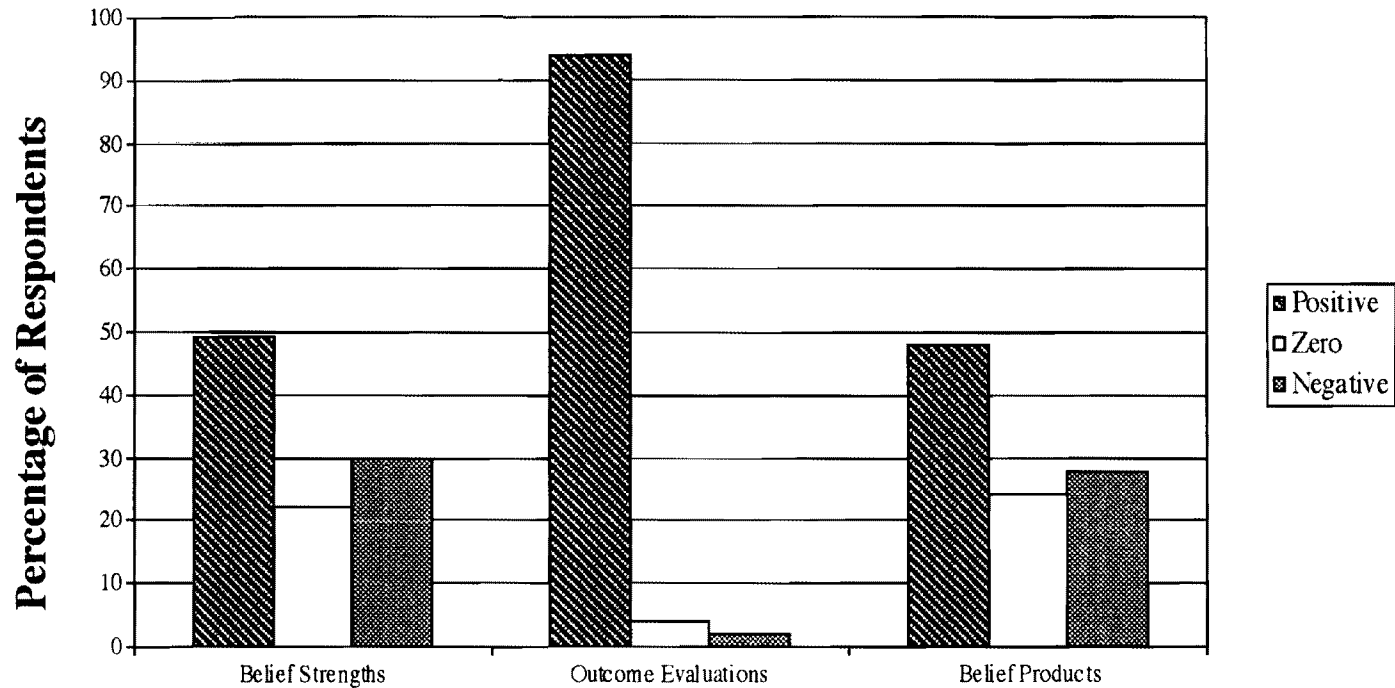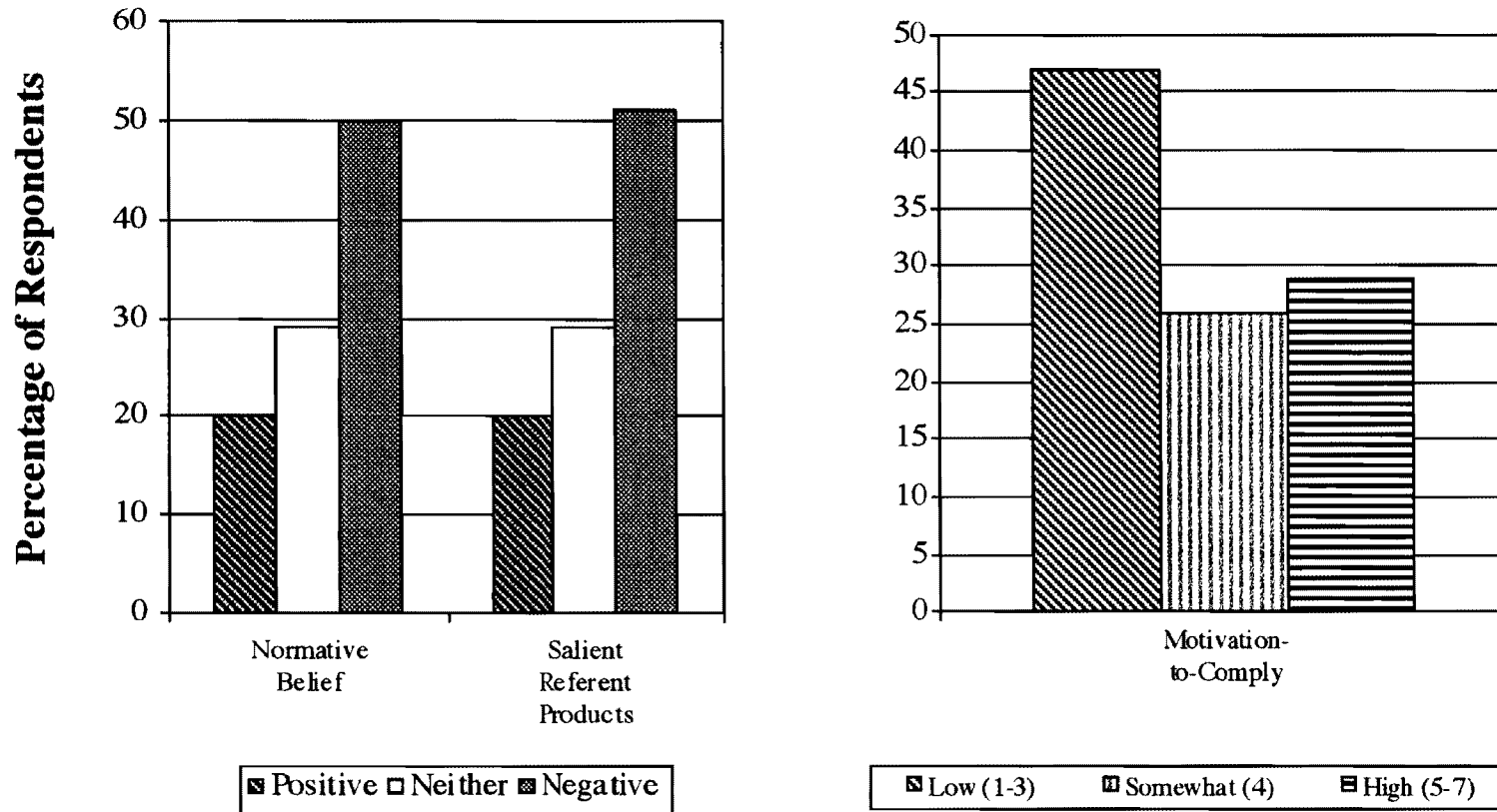
Family Referent for Mending Clothes

Figure 5.36 Family referent for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix H, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix H.

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marketing purposes; by influencing the normative belief to be positive, toward believing that family members want the women to pay someone to make, alter or mend clothing, the service provider could possibly increase the women's intentions to pay someone to make, alter or mend clothing.

Respondents' salient family referents could actually refer to a number of different people. In response to an open ended question of "who constituted family" in the normative belief question, respondents wrote that they were referring to the following family members: husbands (64% of the respondents to this question); mothers (47%); children (46%); sisters (31%); father (11%), brother (7%); in-laws (3%); partner (1%); boyfriend (1%); and other (lover, friend, cousins, grandmother, niece, aunt, sister-in-law 3%.) Respondents were able to list as many family members as they desired.

The provider needs to be aware that family can influence an employed women's intention to pay someone to make, alter, or mend clothes. Knowledge of who constitutes family member for the women is important to the service provider as well as the women's degree of motivation-to-comply with that family member. Cassill and Drake (1987b) postulated that employed women's apparel purchases were influenced by family members and other reference groups, and the results here are in agreement.

Businesses referent. The percentage distributions of respondents for all three sewing services are similar; between 35% and 45% of the respondents had negative referent products. The percentage distributions of the normative beliefs and the salient referents are similar for the three sewing services (See Figures 5.37, 5.38, and 5.39). The

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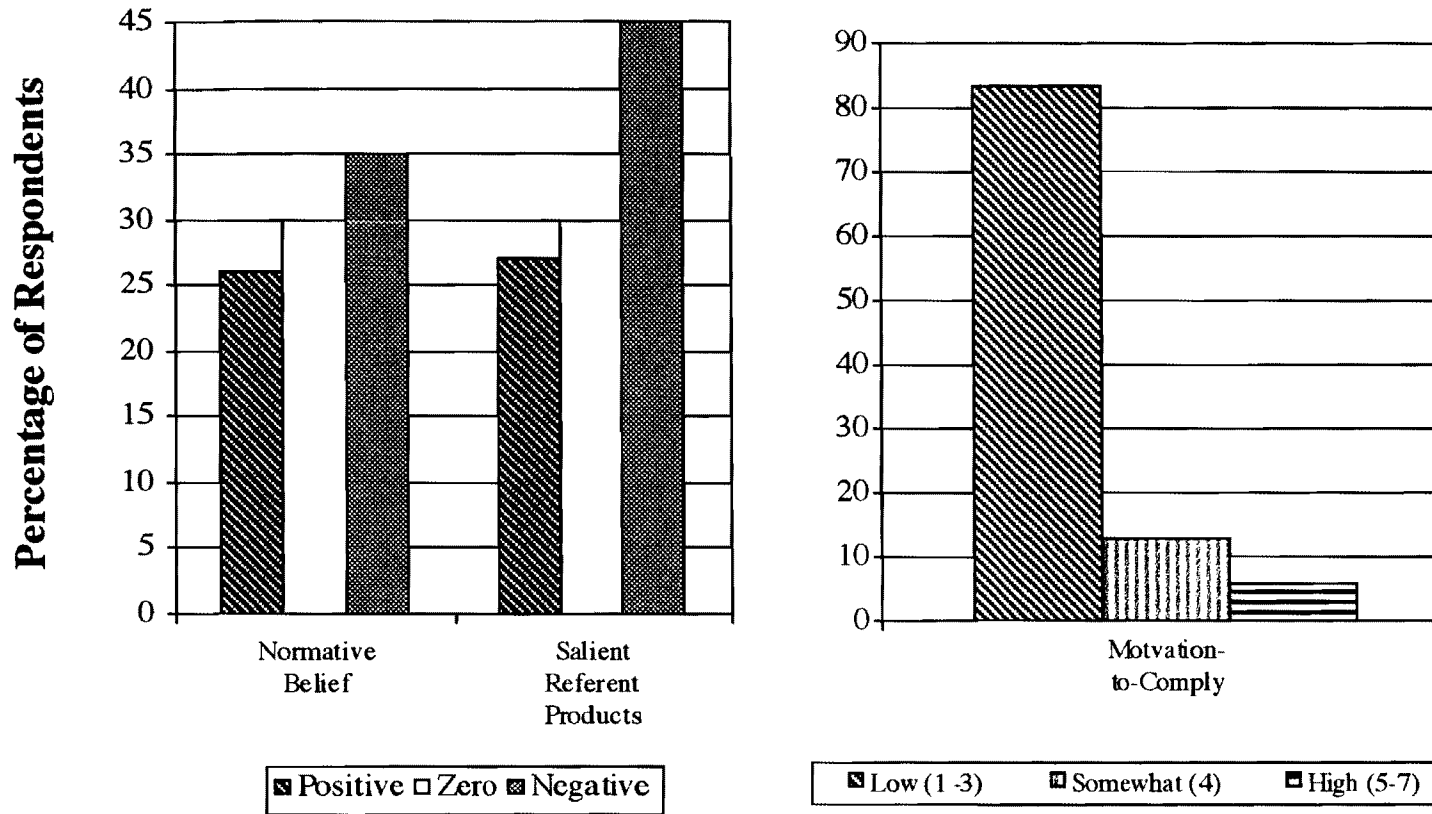
Business Referent for Making Clothes

Figure 5.37 Business referent for paying someone to make clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix F, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix F.
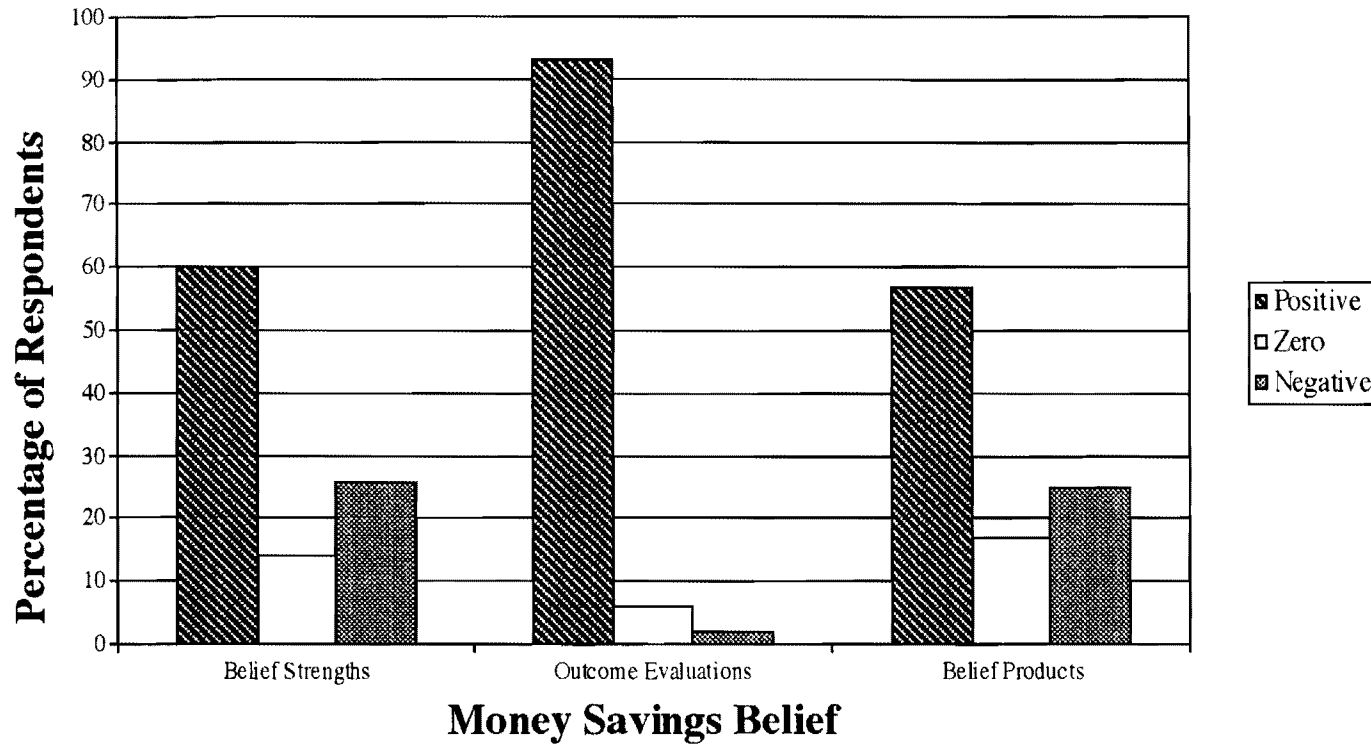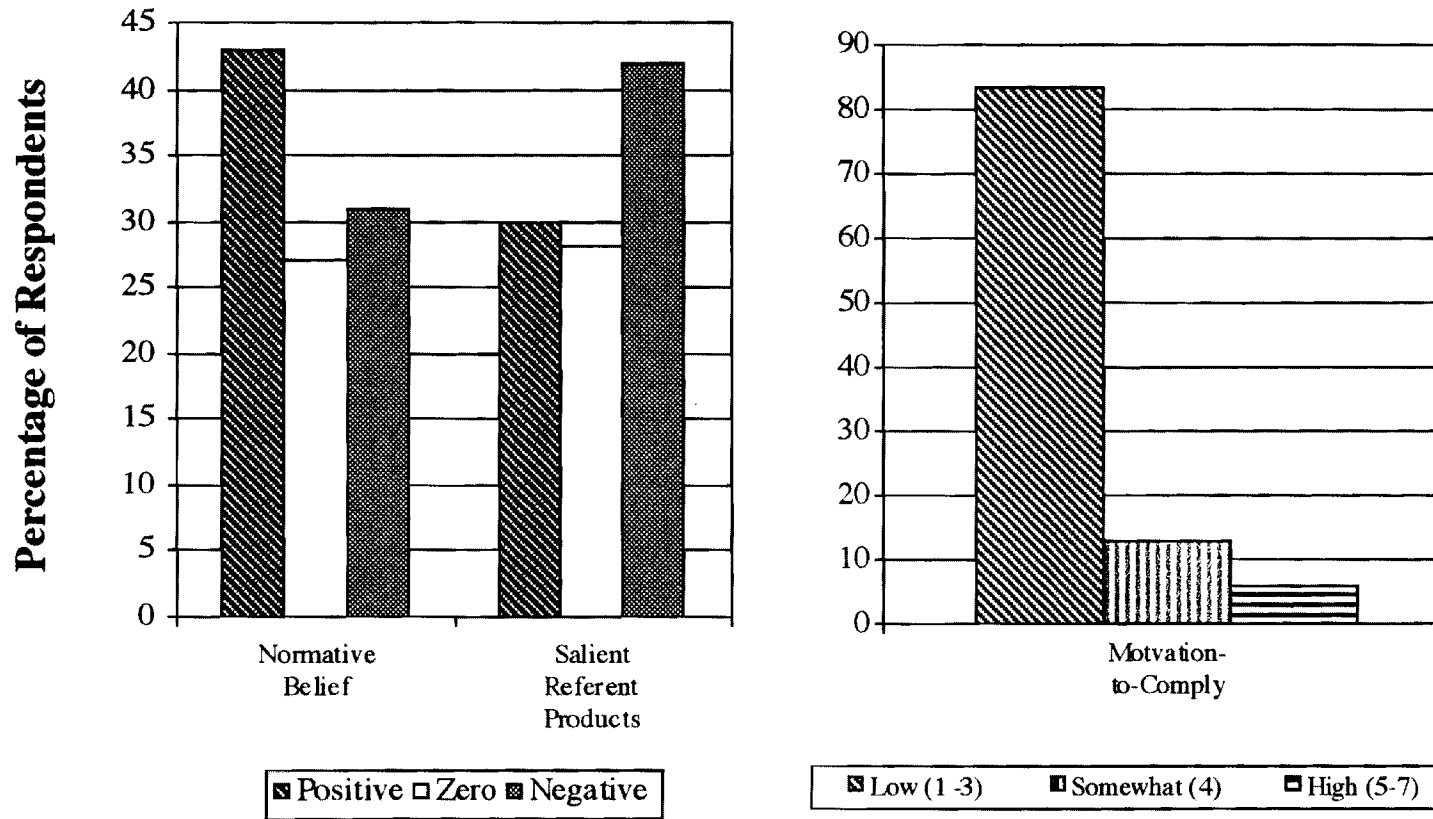
Business Referent for Altering Clothes

Figure 5.38 Business referent for paying someone to alter clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix G, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix G.
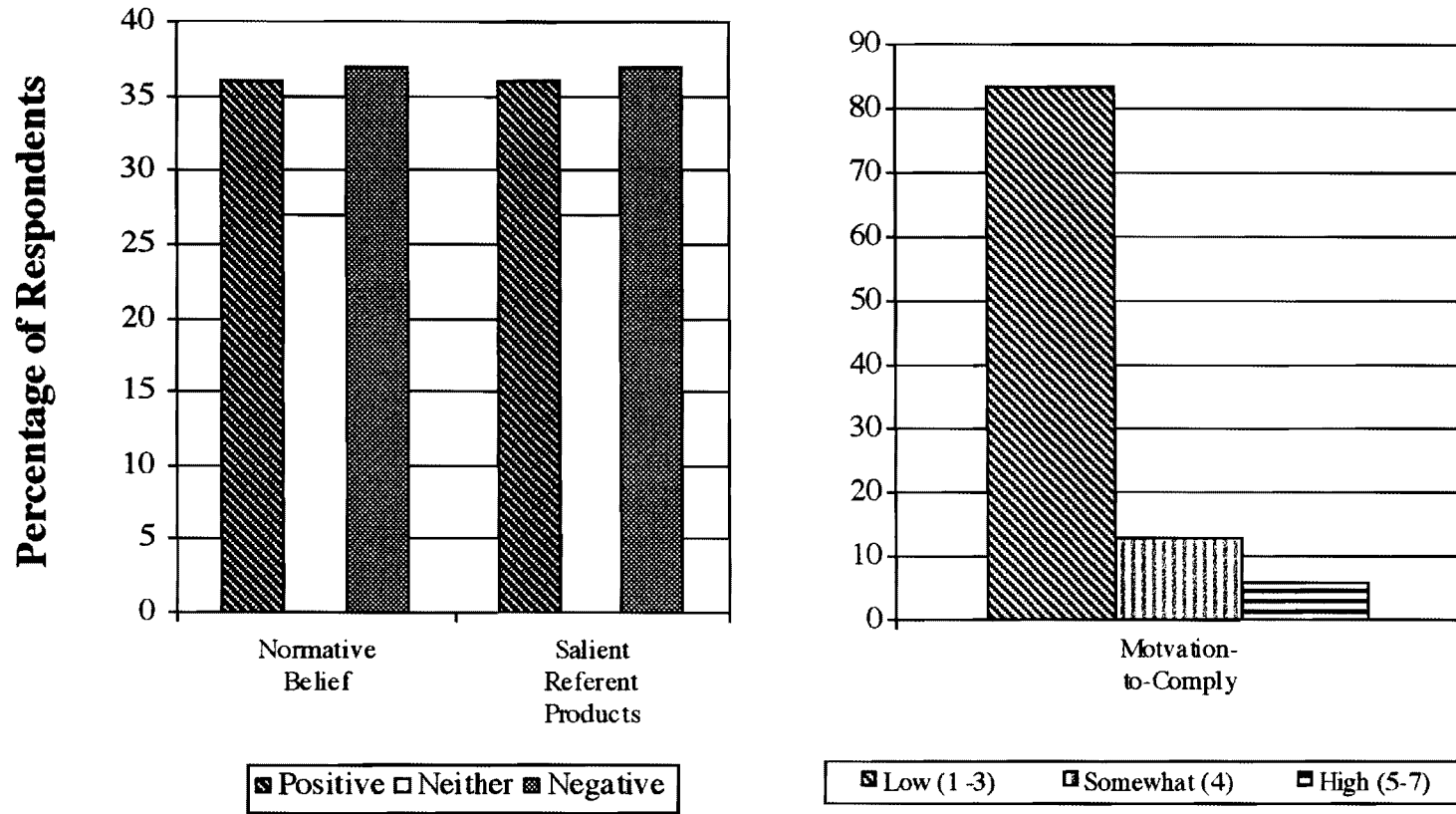
Business Referent for Mending Clothes

Figure 5.39 Business referent for paying someone to mend clothes: Percentage distributions of respondents' scores in the "positive," "zero," and "negative" categories for normative beliefs and referent products; and percentage distributions of respondents in "low, somewhat, and high motivation" degrees of motivation-to-comply.

Note: Appendix H, Table A4 contains the normative belief and motivation-to-comply data which were multiplied to yield the referent products in Table A4, Appendix H.

percentage distribution of respondents for the motivation-to-comply is the same for all

three services because the responses to the same questions were used to measure the

motivation-to-comply with the businesses normative belief for all the sewing services. The

referent product means were -16.77 for making clothes, .42 for paying someone to alter

clothes, and .04 for paying someone to mend clothes (See Table A5, Appendices F, G, and

H.) These results indicate that the employed women believed that businesses, such as

apparel manufacturers and tailors, exerted very little influence on their decisions to pay

someone to alter or mend clothing. However, the large negative referent product mean

for paying someone to make clothes (-16.77) indicates that they believed that businesses

did exert negative influence over their paying someone to make clothes. The making

clothes salient referent contributed more to the estimated subjective norm regarding that

service than the altering or mending clothes salient referents contributed to their respective

estimated subjective norms. The percentage distributions are reflected in one respondent's

unsolicited comment, "Who dresses, has clothes altered or cares what businesses think you

should do?" (See Appendix B.)

The results on four of the objectives, including the results of testing the associated

hypotheses, for the sewing services of paying someone to make, alter or mend clothing

have been presented. Results for the remaining objective will be presented next.

External Variables

The fifth research objective was to explore the possible associations between the

external variables and the estimated attitudes, the estimated subjective norms, and the

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relative weights of the attitudinal and normative components. The statistical testing

methods used to analyze the possible associations were described in Chapter 4, as was the

justification for the analysis with the external variables. The findings from the analysis will

be reported next.

Attitude-subjective norm-intention relationship testing. This analysis was

undertaken to see if there were significant changes in the standardized betas used as

weights for the attitude and subjective norm when the external variables were included in

the regression. This was achieved through regression analysis along with corresponding

Chow tests.

The 14 regression analyses used to test the attitude-subjective norm-intention

relationship for each sewing service resulted in several significant relationships. (See

Tables A7, and A8 in Appendices F, G, and H.) Table 14 summarizes the external

variables that resulted in statistically significant Chow tests and compares the standardized

betas for the original regressions. For the sewing service of paying someone to make

clothes six Chow tests were significant, which indicates rejection of the null hypotheses

that the standardized betas on attitude and subjective norm would not differ significantly

with or without the respective one of those six external variable in the model.. The null

hypotheses concerning the remaining eight external variables were not rejected. (See

Tables A7 & A8, Appendix F.) No Chow tests were statistically significant for paying

someone to alter clothes. (See Tables A7 & A8, Appendix G.) Only the Chow test that

included the demographic variable of respondent's age was statistically significant for the

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Table 14. Summary of Chow Tests of β Values for Paying Someone to Make, Alter, or Mend Clothing: External Variables, Attitude, and Subjective Norm

	β for Regressions with No External Variables	β for Regressions with External Variables					

Making Clothes

External Variables		Hours Worked in Career/Job	Education	Sewing Skill Level	Know someone Who Sews for Pay	Availability to Hire Someone Who Sews for Pay	Sewing Machine Ownership
Attitude	.55*	.59**	.70***	.50****	.78****	.49****	.67****
Subjective Norm	.22*	-.38	.08	.19	.15****	.20****	.25****

Altering Clothes

External Variables		No Significant Chow Tests					
Attitude	.69*						
Subjective Norm	.19*						

Mending Clothes

External Variables		Respondent's Age					
Attitude	.74*	.75***					
Subjective Norm	.17*	.15					

Note. Additional Regression results are in Table 11 and Tables A7 and A8 in Appendices F, G, and H.
*p = 0.00. **p = .02. ***p = .0002. ****p = .0001.

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apparel sewing service of mending clothes. (See Tables A7 & A8, Appendix H.)

Estimated attitude testing. The second analysis conducted with the external

variables was an analysis of variance test (ANOVA) with an accompanying Tukey's HSD

post hoc test. The analysis of variance tests resulted in significant F-values for the

relationships between the estimated attitudes for paying someone to make clothes and the

following external variables: highest education completed ($p < .01$); household income (p

$< .01$); respondent's income ($p < .0001$); and know someone who sews ($p < .0001$). (See

Table A9, Appendix F). The analysis of variance tests also resulted in significant F-values

between the estimated attitudes for paying someone to alter clothes and two external

variables: household income ($p < .05$); and know someone who sews for pay ($p < .05$).

(See Table A9, Appendix G.) Finally, the analysis of variance tests resulted in significant

F-values between the estimated attitudes for paying someone to mend clothes and three

external variables: highest education completed ($p < .05$); sewing skill level ($p < 0.001$);

and know someone who sews for pay ($p < .05$) (See Table A9, Appendix H.).

Tukey's HSD test was conducted in conjunction with the analysis of variance tests

for the attitudes. Statistically significant contrasts were obtained for the following sewing

services and categories of external variables.

Paying someone to make clothes:

Education Level	Some College
	Ph.D. or Ed.D Degree
Household Income	$20,000 to $29,999
	$70,000 or above

Respondent's Income $20,000 to $29,999
                                           $70,000 or above

Respondent's Income $20, 000 to $29,999
                                           $50,000 to $69,999

Know someone who sews for pay   Yes
                                           No

                                           (See Table A10, Appendix F)

Paying someone to alter clothes:
Sewing skill level   Novice/Basic
                                           Expert/Advanced

Sewing skill level   Intermediate
                                           Expert/Advanced

Know someone who sews for pay   Yes
                                           No

                                           (See Table A10, Appendix G)

Paying someone to mend clothes:

Sewing skill level   No skills
                                           Intermediate

Sewing skill level   No skills
                                           Expert/Advanced

Sewing skill level   Novice/Basic
                                           Expert/Advanced

Know someone who sews for pay   Yes
                                           No

                                           (See Table A10, Appendix H)

The Tukey's test showed no difference between the household income categories for paying someone to alter clothes, despite a statistically significant ANOVA. This may have occurred because of unequal numbers of respondents in different income levels.

Estimated subjective norm product testing. The external variables were tested with both the estimated attitude and the estimated subjective norm product. The analysis of variance for paying someone to make clothes resulted in significant F-values for the relationships between the estimated subjective norm products and the following external variables: sewing skill level ($p < .05$); know someone who sews for pay ($p < .01$); employment orientation ($p < .05$); age of youngest child ($p < .05$); and respondent's income ($p < .05$). (See Table A11, Appendix F). The analysis of variance for paying someone to alter clothes and the estimated subjective norms also resulted in significant F-values between the means for the following external variables: employment orientation ($p < .01$); household income ($p < .01$); know someone who sews for pay ($p < .01$); and others in household who sew ($p < .05$). (See Table A11, Appendix G.) Finally, the analysis of variance for paying someone to mend clothes resulted in significant F-values between the means for the weekly work hours ($p < .05$), and for know someone who sews for pay ($p < .05$) (See Table A11, Appendix H.)

Statistically significant contrasts were obtained with the Tukey's test on the estimated subjective norm, for the following sewing services and categories of the external variables.

Paying someone to make clothes:

Sewing Skill Level	Novice/Basic Expert/Advanced
Know Someone Who Sews for Pay	Yes No
Age of Youngest Child	13-15 years Infant to 2 Years

(See Table A12, Appendix F)

The external variable of respondent's income had significant F-values in the analysis of variance but had no income categories that differed significantly from each other according to the Tukey's HSD test. (See Table A12, Appendix F).

Paying someone to alter clothes:

Employment Orientation	Career Just-A-Job
Household Income	Under $20,000 $70,000 and Above
Household Income	Under $20,000 $50,000 to $69,999
Household Income	Under $20,000 $20,000 to $29,999
Household Income	Under $20,000 $30,000 to $49,999
Know Someone Who Sews for Pay	Yes No

Others in Household who Sew   No
                                     Yes

                                     (See Table A12, Appendix G)

In this testing, the sewing skill level external variable had significant contrasts despite

there being no statistically significant F-value in the ANOVA. This may have resulted

from the unequal number of respondents in the sewing skill level categories.

Paying Someone to Mend Clothes:

Know Someone Who Sews for Pay   Yes
                                No

Hours Worked Per Week   Below 20
                                70 or above

                                (See Table A12, Appendix H)

Table 15 summarizes the results of the statistical tests with the demographic and

sewing-related variables for all three sewing services. The one variable which has

significant relationships in the regression analysis and differs significantly in the ANOVA is

the respondent's knowledge of someone who sews for pay. Future research should

include a measure of this variable because it could help in understanding attitudes,

subjective norms, and their relationships with intention to purchase sewing services. Other

external variables are significant in specific sewing services, but no others are significant

for all three sewing services. For the sewing service of making clothes, respondent's

income was statistically significant in all three tests, whereas, household income seems to

Table 15. Summary of Significant External Variable Testing According to Overall F-Values: Estimated Attitude, Estimated Subjective Norm, and Attitude-Subjective Norm-Intention

External Variables	Attitude-Subjective Norm-Intention Relationship		Estimated Attitude	Estimated Subjective Norm
	Regression	Chow Test	ANOVA	ANOVA
Demographic Variables				
Employment Orientation	✓@*			@
Weekly Work Hours in Career/Job	✓@*	✓		*
Highest Education Completed	✓@*	✓	✓*	
Marital Status	✓@*			
Number of People in Household	✓@*			
Age of Youngest Child in Household	✓@*			✓
Household Income	✓@*		✓@	@
Respondent Income	✓@*		✓	✓
Respondent Age	✓@*			
Sewing Related Variables				
Sewing Skill Level	✓@*	✓	@*	✓
Access to Sewing Machine	✓@*	✓		
Others in Household Who Sew	✓@*			
Know Someone Who Sews for Pay	✓@*	✓	✓@*	✓@*
Availability to Hire	✓@*	✓		

Note. ✓= Statistically significant test results for making clothes; @ = statistically significant test results for altering clothes; *= statistically significant test results for mending clothes. Statistical testing results can be found on Tables A7, A8, A9, and A10 in Appendices F, G, and H.

be important in the purchase of clothing alteration services. Future research could include these external variables to help explain attitudes and subjective norms.

Many of the external variables which were used in this research were originally extracted from literature on expenditure research as variables which had been found to be significant determinants of clothing service expenditures. The overall findings from this research are that these external variables, with a few exceptions, do not help to understand the attitudes toward or subjective norms for paying someone to make, alter, or mend clothing. The presentation of the external variables testing results concludes the presentation and discussion of the research results. The next chapter will pull all of this presentation together in a summary.

Chapter 6 Summary, Conclusions, and Recommendations

This chapter has three purposes.   The research will be summarized, conclusions

will be drawn, and recommendations for future research will be stated.

Summary

Historically, the apparel sewing services of construction, alteration, and mending

were provided through household production activities free of charge by the female

members of households or by members of extended families (Norton, 1984). Several

cultural and societal trends over the last fifty or so years have contributed to the decrease

in the provision of these services as household production activities.   Home sewing has

come to be considered a less desirable source of clothing as the ready-to-wear market for

clothing has exploded; in response the home sewing industry has focused marketing efforts

on selling home sewn apparel as an economical alternative to purchasing ready-to-wear

clothing (Kean & Levin, 1989). More women have come to be employed outside of the

home, thus decreasing their time available for household production activities such as

clothing construction, alteration, and mending (Courtless, 1982). Today few high school

students are trained in basic sewing skills through home economics and family and

consumer science programs (Forman, 1986; Murphey & Steward, 1990; Samuels, 1994).

Home sewing has gone from being a necessity to being a leisure time activity in which

more household accessories than clothing are sewn (Samuels, 1994). Last of all,

increasing numbers of businesses have come to offer services that were traditionally

household production activities such as household cleaning, yard maintenance, and sewing services (Stanton, 1981; and See Table 1).

The change in the traditional provision of apparel sewing services as household production activities and the cultural and societal changes over the last 50 years could be contributing to the problems being faced by the service providers. Currently one of the main problems of service providers is difficulty in setting prices for their apparel sewing services (Bruck, 1988.) This difficulty in pricing contributes to low profit margins of the businesses and hinders their success. Marketing skills, and specifically pricing strategies, for apparel sewing service providers have been taught in many workshops (Duncan, 1991; Tondl & Thayer, 1991), and they have been the subject of many popular press books (Maslowski, 1995; Roehr, 1990; Spike, 1990; Sykes, 1992) and the topic of university research (Bruck, 1988; Duggan, 1988; Duncan, 1991; Widney, 1985); however, pricing and marketing problems still persist. The focus has always been on the service provider's business skills, and little information has been published on the consumer of apparel sewing services (Johnson, 1989). Who are the clients who have paid someone to make, alter, or mend clothing, and how have their experiences influenced their intentions to purchase these services in the future? What are the purchasers' and nonpurchasers' attitudes and beliefs about paying someone to make, alter, or mend clothing? Who influences their purchase or nonpurchase decisions? This research was designed to examine the nature and foundation of the normative influences and attitudes of a sample of

employed women toward purchasing the apparel sewing services of clothing construction, alteration, and mending.

Theoretical Framework

Ajzen and Fishbein's (1980) reasoned action model was applied as the theoretical framework for this research, and the research had five objectives and associated hypotheses. Based on the theoretical framework, relationships linking behavioral and normative beliefs about the purchasing of apparel sewing services in the next year were hypothesized and tested. The hypothesis tests involved the intention-behavior relationship, the attitude-subjective norm-intention relationship, behavioral belief-attitude relationship, and the normative belief-subjective norm relationship. The fifth research objective was to explore possible relations between 14 external variables and the following: the relative importance of the attitudes and subjective norms in the attitude-subjective norm-intention relationship; the relationship with the estimated attitudes; and the relationship with the estimated subjective norms.

The Instrument

A questionnaire was developed according to Ajzen and Fishbein's (1980) process. The constituent questions were developed to measure the employed women's past purchase behavior in apparel construction, alteration, and mending services; the women's intentions to purchase each of the three sewing services in the next year; their attitudes toward purchasing the three sewing services in the next year, and their subjective norms toward purchasing each of the three apparel sewing services. The behavioral belief

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questions and the normative belief questions were derived from open-ended questions which were posed to employed women in the New River Valley area of Virginia. Those women were asked to state their beliefs about the advantages and disadvantages of purchasing clothing construction, alteration, and mending services in the next year and whether there were any groups of people who would approve or disapprove of their paying someone to make, alter, or mend clothing (See Appendix A). Fourteen external variables derived from the review of literature were measured through forced-choice and open-ended questions.

The instrument was pilot tested through a test-retest method with twenty employed women in the New River Valley. The instrument was modified according to verbal recommendations from these women.

The Sample

Women employed at Virginia Tech provided the sample of employed women chosen for the study. A total of 2092 questionnaires was sent to the women employed on the Virginia Tech campus, and 679 (32%) of the questionnaires were returned; 657 (97%) of those were useable for the study. The sample for this study was designated to be female, and only women employed either full or part time outside of the home were included. As an incentive to encourage participation, the women were offered the chance to win a drawing for four hours of free sewing services if they returned the questionnaire by a specified date.

Data Collection

The questionnaires were mailed through Virginia Tech campus mail along with a mailing label for use in returning it through campus mail. The names of the women employed on campus at Virginia Tech, obtained through the University's Publications Office, were those listed in the 1995-96 Virginia Tech telephone book. The initial mailing was supplemented two weeks later by a follow-up post card reminding each woman of the questionnaire, encouraging those who had not returned the questionnaire to do so, and thanking those who had already returned the questionnaire to the Clothing and Textiles Department. A non-respondent survey was conducted a few months after the initial questionnaire was sent to determine differences between the respondents to the survey and those who did not respond.

Data Analysis and Results

Four hypotheses were tested for each of the three sewing services. First the intention-behavior relationship was tested using a Kendall's Tau Correlation. Second the attitude-subjective norm-intention relationship was tested using multiple regression. Pearson Product Moment Correlation was used to test the behavioral belief-attitude relationship and the normative belief-subjective norm relationship. All four null hypotheses for all three sewing services were rejected and the research hypotheses were supported; thus, there were statistically significant intention-behavior, attitude-subjective norm-intention, behavioral beliefs-attitude, and normative belief-subjective norm relationships for all three sewing services.

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The fifth objective of the study was addressed utilizing two statistical methods. First, multiple regression in conjunction with Chow tests, was used to assess changes in the relative weights on the attitudes and subjective norms in the attitude-subjective norm-intention relationship when individual external variables were introduced. Second, analysis of variance followed by Tukey's post hoc test was used to test the relationship between each of the 14 external variables and the estimated attitudes and the subjective norms. The knowing-someone- who-sews-for-pay variable yielded statistically significant results for all three sewing services in the F-tests for the overall regressions and analysis of variance and in the Tukey's post hoc test; however, this variable did not lead to significant differences in the standardized betas for the services of altering and mending clothes, according to the Chow tests. Some of the other external variables had statistically significant relationships with the estimated attitudes, the estimated subjective norms, and the relative weights in the attitude-subjective norm relationships for each of the sewing services (See Table 13.)

Conclusions

The relevance of this research to apparel sewing service businesses is compelling. The research findings can be used by owners of all sizes of apparel sewing service businesses. The following conclusions have been reached to better help these owners use the results.

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1. Ajzen and Fishbein's reasoned action theory is appropriate to use in the investigation of attitudinal and normative influences of purchasing apparel sewing services.

2. There are statistically significant positive relationships which link the employed women's behavioral and normative beliefs to the behaviors of paying someone to make, alter, or mend clothing.

3. Attitude is a stronger determinant of intention to purchase apparel construction, alteration, and mending services than is subjective norm. If an employed woman were considering paying someone to make, alter, or mend clothing she would pay more attention to her attitude than to her subjective norm in the purchasing process.

4. Economic and demographic variables, which previous research has shown to influence women's time allocations among household production, leisure, and market work and to be determinants of apparel sewing services expenditures were used as external variables in this research. The resulting evidence shows that in some specific instances such variables can be used to understand attitudes, subjective norms, and intentions.

5. Knowing someone who sews for pay plays a role in determining the employed women's attitudes and subjective norms for purchasing sewing services, is important in understanding the attitudes and subjective norms,

and can influence the relationship between attitudes and subjective norms for paying someone to make, alter, or mend clothing.

6. Respondent's income is an important external variable for the apparel sewing service of paying someone to make clothes.

Recommendations

1. Using the data from this research, investigations may be conducted to compare the three sewing services to find the similarities and differences. Specifically, one could compare the behaviors, intentions, and the attitudes and subjective norm to see if they differ for the three services. Of particular interest would be the difference between apparel alteration and mending services to determine if in future research these two services can be combined into one service for data gathering and analysis. The behavioral beliefs and the salient referents for alteration and mending services could also be compared because the same questions were used to measure both services.

2. Using the reasoned action model, one could construct a questionnaire and collect data on employed women's attitudes and normative influences for paying someone to sew home accessories, furnishings, and drapes. The attitudinal and normative influences for these other sewing services could be compared and contrasted with those of the apparel sewing services investigated in this research. .

3. Using a statistical path analysis, one could further investigate the four relationships from this study and include the external variable of knowing someone who sews for pay to analyze which relationships this variable influences or mediates.

4. Using the reasoned action model, one could construct a questionnaire and collect data on men's attitudes and normative influences for paying someone to make, alter, and mend clothing. The men's attitudinal and normative influences for paying someone to make, alter, and mend clothing could be compared and contrasted with the employed women's investigated in this research. .

5. Using the questionnaire from this study the researchers could gather data from other female samples, such as retired women, women over 55, or women who are not employed outside of the home, and compare these women's attitudes and normative influences to those of the employed women in this study.

6. A researcher could change the clothing construction section of this study so the questions reflect the purchase of more specific garments such as formal wear and bridal or wedding attire. Data could be collected from other employed women and compared to the data in this study.

7. One could revise the questionnaire and repeat the study with samples of other working women, perhaps a sample of women employed outside the

higher education domain. The following revisions need to be made. The motivation-to-comply questions need to be clarified. This clarification could begin by gathering more data from employed women to further assess which groups or people they felt would think they should or should not purchase sewing services. The questionnaire format needs refinement which could be possible by working with researchers from the Center for Survey Research who could advise on more appropriate formatting for the questionnaire so that it is shorter, easier to score and enter into a data base for future analysis, and so that the motivation-to-comply questions are more understandable.

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Appendix A
Questions About Paying Persons to Sew For You

Questions About Paying Persons to Sew For You

Thank you for agreeing to complete this questionnaire. It is being administered as part of a research project on paying someone to sew, mend or alter clothing for you or your family. Please return your answers to me by **Friday August 11, 1995**.

Your answers can be sent to me:

> E-Mail: Watsonk@vtvm1.cc.vt.edu
> Campus Mail: Clothing and Textiles Department, 0410
> My home: 316 B Sunset Blvd., Blacksburg, VA 24060.
> or you can call me at 951-1084 and I will come pick them up.

Again, thank you for your assistance with this research project. If you have any questions I can be reached at 951-1084.

Respectfully,

Karen B. Watson

Questions About Paying Persons to Sew For You

Briefly list your answer to each question.

1.   a.   What are the <u>advantages</u> of your paying someone to **make clothing** for you or your family?

       b.   What are the <u>advantages</u> of your paying someone to **mend clothing** for you or your family?

       c.   What are the <u>advantages</u> of your paying someone to **alter clothing** for you or your family?

2.   a.   What are the <u>disadvantages</u> of your paying someone to **make clothing** for you or your family?

       b.   What are the <u>disadvantages</u> of your paying someone to **mend clothing** for you or your family?

       c.   What are the <u>disadvantages</u> of your paying someone to **alter clothing** for you or your family?

3.   a.   What else do you associate with your paying someone to **make clothing** for you or your family?

       b.   What else do you associate with your paying someone to **mend clothing** for you or your family?

       c.   What else do you associate with your paying someone to **alter clothing** for you or your family?

4.   a.   Are there any groups or people who would approve of your hiring someone **to make clothing** for you or your family?

        b.   Are there any groups or people who would approve of your hiring someone to **mend clothing** for you or your family?

        c.   Are there any groups or people who would approve of your hiring someone to **alter clothing** for you or your family?

5.   a.   Are there any groups or people who would disapprove of your hiring someone to **make clothing** for you or your family?

        b.   Are there any groups or people who would disapprove of your hiring someone to **mend clothing** for you or your family?

        c.   Are there any groups or people who would disapprove of your hiring someone to **alter clothing** for you or your family?

6.   a.   Are there any other groups or people who come to mind when your think about hiring someone to **make clothing** for you or your family?

        b.   Are there any other groups or people who come to mind when you think about your hiring someone to **mend clothing** for you or your family?

        c.   Are there any other groups or people who come to mind when you think about your hiring someone to **alter clothing** for your or your family?

Appendix B
Questionnaire

February 26, 1996

Dear Women Employed at Virginia Tech,

This pamphlet contains questions for you to express your feelings about paying someone to make, alter, or mend clothing. Your input is important to this study. We invite you to answer and return the questionnaire, even if you have not paid someone to make, alter or mend clothing or do not plan to do so in the future.

for further explanation of this study, please see the "Informed Consent for Participation" information included with this questionnaire. We especially want to draw your attention to the compensation section on the "informed Consent" information. By returning the questionnaire by **MARCH 18, 1996**, you will be entered in a drawing for Four **FREE** hours of labor for sewing services, valued at $74.00.

Enclosed is a mailing label addressed to Karen Watson to make returning this questionnaire easier for you. You may return the questionnaire by campus mail.

Thank you for taking time from your busy schedule to support the research efforts of the Department of Clothing and Textiles at Virginia Tech. If you have questions, please contact one of us or any of the other person listed on the "Informed Consent" information.

Sincerely,

Karen Bruck Watson
Graduate Student

Marjorie Norton
Associate Professor

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Instructions for Completing

In the questionnaire you are about to fill out I ask questions which make use of rating scales with seven places; you are to make a check mark in the place that best describes your opinion. For example, if you were asked to rate "The weather in the New River Valley" on such a scale, the seven places should be interpreted as follows:

The weather in the New River Valley is:

Good _____:_____:_____:_____:_____:_____:_____Bad
  extremely quite   slightly neither slightly   quite extremely

If you think the weather in the New River Valley is *extremely good*, then you would place your mark as follows:

The weather in the New River Valley is:

Good ___X___:_____:_____:_____:_____:_____:_____Bad
  extremely quite   slightly neither slightly   quite extremely

If you think the weather in the New River Valley is *quite bad*, then you would place your mark as follows:

The weather in the New River Valley is:

Good _____:_____:_____:_____:_____:___X___:_____Bad
  extremely quite   slightly neither slightly   quite extremely

If you think the weather in the New River Valley is *slightly good*, then you would place your mark as follows:

The weather in the New River Valley is:

Good _____:_____:___X___:_____:_____:_____:_____Bad
  extremely quite   slightly neither slightly   quite extremely

If you think the weather in the New River Valley is *neither good nor bad*, then you would place your mark as follows:

The weather in the New River Valley is:

Good _____:_____:_____:___X___:_____:_____:_____Bad
  extremely quite   slightly neither slightly   quite extremely

You also will use a rating scale with the end points of likely-unlikely. This scale is to be interpreted in a similar way as the good-bad scale. For example, if you were asked to rate "The weather in the New River Valley is cold in January" on such a scale, it would appear as follows:

The weather in the New River Valley is cold in January.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
   extremely quite   slightly neither slightly   quite extremely

If you think that it is *extremely likely* that the weather in the New River Valley is cold in January, you would make your mark as follows:

The weather in the New River Valley is cold in January.

Likely ___X___:_____:_____:_____:_____:_____:_____Unlikely
   extremely quite   slightly neither slightly   quite extremely

In making your ratings on the questionnaire please remember the following points:

(1) Place your marks in the middle of spaces, not on the boundaries:

Likely ___X___:_____:_____:_____:_____:_____:_____Unlikely
   extremely quite   slightly neither slightly   quite extremely

(2) Never put more than one check mark on a single scale.

(3) Be sure you answer all items. Please do not omit any.

Section A: Sewing, Education, and Employment Information

1. Please circle the category that best describes your sewing skill level.

    1) No Skills
    2) Novice/Basic
    3) Intermediate
    4) Expert/Advanced

2. Is there a sewing machine available in your home for you to use?

    ___Yes
    ___No

3. Does anyone else in your household sew?

    ___Yes
    ___No

4. Do you know anyone who sews for pay?

    ___Yes
    ___No

    If yes, circle how available you think this person is to hire for sewing?

    1) Unavailable
    2) Not very available
    3) Available
    4) Very available

5. How do you view your employment? (Circle One).

    1) A Career
    2) A Job

6. How many hours per week do you work at your career or job?_____

7. Please circle the highest level of education you have completed?
    1) Some high school or high school graduate
    2) Some college
    3) Associate degree
    4) Bachelor of Arts or Science degree
    5) Master of Arts or Science degree
    6) Ph.D. or Ed.D degree
    8) Other Professional Degree (specify)_____

Section B: Making Clothing

This section of the questionnaire concerns your views toward paying someone to make clothing.

For this study, *"Making Clothing"* means paying someone to use such materials as fabric and patterns to construct any type of clothing item for any occasion; e.g., special occasion dress, suit for work, cheerleader outfit, mother-of-the-bride outfit, etc.

The questions in this part have to do with whether you have ever paid someone to make clothing, if you intend to pay someone in the future, and your overall feelings about paying someone to make clothing.

1. Have you ever paid a seamstress, a tailor, a dry cleaner, or anyone else to make clothing?

    ___Yes   ___No

2. I intend to pay someone to make clothing in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite slightly neither slightly quite extremely

3. My attitude toward paying someone in the next year to make clothing is:

Favorable _____:_____:_____:_____:_____:_____:_____Unfavorable
    extremely quite slightly neither slightly quite extremely

4. Paying someone to make clothes in the next year:

    a. will take too much time to shop for materials, have fittings, and find a person to do the sewing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite slightly neither slightly quite extremely

    b. will provide clothing that fits better than store-bought clothing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite slightly neither slightly quite extremely

    c. will cost more than store-bought clothing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite slightly neither slightly quite extremely

d. will allow me to customize clothing by selecting unique styles, colors, fabrics or garment features.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

e. will allow me to get better constructed clothing than I can buy at a store.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

f. will free up my time for hobbies or other projects I enjoy.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

g. is risky because the clothes may not look like I pictured, or they may look homemade.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

5. My taking time to shop for materials, have fittings, and find a person to pay for sewing is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

6. Clothing that fits better than store-bought clothing is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

7. Clothing that costs more than store-bought clothing is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

8. Customizing clothing by selecting unique styles, colors, fabrics or garment features is:
Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

9. Clothing that is better constructed than store-bought clothing is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

10. Freeing up my time for hobbies or other projects I enjoy is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

11. Taking a risk that the clothes I pay someone to make may not look like I pictured or they may look homemade is:

Good _____:_____:_____:_____:_____:_____:_____ Bad
    extremely quite slightly neither slightly quite extremely

The next questions are for you to indicate *if you think* other people would like you to pay someone to make clothing in the next year.

12. Most people who are important to me think I should pay someone to make clothing in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

13. Businesses, such as tailors or apparel manufacturers, think I should pay someone to make clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

14. Clothing retailers think I should pay someone to make clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

15. Family members think I should pay someone to make clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

a. What is the relationship to you of the family members in question #15, e.g., husband, sister, mother, children, etc.?

_____

16. Friends who sew think I should pay someone to make clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
    extremely quite slightly neither slightly quite extremely

Section C: Altering Clothing

This section of the questionnaire concerns your views toward paying someone to alter clothing.

For this study, *"Altering Clothing"* means paying someone to change the style, fit, or length of clothing; e.g., hemming a dress or pants, increasing or decreasing the size of a waistline, shortening sleeves, etc.

The questions in this part have to do with whether you have ever paid someone to alter clothing, if you intend to pay someone in the future, and your overall feelings about paying someone to alter clothing.

1. Have you ever paid a seamstress, retailer, tailor, dry cleaner or anyone else to alter clothing?

      ___Yes   ___No

2. I intend to pay someone in the next year to alter clothing.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

3. My attitude toward paying someone in the next year to alter clothing is:

Favorable ___:___:___:___:___:___:___ Unfavorable
     extremely quite slightly neither slightly quite extremely

4. Paying someone to alter clothes in the next year:

   a. will save me time.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   b. will add to the cost of the altered clothing.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   c. is taking a chance that the workmanship may not be up to my standards.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   d. will extend the life of the clothing.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   e. will require planning and use of my time to work with a business to get the clothes altered.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   f. will enable me to have clothes altered correctly and professionally.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   g. will provide clothing that fits better.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

   h. will be thrifty and economical, and will save me money on clothes.

Likely ___:___:___:___:___:___:___ Unlikely
     extremely quite slightly neither slightly quite extremely

5. Saving my time is:

Good ___:___:___:___:___:___:___ Bad
     extremely quite slightly neither slightly quite extremely

6. Adding to the cost of clothing by altering them is:

Good ___:___:___:___:___:___:___ Bad
     extremely quite slightly neither slightly quite extremely

7. Taking a chance that the alteration workmanship is not up to my standards is:

Good ___:___:___:___:___:___:___ Bad
     extremely quite slightly neither slightly quite extremely

8. Extending the life of clothing by altering them is:

Good ___:___:___:___:___:___:___ Bad
     extremely quite slightly neither slightly quite extremely

9. Planning and using my time to work with a business to get clothes altered is:

Good ___:___:___:___:___:___:___ Bad
     extremely quite slightly neither slightly quite extremely

10. Having clothes altered correctly and professionally is:

Good _____:_____:_____:_____:_____:_____:_____Bad
    extremely quite   slightly   neither slightly   quite extremely

11. Providing clothing that fits better is:

Good _____:_____:_____:_____:_____:_____:_____Bad
    extremely quite   slightly   neither slightly   quite extremely

12. Being thrifty, economical and saving money on clothes is:

Good _____:_____:_____:_____:_____:_____:_____Bad
    extremely quite   slightly   neither slightly   quite extremely

The next questions are for you to indicate *if you think* other people would like you to pay someone to alter clothing in the next year.

13. Most people who are important to me think I should pay someone to alter clothing in the next year:

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

14. Businesses, such as tailors or apparel manufacturers, think I should pay someone to alter clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

15. Clothing retailers think I should pay someone to alter clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

16. Family members think I should pay someone to alter clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

    a. What is the relationship to you of the family members in question #16, e.g., husband, sister, mother, children, etc.

_____

Section D - Mending Clothing

This section of the questionnaire concerns your views toward paying someone to mend clothing.

For this study, *"**Mending Clothing**"* means paying someone to repair clothing; e.g., stitching a torn seam, restitching a hem, replacing a button or zipper, or patching a tear, etc.

The questions in this part have to do with whether you have ever paid someone to mend clothing, if you intend to pay someone in the future, and your overall feelings about paying someone to mend clothing.

1. Have you ever paid a seamstress, tailor, retailer, dry cleaner or anyone else to mend clothing?

    ___Yes   ___No

2. I intend to pay someone in the next year to mend clothing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

3. My attitude toward paying someone in the next year to mend clothing is:

Favorable _____:_____:_____:_____:_____:_____:_____Unfavorable
    extremely quite   slightly   neither slightly   quite extremely

4. Paying someone to mend clothes in the next year:

    a. will save me time.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

    b. will add too much to the cost of the mended clothing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

    c. is taking a chance that the mending workmanship may not be up to my standards.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
    extremely quite   slightly   neither slightly   quite extremely

d. will extend the life of the clothing.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

e. will require planning and use of my time to work with a business to get the clothes mended.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

f. will enable me to have clothes mended correctly and professionally.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

g. will provide clothing that fits better.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

h. will be thrifty and economical, and will save me money on clothes.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

5. Saving my time is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

6. Adding to the cost of clothing by mending is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

7. Taking a chance that the mending workmanship is not up to my standards is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

8. Extending the life of clothing by mending them is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

9. Planning and using my time to work with a business to get clothes mended is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

10. Having clothes mended correctly and professionally is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

11. Providing clothing that fits better is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

12. Being thrifty, economical and saving money on clothes is:

Good _____:_____:_____:_____:_____:_____:_____Bad
      extremely quite   slightly neither slightly quite extremely

The next questions are for you to indicate *if you think* other people would like you to pay someone to mend clothing in the next year.

13. Most people who are important to me think I should pay someone to mend clothing in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

14. Businesses, such as tailors or apparel manufacturers, think I should pay someone to mend clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

15. Clothing retailers think I should pay someone to mend clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____Unlikely
      extremely quite   slightly neither slightly quite extremely

16. Family members think I should pay someone to mend clothes in the next year.

Likely _____:_____:_____:_____:_____:_____:_____ Unlikely
      extremely quite   slightly neither slightly quite extremely

    a. What is the relationship to you of the family members in question 16, e.g., husband, sister, mother, children, etc.?

_____

17. Generally speaking, I want to do what businesses such as tailors and apparel manufacturers think I should do.

Not at all _____:_____:_____:_____:_____:_____:_____ Very Much

18. Generally speaking, I want to do what retailers think I should do.

Not at all _____:_____:_____:_____:_____:_____:_____ Very Much

19. Generally speaking, I want to do what my family member(s) think I should do.

Not at all _____:_____:_____:_____:_____:_____:_____ Very Much

20. Generally speaking, I want to do what my friends who sew think I should do.

Not at all _____:_____:_____:_____:_____:_____:_____ Very Much

Section E - General Information

1. Please circle the one category that best describes your current marital status.
    1) Never married
    2) Married
    3) Divorced
    4) Separated
    5) Widowed
    6) Living with Someone

2. Please circle the number of people who live in your household.
    1) One
    2) Two
    3) Three
    4) Four
    5) Five
    6) Six or more

3. Please circle the age of your youngest child if there are children at home, indicate that there are no children at home, or indicate that an adult child lives at home.

    1) No children in the household
    2) Infant to 2 years
    3) 3-5 years
    4) 6-12 years
    5) 13-15 years
    6) 16-18

4. Please circle the income bracket that is your best estimate of your household's yearly income, including income from all sources.
    1) Under $20,000
    2) $20,000 to $29,999
    3) $30,000 to $49,999
    4) $50,000 to $69,999
    5) $70,000 or above

5. Please circle the income bracket that is your best estimate of the total income that you yourself earned last year.
    1) Under $20,000
    2) $20,000 to $29,999
    3) $30,000 to $49,999
    4) $50,000 to $69,999
    5) $70,000 or above

6. Please circle the age range which includes your present age.

    1) Under 25
    2) 25 to 29
    3) 30 to 39
    4) 40 to 49
    5) 50 to 59
    6) Above 60

THANK YOU FOR PARTICIPATING!!

Appendix C
Human Subjects Approval

Virginia
 Tech
VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

MEMORANDUM

TO: Karen Bruck Watson and Marjorie Norton
           Clothing and Textiles

FROM: Ernest R. Stout
           Associate Provost for Research

DATE: February 21, 1996

SUBJECT: IRB EXPEDITED APPROVAL/"Employed Women's Intention
           to Purchase Apparel Sewing Services: Beliefs, Attitudes, and
           Normative Influences"
           Ref. 96-057

I have reviewed your request to the IRB for the above referenced
project. I concur with Dr. Minish that the experiments are of minimal risk to
the human subjects who will participate and that appropriate safeguards
have been taken. The IRB has determined that each subject should receive a
complete copy of the signed Informed Consent.

This approval is valid for 12 months. If the involvement with human
subjects is not complete within 12 months, the project must be resubmitted
for re-approval. We will prompt you about 10 months from now. If there are
significant changes in the protocol involving human subjects, those changes
must be approved before proceeding.

On behalf of the Institutional Review Board for Research Involving
Human Subjects, I have given your request expedited approval.

Best wishes.

ERS/php

c: Dr. Minish

96-057

Investigator(s): _____Karen Bruck Watson,   Dr. Marjorie Norton_____

Department(s): _____Clothing and Textiles_____

Project Title: _____Employed Women's Intention to Purcase Apparel Sewing Services:_____
                     Beliefs, Attitudes, and Normative Influences

Source of Support: Departmental Research ☐   Sponsored Research ☐   Proposal No. _____

1. The criteria for "exemption" from review by the IRB for a project involving the use of human subjects and with no risk to the subject is listed below. Please initial all applicable conditions and provide the substantiating statement of protocol.

☐ a. The research will be conducted in established or commonly established educational settings, involving normal education practices. For example:

    1) Research on regular and special education instructional strategies;

    2) Research on effectiveness of instructional techniques, curricula or classroom management techniques.

☐ b. The research involves use of education tests (__ cognitive, __ diagnostic, __ aptitude, __ achievement) and the subject cannot be identified directly or through identifiers with the information.

☒ c. The research involves survey or interview procedures, in which:

    ☒ 1) Subjects cannot be identified directly or through identifiers with the information;

    ☒ 2) Subject's responses, if known, will not place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability;

    ☒ 3) The research does not deal with sensitive aspects of subject's own behavior (illegal conduct, drug use, sexual behavior or alcohol use);

    ☐ 4) The research involves survey or interview procedures with elected or appointed public officials, or candidates for public office.

☐ d. The research involves the observation of public behavior, in which:

    ☐ 1) The subjects cannot be identified directly or through identifiers;

    ☐ 2) The observations recorded about an individual could not put the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability;

    ☐ 3) The research does not deal with sensitive aspects of the subject's behavior (illegal conduct, drug use, sexual behavior or use of alcohol).

☐ e. The research involves collection or study of existing data, documents, recording pathological specimens or diagnostic specimens, of which:

    ☐ 1) The sources are publicly available; or

    ☐ 2) The information is recorded such that the subject cannot be identified directly or indirectly through identifiers.

2. I further certify that the project will not be changed to increase the risk or exceed exempt condition(s) without filing an additional certification or aplication for use by the Human Subjects Review Board.

Note: If children are in any way at risk while this project is underway, the chairman of IRB should be notified immediately in order to take corrective action.

_____ 2/11/96   _____ 2-11-96
Investigator/s/Date

_____ 2/13/96   _____ 2/16/96
Departmental Reviewer/Date   Chair, Institutional Review Board/Date

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Informed Consent for Participants
of Investigative Projects

Title: Employed Women's Intention to Purchase Apparel Sewing Services:
Beliefs, Attitudes, and Normative Influences

Principal Investigators: Karen Bruck Watson, Dr. Marjorie Norton

Purpose of This Research:
You are invited to participate in a study about women's beliefs and attitudes towards paying someone to make, alter, or mend clothing. Included in this study are measurements of your past purchases, your beliefs about your purchases, and persons who influence your purchasing decisions. In addition, this survey attempts to measure your attitude and intention to pay someone in the future to make, alter, or mend clothing. All subjects in the study are women who are employed either part time or ful time at Virginia Tech.

Procedures:
The procedures to be used n this research are (1) your completion of a questionnaire and (2) a statistical analysis of the data collected. The time required for your participation in the study will be approximately 15 minutes.

Benefits of This Project:
The knowledge gained from the information collected in this questionnaire will be used to understand more about what motivates consumers or what discourages them from paying someone to make, alter, or mend clothing. The information gathered will furnish service providers with a better understanding of how to improve and increase the sewing services available for employed women.

Extent of Anonymity and Confidentiality:
Individual questionnaire responses will be kept strictly confidential with the researchers. At no time will the researchers release the responses to anyone other than individuals working on the project without written consent. The information you provide will have your name removed and only a subject number will identify you during analyses and any written reports of the research.

Compensation
For completion and return of the questionnaire by the deadline date indicated on the questionnaire cover, you will be eligible for a drawing for four free hours of labor, valued at $74.00, toward sewing services; such as having clothing made, altered, or repaired.

These apparel sewing services; such as having clothing made, altered, or repaired. These apparel sewing services will be provided by PHD Sewing Studio in Blacksburg, VA. Th winner will have the freedom to designate how they wan to use the four hours; for example, for hours is enough time for the fitting and construction of a simple lined skirt or pant (fabric and pattern supplies would be provided by the winner), for the alteration or hemming of approximately three lined skirts or three pairs of lined pants.

Approval of Research:
This research has been approved, as required, by the Institutional Review Board for projects involving human subjects at Virginia Polytechnic Institute and State University, and by the Department of Clothing and Textiles.

I know of no reason I cannot participate in this study.

I understand that receipt of the completed questionnaire by March 18, 1996 qualifies me for the drawing for the four free hours of labor for sewing services, valued at $74.00.

_____

Signature

_ _

I have read and understand the informed consent and conditions of this project. All of my questions have been answered. I hereby acknowledge the above and give my voluntary consent fr participation in this project.

If I participate, I may withdraw at any time without penalty. I agree to abide bythe rules of this project.

Should I have any questions about this research or its conduct, I will contact:

Karen Bruck Watson Principle Investigator	(540) 951-1084
Dr. Marjorie Norton Principle Investigator	(540) 231-5731
Dr. Ernest Stout Chair, IRB Research Division	(540) 231-6077

Appendix D
Follow-Up Post Card

March 8, 1996

Dear Women Employed at Virginia Tech,

Recently you were invited to participate in a study about women's beliefs and attitudes towards paying someone to make, alter, or mend clothing. If you have already returned the questionnaire we thank you for your input. If you have not returned a completed questionnaire we want to encourage you to do so by March 18, 1996, which qualifies you for the drawing for **FOUR FREE** hours of labor for sewing services

The questionnaire should be returned by campus mail to: Karen Watson, Clothing and Textiles Department, 0410. We look forward to receiving your completed questionnaire. If you have questions regarding the study please contact either of us.

Sincerely,

Karen Bruck Watson   Marjorie Norton
Graduate Student   Associate Professor

Appendix E
Respondent's Comments

#47 -   Generally speaking I have considered sewing, mending or altering clothing an important issue in managing a career and family. - Not at all.

#83 -   The biggest factor against having clothes made is finding suitable materials those available in the average fabric store are uninspiring. It's difficult to find raw silks, better quality wools and cottons, and nicer rayon blends. When they are available, the total cost of materials, patterns, and sewing brings the clothing back into range with the retail shops. Add in time spent running around and it's no longer worth the effort.

As far as altering goes - I simply don't buy things requiring altering.

As far as mending goes, sewing on a button or stitching a seam are boring but less time consuming than finding someone to do it and taking the pieces there.

#90 -   Forget whether I actually paid for the brides maids dresses; they were both disappointing.

A lot of answers would depend on whether I got a good seamstress or tailor, and I don't know enough to make a good selection.

#631 - Not used - I tried to do this survey but the questions make no sense to me. For what they're worth, here are my thoughts on what I think is the subject:

1. I'm happy to pay people to mend or alter clothing.

2. Most mending jobs are handled well by my dry cleaners.

3. I have been totally unsuccessful in finding people to do a professional job of altering my clothes -- that is, in the New River Valley. After having five or six expensive outfits ruined by a local alterations person, I now have alterations done only by the tailors at Nordstrom's dept. store, which is also where I buy most of my clothes. I usually shop at the Nordstrom's in Tyson's corner (outside D. C.)

I would welcome an expert tailor in the New River Valley, but I must admit that it would take me a long time to be willing to run the risk of trying such as person.

The issue happens to be very relevant to me because I recently lost a good deal of weight, and moved from size 10-12 to size 6 or 8.

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#822 - The questions do not make sense to me - I value good "sewing" and promote the idea - how businesses, friends, etc. think, I don't know.

#970 - I have had a wedding gown, 3 bridesmaids dresses made by a seamstress. Men and women's garments altered, mended; a cocktail dress (3 layers) cut and hemmed, pant suits
for my self made and children's dresses made and hand smocked (many years ago). A heavy weight winter long coat - lining completely redone- all by different people - have never been displeased. All of them quite willing to listen to my needs. Never over charged in Blacksburg, Roanoke and Fredricksburg.

#1043 - Your questions don't appear to address the only situation in which I alter clothes; finding a cheap, second-hand piece of clothing that I get altered is faster and cheaper than looking for and buying a new piece of clothing that fits.

#1425 - I sew about 30% of the clothes I wear to work, so I do my own sewing, mending. I'm occasionally interested in having a professional alter clothing (expensive items) such as shortening slacks or trousers or shortening sleeve lengths.

#1450 - I feel I can mend my clothes as well as or better than anyone I'd have to pay, and the time invested is considerably less than the hassle of appointments etc. with a seamstress.

#1465 - I consider the questions in your survey to be way off base. Who dresses, has clothes altered, or cares what businesses think you should do?

#1619 - Difficult to find someone to do sewing.

#1633 - You don't have anywhere to indicate that one could do as best or better job by oneself.

#1650 - I already have most of my clothing and it is extremely unlikely I would have someone else do something I enjoy so much.

#1761 -   The brand I buy Dk, CK, AK, Arveaui, ST. John will cost more than having clothes made.

           Is it really necessary to ask #6,7,8,9 in section A?

           This is not a relevant issue, no one cares about this - (questions on what you think other people would like for you to do.)

           Alterations are done at no charge where I shop.

           I do mending myself usually or go back to the place of purchase where it's done free.

           I like to spend a lot on clothes approximately $10,000 annually.

           I would not pay to have clothes mended.

#1857 -   Thanks for taking the time to send out this questionnaire.

           I think this sounds like a wonderful service for people who are interested. I am not. I prefer doing my own clothing because I love to sew.

#1049 -   It seems that in addition to owning a sewing machine and having time, one must have skills/knowledge to construct/repair/alter garments. I don't think it should be assumed that this is available - or linked to sewing machine ownership. I happen to have the skills but know others who don't. This could skew your results.

#1114 -   I am a really bad data point for you. My grandmother has 70+ years of experience as a professional seamstress, and still does nearly all my alterations. Free.

#1247 -   Thanks! I wish I <u>could</u> find someone <u>dependable</u> for alterations and repair. have seen some really sloppy local work done without a brain.

#1252 -   I'm happy to take the time to do this. But this was very difficult to understand. A section for feedback should be included, Please let me know if you'd like any explanation of my comment.

#1354 -   I think your survey is a bit confusing. Would help to simplify thing. Questions seemed redundant.

#1504 -   I thought I could add a brief note to your survey. I have clothes altered and mended under certain circumstances:

special occasion clothes - wedding dress, bridesmaid dress, interview suit.

Other clothes - only if it's still in good condition or a small fix, eg., new sandal strap unraveled, hem loose, take up low neck, break at a seam, etc.

Interesting topic, where will the results come out?

No # - Rarely have I received such a sexist and stereotyped document. I will not return such a survey. Thanks for assuming that we're all able-bodied.

I deeply appreciate your adding to my despair at having to work here in the land time forgot...

Appendix F
Statistical Data Tables For Paying Someone to Make Clothes

Table A1. Employed Women's Behavioral Belief Strengths and Outcome Evaluations About Paying Someone to Make Clothes in the Next Year

Salient Behavioral Belief	Behavioral Belief Strength: Paying someone to make clothes in the next year:	Percentage Distributions							Behavioral Belief Outcome Evaluations	Percentage Distributions						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Extremely Good (+3)	Quite Good (+2)	Slightly Good (+1)	Neither (0)	Slightly Bad (-1)	Quite Bad (-2)	Extremely Bad (-3)
Time Involvement	...will take too much time to shop for materials, have fittings, and find a person to do the sewing	16	27	12	21	8	10	7	My taking time to shop for materials, have fittings, and find a person to pay for sewing is...	4	9	11	19	18	23	23
Clothing Fit	...will provide clothing that fits better than store-bought clothing	23	40	14	13	3	4	3	Clothing that fits better than store-bought clothing is...	37	43	12	6	1	1	0
Pricing	...will cost more than store-bought clothing	10	22	21	17	16	10	4	Clothing that costs more than store-bought clothing is...	1	5	9	21	24	25	13
Customization	...will allow me to customize clothing by selecting unique styles, colors, fabrics or garment features	34	42	12	8	1	1	2	Customizing clothing by selecting unique styles, colors, fabrics or garment features is...	30	41	18	9	1	1	2
Apparel Construction	...will allow me to get better constructed clothing than I can buy at a store	24	40	18	11	3	3	2	Clothing that is better constructed than store-bought clothing is...	41	44	10	4	1	1	0
Free Time Availability	...will free up my time for hobbies or other projects I enjoy	5	10	9	36	6	16	18	Freeing up my time for hobbies or other projects I enjoy is...	38	31	8	20	2	2	0
Level of Risk	...is risky because the clothes I pay someone to make may not look like I pictured, or they may look homemade	5	13	31	13	12	18	7	Taking a risk that the clothes I pay someone to make may not look like I pictured or they may look homemade is...	1	6	11	23	29	22	8

Note. Percentage distribution total for each variable may not equal 100 because of rounding.

Table A2. Employed Women's Salient Behavioral Belief Products About Paying Someone to Make Clothes in the Next Year

Salient Behavioral Beliefs	M	Percentage Distribution												
		9	6	4	3	2	1	0	-1	-2	-3	-4	-6	-9
Customizing	4.10	21	16	24	4	12	5	14	0	2	3	1	3	1
Apparel Construction	3.94	18	21	23	4	11	6	13	0	1	1	2	3	1
Clothing Fit	3.55	18	16	23	3	11	4	16	1	2	1	3	1	1
Level of Risk	-.31	2	3	5	2	10	9	30	14	12	3	6	3	2
Time Involvement	1.73	2	1	2	1	5	4	33	5	11	2	13	9	10
Pricing	-.33	2	3	4	3	10	9	31	7	11	4	7	7	3
Free Time Availability	-.65	5	5	6	4	6	1	43	1	3	2	6	11	9

Note. The following were not possible products 8, 7, 5, -5, -7, -8 because the range of scores, -3 to 3, would not multiply to produce those products. The percentage distributions may not equal 100 because of rounding.

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Table A3. Employed Women's Estimated Attitudes for Paying Someone to Make Clothes in the Next Year

Range of Possible Scores for Estimated Attitude	Percentage Distribution
-40 to -63	0
-30 to -39	1
-20 to -29	1
-10 to -19	8
-1 to -9	14
0	5
1 to 9	24
10 to 19	27
20 to 29	16
30 to 39	4
40 to 49	1
50 to 63	0

Note. Percentage distribution total for each variable may not equal 100 because of rounding.

Table A4. Employed Women's Normative Beliefs and Motivation to Comply for Paying Someone to Make Clothes in the Next Year

Salient Referents	Normative Belief	Percentage Distribution							Motivation-to-Comply with Normative Belief	Percentage Distribution						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Not at all (+1)	(+2)	(+3)	(+4)	(+5)	(+6)	Very Much (+7)
Business	Businesses, such as tailors or apparel manufacturers, think I should pay someone to make clothes in the next year.	7	13	6	30	2	14	29	Generally speaking, I want to do what businesses, such as tailors and apparel manufacturers, think I should do.	65	14	4	13	3	2	1
Retailer	Clothing retailers think I should pay someone to make clothes in the next year.	1	1	0	17	3	18	61	Generally speaking, I want to do what retailers think I should do.	67	14	3	14	2	1	0
Family	Family members think I should pay someone to make clothes in the next year.	1	4	4	30	2	14	45	Generally speaking, I want to do what my family member(s) think I should do.	23	12	12	26	13	12	4
Friends Who Sew	Friends who sew think I should pay someone to make clothes in the next year.	1	4	7	39	3	13	32	Generally speaking, I want to do what my friends who sew think I should do.	35	13	7	29	11	5	2

Note. Percentage distribution totals for each variable may not equal 100 because of rounding.

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Table A5. Employed Women's Salient Referent Products for Paying Someone to Make Clothes

Salient Referent	M	Percentage Distribution										
		-21 to -17	-16 to -14	-13 to -10	-9 to -6	-5 to -1	0	1 to 5	6 to 9	10 to 13	14 to 16	17 to 21
Business	-16.77	1	0	3	5	36	30	21	4	2	0	0
Family	-4.83	7	6	14	16	19	30	4	3	1	1	1
Retailer	-3.47	1	1	7	11	61	17	1	0	0	0	0
Friends Who Sew	-2.69	2	3	9	11	24	39	7	3	2	1	0

Note. Percentage distribution totals may not equal 100 because of rounding.

Table A6. Employed Women's Estimated Subjective Norm for Paying
Someone to Make Clothes in the Next Year

Range of Possible Scores for Estimated Subjective Norms	Percentage Distribution
-40 to -84	5
-30 to -39	7
-20 to -29	12
-10 to -19	24
-1 to -9	26
0	15
1 to 9	7
10 to 19	2
20 to 29	1
30 to 49	1
50 to 84	0

Note. Percentage distribution total for each variable may not equal 100 because of rounding.

Table A7. Chow Test Summary: External Demographic Variables and Attitude-Subjective Norm-Intention Relationship for Paying Someone to Make Clothes

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R[2]
Highest Education Completed (HE)					27.35***	1.87*	0.45
Attitude (Att.)	0.70	0.18	0.70	3.75**			
Subjective. Norm (SN)	0.09	0.21	0.80	0.43			
HE1 = some HS or HS Graduate	-0.17	0.54	-0.03	-0.32			
HE2 = some college	0.58	0.51	0.13	1.13			
HE3 = Associate Degree	0.47	0.56	0.07	0.84			
HE4 = BA/BS	0.19	0.51	0.05	0.38			
HE5 = MA/MS	0.09	0.52	0.02	0.18			
HE6 = Ph. D or Ed. D	0.29	0.55	0.06	0.52			
Att. x HE1	-0.19	0.21	-0.06	-0.90			
Att. x HE2	0.00	0.20	0.01	0.01			
Att. x HE3	-0.13	0.22	-0.04	-0.60			
Att. x HE4	-0.13	0.20	-0.06	-0.66			
Att. x HE5	-0.27	0.20	-0.11	-1.32			
Att. x HE6	-0.20	0.20	-0.08	-0.96			
SN x HE1	0.01	0.24	0.00	0.03			
SN x HE2	0.11	0.22	0.06	0.52			
SN x HE3	0.66	0.25	0.05	0.68			
SN x HE4	0.11	0.22	0.06	0.49			
SN x HE5	0.23	0.22	0.14	1.06			
SN x HE6	0.20	0.23	0.11	0.86			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R²
Employment Orientation					100.20***	0.42	0.43
Attitude (Att.)	0.57	0.05	0.57	11.39***			
Subjective Norm (SN)	0.21	0.56	0.19	3.75**			
Career	-0.02	0.16	-0.00	-0.10			
Attitude x Career	-0.03	0.06	-0.02	-0.40			
S N. x Career	0.05	0.07	0.04	0.68			
Respondent's Income (RI)					36.01***	0.64	.
Attitude (Att.)	0.65	0.14	0.65	4.70***			
Subjective Norm (SN)	0.25	0.14	0.23	1.87			
RI 1 = Under $20,000	-0.02	0.35	0.00	-0.05			
RI 2 = $20,000 - $29,999	0.14	0.33	0.04	0.42			
RI 3 = $30,000 - $49,999	-0.02	0.36	-0.02	-0.26			
RI 4 = $50,000 - $69,999	0.03	0.49	0.01	-0.07			
Att. x RI 1	-0.02	0.15	-0.01	-0.12			
Att. x RI 2	-0.11	0.15	-0.07	-0.73			
Att. x RI 3	-0.12	0.16	-0.06	-0.72			
Att. x RI 4	-0.27	0.18	-0.08	-1.45			
SN x RI 1	-0.09	0.15	0.06	-0.60			
SN x RI 2	0.03	0.15	0.02	0.18			
SN x RI 3	-0.02	0.16	-0.01	-0.11			
SN x RI 4	0.06	0.21	0.03	0.31			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R²
Respondent's Age (RA)					30.09***	0.83	0.43
Attitude (Att.)	0.60	0.13	0.60	4.53***			
Subjective Norm (SN)	0.25	0.14	0.22	1.83			
RA1 = under 25	0.03	0.59	0.00	0.05			
RA2 = 25 to 29	0.35	0.39	0.06	0.91			
RA3 = 30 to 39	-0.01	0.34	0.00	-0.03			
RA4 = 40 to 49	0.28	0.33	0.08	0.84			
RA5 = 50 to 59	0.01	0.38	0.00	0.03			
Att. x RA1	0.09	0.32	0.01	0.26			
Att. x RA2	-0.12	0.17	-0.03	-0.72			
Att. x RA3	-0.01	0.15	-0.01	-0.08			
Att. x RA4	-0.06	0.14	-0.04	-0.42			
Att. x RA5	-0.00	0.15	0.00	-0.03			
SN x RA1	0.07	0.29	0.01	0.25			
SN x RA2	0.15	0.17	0.06	0.90			
SN x RA3	-0.07	0.15	-0.04	-0.45			
SN x RA4	0.05	0.15	0.03	0.34			
SN x RA5	-0.19	0.17	-0.10	-1.13			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R²
Marital Status (MS)					30.97***	1.39	0.44
Attitude (Att.)	0.50	0.18	0.50	2.84**			
Subjective Norm (SN)	0.31	0.13	0.28	2.27*			
MS1 = Not Married	0.48	0.37	0.09	1.30			
MS2 = Married	0.42	0.31	0.11	1.36			
MS3 = Divorced	0.38	0.36	0.07	1.05			
MS4 = Separated	1.49	0.81	0.11	1.85			
MS5 = Widowed	1.85	0.86	0.14	2.15*			
Att. x MS1	0.11	0.20	0.04	0.56			
Att. x MS2	0.00	0.18	0.00	-0.02			
Att. x MS3	0.21	0.20	0.07	1.09			
Att. x MS4	0.07	0.35	0.01	0.21			
Att. x MS5	0.27	0.24	0.04	1.09			
SN x MS1	-0.01	0.17	-0.01	-0.09			
SN x MS2	-0.05	0.14	-0.04	-0.35			
SN x MS3	-0.16	0.17	0.06	-0.94			
SN x MS4	0.46	0.34	0.08	1.37			
SN x MS5	0.40	0.36	0.08	1.11			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R²
Age of Youngest Child in Household (YA)					31.31***	1.60	0.44
Attitude (Att.)	0.46	0.10	0.46	4.60***			
Subjective Norm (SN)	0.34	0.12	0.31	2.91**			
YA1 = no child	-0.42	0.27	-0.12	-1.54			
YA2 = Infant to 2 years	-0.16	0.36	-0.03	-0.43			
YA3 = 3 - 5 years	1.25	0.59	0.14	2.11*			
YA4 = 6 - 12 years	0.05	0.34	0.01	0.13			
YA5 = 13 - 15 years	-0.27	0.36	-0.04	-0.74			
Att. x YA1	0.13	0.11	0.10	1.20			
Att. x YA2	0.06	0.15	0.02	0.42			
Att. x YA3	0.17	0.18	-0.03	-0.93			
Att. x YA4	0.02	0.13	-0.01	-0.19			
Att. x YA5	0.43	0.17	0.04	2.55*			
SN x YA1	-0.17	0.13	0.14	-1.32			
SN x YA2	-0.02	0.16	-0.01	-0.15			
SN x YA3	0.54	0.25	0.16	2.12*			
SN x YA4	0.01	0.15	0.01	0.09			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

(table continues)

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Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R[2]
Household Income (HI)					36.78***	1.09	0.44
Attitude (Att.)	0.52	0.07	0.52	7.82***			
Subjective Norm (SN)	0.21	0.07	0.19	2.98*			
HI1 = under $20,000	0.60	0.46	0.07	1.31			
HI2 = $20,000 - $29,999	0.14	0.27	0.03	0.53			
HI3 = $30,000 - $49,999	0.24	0.21	0.06	1.14			
HI4 = $50,000 - $69,999	0.26	0.22	0.06	1.18			
Att. x HI1	0.16	0.17	0.03	0.99			
Att. x HI2	0.15	0.11	0.05	1.41			
Att. x HI3	-0.04	0.09	-0.02	0.48			
Att. x HI4	0.08	0.09	0.04	0.83			
SN x HI1	0.00	0.20	0.00	0.99			
SN x HI2	0.06	0.12	0.03	-0.50			
SN x HI3	0.10	0.10	0.06	1.02			
SN x HI4	0.04	0.10	0.02	0.38			

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[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R²
Weekly Work Hours in Career/Job (HR)					26.94***	1.62*	0.45
Attitude (Att.)	0.59	0.27	0.60	2.21*			
Subjective Norm (SN)	-0.42	0.34	-0.38	-1.24			
HR1 = 10 hours per week	2.59	1.04	0.19	2.50*			
HR2 = 20 hours per week	1.62	1.04	0.17	1.56			
HR3 = 30 hours per week	3.28	1.10	0.31	2.98*			
HR4 = 40 hours per week	1.95	0.94	0.53	2.08*			
HR5 = 50 hours per week	2.10	0.95	0.43	2.21*			
HR6 = 60 hours per week	1.97	0.98	0.34	2.01*			
Att. x HR1	0.27	0.37	0.04	0.74			
Att. x HR2	-0.18	0.32	0.03	0.57			
Att. x HR3	-0.15	0.33	-0.03	-0.45			
Att. x HR4	-0.30	0.27	0.02	-0.11			
Att. x HR5	0.06	0.28	0.02	0.20			
Att. x HR6	-0.24	0.29	0.08	0.82			
SN x HR1	0.89	0.41	0.15	2.19*			
SN x HR2	0.69	0.39	0.18	1.77			
SN x HR3	1.10	0.41	0.28	2.69*			
SN x HR4	0.61	0.34	0.51	1.78			
SN x HR5	0.71	0.35	0.36	2.04*			
SN x HR6	0.77	0.36	0.32	2.13*			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Appendix F Table A7 (continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R[2]
Number of People in Household (NH)					30.85***	1.31	0.44
Attitude (Att.)	0.42	0.27	0.42	1.57			
Subjective Norm (SN)	0.34	0.24	0.30	1.44			
NH1 = One	0.23	0.51	0.05	0.45			
NH2 = Two	-0.01	0.48	0.00	-0.01			
NH3 = Three	0.54	0.49	0.13	1.09			
NH4 = Four	0.38	0.51	0.08	0.75			
NH5 = Five	1.13	0.57	0.13	1.98*			
Att. x NH1	0.24	0.28	0.09	0.85			
Att. x NH2	0.14	0.27	0.09	0.51			
Att. x NH3	0.10	0.28	0.05	0.37			
Att. x NH4	0.11	0.28	0.05	0.40			
Att. x NH5	-0.09	0.31	-0.02	-0.28			
SN x NH1	-0.13	0.25	-0.06	-0.53			
SN x NH2	-0.19	0.24	-0.14	-0.79			
SN x NH3	0.02	0.24	0.01	0.08			
SN x NH4	-0.09	0.25	-0.05	-0.35			
SN x NH5	0.26	0.29	0.07	0.89			

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[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p = .05. **p = .001. ***p = .0001

Table A8. Chow Test Summary: Variables Having to do With Sewing and Attitude-Subjective Norm-Intention Relationship for Making Clothes Service

Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Access to Sewing Machine (ASM)					103.47***	3.48*	.72
Attitude (Att.)	0.67	0.06	0.67	12.19***			
Subjective Norm (SN)	0.27	0.06	0.24	4.48			
ASM1 = Yes	-0.16	0.17	0.04	-0.99			
Att. x ASM 1	-0.18	0.07	0.15	-2.69*			
SN x ASM 1	-0.04	0.07	0.03	-0.52			
Sewing Skill Level (SSL)					48.85***	2.70*	.45
Attitude (Att.)	0.50	0.10	.50	4.99***			
Subjective Norm (SN)	0.22	0.14	.20	1.62			
SSL1 = No Skill	0.15	0.39	-0.03	-0.39			
SSL2 = Beginner/Novice	0.02	0.33	0.00	0.05			
SSL3 = Intermediate	-0.03	0.34	0.07	-0.79			
Att. x SSL1	0.25	0.13	0.09	0.06			
Att. x SSL2	0.11	0.11	0.07	1.03			
Att. x SSL3	0.12	0.12	-0.06	-1.01			
SN x SSL1	0.02	0.17	0.01	0.14			
SN x SSL2	0.04	0.16	0.03	0.78			
SN x SSL3	0.02	0.15	0.01	0.89			

(table continues)

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Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Others in HH Who Sew (OHHS)					101.15***	.1312	.44
Attitude (Att.)	0.56	0.04	0.56	16.05***			
Subjective Norm (SN)	0.22	0.04	0.20	5.74***			
OHHS1 = Yes	0.39	0.20	0.09	1.97			
Att. x OHHS1	0.05	0.08	-0.02	-0.58			
SN x OHHS1	0.13	0.09	0.07	1.39			
Know a Person Who Sews (KPSWS)					115.20***	14.47***	.47
Attitude (Att.)	0.45	0.05	0.45	9.27***			
Subjective Norm (SN)	0.15	0.05	0.13	2.84***			
KPWS1 = Yes	0.76	0.15	0.22	4.94***			
Att. x KPWS1	0.17	0.06	0.13	2.74***			
SN x KPWS1	0.13	0.07	0.10	1.86			
Availability of Service Provider (ASP)					50.44***	3.80***	.46
Attitude (Att.)	0.49	0.04	0.49	11.65***			
Subjective Norm (SN)	0.23	0.05	0.20	4.89***			
ASP1 = Unavailable	1.13	0.39	0.12	2.93**			
ASP2 = Not Very Available	0.41	0.21	0.08	1.95			
ASP3 = Available	0.33	0.18	0.08	1.80			
Att. x ASP1	0.25	0.15	0.06	1.66			
Att. x ASP2	0.00	0.09	0.00	0.04			
Att. x ASP3	0.17	0.07	0.09	2.24*			
SN x ASP1	0.20	0.19	0.04	1.01			
SN x ASP2	0.07	0.09	0.03	0.69			
SN x ASP3	-0.05	0.08	0.03	-0.59			

[a]B = Beta [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

Table A9. ANOVA Summary Table: Paying Someone to Make Clothes Estimated Attitude

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	24	0.08
	Error	653	285	
Sewing Skill Level	Model	3	467	2.46
	Error	646	190	
Others in HH Who Sew	Model	1	34	0.18
	Error	651	190	
Know Someone Who Sews For Pay	Model	1	1261	6.66***
	Error	653	189	
Availability of Person Who Sews	Model	3	16	0.08
	Error	361	200	
Employment Orientation	Model	1	626	3.29
	Error	650	190	
Weekly Work Hours In Career/Job	Model	6	323	1.72
	Error	650	188	
Highest Education Completed	Model	6	782	4.21**
	Error	647	186	
Marital Status	Model	5	296	1.56
	Error	643	190	
Number Persons in Household	Model	5	168	0.88
	Error	643	192	
Age of Youngest Children	Model	5	175	0.91
	Error	636	192	
Household Income	Model	4	794	4.24**
	Error	626	187	
Respondent's Income	Model	4	1092	5.90***
	Error	628	185	
Respondent's Age	Model	5	248	1.31
	Error	636	189	

** $p<.01$ *** $p<.0001$

Table A10. Tukey's Test Summary: Paying Someone to Make Clothes Estimated
Attitude

External Variable	Tukey Grouping[a]	M	N	Variable Levels
Access to Sewing	A	9.45	453	1 Yes
Machine	A	6.34	202	0 No
Sewing Skill Level	A	9.86	203	3 Intermediate
	A	9.86	57	4 Expert/Advanced
	A	8.13	289	2 Novice/Basic
	A	5.54	101	1 No skill
Others in HH Who	A	9.00	127	1 Yes
Sew	A	8.42	526	0 No
Know Someone	A	9.76	357	1 Yes
Who Sews For Pay	B	6.97	298	0 No
Availability of	A	10.24	25	1 Unavailable
Person Who Sews	A	9.7	57	4 Very Available
	A	9.65	184	3 Available
	A	8.98	99	2 Not very available
Employment	A	15.84	406	1 Career
Orientation	A	14.02	246	2 Just-A-Job
Highest Education	A	11.73	124	2 Some College
Completed	B A	10.95	42	3 Associate Degree
	B A	10.86	61	1 Some High School or High School Grad.
	B A	9.20	158	4 Bachelor of Arts or Science Degree
	B A	7.22	19	7 Other Professional Degree
	B A	6.92	135	5 Master of Arts or Science Degree
	B	3.98	115	6 Ph.D. or Ed.D. Degree
Marital Status	A	13.75	12	5 Widowed
	A	11.70	71	3 Divorced
	A	8.27	447	2 Married
	A	7.33	24	6 Living with Someone
	A	6.68	84	1 Never Married
	A	5.73	11	4 Separated

(table continues)

External Variable	Tukey Grouping[a]	M	N	Variable Levels
Number Persons in Household	A	10.19	100	4 Four
	A	9.34	143	3 Three
	A	7.97	283	2 Two
	A	7.55	92	1 One
	A	5.50	26	5 Five
	A	5.00	5	6 Six or more
Age of Youngest Child	A	11.22	421	6 16-18 Years
	A	10.97	39	5 13-15 Years
	A	9.45	60	2 Infant-2 Years
	A	8.92	92	4 6-12 Years
	A	7.73	380	1 No children in the household
	A	7.48	29	3 3-5 Years
Household Income	A	11.95	84	2 $20,000-$29,999
	B A	9.84	160	4 $50,000-$69,999
	B A	9.41	27	1 Under $20,000
	B A	8.63	205	3 $30,000-$49,999
	B	5.03	155	5 $70,000 or above
Respondent's Income	A	11.14	272	2 $20,000-$29,999
	B A	8.00	150	1 Under $20,000
	B A	6.52	134	3 $30,000-$49,999
	B	3.83	23	5 $70,000 or above
	B	3.39	54	4 $50,000-$69,999
Weekly Work Hours in Career/Job	A	12.00	11	1 15-19 hours per week
	A	11.28	18	3 30-29 hours per week
	A	9.33	423	4 40-49 hours per week
	A	8.04	23	2 20-29 hours per week
	A	7.71	14	7 70-80 hours per week
	A	6.90	100	5 50-59 hours per week
	A	4.47	68	6 60-69 hours per week
Respondent's Age	A	12.50	22	6 Above 60
	A	9.53	240	4 40- 49
	A	8.14	184	3 30-39
	A	7.79	107	5 50-59
	A	6.51	72	2 25-29
	A	4.53	17	1 Under 25

[a] Means with the same letter are not significantly different.

Table A11. ANOVA Summary Table: Paying Someone to Make Clothes Estimated Subjective Norm

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	560	2.41
	Error	653	233	
Sewing Skill Level	Model	3	746	3.21*
	Error	646	232	
Others in HH Who Sew	Model	1	198	.85
	Error	651	234	
Know Someone Who Sews For Pay	Model	1	2456	10.69**
	Error	653	230	
Availability of Person Who Sews	Model	1	169	0.75
	Error	361	227	
Employment Orientation	Model	1	642	4.76
	Error	650	135	
Weekly Work Hours in Job/Career	Model	24	262	1.12
	Error	621	234	
Highest Education Completed	Model	6	141	0.60
	Error	647	234	
Marital Status	Model	5	259	1.11
	Error	643	233	
Number Persons in Household	Model	5	232	0.77
	Error	643	302	
Age of Youngest Children	Model	5	595	2.60*
	Error	636	229	
Household Income	Model	4	445	1.90
	Error	626	234	
Respondent's Income	Model	4	747	3.21*
	Error	628	233	
Respondent's Age	Model	5	264	1.13
	Error	636	234	

* $p<.05$ ** $p<.01$

Table A12. Tukey's Test Summary: Paying Someone to Make Clothes Estimated Subjective Norm

Variable	Tukey Grouping[a]	M	N	Variable Levels
Access to Sewing	A	-10.12	202	0 No
Machine	A	-12.13	453	1 Yes
Sewing Skill Level	A	-9.91	289	2 Novice/Basic
	B A	-12.04	203	3 Intermediate
	B A	-12.47	101	1 No Skills
	B	-16.37	57	4 Expert/Advanced
Others in HH Who	A	-11.26	526	0 No
Sew	A	-12.65	127	1 Yes
Know Someone	A	-9.73	357	1 Yes
Who Sews For Pay	B	-13.63	298	0 No
Availability of	A	-7.58	57	4 Very Available
Person Who Sews	A	-9.82	184	3 Available
	A	-10.40	25	1 Unavailable
	A	-11.29	99	2 Not very Available
Employment	A	-11.46	246	0 Just-A-Job
Orientation	A	-11.57	406	1 Career
Weekly Work Hours	A	-2.64	11	1 15-19 hours per week
in Career/Job	A	-10.97	68	6 60-69 hours per week
	A	-11.32	423	4 40- 49 hours per week
	A	-11.87	23	2 20-29 hours per week
	A	-12.59	100	5 50-59 hours per week
	A	-13.00	14	7 70-80 hours per week
	A	-15.67	18	3 30-39 hours per week
Highest Education	A	-9.68	124	2 Some College
Completed	A	-10.55	42	3 Associate Degree
	A	-10.59	61	1 Some High School or High School Grad
	A	-12.08	158	4 Bachelor of Arts or Science Degree
	A	-12.13	135	5 Master of Arts or Science Degree
	A	-12.48	115	6 Ph.D. or Ed.D Degree
	A	-14.11	19	7 Other Professional Degree

(table continues)

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Appendix F, Table A12 (continued)

Variable	Tukey Grouping[a]	$\underline{M}$	N	Variable Levels
Marital Status	A	-7.57	12	5 Widowed
	A	-8.06	71	3 Divorced
	A	-11.09	11	4 Separated
	A	-11.42	24	6 Living with Someone
	A	-11.68	84	1 Never Married
	A	-12.30	447	2 Married
Number Persons in Household	A	-10.58	26	5 Five
	A	-10.75	92	1 One
	A	-10.83	143	3 Three
	A	-11.37	100	4 Four
	A	-12.39	283	2 Two
	A	-20.20	5	6 Six or More
Age of Youngest Child	A	-4.77	39	5 13-15 Years
	B A	-8.79	29	3 3-5 Years
	B A	-9.26	42	6 16-18 Years
	B A	-12.03	380	1 No Children in Household
	B A	-12.51	92	4 6-12 Years
	B	14.63	60	2 Infant- 2 Years
Household Income	A	-9.54	84	2 $20,000-$29,999
	A	-10.38	160	4 $50,000-$69,999
	A	-11.24	205	3 $30,000-$49,999
	A	-13.75	155	5 $70,000 or above
	A	-15.63	27	1 Under $20,000
Respondent's Income	A	-9.30	272	2 $20,00-$29,999
	A	-11.00	23	5 $70,000 or above
	A	-12.67	54	4 $50,000-$69,999
	A	-13.03	134	3 $30,000-$49,999
	A	-14.43	150	1 Under $20,000
Respondent's Age	A	-10.58	240	4 40-49
	A	-11.30	184	3 30-39
	A	-12.22	107	5 50-59
	A	-12.96	22	6 Above 60
	A	-13.38	72	2 25-29
	A	-18.24	17	1 Under 25

[a] Means with the same letter are not significantly different.

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Appendix G
Statistical Data Tables For Paying Someone to Alter Clothes

Table A1 Employed Women's Behavioral Belief Strengths and Outcome Evaluations About Paying Someone to Alter Clothes in the Next Year

Salient Behavioral Belief	Behavioral Belief Strength Paying someone to alter clothes in the next year	Percentage Distributions							Behavioral Belief Outcome Evaluations	Percentage Distributions						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Extremely Good (+3)	Quite Good (+2)	Slightly Good (+1)	Neither (0)	Slightly Bad (-1)	Quite Bad (-2)	Extremely Bad (-3)
Time Savings	... will save me time	32	28	13	12	4	6	6	Saving my time is	64	25	6	5	1	0	0
Alteration Cost	... will add to the cost of the altered clothes	22	26	33	9	4	3	3	Adding to the cost of clothing by altering them is	4	8	12	26	29	13	8
Workmanship	... is taking a chance that the workmanship may not be up to my standards	4	9	30	13	10	22	12	Taking a chance that the alteration workmanship is not up to my standards is	1	4	11	25	37	17	6
Clothing Wear Expectancy	... will extend the life of the clothing	12	29	19	27	5	5	4	Extending the life of clothing by altering them is	24	39	19	14	2	1	1
Time Use	... will require planning and use of my time to work with a business to get the clothes altered	12	32	34	8	4	6	4	Planning and using my time to work with a business to get clothes altered is	4	17	13	25	27	9	5
Professional Alterations	... will enable me to have clothes altered correctly and professionally	28	48	15	5	1	2	2	Having clothes altered correctly and professionally is...	41	40	13	5	1	1	0
Clothing Fit	... will provide clothing that fits better	36	45	13	3	1	1	2	Providing clothing that fits better is	51	37	10	2	0	0	0
Money Savings	... will be thrifty and economical, and will save me money on clothes.	10	23	16	22	10	12	8	Being thrifty, economical and saving money on clothes is...	52	34	8	4	1	1	0

Note Percentage distribution totals may not equal 100 because of rounding.

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Table A2. Employed Women's Salient Behavioral Belief Products About Paying Someone to Alter Clothes in the Next Year

Salient Behavioral Beliefs	**M**	Percentage Distribution												
		9	6	4	3	2	1	0	-1	-2	-3	-4	-6	-9
Clothing Fit	5.03	29	23	23	3	9	5	5	0	1	1	1	1	1
Professional Alterations	4.18	19	22	26	4	9	6	9	0	1	1	1	1	1
Time Savings	3.60	27	20	10	7	6	2	15	1	2	2	2	6	4
Clothing Wear Expectancy	2.19	10	10	18	2	12	6	32	3	2	1	3	2	1
Money Savings	.93	8	14	9	8	8	1	24	1	5	5	5	7	5
Workmanship	.15	3	3	4	3	10	11	32	16	9	2	4	3	1
Time Use	-.12	3	3	8	2	8	8	28	12	14	4	5	3	2
Alteration Costs	-.92	2	2	3	2	5	7	31	13	11	7	5	6	5

Note. The following were not possible products 8, 7, 5, -5, -7, -8 because the range of scores, -3 to 3, would not multiply to produce those products. The percentage distribution totals may not equal 100 because of rounding.

Table A3. Employed Women's Estimated Attitudes for Paying
Someone to Alter Clothes in the Next Year

Range of Possible Scores for Estimated Attitude	Percentage Distribution
-40 to -63	0
-30 to -39	1
-20 to -29	3
-10 to -19	4
-1 to -9	9
0	4
1 to 9	17
10 to 19	23
20 to 29	19
30 to 39	14
40 to 49	5
50 to 63	2

Note. Percentage distribution total for each variable may not equal 100
because of rounding.

Table A4. Employed Women's Normative Beliefs and Motivation to Comply for Paying Someone to Alter Clothes in the Next Year

Salient Referents	Normative Belief	Percentage Distribution							Motivation-to-Comply with Normative Belief	Percentage Distribution						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Not at all (+1)	(+2)	(+3)	(+4)	(+5)	(+6)	Very Much (+7)
Business	Businesses, such as tailors or apparel manufacturers, think I should pay someone to alter clothes in the next year.	14	19	10	27	3	7	21	Generally speaking, I want to do what businesses, such as tailors and apparel manufacturers, think I should do.	65	14	4	13	3	2	1
Retailer	Clothing retailers think I should pay someone to alter clothes in the next year.	3	9	10	28	5	14	32	Generally speaking, I want to do what retailers think I should do.	67	14	3	14	2	1	0
Family	Family members think I should pay someone to alter clothes in the next year.	5	12	13	29	3	8	29	Generally speaking, I want to do what my family member(s) think I should do.	23	12	12	26	13	12	4

Note. Percentage distribution totals may not equal 100 because of rounding.

Table A5. Employed Women's Salient Referent Products for Paying Someone to
Alter Clothes

Salient Referent	M	Percentage Distribution									
		-22 to -8	-7 to -5	-4 to -3	-2 to -1	Zero	1 to 2	3 to 4	5 to 7	8 to 9	10 to 22
Business	.42	3	3	16	8	28	17	15	3	4	3
Retailer	-1.27	6	4	26	13	29	13	6	1	2	1
Family	-1.18	21	5	12	2	29	6	5	6	4	10

Note. Percentage distribution totals may not equal 100 because of rounding.

Table A7. Chow Test Summary: External Demographic Variables and Attitude-Subjective Norm-Intention Relationship for Altering Clothes Service

Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Highest Education Completed (HE)					58.55***	1.10	0.64
Attitude (Att.)	0.91	0.22	0.78	4.16***			
Subjective Norm (SN)	0.09	0.24	0.80	0.40			
HE1 = some HS or HS Graduate	0.44	0.48	0.06	0.91			
HE2 = some college	0.22	0.47	0.04	0.47			
HE3 = Associate Degree	0.45	0.51	0.05	0.89			
HE4 = BA/BS	0.53	0.46	0.10	1.16			
HE5 = MA/MS	0.45	0.47	0.08	0.97			
HE6 = Ph.D or Ed.D	0.13	0.47	0.02	0.28			
Att. X HE1	-0.06	0.24	-0.02	-0.24			
Att. X HE2	-0.04	0.23	-0.02	-0.19			
Att. X HE3	0.02	0.26	0.01	0.09			
Att. X HE4	-0.28	0.23	-0.12	-1.20			
Att. X HE5	-0.14	0.23	0.06	-0.61			
Att. X He6	0.05	0.23	0.02	0.20			
SN x HE1	0.07	0.26	0.02	0.27			
SN x HE2	0.11	0.25	0.04	0.44			
SN x HE3	-0.07	0.28	-0.01	-0.24			
SN x HE4	0.19	0.25	0.08	0.79			
SN x HE5	0.19	0.25	0.08	0.78			
SN x HE6	0.09	0.25	0.03	0.35			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

Table A7. Chow Test Summary: External Demographic Variables and Attitude-Subjective Norm-Intention Relationship for Altering Clothes Service

Variable & Categories	B*	SE B*	β*	t-Value	F Value	Chow Test F Value	R²
Highest Education Completed (HE)					58.55***	1.10	0.64
Attitude (Att.)	0.91	0.22	0.78	4.16***			
Subjective Norm (SN)	0.09	0.24	0.80	0.40			
HE1 = some HS or HS Graduate	0.44	0.48	0.06	0.91			
HE2 = some college	0.22	0.47	0.04	0.47			
HE3 = Associate Degree	0.45	0.51	0.05	0.89			
HE4 = BA/BS	0.53	0.46	0.10	1.16			
HE5 = MA/MS	0.45	0.47	0.08	0.97			
HE6 = Ph.D or Ed.D	0.13	0.47	0.02	0.28			
Att. X HE1	-0.06	0.24	-0.02	-0.24			
Att. X HE2	-0.04	0.23	-0.02	-0.19			
Att. X HE3	0.02	0.26	0.01	0.09			
Att. X HE4	-0.28	0.23	-0.12	-1.20			
Att. X HE5	-0.14	0.23	0.06	-0.61			
Att. X He6	0.05	0.23	0.02	0.20			
SN x HE1	0.07	0.26	0.02	0.27			
SN x HE2	0.11	0.25	0.04	0.44			
SN x HE3	-0.07	0.28	-0.01	-0.24			
SN x HE4	0.19	0.25	0.08	0.79			
SN x HE5	0.19	0.25	0.08	0.78			
SN x HE6	0.09	0.25	0.03	0.35			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

(table continues)

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Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Employment Orientation					229.76***	0.91	0.64
Attitude (Att.)	0.80	0.05	0.68	15.39***			
Subjective Norm	0.21	0.06	0.18	3.86***			
Career	0.08	0.14	0.02	0.57			
Att. X Career	0.00	0.07	0.00	0.04			
Respondent's Income (RI)					82.15***	0.56	0.64
Attitude (Att.)	0.82	0.13	0.70	6.15			
Subjective Norm (SN)	0.22	0.13	0.19	1.68			
RI1 = Under $20,000	-0.28	0.33	-0.05	-0.86			
RI2 = $20,000 - $29,999	-0.12	0.31	-0.03	-0.40			
RI3 = $30,000 - $49,999	-0.24	0.34	-0.04	-0.70			
RI4 = $50,000 - $69,999	-0.57	0.38	-0.07	-1.50			
Att. x RI1	-0.03	0.15	-0.01	-0.17			
Att. x RI2	-0.06	0.14	-0.03	-0.39			
Att. x RI3	-0.02	0.15	-0.01	-0.13			
Att. x RI4	0.17	0.17	0.05	1.03			
SN x RI1	0.01	0.15	0.01	0.09			
SN x RI2	0.01	0.14	0.01	0.09			
SN x RI3	-0.01	0.15	-0.01	-0.09			
SN x RI4	-0.04	0.16	-0.01	-0.27			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Respondent's Age (RA)					70.21***	1.62	0.65
Attitude (Att.)	0.71	0.12	0.60	5.90***			
Subjective Norm (SN)	0.14	0.11	0.12	1.21			
RA1 = Under 25	0.19	0.52	0.01	0.37			
RA2 = 25 to 29	-0.29	0.34	-0.04	-0.86			
RA3 = 30 to 39	-0.62	0.31	-0.12	-2.02*			
RA4 = 40 to 49	-0.45	0.30	-0.10	-1.52			
RA5 = 50 to 59	-0.27	0.32	-0.04	-0.83			
Att. x RA1	-0.23	0.23	-0.03	-1.20			
Att. x RA2	0.13	0.16	0.04	0.83			
Att. x RA3	0.19	0.14	0.09	1.40			
Att. x RA4	0.10	0.14	0.06	0.75			
Att. x RA5	0.07	0.14	0.03	0.50			
SN x RA1	0.76	0.24	0.10	3.19**			
SN x RA2	0.12	0.15	0.03	0.77			
SN x RA3	0.06	0.13	0.08	0.46			
SN x RA4	0.03	0.12	0.02	0.26			
SN x RA5	0.12	0.14	0.05	0.90			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Marital Status (MS)					68.38***	0.87	0.64
Attitude (Att.)	0.49	0.15	0.42	3.16**			
Subjective Norm (SN)	0.37	0.14	0.32	2.57**			
MS1 = Not Married	-0.35	0.37	-0.05	0.94			
MS2 = Married	-0.45	0.32	-0.09	-1.37			
MS3 = Divorced	-0.54	0.39	-0.07	-1.39			
MS4 = Separated	-0.53	0.82	-0.03	-0.64			
MS5 = Widowed	-1.58	1.01	-0.09	-1.56			
Att. x MS1	0.41	0.18	0.13	2.35*			
Att. x MS2	0.30	0.16	0.22	1.89			
Att. x MS3	0.35	0.18	0.11	1.88			
Att. x MS4	0.17	0.47	0.02	0.36			
Att. x MS5	0.95	0.46	0.12	2.07			
SN x MS1	-0.22	0.17	-0.07	-1.27			
SN x MS2	-0.14	0.15	-0.10	-0.92			
SN x MS3	-0.20	0.18	-0.06	-1.14			
SN x MS4	0.16	0.45	0.02	0.36			
SN x MS5	-0.23	0.27	-0.03	-0.86			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B*	SE B*	β°	t-Value	F Value	Chow Test F Value	R²
Age of Youngest Child in Household (YA)					68.30***	0.84	0.64
Attitude (Att.)	0.70	0.11	0.59	6.33***			
Subjective Norm	0.27	0.11	0.23	2.51**			
YA1 = no child	-0.09	0.24	-0.02	-0.36			
YA2 = Infant to 2 years	-0.13	0.31	-0.02	-0.41			
YA3 = 3-5 years	0.28	0.43	0.03	0.66			
YA4 = 6-12 years	-0.19	0.28	-0.03	-0.68			
YA5 = 13-15 years	-0.57	0.34	-0.06	-1.68			
Att. x YA1	0.13	0.12	0.09	1.13			
Att. x YA2	0.07	0.15	0.02	0.46			
Att. x YA3	0.07	0.20	0.01	0.33			
Att. x YA4	0.02	0.14	0.01	0.17			
Att. x YA5	0.21	0.17	0.05	1.21			
SN x YA1	-0.04	0.12	-0.03	-0.32			
SN x YA2	-0.03	0.16	-0.01	-0.17			
SN x YA3	-0.07	0.20	-0.01	0.33			
SN x YA4	0.01	0.14	0.00	0.05			
SN x YA5	-0.33	0.19	-0.06	-1.79			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Household Income (HI)					81.73***	0.39	0.64
Attitude (Att.)	0.81	0.07	0.69	12.42***			
Subjective Norm (SN)	0.22	0.06	0.19	3.62**			
HI1 = under $20,000	-0.07	0.38	-0.01	-0.18			
HI2 = $20,000 - $29,999	0.10	0.25	0.01	0.39			
HI3 = #30,000 - $49,999	-0.01	0.18	0.00	-0.04			
HI4 = $50,000 - $69,999	-0.24	0.20	-0.05	-1.21			
Att. x HI1	0.05	0.15	0.01	0.33			
Att. c HI2	-0.04	0.11	-0.01	-0.34			
Att. x HI3	-0.05	0.09	-0.03	-0.60			
Att. x HI4	0.07	0.10	0.03	0.67			
SN x HI1	-0.01	0.17	0.00	-0.06			
SN x HI2	0.07	0.12	0.02	0.60			
SN x HI3	0.05	0.09	0.03	0.64			
SN x HI4	-0.08	0.09	-0.04	-0.91			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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(Appendix G, Table A7 continues)

Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Weekly Work Hours in Career/Job (HR)					58.78***	1.10	0.64
Attitude (Att.)	0.66	0.23	0.56	2.84*			
Subjective Norm (SN)	0.36	0.26	0.31	1.37			
HR1 = 10 to 19 hours per week	-0.71	0.70	-0.04	-1.03			
HR2 = 20 to 29 hours per week	-1.33	0.61	-0.11	-2.19*			
HR3 = 30 to 39 hours per week	-0.97	0.67	-0.07	-1.44			
HR4 = 40 to 49 hours per week	-0.90	0.51	-0.19	-1.77			
HR5 = 50 to 59 hours per week	-1.08	0.54	-0.17	-1.99			
HR6 = 60 to 69 hours per week	-0.80	0.56	-0.11	-1.46			
Att. x HR1	0.17	0.32	0.03	0.54			
Att. x HR2	0.10	0.29	0.02	0.33			
Att. x HR3	0.10	0.25	0.02	0.28			
Att. x HR4	0.13	0.23	0.09	0.55			
Att. x HR5	0.37	0.25	0.13	1.48			
Att. HR6`	-0.01	0.25	0.00	-0.05			
SN c HR1	-0.05	0.35	0.01	-0.15			
SN x HR2	-0.20	0.31	-0.04	-0.66			
SN x HR3	-0.06	0.40	-0.01	-0.14			
SN x HR4	-0.13	0.27	-0.09	-0.49			
SN x HR5	0.25	0.27	-0.09	-0.93			
SN x HR6	-0.01	0.28	0.00	-0.03			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

(Appendix G, Table A7 continues)

Variable & Categories	B*	SE B*	β^c	t-Value	F Value	Chow Test F Value	R²
Number of People in Household (NH)	.				68.61***	0.97	0.64
Attitude (Att.)	0.47	0.23	0.40	2.06*			
Subjective Norm (SN)	0.47	0.23	0.40	2.03*			
NH1 = One	-0.82	0.51	-0.13	-1.62			
NH2 = Two	-0.82	0.48	-0.18	1.70			
NH3 = Three	-0.90	0.49	-0.16	-1.83			
NH4 = Four	-0.87	0.50	-0.14	-1.74			
NH5 = Five	-0.94	0.61	-0.08	-1.53			
Att. x NH1	0.40	0.24	0.15	1.64			
Att. x NH2	0.35	0.24	0.20	1.48			
Att. x NH3	0.26	0.24	0.11	1.08			
Att. x NH4	0.32	0.24	0.12	1.33			
Att. x NH5	0.33	0.32	0.06	1.02			
SN x NH1	-0.36	0.24	-0.12	-1.48			
SN x NH2	-0.21	0.23	-0.12	-0.89			
SN x NH3	-0.20	0.24	-0.08	-0.81			
SN x NH4	-0.32	0.24	-0.11	-1.32			
SN x NH5	-0.09	0.30	-0.02	-0.30			

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Table A8. Chow Test Summary: Variables Having to do With Sewing and Attitude-Subjective Norm-Intention Relationship for Altering Clothes Service

Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Access to Sewing Machine (ASM)					231.54***	1.24	0.64
Attitude (Att.)	0.80	0.06	0.68	12.98***			
Subjective Norm (SN)	0.24	0.06	0.20	4.11***			
ASM1 = Yes	-0.23	0.16	-0.05	-1.48			
Att. x ASM 1	0.00	0.07	0.00	0.02			
SN x ASM 1	-0.02	0.07	-0.01	-0.29			
Sewing Skill Level (SSL)					105.60***	1.00	0.64
Attitude (Att.)	0.78	0.09	0.67	8.63***			
Subjective Norm (SN)	0.13	0.10	0.11	1.26			
SSL1 = No Skill	0.52	0.28	0.08	1.84			
SSL2 = Beginner/Novice	0.48	0.24	0.11	2.00			
SSL3 = Intermediate	0.52	0.24	0.11	2.15			
Att. x SSL1	0.08	0.13	0.03	0.60			
Att. x SSL2	0.01	0.10	0.01	0.11			
Att. x SSL3	0.01	0.11	0.01	0.10			
SN x SSL1	0.04	0.13	0.01	0.29			
SN x SSL2	0.14	0.12	0.08	1.17			
SN x SSL3	0.06	0.12	0.03	0.49			

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B[a] = Beta. [b]SE B[a] = Standard Error for Beta. [c]β = Standardized Beta. *p=.05. **p=.001. ***p=.0001.

Variable & Categories	B[a]	SE B[a]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Others in HH Who Sew (OHHS)					230.27***	0.48	0.64
Attitude (Att.)	0.79	0.40	0.67	21.74***			
Subjective Norm (SN)	0.23	0.04	0.20	6.42***			
OHHS1 = Yes	0.05	0.17	0.01	0.31			
Att. x OHHS1	0.06	0.08	0.02	0.79			
SN x OHHS1	-0.03	0.08	-0.01	-0.39			
Know a Person Who Sews (KPSWS)					229.97***	0.30	0.64
Attitude (Att.)	0.80	0.05	0.69	16.80***			
Subjective Norm (SN)	0.21	0.05	0.18	4.39***			
KPWS1 = Yes	0.11	0.14	0.02	0.44			
Att. x KPWS1	0.00	0.06	0.00	0.98			
SN x KPWS1	0.01	0.07	0.01	0.84			
Availability of Service Provider (ASP)					104.29***	0.92	64
Attitude (Att.)	0.82	0.04	0.70	18.417***			
Subjective Norm (SN)	0.20	0.04	0.17	4.54***			
ASP1 = Unavailable	0.08	0.41	0.01	0.19			
ASP2 = Not Very Available	0.09	0.20	0.01	0.44			
ASP3 = Available	0.15	0.16	0.03	0.97			
Att. x ASP1	0.06	0.19	0.01	0.29			
Att. x ASP2	-0.04	0.10	-0.02	0.44			
Att. x ASP3	-0.04	0.07	-0.02	-0.51			
SN x ASP1	0.20	0.20	0.03	1.14			
SN x ASP2	0.03	0.09	0.01	0.36			
SN x ASP3	0.02	0.08	0.01	0.31			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. ** p=.001. *** p=.0001.

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Table A9. ANOVA Summary Table: Paying Someone to Alter Clothes Estimated Attitude

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	24	0.08
	Error	653	285	
Sewing Skill Level	Model	3	968	3.43*
	Error	646	282	
Others in HH Who Sew	Model	1	500	1.76
	Error	651	284	
Know Someone Who Sews For Pay	Model	1	2650	9.43*
	Error	653	281	
Availability To Hire	Model	3	226	0.80
	Error	361	283	
Employment Orientation	Model	1	506	1.78
	Error	650	284	
Weekly Work Hours in Career/Job	Model	24	250	0.88
	Error	621	284	
Highest Education Completed	Model	6	459	1.62
	Error	647	283	
Marital Status	Model	5	179	0.63
	Error	643	285	
Number People in Household	Model	5	83	0.29
	Error	643	286	
Age of Youngest Child in Household	Model	5	110	0.38
	Error	636	287	
Household Income	Model	4	667	2.36*
	Error	626	282	
Respondent's Income	Model	4	503	1.78
	Error	628	283	
Respondent's Age	Model	5	159	0.56
	Error	636	285	

* $p < .05$

Table A10. Tukey's Test Summary: Paying Someone to Alter Clothes Estimated Attitude

Variable	Tukey Grouping[a]	M	N	Variable Levels
Access to	A	15.19	453	1 Yes
Sewing Machine	A	14.77	202	0 No
Sewing Skill	A	16.19	289	2 Novice/Basic
Level	A	15.79	203	3 Intermediate
	B A	13.31	101	1 No Skills
	B	8.97	57	4 Expert/Advanced
Others in HH	A	15.49	526	0 No
Who Sew	A	13.28	127	1 Yes
Know Someone	A	16.90	357	1 Yes
Who Sews For Pay	B	12.86	298	0 No
Availability of	A	19.84	57	4 Very Available
Person Who	A	16.40	25	1 Unavailable
Sews	A	16.10	184	3 Available
	A	16.02	99	2 Not Very Available
Employment	A	15.84	406	1 Career
Orientation	A	14.02	246	0 Just-A-Job
Hours Worked	A	16.57	100	5 50 to 59 hours per week
Per Week	A	15.72	18	3 30 to 39 hours per week
	A	15.08	423	4 40 to 49 hours per week
	A	14.00	23	2 20 to 29 hours per week
	A	13.21	14	7 70 to 80 hours per week
	A	13.18	11	1 15 to 19 hours per week
	A	12.23	68	6 60 to 69 hours per week
Highest	A	18.17	124	2 Some College
Education Level	B A	15.33	158	4 Bachelor of Arts or Science
	B A	14.76	42	3 Associate Degree
	B A	14.73	135	5 Master of Arts or Science Degree
	B A	14.69	115	6 Ph.D. or Ed.D. degree
	B A	12.54	61	1 Some High School or High School Grad

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Variable	Tukey Grouping[a]	M	N	Variable Levels
Marital Status	A	21.75	12	5 Widowed
	A	15.44	71	3 Divorced
	A	15.30	447	2 Married
	A	14.08	24	6 Living with Someone
	A	13.29	84	1 Never Married
	A	13.27	11	4 Separated
Number Persons in Household	A	19.00	5	6 Six or more
	A	15.66	92	1 One
	A	15.45	283	2 Two
	A	15.19	26	5 Five
	A	14.98	143	3 Three
	A	13.45	100	4 Four
Age of Youngest Child in Household	A	15.67	380	1 No Children in the Household
	A	15.59	39	5 13-15 Years
	A	14.59	92	4 6-12 Years
	A	13.59	29	3 3-5 Years
	A	13.33	42	6 16-18 Years
	A	13.33	60	2 Infant-2 Years
Household Income	A	18.64	84	2 $20,000-$29,999
	A	16.08	160	4 $50,000-$69,999
	A	15.80	155	5 $70,000 or above
	A	14.44	271	1 Under $20,000
	A	12.51	205	3 $30,000-$49,999
Respondent's Income	A	17.48	23	5 $70,000-above
	A	16.93	272	2 $20,000-$29,999
	A	13.91	54	4 $50,000-$69,999
	A	13.59	150	1 Under $20,000
	A	13.07	134	3 $30,000-$49,999
Respondent's Age	A	15.77	22	6 Above 60
	A	15.74	240	4 40-49
	A	15.36	107	5 50-59
	A	15.26	184	3 30-39
	A	12.88	72	2 25-29
	A	10.77	17	1 Under 35

[a] Means with the same letter are not significantly different.

Table A11. ANOVA Summary: Paying Someone to Alter Clothes Estimated Subjective Norm

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	111	0.82
	Error	653	135	
Sewing Skill Level	Model	3	244	1.80
	Error	646	135	
Others in HH Who Sew	Model	1	533	3.95*
	Error	651	135	
Know Someone Who Sews For Pay	Model	1	1524	11.44**
	Error	653	133	
Availability to Hire	Model	3	141	1.22
	Error	361	116	
Employment Orientation	Model	1	642	4.76**
	Error	650	135	
Weekly Work Hours in Career/Job	Model	24	122	0.91
	Error	621	134	
Highest Education Completed	Model	6	55	0.40
	Error	647	136	
Marital Status	Model	5	123	0.92
	Error	643	134	
Number People in Household	Model	5	20	0.15
	Error	643	134	
Age of Youngest Child in Household	Model	5	80	0.60
	Error	636	134	
Household Income	Model	4	440	3.33**
	Error	626	132	
Respondent's Income	Model	4	146	1.08
	Error	628	136	
Respondent's Age	Model	5	69	0.51
	Error	636	135	

* $p < .05$ ** $p < .01$

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Variable	Tukey Grouping	<u>M</u>	N	Variable Levels
Marital Status	A	3.33	12	5 Widowed
	A	-1.08	24	6 Living with Someone
	A	-1.09	11	4 Separated
	A	-1.45	447	2 Married
	A	-2.54	71	3 Divorced
	A	-3.32	84	1 Never Married
Number Persons in Household	A	-0.85	26	5 Five
	A	-1.33	100	4 Four
	A	-1.60	283	2 Two
	A	-1.87	143	3 Three
	A	-2.48	92	1 One
	A	-2.60	5	6 Six
Age of Youngest Child	A	0.24	29	3 3-5 Years
	A	-0.10	42	6 16-18 Years
	A	-0.54	39	5 13-15 Years
	A	-1.85	380	1 No Children in the Household
	A	-2.33	60	2 Infant to 2 Years
	A	-2.74	92	4 6-12 Years
Household Income	A	-0.69	155	5 $70,000 or Above
	A	-0.85	160	4 $50,000-$69,999
	A	-1.87	84	2 $20,000-$29,999
	A	-1.99	205	3 $30,000-$49,000
	B	-9.07	27	1 Under $20,000
Respondent's Income	A	-0.80	272	2 $20,000-$29,999
	A	-0.91	23	5 $70,000-Above
	A	-1.39	54	4 $50,000-$69,999
	A	-2.70	134	3 $30,000-$49,999
	A	-2.89	150	1 Under $20,000
Respondent's Age	A	-0.86	107	5 50-59
	A	-1.57	240	4 40-49
	A	-1.63	184	3 30-39
	A	-2.59	22	6 Above 60
	A	-2.61	72	2 25-29
	A	-5.00	17	1 Under 25

[a] Means with the same letter are not significantly different.

Table A12. Tukey's Test Summary: Paying Someone to Alter Clothes Estimated Attitude

Variable	Tukey Grouping	$\underline{M}$	N	Variable Levels
Access to Sewing	A	-0.98	202	0 No
Machine	A	-1.87	453	1 Yes
Sewing Skill Level	A	-.20	101	1 No Skills
	B A	-1.50	289	2 Novice/Basic
	B A	-1.70	203	3 Intermediate
	B	-4.65	57	4 Expert/Advanced
Others in HH Who Sew	A	-1.14	526	0 No
	B	-3.43	127	1 Yes
Know Someone Who	A	-0.20	357	1 yes
Sews For Pay	B	-3.27	298	0 No
Availability of Person	A	3.24	25	1 Unavailable
Who Sews	A	0.25	57	4 Very Available
	A	-0.48	99	2 Not Very Available
	A	-1.00	184	3 Available
Employment	A	-0.85	406	1 Career
Orientation	B	-2.89	246	0 Just-A-Job
Weekly Work Hours in	A	7.18	11	1 15-19 hours per week
Career/Job	A	-1.99	423	4 40-49 hours per week
	A	-2.46	68	6 60-69 hours per week
	A	-2.58	100	5 50-59 hours per week
	A	-3.13	23	2 20-29 hours per week
	A	-3.71	14	7 70-80 hours per week
	A	-5.00	18	3 30-39 hours per week
Highest Education	A	-0.82	124	2 Some College
Completed	A	-0.92	135	5 Master of Arts or Science
	A	-1.29	42	3 Associate Degree
	A	-1.69	158	4 Bachelor of Arts or Science Degree
	A	-2.42	19	7 Other Professional Degree
	A	-2.47	115	6 Ph.D. or Ed.D. degree
	A	-2.77	61	1 Some High School or High School Grad

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Appendix H
Statistical Data Tables For Paying Someone to Mend Clothes

Table A1 Employed Women's Behavioral Belief Strengths and Outcome Evaluations About Paying Someone to Mend Clothes in the Next Year

Salient Behavioral Belief	Behavioral Belief Strength Paying someone to mend clothes in the next year	Percentage Distributions							Behavioral Belief Outcome Evaluations	Percentage Distributions						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Extremely Good (+3)	Quite Good (+2)	Slightly Good (+1)	Neither (0)	Slightly Bad (-1)	Quite Bad (-2)	Extremely Bad (-3)
Time Savings	...will save me time.	16	24	20	12	3	9	15	Saving my time is	57	29	8	5	1	0	1
Mending Cost	...will add to the cost of the mended clothes	11	17	25	20	11	8	8	Adding to the cost of clothing by mending them is	5	11	16	23	26	10	9
Workmanship	...is taking a chance that the workmanship may not be up to my standards	5	10	250	24	14	13	10	Taking a chance that the mending workmanship is not up to my standards is	2	4	11	29	35	12	7
Clothing Wear Expectancy	...will extend the life of the clothing	18	43	24	8	3	2	4	Extending the life of clothing by mending them is...	33	45	16	5	1	1	0
Time Use	...will require planning and use of my time to work with a business to get the clothes mended.	14	34	31	13	3	3	4	Planning and using my time to work with a business to get clothes mended is	4	11	13	26	28	11	8
Professional Mending	...will enable me to have clothes mended correctly and professionally	16	43	21	12	2	1	4	Having clothes mended correctly and professionally is...	28	41	18	10	1	0	1
Clothing Fit	...will provide clothing that fits better	13	30	20	25	2	5	5	Providing clothing that fits better is...	26	44	14	5	1	0	0
Money Savings	...will be thrifty and economical, and will save me money on clothes.	9	27	25	14	8	9	9	Being thrifty, economical and saving money on clothes is...	45	37	11	6	1	0	1

Note Percentage distribution totals may not equal 100 because of rounding.

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Table A2. Employed Women's Salient Behavioral Belief Products About Paying Someone to Mend Clothes in the Next Year

Salient Behavioral Beliefs	**M**	Percentage Distribution												
		9	6	4	3	2	1	0	-1	-2	-3	-4	-6	-9
Clothing Wear Expectancy	3.49	13	17	26	3	14	19	10	1	2	0	1	1	1
Professionally Mended	3.08	13	12	25	3	15	8	17	1	1	1	1	2	1
Clothing Fit	2.34	11	13	17	4	11	6	27	1	2	1	3	2	2
Time Savings	1.64	14	16	9	10	8	3	15	1	3	2	3	6	9
Money Savings	1.27	7	12	14	10	10	4	17	2	3	4	4	6	6
Workmanship	.01	3	2	3	1	7	14	38	15	6	1	5	2	2
Time Use	-.47	3	3	5	2	10	7	31	12	13	2	7	4	5
Mending Costs	-.70	2	3	2	2	7	11	34	10	10	3	6	6	5

Note. The products 8, 7, 5, -5, -7, -8 were not possible because the range of scores, -3 to 3, would not multiply to produce those products. The percentage distribution totals may not equal 100 because of rounding.

Table A3. Employed Women's Estimated Attitudes for Paying
Someone to Mend Clothes in the Next Year

Range of Possible Scores for Estimated Attitudes	Percentage Distribution
-40 to -63	1
-30 to -39	1
-20 to -29	2
-10 to -19	6
-1 to -9	13
0	6
1 to 9	21
10 to 19	22
20 to 29	16
30 to 39	9
40 to 49	3
50 to 63	2

Note. Percentage distribution total for each variable may not equal 100
because of rounding.

Table A4. Employed Women's Normative Beliefs and Motivation to Comply for Paying Someone to Mend Clothes in the Next Year

Salient Referents	Normative Belief	Percentage Distribution							Motivation-to-Comply with Normative Belief	Percentage Distribution						
		Extremely Likely (+3)	Quite Likely (+2)	Slightly Likely (+1)	Neither (0)	Slightly Unlikely (-1)	Quite Unlikely (-2)	Extremely Unlikely (-3)		Not at all (+1)	(+2)	(+3)	(+4)	(+5)	(+6)	Very Much (+7)
Business	Businesses, such as tailors or apparel manufacturers, think I should pay someone to mend clothes in the next year.	12	16	9	27	4	9	24	Generally speaking, I want to do what businesses, such as tailors and apparel manufacturers, think I should do.	65	14	4	13	3	2	1
Retailer	Clothing retailers think I should pay someone to mend clothes in the next year.	3	3	5	25	7	19	38	Generally speaking, I want to do what retailers think I should do.	67	14	3	14	2	1	0
Family	Family members think I should pay someone to mend clothes in the next year.	3	7	10	29	3	11	36	Generally speaking, I want to do what my family member(s) think I should do.	23	12	12	26	13	12	4

Note. Percentage distribution totals may not equal 100 because of rounding.

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Table A5. Employed Women's Salient Referent Products for Paying Someone to
Mend Clothes

Salient Referent	M	Percentage Distribution									
		-21 to -8	-7 to -5	-4 to -3	-2 to -1	Zero	1 to 2	3 to 4	5 to 7	8 to 9	10 to 21
Business	.04	4	3	20	10	27	15	12	2	3	3
Retailer	-2.04	8	5	32	20	25	4	3	1	1	1
Family	-3.10	28	7	13	3	29	4	4	6	3	5

Note. Percentage distribution totals may not equal 100 because of rounding.

Table A6. Employed Women's Estimated Subjective Norm for Paying Someone to Mend Clothes in the Next Year

Range of Possible Scores for Estimated Subjective Norms	Percentage Distribution
-40 to -63	1
-30 to -39	2
-20 to -29	6
-10 to -19	21
-1 to -9	27
0	22
1 to 9	16
10 to 19	3
20 to 29	2
30 to 39	1
40 to 63	0

Note. Percentage distribution total for each variable may not equal 100 because of rounding.

Table A7. Chow Test Summary: External Demographic Variables and Attitude-Subjective Norm-Intention Relationship for Mending Clothes Service

Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Highest Education Completed (HE)					81.55	0.91	0.71
Attitude (Att.)	0.76	0.16	0.75	4.62***			
Subjective Norm (SN)	0.32	0.21	0.28	1.55			
HE1 = some HS or HS Graduate	-0.68	0.36	-0.09	-1.86			
HE2 = some college	-0.49	0.33	-0.09	-1.46			
HE3 = Associate Degree	-0.36	0.38	-0.04	-0.95			
HE4 = BA/BS	-0.56	0.33	-0.11	-1.66			
HE5 = MA/MS	-0.48	0.34	-0.09	-1.42			
HE6 = Ph.D or Ed.D	-0.68	0.35	-0.12	-1.97*			
Att. x HE1	0.06	0.18	0.02	0.32			
Att. x HE2	0.03	0.17	0.01	0.17			
Att. x HE3	0.03	0.19	0.01	0.17			
Att. x HE4	0.00	0.17	0.01	0.01			
Att. x HE5	-0.01	0.17	-0.01	-0.08			
Att. x He6	-0.10	0.17	-0.04	-0.56			
SN x HE1	-0..19	0.23	-0.05	-0.82			
SN x HE2	-0.24	0.22	-0.10	-1.13			
SN x HE3	-0.01	0.23	0.00	-0.03			
SN x HE4	-0.13	0.22	-0.06	-0.58			
SN x HE5	-0.06	0.22	-0.03	-0.28			
SN x HE6	-0.09	0.22	-0.04	-0.43			

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[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

(Appendix H, Table A7 continues)

Variable & Categories	B*	SE B*	β*	t-Value	F Value	Chow Test F Value	R²
Employment Orientation					323.21***	0.49	0.71
Attitude (Att.)	0.79	0.04	0.77	19.16***			
Subjective Norm	0.17	0.05	0.15	3.71***			
Career	-0.03	0.11	-0.01	-0.24			
Att. X Career	-0.05	0.51	-0.04	-0.99			
Respondent's Income (RI)					116.03***	0.86	0.71
Attitude (Att.)	0.74	0.1	0.73	7.07***			
Subjective Norm (SN)	0.26	0.12	0.23	2.12			
RI1 = Under $20,000	-0.11	0.23	-0.02	-0.50			
RI2 = $20,000 - $29,999	-0.18	0.22	-0.04	-8.3			
RI3 = $30,000 - $49,999	-0.25	0.24	-0.05	-1.04			
RI4 = $50,000 - $69,999	-0.22	0.29	-0.03	-0.76			
Att. x RI1	-0.01	0.12	0.00	-0.03			
Att. x RI2	0.00	0.11	0.00	0.01			
Att. x RI3	0.11	0.12	0.05	0.95			
Att. x RI4	-0.18	0.14	-0.05	-1.28			
SN x RI1	-0.06	0.13	-0.03	-0.48			
SN x RI2	-0.06	0.16	-0.03	-0.47			
SN x RI3	-0.16	0.14	-0.0 7	-1.21			
SN x RI4	0.09	0.15	0.03	0.59			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

Variable & Categories	B*	SE B*	β*	t-Value	F Value	Chow Test F Value	R²
Respondent's Age (RA)					98.24***	1.70 *	0.72
Attitude (Att.)	0.76	0.10	0.75	7.39***			
Subjective Norm (SN)	0.17	0.11	0.15	1.64			
RA1 = Under 25	-0.13	0.38	-0.01	-0.35			
RA2 = 25 to 29	0.07	0.27	0.01	0.26			
RA3 = 30 to 39	0.01	0.23	0.01	0.04			
RA4 = 40 to 49	0.06	0.22	0.01	0.25			
RA5 = 50 to 59	0.09	0.25	0.01	0.35			
Att. x RA1	-0.54	0.22	-0.06	-2.44			
Att. x RA2	0.05	0.13	0.01	0.36			
Att. x RA3	-0.01	0.11	-0.01	0.12			
Att. x RA4	0.02	0.11	0.01	0.16			
Att. x RA5	0.01	0.12	0.00	0.06			
SN x RA1	0.48	0.19	0.01	2.48			
SN x RA2	-0.10	0.14	-0.03	-0.67			
SN x RA3	0.11	0.12	0.06	0.96			
SN x RA4	-0.04	0.12	-0.02	-0.35			
SN x RA5	0.01	0.12	0.00	0.04			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

(Appendix H, Table A7 continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Marital Status (MS)					99.08***	.151	0.72
Attitude (Att.)	0.79	0.08	0.78	8.12***			
Subjective Norm (SN)	0.29	0.13	0.25	2.24			
MS1 = Not Married	-0.49	0.28	-0.08	-1.74			
MS2 = Married	-0.53	0.24	-0.12	-2.21			
MS3 = Divorced	-0.70	0.28	-0.10	-2.56			
MS4 = Separated	-0.35	0.50	-0.02	-0.69			
MS5 = Widowed	0.40	0.43	0.03	0.93			
Att. x MS1	-0.11	0.12	-0.04	-0.86			
Att. x MS2	-0.01	0.10	-0.01	-0.09			
Att. x MS3	0.16	0.12	-0.05	-1.31			
Att. x MS4	-0.02	0.33	0.00	-0.05			
Att. x MS5	0.28	0.16	-0.04	-1.76			
SN x MS1	0.02	0.15	0.01	0.14			
SN x MS2	-0.12	0.13	-0.09	-0.88			
SN x MS3	-0.09	0.15	-0.03	-0.60			
SN x MS4	-0.12	0.39	-0.01	-0.31			
SN x MS5	0.08	0.21	0.01	0.36			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Age of Youngest Child in Household (YA)					95.41***·	.78	.71
Attitude (Att.)	0.72	0.10	0.71	7.22***			
Subjective Norm	0.24	0.12	0.21	1.95*			
YA1 = no child	-0.17	0.19	-0.04	-0.89			
YA2 = Infant to 2 years	-0.11	0.24	-0.01	-0.44			
YA3 = 3-5 years	0.24	0.31	0.02	0.77			
YA4 = 6-12 years	-0.33	0.23	-0.05	-1.45			
YA5 = 13-15 years	-0.12	0.26	-0.01	-0.48			
Att. x YA1	0.02	0.10	0.01	0.14			
Att. x YA2	0.08	0.13	0.03	0.65			
Att. x YA3	0.07	0.16	0.01	0.50			
Att. x YA4	0.09	0.12	0.04	0.78			
Att. x YA5	0.16	0.15	0.04	1.06			
SN x YA1	0.00	0.13	0.00	-0.02			
SN x YA2	-0.07	0.16	-0.02	-0.48			
SN x YA3	0.01	0.20	0.00	0.05			
SN x YA4	-0.20	0.15	-0.08	-1.36			
SN x YA5	-0.16	0.18	-0.93	-0.87			

[a] B = Beta [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Household Income (HI)					116.63***	1.06	.71
Attitude (Att.)	0.80	0.05	0.79	16.29***			
Subjective Norm (SN)	0.22	0.06	0.19	3.86***			
HI1 = under $20,000	-0.22	0.23	-0.02	-0.83			
HI2 = $20,000 - $29,999	-0.28	0.17	-0.04	-1.60			
HI3 = #30,000 - $49,999	-0.24	0.14	-0.05	-1.75			
HI4 = $50,000 - $69,999	-0.16	0.15	-0.03	-1.08			
Att. x HI1	-0.05	0.14	-0.01	-0.40			
Att. x HI2	-0.15	0.08	-0.05	-1.77			
Att. x HI3	-0.02	0.06	-0.01	-0.24			
Att. x HI4	-0.12	0.07	-0.06	-1.58			
SN x HI1	-0.07	0.12	-0.02	-0.54			
SN x HI2	0.01	0.10	0.00	0.10			
SN x HI3	-0.09	0.07	-0.05	-1.19			
SN x HI4	0.07	0.08	0.03	0.87			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

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Variable & Categories	B*	SE B*	β'	t-Value	F Value	Chow Test F Value	R²
Weekly Work Hours in Career/Job (HR)					81.11***	.77	.71
Attitude (Att.)	0.78	0.15	0.77	5.14***			
Subjective Norm (SN)	0.06	0.21	0.05	0.27			
HR1 = 10 to 19 hours per week	0.44	0.54	0.03	0.81			
HR2 = 20 to 29 hours per week	0.32	0.51	0.03	0.62			
HR3 = 30 to 39 hours per week	0.31	0.52	0.02	0.60			
HR4 = 40 to 49 hours per week	0.20	0.42	0.05	0.49			
HR5 = 50 to 59 hours per week	0.20	0.44	0.03	0.47			
HR6 = 60 to 69 hours per week	0.29	0.46	0.04	0.64			
Att. x HR1	0.16	0.28	0.02	0.57			
Att. x HR2	0.00	0.22	0.00	0.02			
Att. x HR3	-0.15	0.20	-0.03	-0.74			
Att. x HR4	0.01	0.15	0.01	0.09			
Att. x HR5	-0.06	0.16	-0.02	-0.36			
Att. x HR6	-0.19	0.17	-0.06	-1.10			
SN x HR1	-0.04	0.35	0.00	0.11			
SN x HR2	0.13	0.28	0.02	0.49			
SN x HR3	0.28	0.26	0.05	1.08			
SN x HR4	0.09	0.21	0.07	0.43			
SN x HR5	0.23	0.22	0.09	1.04			
SN x HR6	0.33	0.23	0.11	1.46			

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[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

(Appendix H, Table A7 continues)

Variable & Categories	B[a]	SE B[b]	β[c]	t-Value	F Value	Chow Test F Value	R[2]
Number of People in Household (NH)					96.99***	1.29	.72
Attitude (Att.)	0.86	0.27	0.85	3.23**			
Subjective Norm (SN)	0.33	0.30	0.29	1.10			
NH1 = One	-0.49	0.40	-0.08	-1.22			
NH2 = Two	-0.33	0.39	-0.08	-0.86			
NH3 = Three	-0.43	0.39	-0.08	-1.09			
NH4 = Four	-0.33	0.40	-0.05	-0.82			
NH5 = Five	-0.12	0.46	-0.01	-0.26			
Att. x NH1	-0.25	0.27	-0.09	-0.89			
Att. x NH2	-0.08	0.27	-0.05	0.028			
Att. x NH3	-0.15	0.27	-0.07	-0.56			
Att. x NH4	-0.03	0.27	-0.01	-0.10			
Att. x NH5	-0.08	0.30	-0.02	-0.26			
SN x NH1	-0.06	0.31	-0.02	-0.20			
SN x NH2	-0.12	0.31	-0.08	-0.40			
SN x NH3	-0.19	0.31	-0.08	-0.60			
SN x NH4	-0.23	0.31	-0.09	-0.74			
SN x NH5	-0.13	0.35	-0.03	-0.36			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
* p=.05. **p=.001. ***p=.0001.

Table A8 Chow Test Summary: External Sewing Service-Related External Variables and Attitude-Subjective Norm-Intention Relationship
for Paying Someone to Mend Clothes

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test
Access to Sewing Machine (ASM)				326.87***	2.23	0.72
Attitude (Att.)	0.76	0.04	0.75	17.50***		
Subjective Norm (SN)	0.24	0.05	0.21	4.86***		
Yes ASM	-0.27	0.11	-0.06	-2.42*		
Att. x Yes ASM	-0.02	0.05	-0.02	-0.39		
SN x Yes ASM	-0.06	0.06	-0.04	-0.94		
Sewing Skill Level (SSL)				149.99***	1.71	0.72
Attitude (Att.)	0.71	0.07	0.69	9.65		
Subjective Norm (SN)	0.22	0.09	0.19	2.51		
SSL 1 = No Skill	0.24	0.25	0.04	0.98		
SSL 2 = Beginner/Novice	-0.11	0.22	-0.03	-0.49		
SSL 3 = Intermediate	-0.23	0.23	-0.05	-1.02		
Att. x SSL 1	0.08	0.10	0.03	0.81		
Att. x SSL 2	0.06	0.08	0.04	0.73		
Att. x SSL 3	0.00	0.09	0.00	-0.03		
SN x SSL 1	0.07	0.12	0.03	0.68		
SN x SSL 2	-0.06	0.10	-0.04	-0.64		
SN x SSL 3	-0.03	0.10	-0.02	-0.29		

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Variable & Categories	B[a]	SE B[b]	β[c]	t - Value	F Value	F Value Chow Test	R[2]
Others in HH Who Sew (OHHS)					822.28***	0.02	0.71
Attitude (Att.)	0.75	0.28	0.74	27.19***			
Subjective Norm (SN)	0.20	0.03	0.17	6.29***			
OHHS 1 = Yes	-0.01	0.13	0.00	-0.04			
Att. x OHHS 1	-0.01	0.07	0.00	-0.13			
SN x OHHS 1	0.01	0.08	0.01	0.19			
Know a Person Who Sews (KPWS)					824.04***	0.88	0.71
Attitude (Att.)	0.80	0.04	0.78	21.63			
Subjective Norm (SN)	0.17	0.04	0.15	4.06			
KPWS 1 = Yes	0.06	0.11	0.01	0.56			
Att. x KPWS	-0.08	0.05	-0.06	-1.60			
SN x KPWS	0.06	0.06	0.04	0.96			
Availability of Service Provider (ASP)					347.61***	0.88	0.71
Attitude (Att.)	0.77	0.03	0.75	22.61***			
Subjective Norm (SN)	0.16	0.04	0.14	4.27***			
ASP 1 = Unavailable	0.41	0.25	0.04	1.67			
ASP 2 = Not Very Available	0.20	0.15	0.03	1.33			
ASP 3 = Available	0.21	0.12	0.04	1.75			
Att. x ASP 1	0.21	0.16	0.03	1.40			
Att. x ASP 2	-0.05	0.08	-0.02	-0.62			
Att. x ASP 3	-0.02	0.06	-0.01	-0.40			
SN x ASP 1	-0.11	0.17	-0.02	-0.66			
SN x ASP 2	0.12	0.09	0.04	1.25			
SN x ASP 3	0.07	0.07	0.03	1.00			

[a] B = Beta. [b] SE B = Standard Error for Beta. [c] β = Standardized Beta.
*p=.05. **p=.001. ***p=.0001

Table A9. ANOVA Summary Table: Paying Someone to Mend Clothes Estimated Attitude

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	730	2.42
	Error	653	302	
Sewing Skill Level	Model	3	2357.75	8.05***
	Error	646	293	
Others in HH Who Sew	Model	1	105	0.35
	Error	651	302	
Know Someone Who Sews For Pay	Model	1	1267	4.21*
	Error	653	301	
Availability of Person Who Sews	Model	3	214	0.68
	Error	361	317	
Employment Orientation	Model	1	6	0.02
	Error	650	303	
Weekly Work Hours in Career/Job	Model	24	331	1.11
	Error	621	298	
Highest Education Completed	Model	6	657	2.20*
	Error	657	299	
Marital Status	Model	5	443	1.48
	Error	643	299	
Number Persons in Household	Model	5	232	0.77
	Error	643	302	
Age of Youngest Child at Home	Model	5	46	0.15
	Error	636	305	
Household Income	Model	4	156	0.51
	Error	626	304	
Respondent's Income	Model	4	435	1.44
	Error	628	301	
Respondent's Age	Model	5	87	0.28
	Error	636	304	

* p<.05   ***p=.0001

Table A10. Tukey's Test Summary: Paying Someone to Mend Clothing Estimated Attitude

Variable	Tukey Grouping[a]	M	N	Variable Levels
Access to Sewing	A	12.15	202	0 No
Machine	A	9.87	45	1 Yes
Sewing Skill Level	A	14.98	101	1 No skills
	BA	11.93	289	2 Novice/Basic
	BC	8.37	203	3 Intermediate
	C	2.63	57	4 Expert/Advanced
Others in HH Who	A	10.84	526	0 No
Sew	A	9.83	127	1 Yes
Know Someone Who	A	11.84	357	1 Yes
Sews For Pay	B	9.05	298	0 No
Availability of Person	A	13.91	57	4 Very Available
Who Sews	A	12.55	99	2 Not very Available
	A	10.96	25	1 Unavailable
	A	10.46	184	3 Available
Employment	A	10.68	406	1 Career
Orientation	A	10.48	246	0 Just-A-Job
Weekly Work in	A	12.18	11	1 0-19 hours
Hours in Career/Job	A	11.60	423	4 40-49 hours
	A	11.06	18	3 30-39 hours
	A	9.95	100	5 50-59 hours
	A	8.48	23	2 20-29 hours
	A	7.57	14	7 70 and above hours
	A	6.06	68	6 60-69 hours
Highest Education	A	14.82	124	2 Some College
Completed	A	12.33	42	3 Associate Degree
	A	10.74	61	1 Some High School or High School
	A	10.47	135	Graduate
	A	9.70	158	5 Master of Arts or Science Degree
	A	7.32	115	4 Bachelor of Arts or Science Degree
	A	7.05	19	6 Ph.D. or Ed.D. Degree
				7 Other Professional Degree

Variable	Tukey Grouping[a]	M	N	Variable Levels
Marital Status	A	19.33	12	5 Widowed
	BA	10.96	24	6 Living with Someone
	BA	10.88	447	2 Married
	BA	10.48	71	3 Divorced
	BA	8.82	84	1 Never Married
	B	1.09	11	4 Separated
Number Persons in Household	A	23.60	5	6 Six or more
	A	11.20	100	4 Four
	A	10.92	283	2 Two
	A	9.75	92	1 One
	A	9.57	143	3 Three
	A	9.23	26	5 Five
	A			
Age of Youngest Child	A	11.24	92	4 6-12 Years
	A	10.70	60	2 Infant-2 years
	A	10.50	380	1 No children in household
	A	9.72	39	5 13-15 years old
	A	9.03	29	3 3-5 years old
	A	8.98	42	6 16-18 years old
Household Income	A	12.91	84	2 $20,000-$29,999
	A	10.83	205	3 $30,000-$49,999
	A	10.21	155	5 $70,000 or above
	A	9.76	160	4 $50,000-$69,999
	A	9.59	27	1 Under $20,000
Respondent's Income	A	11.63	150	1 Under $20,000
	A	11.20	272	2 $20,000-$29,999
	A	10.64	134	3 $30,000-$49,999
	A	9.74	23	5 $70,000 or above
	A	5.39	54	4 $50,000-$69,999
Respondent's Age	A	11.04	240	4 40-49
	A	10.92	184	3 30-39
	A	10.85	107	5 50-59
	A	9.29	17	1 Under 25
	A	9.14	22	6 Above 60
	A	8.61	72	2 25-29

[a] Means with the same letter are not significantly different.

Table A11. ANOVA Summary: Paying Someone to Mend Clothes Estimated Subjective Norm

External Variable	Source	df	MS	F
Access to Sewing Machine	Model	1	21	0.54
	Error	653	39	
Sewing Skill Level	Model	3	75	1.94
	Error	646	39	
Others in HH Who Sew	Model	1	16	0.40
	Error	651	39	
Know Someone Who Sews For Pay	Model	1	152	3.93*
	Error	653	39	
Availability of Person Who Sews	Model	3	67	1.54
	Error	361	44	
Employment Orientation	Model	1	57	1.46
	Error	650	39	
Weekly Work Hours in Career/Job	Model	24	59	1.62*
	Error	621	36	
Highest Education Completed	Model	6	65	1.68
	Error	647	39	
Marital Status	Model	5	51	1.38
	Error	643	37	
Number Persons in Household	Model	5	48	1.29
	Error	643	37	
Age of Youngest Child at Home	Model	5	29	0.79
	Error	636	37	
Household Income	Model	4	50	1.36
	Error	626	37	
Respondent's Income	Model	4	28	0.76
	Error	628	37	
Respondent's Age	Model	5	57	1.64
	Error	636	35	

* $p=.05$

Table A12. Tukey's Test Summary: Paying Someone to Mend Clothes Estimated Subjective Norm

Variable	Tukey Grouping[a]	M	N	Variable Levels
Sewing Machine	A	0.55	202	0 No
Availability	A	0.17	453	1 Yes
Sewing Skill	A	0.83	289	2 Novice/Basic
Level	A	0.73	101	1 No Skills
	A	-0.33	57	4 Expert/Advanced
	A	-0.42	203	3 Intermediate
Others in HH	A	0.61	127	1 Yes
Who Sew	A	0.22	526	0 No
Know Someone	A	0.73	357	1 Yes
Who Sews For Pay	B	-0.24	298	0 No
Availability of	A	2.72	25	1 Unavailable
Person Who	A	1.56	57	4 Very Available
Sews	A	0.50	184	3 Available
	A	-0.01	99	2 Not Very Available
Employment	A	0.50	406	1 Career
Orientation	A	-0.11	246	0 Just-A-Job
Hours Worked	A	4.64	11	1 Below 20
Per Week	BA	-4.40	423	4 40-49
	BA	-4.87	23	2 20-29
	BA	-5.84	68	6 60-69
	BA	-6.56	18	3 30-39
	BA	-7.08	100	5 50-59
	B	-9.00	14	7 70 or above
Highest	A	1.36	42	3 Associate Degree
Education	A	0.93	158	4 Bachelor of Arts or Science Degree
Completed	A	0.89	124	2 Some College
	A	0.11	135	5 Master of Arts or Science Degree
	A	-0.20	61	1 Some High School or High School Graduate
	A	-0.63	19	7 Other Professional Degree
	A	-1.03	115	6 Ph.D. or Ed.D Degree

Variable	Tukey Grouping[a]	M	N	Variable Levels
Marital Status	A	2.33	12	5 Widowed
	A	0.75	24	6 Living with Someone
	A	0.45	71	3 Divorced
	A	0.35	447	2 Married
	A	0.27	11	4 Separated
	A	-1.26	84	1 Never Married
Number Persons in Household	A	1.96	26	5 Five
	A	0.58	283	2 Two
	A	0.22	100	4 Four
	A	-0.27	143	3 Three
	A	-0.75	92	1 One
	A	-0.80	5	6 Six or More
Age of Youngest Child in Household	A	1.51	39	5 13-15 Years Old
	A	0.30	380	1 No Children in Household
	A	0.17	29	3 3-5 Years Old
	A	0.10	42	6 16-18 Years Old
	A	-0.30	60	2 Infant-2 Years Old
	A	-0.62	92	4 6-12 Years Old
Household Income	A	0.72	205	3 $30,000-$49,999
	A	0.58	160	4 $50,000-$69,999
	A	0.06	84	2 $20,000-$29,999
	A	-0.19	155	5 $70,000 or Above
	A	-1.74	27	1 Under $20,000
Respondent's Income	A	0.83	150	1 Under $20,000
	A	0.31	272	2 $20,000-$29,999
	A	-0.12	134	3 $30,000-$49,999
	A	-0.30	54	4 $50,000-$69,999
	A	-0.87	23	5 $70,000 or Above
Age	A	1.23	107	5 50-59 Years Old
	A	0.60	184	3 30-39 Years Old
	A	-0.18	22	6 Above 60 Years Old
	A	-0.32	72	2 25-29 Years Old
	A	-0.34	240	4 40-49 Years Old
	A	-1.53	17	1 Under 25

[a] Means with the same letter are not significantly different.

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VITA

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Personal Information

Born: *October 19, 1959*, Cumberland, MD, to Frank Bruck and Anna Eberhard Bruck.

Education

Doctor of Philosophy, Clothing and Textiles, 1998, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Master of Science, Clothing and Textiles, 1988, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Bachelor of Science, Family Resources, 1981, West Virginia University, Morgantown, WV, Cum Laude.

Professional Experience

College Academic Advisor, College of Human Resources and Education, Virginia Polytechnic Institute and State University, Blacksburg, VA August 1996 to present.

Clothing Fit and Construction Instructor, New River and Roanoke Valleys of Virginia, January 1995 to present.

Adjunct Instructor, Marketing Department, New River Community College, Dublin, VA academic years, 1994-1995, 1995-1996.

Small Business Owner, PHD Sewing Studio, Blacksburg, VA, August 1991 to December 1994.

Lecturer/Continuing Education Coordinator/Extension Specialist, Department of Clothing and Textiles, Virginia Polytechnic Institute and State University, August 1990 to August 1991.

Graduate Assistant, Clothing and Textiles Department, Virginia Polytechnic Institute and State University, Academic Years from August 1986 to May 1990, August 1993 to May 1994.

Cooperative Extension Home Economist, Summersville, WV, West Virginia University, July 1981 to April 1987. (Study Leave, September 1986 to April 1987).