



Special Apparel Needs of Consumers with Visual Impairments

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Introduction: The purpose of this study is to understand apparel consumers with visual impairments in terms of their apparel selection and shopping needs. The apparel needs of disabled consumers, specifically consumers with visual impairments, have not been thoroughly investigated (Chang et al., 2014). It is not known to what extent they differ, if at all, from consumers who are not visually impaired. Thus, this research provides insight into their apparel needs so that apparel manufacturers and retailers can better meet the needs of these disabled consumers.

Literature Review: In the United States, more than 20% population has some type of disability and they often experience restrictions in their daily and social lives (Kaufman-Scarborough & Childers, 2009). Consumers with visual impairments are challenged to choose or shop for apparel (Yuan et al., 2011). An example of apparel selection challenges includes matching color or patterns of apparel (Kulyukin & Kutiyawala, 2010). Also, mobility is one of challenging tasks for many individuals with visual impairments. In terms of shopping needs, researchers have investigated the needs of consumers with visual impairments in the retail shopping environments and discussed how to enhance marketplace accessibility (Baker et al., 2002). Also, due to the usage of visual cues in retail transactions, consumers with visual impairments experience more limitations in apparel shopping (Kulyukin & Kutiyawala, 2010). Therefore, this research explores what needs of clothing design and shopping consumers with visual impairments have. There are three key research questions for this study and these include: 1) *What are the apparel needs of individuals with visual impairments (e.g., design, style, color, and pattern)?* 2) *What parts of apparel bother daily activities of individuals with visual impairments?* 3) *What are the shopping needs and obstacles of individuals with visual impairments?*

Methodology: Both quantitative and qualitative research designs were applied in this study. Upon the IRB approval, data was collected at the company for the blind in the West Texas area. The total of 38 individuals with visual impairments were working at the time data was collected. The total of 20 participated in the study as volunteers through announcements via the managers.

Results: The final sample (N=20) was composed of 10 females (50%) and 10 males (50%). The mean age of respondents was 54 years, with ages ranging from 37 to 67. The majority of participants were Caucasian/White (n=13, 65%), followed by Hispanic/Latino (n=6, 30%). With respect to education, almost half of participants had finished high school (n=11, 55%). Household income indicated by the majority of respondents was \$20,000 to \$34,999 (n=7, 50.0%), but 35% of the participants did not want to answer for the household income question.

First, regarding apparel needs, most of the respondents like casual wear (n=14, 70%), and also usually wear clothing of a casual style (n=17, 85%). Most of the respondents answered that the clothing styles they like to wear are the same as the styles they wear on a regular basis.

(n=15, 75%). There was incongruence between what they like to wear and what they usually wear. The reason for this includes uncomfortableness of what they like to wear and no chance to wear what they like. The combination of a t-shirt and pants was the most favorable choice of apparel style for respondents (n=11, 55%). Respondents like to wear the combination of a t-shirt and a skirt or two-piece suit, but they usually wear t-shirt and pants. It turned out that both bright color and dark color can be similarly preferred. Some respondents like a different color combination for the top and the bottom. Most of the respondents do not care about the functional characteristics of fabric (n=9, 45%), but interestingly, the functionality was the most important thing when they select apparel (n=9, 45%). Cotton is the preferred fabric for respondents.

Table 1. Apparel Top and Bottom Closure Preference (N=20)

Top Closure Preference	Frequency		Top Closure Preference	Frequency	
	Total	%		Total	%
Zipper	4	20.0	Zipper	13	65.0
Button	8	40.0	Button	3	15.0
Velcro	1	5.0	Others (elastic band)	4	20.0
Other (no closure, snaps)	7	35.0			

Second, regarding apparel designs that bother the daily activities of individuals with visual impairments, length of the sleeve and tight materials seem to bother them the most for top design (n=10, 50%). For the bottom design, pants' length and the tightness bother them the most (n=14, 70%) and they do not prefer skirts. Additionally, they mention that the need of pockets is of great importance during the open-ended questions regarding the important detail needs of clothing. Also, color matching with bottoms and shirts was the challenge for many of them.

Third, regarding the shopping needs and obstacles, readability of tags and color recognition of apparel were the biggest obstacles. Also, the care instruction was found as an important component of apparel shopping as they look for apparel with easy care (e.g., easy to wash and wrinkle free products). Most of them said discount stores (e.g. Wal-Mart, Target) as their preferred shopping locations (n=16, 80%). They preferred to go to brick-and-mortar stores.

Conclusion and Implications: This study was an exploratory research to understand the needs of apparel design and shopping for consumers with visual impairments. As found in this study, visually-impaired consumers have special needs of apparel design, such as more pockets for tops and color matching. Also, they have special apparel shopping needs, such as easy to read tags and care instruction as well as color explanation. Thus, apparel designers and manufacturers need to consider these needs when designing products for visually-impaired consumers. Also, further research about actual apparel design and color matching is needed.

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