Consumer Perception and Choice Preference Concerning Safe Clothing and Workers' Safety: A Case Study of University-based Consumers in Manitoba, Canada

by

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Abstract

The purpose of this research was to understand consumers' purchasing behaviour and their willingness to contribute to bringing safety to the workplace by participating in various social actions. This research also aimed to find ways to inform consumers about safe working environments, and to examine consumers' willingness to pay a premium for this cause. Both qualitative and quantitative methods were used. The findings showed that when consumers knew that the clothing was made in hazardous conditions, they were willing to stop purchasing from favourite retailers/brands. Consumers that participated in this study did not actively participate in social actions. Of the participants, 50% interview-participants and 54.74% survey-participants were willing to have a new safety label if this label would guarantee the consumers about safe workplace environment. This study suggests a "new safety label" indicating that clothing was manufactured in a safe workplace environment would increase apparel demand in the global market.

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Chapter 1: Introduction

Clothing, which reflects one's identity, is an essential human need which protects our body from climate and physical injuries. Consumers have different clothing shopping preferences, and various factors such as price, colour, fit, brand, product quality, and appearance influence their purchasing decisions. In today's world, conscious consumers consider these issues as well as the environmental and ethical impact of their choices. The clothing production industry is a long supply chain industry that starts with fibre cultivation and terminates at product delivery. This supply chain industry engages millions of workers worldwide to produce garment products. The majority of clothing factories are situated in developing countries where workplace conditions are unsafe for the workers. The aim of this study was to assess Canadian (representative of Western society), consumer knowledge about the clothing industry workplace environment and concerns towards the safety of workers in the textile and apparel industry.

1.1. Consumer knowledge and concern

Consumer awareness and ethical concerns are growing day by day. Consumer concerns for fair trade in food industries have already grown significantly. Although consumers lack knowledge on socially responsible practices in the textile and apparel garment industry, they want sustainable business practices in the apparel sector (Hill & Lee, 2012; Gam & Banning, 2011; Connell, 2010). Boulstridge and Carrigan (2000) revealed that consumers lack information about the companies' ethical behaviour; knowing about ethical practice may improve consumers' purchasing decisions (Shaw et al., 2006). According to their study, the majority of consumers reported (55%) that there were no ethical retailers or brands available in the market (Shaw et al.,

2006). In addition, according to their findings, 15% of consumers believed that ethically produced clothing can be unfashionable.

A study by Hwang, Lee, and Diddi (2015) examined generation Y's (18 to 33 years old) knowledge, attitudes, moral obligation, and apparel purchase intentions on the basis of fair trade, organic, and recycled apparel products. Their study showed that generation Y was not familiar with the term "fair trade" in apparel products. However, after watching visual images of three different logos these youths felt more appeal to purchase ethically produced apparel. Consequently, the demand for purchasing fair trade products could benefit the people who work in the apparel industry. The study also showed that female consumers were more concerned for three corporate socially responsible attributes than male consumers. A study by Ma, Littrell, and Niehm (2011) found that female young consumers (aged between 18 to 28 years) showed a positive attitude and had strong beliefs towards purchasing fair trade products. Accordingly, consumers who had strong beliefs felt less difficulty during making purchase decisions about fair trade products than other consumers who did not have them (Ma, Littrell, & Niehm, 2011).

A survey about improving workers' health and safety was conducted upon the upper level of managers in the U.S. apparel industry. It was indicated that providing education and training to workers were the major concerns in order to maintain cost reduction strategies (Dillard, 1996). Brosdahl and Carpenter (2011) found that students who were studying in areas concerned with apparel production were more concerned with the ethical responsibilities than those who were studying in areas concerned with distribution. Students with apparel production knowledge know the harmful effects of production materials such as chemicals and dyes, and they are more aware of industry ethical matters.

1.2. Consumer purchase decision

Understanding consumer purchasing behaviour is an important factor for business marketing. Emotion, faith, and attitude all drive consumer behaviour. According to Sanad (2016), consumer buying is heavily impacted by the products' visual and physical characteristics. Appearance is a key factor that influences consumer buying decisions. Clothing that highlights physical attributes is the most preferred clothing for both male and female consumers (Azevedo et al., 2008). Factors affecting fashion-concerned consumers' shopping decisions largely depend on simulation/trial facilities, brand reputation, personalization possibilities, and store attractiveness (Rajagopal, 2011). In other words, the store environment is one of the important factors that motivates consumers to make purchasing decisions. Carrigan and Attalla (2001) found that four important factors (price, value, brand image, and fashion trends) influence consumers' buying decisions. Another study concluded that consumer attitude towards behaviour, subjective norm, controversy perception, and fashion involvement were the most influential factors for consumers' purchase intentions (Summers, Belleau, & Xu, 2006). Moreover, financial risk, attitude and subjective norm are also strong factors in apparel purchasing decisions (Han & Chung, 2014). Japanese consumers want unique clothing that impacts their emotional value, which indicates that this is preferred over perceived product quality (Knight & Kim, 2006).

Male and female consumers have different shopping preferences; for example, female consumers prefer satisfaction, comfort and function of their clothing, while male consumers prefer comfort, satisfaction, and quality (Azevedo et al., 2008). Azevedo et al. (2008) also found that females are impulse buyers while males shop for necessity. It was revealed that females were more frequent buyers than males on average.

Country image in how the manufactured country is seen in the worldwide stage can also influence consumers' purchasing decisions. Han (1990) also found that country image can influence consumer purchasing decisions towards a product. Brand image can also influence consumers' purchase intentions. A study by Laroche, Kim, and Zhou (1996) showed that consumer confidence in brands (positive experience, familiarity-influence purchase intentions) also influences the consumer to make online purchasing decisions (Park & Stoel, 2005). Furthermore, different age groups have different shopping influences; for example, mature consumers make online shopping decisions that were influenced by the variety of products and given price options (Kwon & Noh, 2010).

Ethical considerations can also influence consumer purchase intentions. Both Korean and U.S. consumers are concerned with the ethical values of the apparel industry (Gam, 2011; Han & Chung, 2014). A study by Han and Chung (2014) suggested that almost half of the consumers in Korea were not aware of the presence of organic cotton. The lack of knowledge about the product has shown to reduce purchase intentions. Fair trade products have positive effects on consumer intentions and perceived purchasing behavioural control of fair trade products (Ma et al., 2011). A study by Carrigan and Attalla (2001) suggested that consumers need more ethical information about the product in order to make informed purchasing decisions. Their purchase decision will be affected if they are aware of any unethical practices at the workplace. Another study found that if consumers knew about business transparency, they would be willing to purchase the product (Bhaduri & Ha-Brookshire, 2015). The work by Bhaduri and Ha-Brookshire (2015) revealed that consumers wanted the transparency information to be available through advertisements, as well as added with hangtags and care labels at point-of-purchase.

In the context of the above stated issues, the purpose of this research is to study consumer levels of awareness of workplace conditions in developing countries, and to understand purchasing behaviour and consumer willingness to help workers by spending extra money over the regular tag price.

The specific objectives of this research are:

▶ To identify consumer knowledge on health risks to the workers and consumers in the apparel and textile industries;

▶ To investigate consumers' level of satisfaction with current textile labels;

▶ To explore consumer purchasing behaviour;

▶ To assess consumer participation in social actions;

▶ To find better means of communication between consumers and apparel companies to inform consumers that apparel was made in a safe environment; and

▶ To determine consumers' willingness to pay more for their apparel purchases to protect workers, especially in developing countries.

1.3. Conclusion

It is apparent that consumer awareness is important in order to improve workplace conditions in the textile and apparel industry. If consumers are aware of the workplace conditions it can help them make informed purchasing decisions. Consumers have the right to know what they are buying, and in what conditions the product was made. In this case, retailers and manufacturers should inform consumers about product-related information, and should relate information about the companies' ethical practices to the consumers. Consumer concern surrounding company ethics may result in good practices in apparel production facilities. However, previous studies revealed that consumers are lacking information about the clothing

industry. Consumers can play an important role by expressing their concerns for workers' safety, which may force manufacturers to improve their workplace environment. The current research highlights worker conditions for companies manufacturing clothing for Western consumers. This study also intends to measure Canadian consumer knowledge on workplace conditions, shopping preferences, and their willingness to pay for a newly recommended clothing safety label.

Chapter 2: Literature Review: Apparel Industry, Clothing Labelling and Consumer Preferences

This chapter will review issues of apparel industry workplace environment and consumer clothing purchase behaviour. The first sections (2.1 to 2.7) of this chapter will introduce textile and apparel production processes, assess chemical and hazardous substances associated with these processes and review the effects of these substances on the human body and the environment. The next sections (2.8 to 2.14.1) of this chapter will discuss literature on apparel labelling, different types of labelling, and consumer perception towards label information. This section will also elaborate on cause marketing and its influence on consumers.

2.1. Definition of textiles

The term textiles refers not only to natural fibre cultivation and man-made fibre production, but also to the transformation of fibres into yarns through filament and spun yarn spinning; and to the creation of fabric by weaving, knitting and non-woven methods. Textiles also include the colouration of fibres, yarns and fabric through dying or printing; the finishing of fabrics; and to the various steps needed for end-use production. According to McIntyre and Daniels (1995), "a textile was originally a woven fabric, but the terms textile and the plural textiles are now also applied to fibres, filaments and yarns, natural and manufactured, and most products for which these are a principal raw material"(p. 343).

2.2. Definition of risk

Risk is defined by the Oxford Dictionary as "a situation involving exposure to danger" (Definition of risk in English , n.d.). Risk is the unintended possibility of danger or an adverse health consequence, if a person is exposed to a hazard. Risk may also spread to a situation which involves property or equipment loss.

Due to the chemical and physical nature of textile and apparel processing, consumers, the environment, and workers may be at risk from exposure to occupational hazards, such as harmful chemicals and physical elements.

2.3. General descriptions of textile and apparel processing

In the textile and apparel industry, different manufacturers are involved in the various processes required to produce end products from raw fibres. Many of the processes require toxic chemicals (for example, formaldehyde, concentrated acids and bases) and generate physical hazards (for example, noise and vibration). Many textiles and apparel production processes are hazardous to workers, consumers and to the environment. The textile industry consists of three main areas: apparel (the textiles used in clothing); interior furnishings (home fashions); and industrial (luggage, gauze, dust filters, flags, boat sails) (Price, Cohen, & Johnson, 2005).

From fibre to end-use product there are several activities: spinning, weaving, dyeing, printing, finishing, and garment/product manufacturing (Figure 2.1). The first step involves processing fibres, which are hair-like structures from either natural (for example, cotton, wool) or man-made (nylon, polyester, acrylic) sources. Through spinning, the fibres are processed into yarn form. Spun yarn is a continuous thread-like strand created from staple fibres that are twisted together (Hatch, 2006, p. 267). Filament yarn is one continuous or many filaments gathered with

or without twist (Hatch, 2006, p. 277). Felting, a non-woven process, requires no yarn, only fibres. Weaving and knitting create fabric from the yarns. Dyeing adds colour to fabrics and printing imparts designs (dots, stripes, floral) (Price et al., 2005). Finishing involves additional treatments to the fabrics, for example, water-repellency to improve comfort, or an antimicrobial finish to reduce the growth of microbes, odor, and disease, and thereby prevent risk from infection (Hatch, 2006, p. 427, 433).

Garment manufacturing processes include product design, fabric selection, pattern design, sample making, cutting, sorting, sewing, pressing and folding, and finishing. The finished garments are lastly organized on the basis of size and design and are delivered to the importers or retail outlets. Many of the steps involved in the apparel production involve risks to people and the environment. The next topic (2.4) discusses these risks in more detail.

Figure 2.1. Flow Chart of Textile and Apparel Production

Textile and apparel production						
Textile manufacturing functions						Garment manufacturing functions
Spinning		Weaving		Dyeing	Printing	Finishing	Product design
Carded	Combed	Spinners Bobbin		Inspection of the grey cloth	Rotary screen printing	Finishing bath	Fabric selection
Opening & Cleaning	Opening & Cleaning	Warp Preparation	Weft Preparation	Stitching	Rotary screen cylinders	Drying	Pattern making
Picking	Picking	Warp Winding	Pirn Winding	Cropping	Printing Paste	Curing	Sample making
Carding	Carding	Warping (beaming)		Brushing	Soap bath	Washing	Grading
Drawing	Drawing	Sizing		Singeing	Rinse & Dry	Drying	Marker making
Roving	Lap formation	Drawing-in		Desizing	Curing	Packaging	Spreading
Spinning	Combing	Tying-in		Scouring		Shipment	Cutting
	Drawing	Weaving		Bleaching			Sorting
	Roving	Inspection		Washing			Sewing
	Spinning	Measuring		Drying			Inspection
		Folding		Mercerizing			Pressing & Folding
				Dyeing			Finishing
				Finishing			Final inspection
				Inspection			Packaging
				Aftertreatment			Boxing
				Baling			

(Collier & Tortora, 2000, p. 258, 279-282, 402-406, 408; Hatch, 2006, p. 337; Needles, 1986, p. 154-156; Chuter, 1988, p. 112-129; Wulfhorst, Gries, & Veit, 2006, p. 245-256).

2.4. General description of risks in industry

Risk is a threat and represents a potential danger to life or the environment. Risk can be associated with many types of work and may include human error, chemical exposure, construction errors, processing tools, and workplace conditions, which may result in human injury or deaths, environmental damage and loss of a factory. The effects from these risks can be acute (symptoms change quickly, like heart attacks) and occur when a person is exposed to the hazardous agents (chemicals, dust) or chronic conditions, developing over an extended period of time and/or arising a long time after exposure. For example, exposure to chemicals may cause skin irritation after a few hours of contact with the chemicals (Lensen et al., 2007). Berrino et al. argued that exposure to asbestos may take more than 10 years to develop laryngeal cancer and lung damage (as cited in Institute of Medicine, 2006).

2.4.1. Current market share of textile and apparel industry.

The textile and apparel industry is a major growth industry in developing countries, providing income and job opportunities for many people (Sharma, 2006). Tables 2.1 and 2.2 show the major garment exporting and importing countries in 2013 and 2012 respectively (Hegel, 2014; World Trade Organization, 2012). Of the developed exporting countries, Italy exports fibre, thread, yarn, fabric, man-made fibre, and ready-made garments; Germany exports mostly technical textiles; Turkey exports carpets, ready-made garments, zippers, buttons, hooks and eyes, labels, lace, lining, interlining, tapes, elastic, and ribbons; Spain exports synthetic and artificial fibres, yarns, and ready-made garments; and France exports carpets and other floor coverings, special woven fabrics, knitted fabrics, textile product for industrial use, cotton, and silk. Though data on Table 2.1 indicate both developed and developing countries as exporters,

the majority of the apparel is exported by developing countries because of low labour costs. The economic development of countries such as Bangladesh, China, India, Sri Lanka, Turkey, Brazil, Pakistan, Indonesia, Malaysia, and Thailand depends on the textile sector. High labour costs (Table 2.4), transaction and transportation costs, and environmental standards (Ratiu, 2013) make garment production very expensive to produce in developed countries like Canada, those in the European Union (EU) and USA. Consequently, these countries import up to 80% of their clothing items (Choudhury, 2006) from the developing countries, as shown in Table 2.3 (World Bank Group, US, 2012), where the wages for workers are low (Table 2.4). For example, in 2009, about 63% of Chinese garments were exported to USA and EU (Table 2.3).

Table 2.1. *Top Garment Exporters in 2013*

Garment exporters	$US billion in 2013
China	$117.4
Italy	$23.7
Bangladesh	$23.5
Hong Kong	$21.9
Germany	$18.4
Vietnam	$17.2
India	$16.8
Turkey	$15.4
Spain	$11.5
France	$11

(World Trade Organization, as cited in Hegel, 2014).

Table 2.2. *Top Garment Importing Countries*

Importers	Value (million US dollars)	Share in world imports (%)			
	2012	1980	1990	2000	2012
European Union	170	-	-	41.1	38.5
Extra-EU imports	90	-	-	19.8	20.3
United States	88	16.4	24.0	33.0	19.9
Japan	34	3.6	7.8	9.7	7.7
Hong Kong, China	16	-	-	-	-
Retained imports	-	-	-	-	-
Canada	9	1.7	2.1	1.8	2.1
Russian Federation[a,b]	9	-	-	0.1	2.1
Korea	6	0.0	0.1	0.6	1.4
Australia	6	0.8	0.6	0.9	1.4
Switzerland	6	3.4	3.1	1.6	1.3
China[b]	5	0.1	0.0	0.6	1.0
United Arab Emirates	4	0.6	0.5	0.4	0.8
Saudi Arabia	3	1.6	0.7	0.4	0.8
Mexico	3	0.3	0.5	1.8	0.7
Chile	3	0.2	0.0	0.2	0.6
Turkey	3	0.0	0.0	0.1	0.6

[a]Includes secretariat estimates   (World Trade Organization, 2012).

[b]Includes significant shipment through processing zone

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Table 2.3. *Market Share (%) of Top Garment Exporters in World, to US, and to EU*

Exporter	2000			2005			2009		
	World	US	EU-15	World	US	EU-15	World	US	EU-15
Total *RMG export in $US (2000) billions	198	-	-	277	-	-	317		
China	18.2	13.3	9.6	26.8	26.4	17.7	31.7	39.1	24
Turkey	3.3	-	6.9	4.3	-	7.6	3.5	-	6.3
Bangladesh	2.6	3.4	3.0	2.5	3.2	3.5	4.3	5.0	4.7
India	3.0	3.2	2.8	3.1	4.2	3.3	3.6	4.3	3.9
Vietnam	-	-	1.0	1.7	3.6	0.7	3.0	7.4	1.1
Indonesia	2.4	3.5	2.0	1.8	4.0	1.2	1.8	5.8	1.1
Mexico	4.4	13.1	-	2.6	8.0	-	1.3	5.0	-
Thailand	1.9	-	1.1	1.5	2.9	0.9	0.9	2.4	0.8
Pakistan	-	-	1.0	1.3	1.8	0.9	0.9	2.0	1
Tunisia	-	-	3.9	1.1	-	3.2	1.0	-	2.7
Cambodia	-	-	-	-	2.3	-	1.1	2.7	-
Sri Lanka	-	2.4	-	-	2.2	-	-	1.8	0.7

*RMG- Ready-made Garments   (World Bank Group, US, 2012, p. 7).

Table 2.4. *Minimum Wages per Hour in Various Countries*

Country name	Minimum wages per hour/month	Equivalent US dollar	Effective date
Bangladesh	1500 taka per month in the economic sectors; minimum wages in garment industry is 5,300 taka per month	Economic sector $19.19 per month, and garment sector $67.79 per month	December 1st, 2013
Canada	Ranges from CAD10.45 to 13.00 per hour depending on the province	$8.09 to $10.07 per hour	April 1st, 2016
China	Ranges from RMB 850 per month set locally. RMB 8 per hour in Heilongjiang and RMB 18.5 per hour in Shenzhen	$127.97 per month	November 1st, 2015
Hong Kong	HK$32.50 per hour	$ 4.19 per hour	May 1st, 2015
Japan	Ranges from 693 Japanese yen to 907 yen per hour	$6.76 to $ 8.85 per hour	October 18th, 2015
Pakistan	13,000 Pakistani rupees per month	$124.34 per month	June 1st, 2015
Turkey	1647 Turkish lira (gross minimum wage)	$567.47 per month	January 1st, 2016
United States	$ 7.25 per hour (federal)	$ 7.25 per hour (federal)	July 24th, 2009

(List of minimum wages by country, n.d.).

2.4.2. Risk associated with textile and apparel industry.

In 2009, the World Bank Group, US (2012) reported that China was the world's largest exporter of ready-made garments. In China, all the production phases of textile manufacturing units cause environmental issues such as water pollution, air pollution, poor water quality, water shortage, waste disposal, noise pollution, degradation of croplands and grasslands (You, Cheng, & Yan, 2009). Water pollution from the textile industry in China poses serious and immediate threats to the environment and health (You et al., 2009).

According to the World Bank Group, US (2012) (Table 2.3) Bangladesh increased its garment exports from 2.6% to 4.3% of total world market share between 2000 and 2009. More than 5,000 garment firms are established in Bangladesh, employing nearly 4.2 million workers. The top importing countries of products from Bangladesh are the United States, Europe, and United Kingdom (United Nations, 2014). Although a major exporting country, many problems are associated with the textile and apparel sectors in Bangladesh. Poorly constructed workstations have been the cause of some devastating accidents. For instance, in 2013, the Rana

Plaza building collapsed, killing more than 1,120 and injuring more than 2,500; and in 2012, a fire at Tazreen Fashion Garments killed 112 workers (Hegel, 2014).

India has approximately 70,000 garment manufacturing units employing more than 3 million workers. The majority of these workplaces are unsafe and unhealthy with poorly designed work stations, unsuitable furniture, poor ventilation, inappropriate lighting, excessive noise, insufficient protection from dangerous chemicals, insufficient safety measures in fire emergencies, and lack of personal protective equipment (Parimalam, Kamalamma, & Ganguli, 2006). Workers in this poor work environment suffer from various diseases. Musculoskeletal disorders are a very common disease among the textile and apparel workers of the developing countries (Parimalam et al., 2006).

Many problems in the textile and apparel industry lead to environmental pollution and health effects among the workers and for consumers. The industry involves a long production chain from fibre to apparel; each step generates different types of risks for the environment, workers, and consumers' health. The following section reviews literature on risks and hazards for the environment, workers, and consumers' health arising from textile and apparel processing.

2.5. Risks and hazards textile and apparel processing

Textile and apparel processes include spinning, weaving, knitting, dyeing, finishing, fabric spreading, cutting, sewing, and packaging (Figure 2.1). Each of these different processing sections handles textile materials differently (for example, the spinning section processes fibre and yarn; the dyeing section uses chemicals and dyes to colour fabrics) and each section carries specific risks and hazards (for example, a dust problem in the spinning section and chemical exposure in the dyeing section) for the environment, workers, and consumers.

2.5.1. Risk for the environment.

2.5.1.1. Water pollution. In 1999, Environment Canada reported that, "in 1996, approximately 105 000 m³ of textile mill effluents were discharged daily to the Canadian environment, with the large majority (94%) of the discharges occurring in freshwater ecosystems" without treatment (as cited in Rutherford et al., 2003, p. 592). Textile industry wastewater is a combination of various chemicals used for textile wet processing operations such as wetting agents, oxidizing agents, acids, salts, accelerators, retardants, detergents, reducing agents, stripping agents, bases, developers, many dyes, and finishes. This wastewater creates harmful water pollution for aquatic life. Rutherford et al. (2003) emphasize that primary, secondary and tertiary treatment of wastewater before discharging into freshwater will create effluent that is not harmful to the environment; however, the concern is how many textile industries follow this treatment procedure before discharging wastewater. Almost 10-15% of dyes used in the dyeing process are discharged as wastewater (Younes, Ellouze, & Sayadi, 2013). Cotton cultivation, wool fibre scouring, sizing agents, pre-treatment, colouring, and

finishing processes all create major problems of water pollution (You et al., 2009). The study did not suggest any solutions to address the problems. Although You et al's research refers to government and manufacturer roles, there is still little information on industrial practices to reduce water pollution. Cotton cultivation procedures require chemicals and pesticides that are washed into the river by rain; wool fibre cleaning processes require hot water and solvents; sizing chemicals include starch, polyvinyl alcohol, carboxymethyl cellulose, acrylates, and wax; pre-treatment, colouring, and finishing processes all create discharged effluents that are harmful and polluting (You et al., 2009; Rutherford et al., 2003). Tigini et al. (2011) state that textile and tannery effluents cause adverse effects on soil. Wastewater from irrigation increases levels of nitrogen, phosphorus, potassium, sodium, and pH. Tigini et al.'s (2011) experiments helped to predict the toxicity levels of the wastewater before discharge into freshwater, but they did not suggest how to decrease toxicity levels of wastewater. Slater (2003) studied the harmful effects of water from several textile emissions (Table 2.5).

Dyes and foam in the water cause harmful effects on aquatic organisms, resulting in death because of lack of oxygen, and making organisms more vulnerable to poisonous chemicals (Kadolph, 2009; Chapman, 1996). Additionally, the polluted water is harmful for the communities living alongside of the river. *S. thermophilum* laccase has been shown to remove up to 50% of the effluent colour; acclimatized consortium treatments removed 82%-84% of the effluent colour (Younes et al., 2013). Bauman, Poberžnik, and Lobnik (2009) identified the degree of fixation between dye and fibre, and the degree of unbound dye in coloured wastewater (Table 2.6). Data presented in Table 2.6 exhibit that a greater percentage of the dye remains in wastewater, which discharges into freshwater and causes water pollution.

Table 2.5. *Harmful Effects of Water from Different Textile Emissions*

Type	Emission	Effect	Typical example	Section[a]
Water	Heat	Fish stress	Power station effluent	--
Water	Colour	Potability concerns	Dye-house effluent	Dye bath, printing bath
Water	Toxic liquids	Poisoning aqueous species	Chemical plant effluent	Finishing, scouring, bleaching, mercerization

[a]Added section   (Slater, 2003, p. 5).

Table 2.6. *Degree of Fixation between Dye and Fibre, and Degree of Unbound Dye in Coloured Wastewater (revised)*

Dye class	Fibre	Degree of fixation (%)	Degree of unbound dye (%)
Acid	Nylon	80-95	5-20
Basic	Acrylic	95-100	0-5
Direct	Cellulose (cotton)	70-95	5-30
Disperse	Polyester	90-100	0-10
Metal-complex	Wool	90-98	2-10
Reactive	Cellulose (Cotton)	50-90	10-50
Sulfuric	Cellulose (cotton)	60-90	10-40
Vat	Cellulose (cotton)	80-95	5-20

(Bauman, Poberžnik, & Lobnik, 2009, p. 287).

2.5.1.2. Air pollution. Air pollution is a vital environmental issue for textile and apparel industries. Cultivation and production phases for cotton and synthetic fibres consume huge amounts of chemicals and pesticides, and CO_2 is emitted (You et al., 2009). Dust and smoke arise from the spinning process. According to Lacasse and Baumann, finishing processes such as singeing, thermofixing, thermosoling and impregnating cause air pollution (as cited in You et al, 2009). The USA Environmental Protection Agency stated that high temperature drying and curing ovens are sources of air pollution, and transportation of products also creates air pollution (You et al., 2009). Muthu et al. (2012) developed a model to quantify the environmental influence and ecological sustainability from manufacturing the textile fibres. Their study indicated that organic cotton has less environmental impact and is more sustainable than other fibres; acrylic fibres have a highly harmful effect on the environment and are the least sustainable. Muthu et al.'s study did not include the acceptance level of the contamination on the

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environment. Powder dye handling, cutting, and stitching sections generate dust and textile waste, which creates air pollution (Heath, 1990) affecting the earth's ozone layer, increasing CO_2 in the air, and causing respiratory symptoms for humans. Based on the nature of emission, Slater (2003) categorized air pollution production (Table 2.7). Overall, various sections of textile processing pollute the environment and pose threats to the environment and human health.

Table 2.7. *Harmful Effects of Air from Different Textile Emissions*

Type	Emission	Effects	Typical example	Textile processing unit[a]
Air	Carbon dioxide	Greenhouse gases	Burning wood	
Air	Toxic gases	Poisoning of species	Burning rubber	Flame retardant padding or cushioning, coating
Air	Smoke	Visibility loss	Tenter exhaust	Textile finishing
Air	Carbon dioxide[a]	Greenhouse gases	Burning travellers	Ring frame
Air	Dust[a]	Harmful effects on health (respiratory symptoms)	Opening cotton bale	Ginning, spinning, weaving, cutting, stitching
Air	Temperature[a]	Steam, vapor, fumes	Wool fibre carding section	Ring frame, sizing, singeing, ironing

[a]Added section   (Slater, 2003, p. 5).

2.5.2. Risk for workers.

Textile and apparel industry workers are regularly exposed to dust, excessive noise, heat, chemicals, uncomfortable work environments, and work-related injuries throughout the manufacturing process (Parimalam et al., 2006). Textile and apparel industry workers have a risk of cancer, but the risk and type of cancer varies according to different work sections (Mastrangelo et al., 2002). Workers in developing nations deal with these exposures as most of the workplaces do not provide enough safety guidelines for the workers. The following paragraphs will discuss the workers' health and safety issues in the different textile transformation sections, i.e., yarn manufacturing (spinning), fabric manufacturing (weaving), dyed and finished fabric manufacturing and garment manufacturing based on hazard association.

2.5.2.1. Physical hazards.

2.5.2.1.1. Workplace injury. Work-related injuries are a serious problem for workers. During yarn manufacturing, most of the accidents occur in the ring frame, carding and combing sections, particularly during the night shift. Two of the main risk factors for workplace accidents are the beginning of a work shift and fatigue (Nag & Patel, 1998). Lack of organizational commitment and decision-making issues are also responsible for occupational accidents (Nag & Patel, 1998). Nag and Patel stated that "[a]ccording to textile workers, there are also hazardous or non-dangerous work disturbances, without bringing recognizable accidents" (1998, p. 280). For shift-workers, the beginning of the work shift and accumulated fatigue were the times most likely for accidents. Workers have physical, mental and social demands at work, and sometimes work overload can lead to work-related accidents (Metzner & Fischer, 2010; Safari et al., 2013). Sanati et al. (2009) stated that some of the possible work-related injuries include superficial skin injury, open wounds, burns, fractures, dislocations, strains, or sprains, crush injuries, chemical intoxication, foreign bodies, organ damage, nerve injuries, traumatic amputations, and injuries to blood vessels.

1.5.2.1.2. Dust. Exposure to dust carries adverse effects on the human body. Workers are exposed to dust in various sections of the textile and apparel work environment such as spinning (opening and cleaning, picking, carding, combing, drawing, roving), weaving (winding, warping sizing, loom), cutting, and stitching sections. Textile and apparel sector workers are exposed to cotton dust by inhalation causing respiratory symptoms among the workers (Paudyal et al., 2011). Paudyal et al. (2011) estimated that inhalable dust and endotoxin exposure in the main tasks of the textile industry cause respiratory infection (Table 2.8). The highest endotoxin exposure is found in the cotton opening, carding, combing, winding, and recycling sections

(Oldenburg, Latza, & Baur, 2007; Simpson et al., 1999). Workers engaged in cotton growing and processing are highly exposed to dust (Occupational safety and health, 1988). "Opening cotton bales in the opening and cleaning section can generate sufficient dust that, if not removed from the air, can result in lung disorders for people who work in that part of the building" (Kadolph, 2009, p. 68). Workers who are associated with the textile and apparel industry and are exposed to textile-related dust throughout the manufacturing process may develop nasal, oral or pharyngeal, colorectal, laryngeal, or lung cancer. Carding and fibre operators, spinners and weavers may be affected by mouth-pharynx, larynx cancer, and bladder cancer.

Workers having long-term exposure to cotton dust containing endotoxins are subject to byssinosis, chronic bronchitis with emphysema, and chronic cough (Shi et al., 2010; Occupational safety and health, 1988); and rhinitis symptoms such as nasal itching, rhinorrhea, and sneezing from cotton dust inhalation (De et al., 2013). Short-term exposure to cotton dust can cause bronchitis and acute byssinosis (Occupational safety and health, 1988). The Occupational Safety and Health Administration (1988) has set a permissible exposure limit (PEL) of cotton dust per cubic meter of air for an 8-hour work-shift at 200 micrograms for yarn manufacturing and cotton washing sections; 750 $\mu g/m^3$ in the textile slashing and weaving sections; 500 $\mu g/m^3$ PEL for textile mill waste house and lower grade cotton washed in yarn manufacturing sections; and 1000 $\mu g/m^3$ PEL for waste recycling and garneting sections.

Although not very common, dust concentration exceeding 30 g/m^3 can cause explosions (Davis et al., 2011). Dust explosions damage the textile plant and cause health risks for the workers (Salatino et al., 2012).

Table 2.8. *Inhalable Dust and Endotoxin Exposure in Textile Industry Areas*

Sector	Dust (mg m^{-3})		Endotoxin (EUm^{-3})		Health Effects[c]
	GM(GSD)	Range	GM(GSD)	Range	
Weaving (clothes)	0.26 (2.64)	0.01-1.72	2290 (3.26)[b]	86-15 100	Respiratory symptoms (Paudyal et al., 2011)
Spinning: opening and cleaning, Carding, Combing, Drawing, Roving	0.49 (1.37)	0.29-0.71	2840 (2.65)[b]	508-8950	Respiratory symptoms (Slater, 2003)
Cutting	0.35	-	117[b]	-	Respiratory symptoms (Paudyal et al., 2011)
Stitching	0.28 (3.14)	0.18-0.59	163 (1.67)[b]	91-307	Respiratory symptoms (Paudyal et al., 2011)
Weaving (carpet)	1.16 (1.51)	0.58-2.16	678 (2.37)	271-3300	Respiratory symptoms (Paudyal et al., 2011)
Tearing	3.02 (2.8)[a]	0.82-35.95	6060 (1.54)[b]	1740-23 300	Respiratory symptoms
Shredding	3.67 (2.71)[a]	1.26-29.51	4160 (2.45)[b]	1376-26 300	Respiratory symptoms
Sorting	3.30 (1.79)[a]	2.18-5	1800 (1.11)[b]	1660-1950	Respiratory symptoms

(Paudyal et al., 2011).
[a]Inhalable dust concentration exceeding the UK WEL (UK Workplace Exposure Limit) of 2.5 mg m^{-3}
[b]Endotoxin concentration exceeding the Dutch health-based guidance value of 90 EU m^{-3}
[c]Added section
Abbreviation: GM (Geometric Mean), GSD (Geometric standard deviation), EU (Endotoxin Unit).

2.5.2.1.3. Noise. Workers are exposed to high frequency (greater sound radiation, i.e. 4000 Hz, 6000 Hz, and 8000 Hz) noise pollution that comes from the dynamic state of textile machinery. Textile machines run at a very high speed, for example, the speed of a ring frame is about 20,000 revolutions per minute, creating noise levels above 100 dB (Ashraf et al., 2009). Similar noise levels in the loom section (weaving) have been reported (Ashraf et al., 2009).

Negative impacts from noise pollution include low productivity, lack of discipline, unauthorized absenteeism, and a high workplace accident rate (Noweir, 1984). Weaving workers who are exposed to a higher concentration of noise at 4 kHz have a higher chance of hearing loss (Solanki et al., 2012). Noise pollution causes agitation, constant weariness, disorientation, headache, vertigo, hypertension, cardioarrhythmia and nervous and psychic disorders (Roozbahani, Nassiri, & Shalkouhi, 2009). Slater (2003) categorized noise pollution production and listed permissible noise exposure for the human body (Tables 2.9 & 2.10) (2003, p. 5 & 57).

Table 2.9. *Noise Pollution from Different Production*

Type	Emission	Health Effects	Typical example and textile processing unit
Noise	Moderate high frequency (HF)*and low frequency (LF)*	Psychological nuisance	Rock music
Noise	Loud HF	Deafness	Spinning frame (ring frame, rotor frame, twisting and texturing machinery)
Noise	Loud LF	Building damage	Weaving shed

*HF (High frequency), LF (Low frequency)   (Slater, 2003, p. 5).

Table 2.10. *Permissible Noise Exposure in Different Textile Processing Sections*

Noise level dBA	Permitted unprotected human exposure time (hour)	Health effects[a]	Processing section[b]
Less than 85	No restriction	75 to 85 dBA begins stress (Kumar, Kumar, & Barman, 2013)	
85-90	8		Carding, draw frame, winding, warping and sizing (Talukder, 2001)
90-92	6	More disciplinary actions, absenteeism and less productivity (Noweir, 1984)	Ring frame (Talukder, 2001)
92-96	4		
96-98	3		
98-100	2		
100-102	1.5		
102-105	1.0	Tooth abrasion (Kovacevic & Belojevic, 2006)	Loom (Ashraf, et al., 2009)
105-110	0.5	Hearing loss and increase oxidative stress (Yildirim et al., 2007)	
110-115	0.25		
More than 115	No exposure permitted		

[ab]Added section   (Slater, 2003, p. 57).

2.5.2.1.4. Heat. Exposure to high temperature in the workplace creates discomfort, increases irritability, loss of concentration and loss of efficiency in mental work, loss of skilled tasks, fatigue and threat of exhaustion, and increases incidents. Hot working areas associated with textile and apparel sections are carding, singeing, calendaring, cutting, fusing, and ironing. Nag and Patel (1998) identified that heat is one reason for workplace accidents.

2.5.2.2. Chemical hazards. In recent years, an increasing number of various kinds of chemicals and other harmful substances are widely used in textile and apparel industries, such as agricultural chemicals to grow natural fibres, spinning chemicals to manufacture man-made fibre, and chemical used as carriers for dyeing (Kadolph, 2009; Choudhury, 2006). Hazardous chemicals have harmful effects on workers. Reports in the literature and personal experience illustrate that the textile and apparel industry encounters unacceptable circumstances for the workers by using unsafe chemicals and other work-related risks. According to the Commission of the European Communities (2001), a lack of proper information for safe chemical handling procedures is the barrier to efficient chemicals management (as cited in Fransson & Molander, 2013). Because of the lack of organizational guidelines, workers are also not concerned about the safe handling of the chemicals. In the textile supply chain, sub-suppliers (part of a supply chain, company that gets product order from suppliers of a specific focal company) sometimes misunderstand or lose information on the quantity of chemicals which have a harmful effect on a person (Fransson & Molander, 2013). All of these issues create risks to the workers' health.

2.5.2.2.1. Formaldehyde. Formaldehyde is a toxic chemical which is used in finishing and dye fixing. It gives fabric a wrinkle-free look (as cited in Choudhury, 2006, p. 816). In 1995, the International Agency for Research on Cancer characterized formaldehyde as a possible human carcinogen and (textile) garment workers who are exposed to formaldehyde for more than 10

years have a higher risk of leukemia, brain cancer, and lung cancer (Pinkerton, Hein, & Stayner, 2004). The international programme on chemical safety and national poisons information service mentioned that ingesting formaldehyde may cause allergenic reactions, irritation and burning feelings of the mouth and throat, burns and ulceration of the gastrointestinal tract, chest or abdominal pain, nausea, vomiting, diarrhea, and gastrointestinal hemorrhage (as cited in Kim, Jahan, & Lee, 2011). A study by Asolekar recommended a polycarboxylic acid-based finish system as an alternative for formaldehyde in garment production (as cited in Choudhury, 2006, p. 816).

    2.5.2.2.2. Dye. Considerable research has been carried out to investigate negative health effects arising from textile dyeing chemicals. The main function of the dyeing process is to add colour to the fibres. The process requires large amounts of water, heat, and other chemicals. Reactive dyes, azo dyes, sulphur dyes, and disperse dyes are the most commonly used dyes in the textile industry. Azo dyes have relatively high polarity and high recalcitrance, and are harmful to the ecosystem and human health in terms of high toxicity levels. Azo, anthraquinone, and phthalocyanine are toxic and carcinogenic (as cited in Khan & Malik, 2014). Azo dyes and nitro dyes both generate a N-hydroxylamines compound which is responsible for DNA damage when ingested. Workers are exposed to dyeing chemicals through inhalation and ingestion of powder dyes and suffer respiratory diseases (Heath, 1990; Ahmed et al., n.d.). Inhalation of dyeing chemicals can cause respiratory sensitization. Symptoms are skin irritation, watery eyes, sneezing and other health related disturbances like asthma (Ahmed et al., n.d.). In dyeing and printing operations, workers are exposed to dyes, optical brighteners, organic solvents and fixatives that cause stomach, bladder, and thyroid cancer. Finishing workers are exposed to

crease-resistance agents, flame retardants, and antimicrobial agents that also cause cancer (Mastrangelo et al., 2002).

The dyeing process discharges large volumes of wastewater consisting of a mixture of various polluting substances (such as salt, sulphate and sulphide, sodium chloride, reducing and oxidizing agents, surfactants, toxic carriers and retarders) and heavy metals (such as copper, iron, magnesium, zinc, arsenic, chromium, selenium, cadmium, lead, and mercury). These toxic chemicals are associated with cancer, cholera, typhoid, gastroenteritis, ulcers, dysentery, diarrhoea, vomiting, poor blood circulation, skin lesions; damage to the nervous system, brain, heart, and kidneys; birth defects, and hormonal and reproductive effects in wildlife and humans (Sengupta & Behera, 2013; Husaini et al., 2011).

2.5.2.3. Psychosocial hazards.

2.5.2.3.1. Work-related stress. According to Pamuk, "stress is a mental and physical condition, which affects an individual's productivity, effectiveness, personal health and quality of life" (2007, abstract). The findings of the Pamuk's study show that apparel industry workers face stress in the workplace due to long working hours, low salary and heavy workloads. Keyserling (1982) identified that ergonomic stress in apparel industry workers may cause repetitive trauma disorders. Work-related stress is very common in the apparel industry of developing countries.

2.5.2.3.2. Sexual abuse and verbal abuse. Apparel industry workers often face sexual abuse, unexpected or inappropriate behaviour and verbal abuse in the workplace. This type of abuse is very common in the workplace of developing countries. The Gap store report (Workers are ill-used, 2004) confirmed that many of their overseas workers are mistreated; 10-25% of their

China factory workers face verbal abuse in the workplace. Barnes (2008) found that pregnant women face abuse in the apparel industry including abortions, unpaid required overtime, lack of benefits, unfair hiring and promotion practices, and forced job assignments creating risks to the worker and her unborn child.

2.5.2.3.3. Family-work conflict. Family-work conflict is a very common psychosocial hazard for the workers. Sometimes it becomes difficult to maintain a balance between family responsibilities and work. A study on work-life balance in U.S. by Wake Forest University and the University of South Florida suggests that people who worry and are pessimists are more prone to face negatively work-life conflict (Don't Worry--Be Happy, 2004).

2.5.2.4. Musculoskeletal disorder. Musculoskeletal disorders among textile and apparel industry workers are very common (Berberoğlu & Tokuç, 2013) because of poorly designed workstations; unstable furniture resulting in awkward work postures in sewing, cutting, ironing, checking and weaving operations; lack of ventilation; and inappropriate light (Parimalam et al., 2006). Musculoskeletal disorders also are caused by manual handling, heavy physical work, frequent bending and twisting, and whole body vibration, and may increase due to workloads, low work satisfaction, and high work demands causing work-related stresses (Berberoğlu & Tokuç, 2013). Parimalam et al., (2006) recommended some ideal work station parameters for ready-made garment locations (Table 2.11).

Table 2.11. *Some Suitable Features for Ready-made Garments Units*

Parameters	Cutting table	Sorting table	Checking table	Ironing table
Length	Depending upon the size of the room and the length of the day	180 cm (6ft)	180 cm (6ft)	120 cm (4ft)
Width	120 cm (4ft) the maximum width of fabric	120 cm (4ft)	120 cm (4ft)	90 cm (3ft) the maximum reach of a worker
Height for men	117.3 cm	112.3 cm	117.3 cm	102.3 cm
Height for women	108.9 cm	103.9 cm	108.9 cm	93 cm

(Parimalam et al., 2006, p. 76).

2.5.2.5. Eye problems. Weavers suffer from eyesight problems due to poor light and poor facilities (Bhattacharya, Tripathi, & Kashyap, 1989); poor ventilation and poorly-lit rooms cause headache, fatigue, and changes in blood pressure. Ahmed and Islam (2015) identified that long working hours and deep concentration at work cause eye problems such as "visual discomfort, eye irritation, and conjunctivitis and eye strain" to the workers (p.9). The textile and apparel industry requires high concentration at work, which causes health issues like eye problems to the workers.

2.5.2.6. Nutritional deficiency. Nutritional deficiency is a very common status of workers associated with garment manufacturing units, resulting in aches, respiratory and gastric problems and general weakness (Singh, Fotedar, & Lakshminarayana, 2001).

Workers suffer from various health issues throughout the clothing production stages. Workplace injury, exposure to dust, chemicals and noise cause serious health impact to the workers. The following paragraph will discuss consumers' health and safety issues from clothing.

2.5.3. Risk for consumers.

The textile and apparel industry poses risks not only for the environment and workers, but also for consumers.

2.5.3.1 Physical hazards. Consumer products sometimes cause serious injuries because of the low quality of natural fibres, leather and some other manufactured fibres. Injuries concerning children's illnesses relate to allergic skin reactions, falls, lead exposure, choking, entrapment, and suffocation (Rogmans, 1997). Lack of control and supervision during the manufacturing process can lead to consumer product-related injuries. In the US in 1972, The Consumer Product Safety Act and Consumer Product Safety Commission (CPSC) were

established to protect the public from the undesirable risks of injuries and death associated with consumer products (Norum & Ha-Brookshire, 2012). Norum and Ha-Brookshire (2012) investigated the number of recalled products in the US and the country of origin and types of accidents that had already happened, but they did not include the association of hazards and the amount of substances that could be recalled from the consumer products.

2.5.3.2. Chemical hazards. The textile industry uses various toxic chemicals and other harmful substances in processing consumer textiles. Wrinkle-free finish chemicals, for example, are derived from urea, a glyoxal, and formaldehyde. Formaldehyde has been identified as a probable human carcinogen and causes respiratory inflammation or distress (Greeson Jr., Browning, & Farrell, 2012). Some people suffer allergic reactions resulting in dermatitis due to repeated skin contact of formaldehyde (Greeson Jr. et al., 2012; Voncina, Le Marechal, & Voncina, 2007). Different consumer protection agencies have set permissible limits of chemicals for various clothing items. A study by De Groot et al. (2010) presented some examples of formaldehyde limits for clothing and other textiles for the developed countries (Table 2.12). These limits are set for consumer clothing, but workers continue to deal with many different toxic chemicals.

According to Choudhury (2006), the textile industry uses approximately 70% of azo dyes. Twenty-five percent of these have already been banned because of their toxic nature, whichcauses cancer to the consumers. Some dye-classes are banned world-wide due to high toxicity and harmful effects (Choudhury, 2006). Though some dyes and dyeing chemicals are banned for textile industrial processing, there are still many other harmful chemicals being used in textile production including formaldehyde, azo dyes, chlorophenols, alkylphenols, and phthalates.

Chemical flame retardants are non-bio-degradable, which poses a risk for the environment and human life, especially to children (Chakrabarti & Shobhanashree, 2012). OKEO-TEX ® Association has set limit values and fastness of these chemicals for ready-made garments (Table 2.13).

Table 2.12. *Formaldehyde Limits for Clothing and Other Textiles*

Country	Infants and babies (p.p.m.)	Textiles in direct contact with the skin (p.p.m.)	Textiles not in direct contact with the skin (p.p.m.)
Australia	30	100	300
Austria	Textiles that contain 1500 p.p.m. or above must be labelled		
China	≤20	≤75	≤300
Finland	30	100	300
France	20	100	400
Germany	Textile that contain 1500 p.p.m. or above must be labelled		
Japan	Not detectable	75	
The Netherlands		120	
New Zealand	30	100	300
Norway	30	100	300

(De Groot et al., 2010, p. 262).

Table 2.13. *Limit Values and Fastness for Ready-made Garments*

Product class	Baby	In direct contact with skin	With no direct contact with skin	Decoration materials
pH value[a]	4.0 - 7.5	4.0 - 7.5	4.0 – 9.0	4.0 – 9.0
Formaldehyde mg/kg				
Law 112	n.d.[b]	75	300	300
Extractable heavy-metals (mg/kg)				
Antimony	30.0	30.0	30.0	
Arsenic	0.2	1.0	1.0	1.0
Lead	0.2	1.0[c]	1.0[c]	1.0[c]
Cadmium	0.1	0.1	0.1	0.1
Chromium	1.0	2.0	2.0	2.0[d]
Chromium (VI)		Under detection limit[e]		
Cobalt	1.0	4.0	4.0	4.0
Copper	25.0[f]	50.0[f]	50.0[f]	50.0[f]
Nickel[g]	1.0[h]	4.0[i]	4.0[i]	4.0[i]
Mercury	0.02	0.02	0.02	0.02
Heavy metals in digested sample (mg/kg)[j]				
Lead	90.0[c]	90.0[c]	90.0[c]	90.0[c]
Cadmium	50.0	100.0[c]	100.0[c]	100.0[c]
Pesticides (mg/kg)[k]				
Sum	0.5	1.0	1.0	1.0
Chlorinated phenols (mg/kg)				
Pentachlorophenol	0.05	0.5	0.5	0.5
Tetrachlorophenols,	0.05	0.5	0.5	0.5
Trichlorophenols	0.2	2.0	2.0	2.0
Phthalates (W-%)[l]				
DINP, DNOP, DEHP, DIDP, BBP, DBP, DIBP, DIHP, DHNUP, DHP, DMEP, DPP, SUM	0.1			
DEHP, BBP, DBP, DIBP, DIHP, DHNUP, DHP, DMEP, DPP, SUM		0.1	0.1	0.1

(Limit values and fastness, n.d.).

[a]Exceptions for products which must be treated wet during the further processing: 4.0 - 10.5; for foams: 4.0 - 9.0; for leather products in product class IV (coated or laminated): 3.5 - 9.0

[b]n.d. corresponds according to "Japanese Law 112" test method with an absorbance unit less than 0.05 resp. <16 mg/kg

[c]No requirement for accessories made from glass

[d]For leather articles 10.0 mg/kg[e]Quantification limits: for Cr (VI) 0.5 mg/kg, for aryl amines 20 mg/kg, for dyestuffs 50 mg/kg

[f]No requirement for accessories made from inorganic materials

[g]Including the requirement by EC-Regulation 1907/2006

[h]For metallic accessories and metallized surfaces: 0.5 mg/kg

[i]For metallic accessories and metallized surfaces: 1.0 mg/kg

[j]Applicable to all non-textile accessories and components as well as for spun dyed fibres and articles containing pigments

[k]For natural fibres only

[l]For coated articles, plastisol prints, flexible foams, and accessories made from plastics

The Government of Canada has formulated many regulations to protect consumers from clothing-related hazards (e.g. asbestos and flammability regulations). According to Branch (2017), a textile fibre that is worn on the person must provide "protection from fire or heat hazards," and "a person who uses the product in a reasonably foreseeable manner cannot come into contact with airborne asbestos from the product." The Government of Canada has set flammability requirements for textile products. General textile products should be prohibited if they have a flame spread time greater than 3.5 seconds, if the product does not have a raised fibre surface; this must be greater than 4 seconds for products with a raised fibre surface and exhibits ignition or fusion of its base fibres; and it must be greater than 7 seconds for bedding with or without a raised fibre surface that exhibits ignition or fusion of its base fibres (Textile Flammability Regulations, 2016).

Consumers are also vulnerable to clothing production practices, and uses of harmful chemicals can causes allergic reactions to the consumers. Though some of the unsafe chemicals are already banned from clothing production, still many others are being used for clothing production.

2.6. Human deaths, laws and regulations for garments for developing and developed countries

Textile and apparel industry workers are always at a high risk of industrial incidents in developing countries because of inappropriate factory management systems. All workers have the right to work in safe conditions. After observing devastating textile and apparel industry incidents, it is hard to say that workers in these sectors had suitable workplaces. Table 2.14 includes information on some textile and apparel industry-related incidents where hundreds of workers have lost their lives.

Canada is an apparel importing country. Many laws and regulations protect workers in Canada, not only the permanent workers, but also those who come from foreign countries to work in Canada on a seasonal basis. Each of the provinces and territories in Canada has work-related laws and regulations. General employment standards include hours of work and overtime pay, minimum wage pay, vacation time and vacation pay, public holidays, coffee and meal breaks, pregnancy leave, personal emergency leave, family medical leave, termination notice and termination pay (Workers' Rights in Canada, 2007). According to Workers' Rights in Canada, every worker has the right to work in a safe and healthy environment and workers have the right to refuse work if they find that the workplace poses a danger to themselves or another worker. Moreover, workers get compensation benefits from the province. If a worker is injured in the workplace, a supervisor must be notified, and a doctor contacted, and the worker can make a claim to their compensation board. In accordance with the Canadian labour program, workers have the right to know the possible hazards in the workplace and should be provided with information, training, instructions, and supervision for their health and safety. Employers need to

ensure their employees have an appropriate understanding of all these factors and must attend

committee meetings regularly, have regular inspections, and participate in accident investigation

and work-related hazard analysis (Workers' Rights in Canada, 2007).

One of the important apparel exporting countries, Bangladesh, has recently changed the

existing labour laws (Bangladesh Labour Act 2006) and adopted the laws recommended by the

International Labour Organization (ILO) in 2013. The amendments were concerning workers

status, compensation due to death, termination of employment, employers-workers relation, child

labour, dangerous work for children, emergency exits, worker access to stairs, mandatory use of

personal protective equipment, notifying an authority in case of incident, establishing a health

center where there are more than 5000 workers, safety committee, residential facility for

physically challenged workers, compulsory group insurance, payment of dues including wages

through conciliation, special power of the government, prohibition of deducting money from

supervisors of a worker who has died, provisions on social dialogue, trade unions and dispute

resolution, and employers and companies' responsibilities (International Labour Organization,

2013). Although Bangladesh now has this legislation, which is very important for the workers,

there is, unfortunately, poor implementation of these regulations. As a result, workers remain

vulnerable to workplace risks (Table 2.15).

Table 2.14. *Deaths of Workers from Work-Related Incidents*

Number of workers died	Country	Reason for death	References
More than 1,120	Savar, Bangladesh	Garments building collapse	Hegel, 2014
112	Dhaka, Bangladesh	Fire and lack of fire exit	Hegel, 2014
9	Sripur, Bangladesh	Fire	Garment factory fire, 2014
289	Karachi, Pakistan	Fire	Pakistan plant owners turn up, 2012
7	Prato, Italy	Fire	Workers killed in Prato plant fire, 2013
2	Patalgana, India	Fire	Bombay dyeing fire burns, 1997

Table 2.15. *Health Effects of Workers Due to Exposure in Various Textile Processing*

Effects	Textile processing	Reason	Reference
Lung disorders, rhinitis, hearing loss, Hearing problems, respiratory symptoms,	Opening and cleaning, Winding (cone winding machine)	Dust, noise	You et al., 2009; Kadolph, 2009, p. 68; Lane, Nicholls, & Sewell, 2004; De et al., 2013, Shi et al., 2010; Fishwick et al., 2010; Bedi, 2006; Hasegawa & Kanematsu, 1997
Miscarriage	Spinning	Dust (synthetic fibre and a mix of natural and synthetic fibre)	Wong et al., 2009
Byssinosis, asthma, rhinitis, hearing loss, fatigue	Carding, combing, drawing, roving	Dust, noise, lubricating oils, dust explosion, fibre waste	You et al., 2009; Slater, 2003, p. 53, 54; Bedi, 2006; Lane et al., 2004; De et al., 2013; Shi et al., 2010
Breathing problem	Blending (carded sliver)	Dust, fibre waste	Slater, 2003, p. 53
Deafness, byssinosis, rhinitis, musculoskeletal disorders, fatigue, hearing loss, accidents	Ring spinning	Dust, lubricating oils, noise, awkward work posture	Slater, 2003, p. 54; Eraslan, Gelecek, & Genc, 2013; Noweir, 1984, Bedi, 2006; Lane et al., 2004; De et al., 2013; Eraslan, et al., 2013; Bedi, 2006; Roozbahani et al., 2009; Nag & Patel, 1998
Respiratory symptoms, byssinosis, rhinitis, eye problem, musculoskeletal disorders, hearing loss, accidents	Weaving, Cutting, Sewing	Noise, dust, lighting condition, awkward work posture	Paudyal et al., 2011; You et al., 2009; Slater, 2003, p. 62; Bhattacharya et al., 1989; Nag, Vyas, & Nag, 2010; Beshir, Mahdy-Abdallah, & Saad-Hussein, 2011, Lane et al., 2004; De et al., 2013; Nag et al., 2010; Roozbahani et al., 2009; Nag & Patel, 1998; Ahasan, Ahmad, & Khan, 2000; Parimalam et al., 2006; Eraslan et al., 2013; Sealetsa & Thatcher, 2011; Berberoğlu & Tokuc, 2013; Reinhold, Tint, & Kiivet, 2006
Skin irritation, Tissue burn	Bleaching,	Hydrogen peroxide, hypochlorite, sulphur dioxide, peracetic acid, ozone bleaching, oxidative bleaching;	You et al., 2009; Slater, 2003, p. 44, 46; Vigo, 1994, P. 38; Kadolph, 2009, p. 385, 386.
Tissue burn	Mercerization	Caustic soda (29.5% or greater concentrations of aqueous NaOH at 25°C) wetting agent, alkaline solution	Vigo, 1994, P. 38; Kadolph, 2009, p. 385
Skin irritation, Skin diseases, eye problem, dermatitis, distraction of kidneys, anaemia, Cancer,	Dyeing, printing, and finishing	Dyes, pigments, salts, acids, surfactants, soaping agents, starch, gum or resin	Tigini et al., 2011; Heath, 1990; Vişan & Botez, 2010; Slater, 2003, p. 85, 86; Pinkerton et al., 2004
Musculoskeletal disorders, burns	Ironing	awkward work posture, heat	revised
Chronic shoulder pain, muscles injury, musculoskeletal disorders	Packaging	awkward work posture, dust	Eraslan et al., 2013; Vinay et al., 2012; Kitis et al., 2009

2.7. Occupational Health and Safety Act – Manitoba: Key issues related to Workplace Health and Safety

The foregoing discussion identifies several occupational health hazards in the textile and apparel industries in developing countries. The hazards are mainly dust, noise, heat, chemicals, uncomfortable work environments, and work-related injuries. There are several ways to solve these occupational hazards such as providing proper protective gear, education and training, proper maintenance of equipment, providing proper emergency exits, and establishing a comfortable work environment (lighting, ventilation, temperature control). The implementation of these safety measurements can reduce workplace incidents; however, it requires a considerable amount of investment for the industry owner.

According to workplace safety and health regulations (2015) in Manitoba, Canada, an employer must guarantee the employee that the noise level of the workplace is not more than 85 dBA. If the noise level reaches 80 dBA, the employer must conduct a noise exposure assessment and post the report. The employer is required to inform the workers about the hazards of the noise level if workers are, or are likely to be exposed to, a noise level exceeding 80 dBA Lex but not more than 85 dBA Lex, and the employer is also required to provide certain standard protective gear if workers request it. If the noise assessment result indicates that a worker is exposed to a noise level in excess of 85 dBA Lex, the employer must practice noise control measures to reduce the noise level. Moreover, when noise control measures do not reduce the noise level, an employer must inform the workers about the noise hazards and provide workers with hearing protective devices according to standards, and the employer has to pay for an audiometric test by a physician or audiologist of an exposed worker within 70 days of the

exposure and repeat the test at least once a year. An employer who is required to conduct audiometric tests must prepare an annual report mentioning all the measurements carried out including noise control measurements, the number of employees tested and who has abnormal results, and the physician's report. Additionally, the employer is required to attach warning signs at the entrance of the workplace that the noise level is in excess of 85 dBA.

In the case of developing countries, even if a conscientious person in the industry takes the responsibility for worker safety it may not change the status quo because of the lack of standards and the profit gain attitude. It is necessary to take an initiative from the consumer side as well. Most of the clothing produced in developing countries is primarily for Western consumers. Consumers should take the responsibility to protect clothing production workers. If consumers are willing to pay an extra amount for their regular priced clothing for implementation of workplace safety measurements, the manufacturer would be forced to change policies and practices accordingly. The primary idea of this research arose while observing hazardous workplace conditions and the suffering of workers in the factories of the developing world. It is necessary to investigate consumers' perceptions regarding workplace safety and their affordable contribution to resolve these safety issues.

This section concludes that long chain supply industries like the clothing manufacturing sector provide job opportunities for millions of people. This large supply chain clothing industry poses risks for the environment, workers, and consumer health when poorly maintained. The majority of this industry is situated in developing countries where workers' wage is very low and workplace conditions are unsafe. As a result, workers suffer from various diseases and even sometimes face death. Long working hours, lack of proper breaks, lack of protective equipment, unsafe building construction, and low wages are the main reasons for the workers' sufferings. On

the other hand, workplace conditions in developed countries are better than those in developing countries. Proper labour laws, a strictly maintained workplace environment, and high wages keep workers safe from manufacturing hazards in developed countries.

2.8. Consumer use of label information for shopping

Consumers are often concerned with some issues (such as fibre content, colour, price, comfort, size) related to their apparel product. Garment labelling provides the consumer with most of the information regarding their apparel, and depending on personal preferences, different consumers will consider different issues when purchasing clothing. This section will present information regarding apparel labelling, different types of labelling, and consumer perception towards label information. This chapter will also review the existing literature on cause marketing and its influence on consumers.

2.8.1. What is apparel labelling?

Labelling is a way of providing information about a product. The purpose of apparel labelling is to impart knowledge about fibres and fabrics, and care information of the textile product for consumer purchases. According to Van der Merwe et al. (2014) "textile label information facilitates consumer's pre-and post- purchase decisions" (p. 18). Clothing has information attached inside on a label. This label helps consumers to make decisions when purchasing and later for caring for their garments. Different countries (mainly developed countries) have different requirements for garment labelling. According to Thiry some required information is fibre content and garment/fabric care instructions (as cited in Laitala & Klepp, 2013). Some voluntary information is commonly available on garment labels including price, size, environmental and ethical labels, manufacturer or brand information, health and safety

warnings, technical performance, statement labels by producers, and decorations (Laitala & Klepp, 2013). Laitala and Klepp (2013) mention label information such as environmental and ethical, health and safety warnings, and technical performance is frequently not included by manufacturers.

2.8.2. Types of labelling.

Different types of labelling have already been introduced in the market including fibre content label, care label, brand label, size label, price label, manufacturer label, and eco-label. The fibre content label assists consumers to identify the manufactured fibre of their clothing, usually through the generic name. Laitale and Klepp (2013) studied environmental and ethical perceptions related to clothing labels among Norwegian consumers. Their study stated that many countries (USA, Mexico, Canada, and European Union) require the labelling of fibre content, but in Norway, fibre content includes only the fibrous part of the garment. Their study participants asserted that chemical content needs to be added with fibre content labelling.

A garment care label provides full care instructions to properly maintain the garment. Specifically, garment care labels provide information on washing, bleaching, drying, ironing, and dry-cleaning. A study by Feltham and Martin (2006) on understanding newly revised (in 2003, the Canadian General Standards Board revised care labelling symbols) consumer apparel care label information concluded that the revised care label symbols are "complicated and not intuitive" for consumers, and focus group participants were not familiar with the new symbols. Another study also found that consumers have low knowledge regarding garment care symbols and responded that they see the label attached but they do not read the information carefully enough to have proper knowledge of the care and maintenance of their clothing (Babel & Arora, 2008). The results of the study revealed that consumers prefer a combination of text and symbol

as a format of care label information which they are willing to follow (Yan, Yurchisin, & Watchravesringkan, 2008). Lack of understanding of care label symbols may result in consumer dissatisfaction with a clothing purchase. For example, Feltham and Martin (2006) found that consumers have a lack of understanding about new revised care label symbols, which could affect their purchase decision. Consumer protection agencies should take steps to educate consumers about care label symbols, and a good understanding of care labelling is likely to increase consumer satisfaction with a purchase. Overall, care label information is considered very essential labelling for consumers to make purchase decisions.

The brand label is mainly used for specification of the company through a brand logo or a brand name. In today's fashion world, the brand name or brand logo is very important in many business sectors. Most consumers like to buy branded clothing; the brand label plays an important role in consumer purchasing decisions. The brand label helps consumers to easily identify the company and to expand the consumer's confidence towards a specific company. Size is also an important label which is always considered by the consumers before purchasing. "A size label is a tool for assisting consumers in choosing apparel that properly fits their body" (Chun-Yoon, & Jasper, 1996, p. 89). A size label is not required for all countries; some countries have their own size standards for clothing. Sizing labels are mostly presented by numbers format; in United States, size label is presented by letters and numbers. An improper size label and poorly fitted clothing is regarded as a purchasing error which carries an environmental impact because the clothing is not perfect to wear and will be disposed of (Laitala & Klepp, 2013). The fit of clothing is a very challenging issue. Laitala and Klepp stated that 22% of women's garments have been disposed of because of poor fit (as cited in Laitala & Klepp, 2013). Some consumers lack knowledge on their proper size. A study investigating Kenyan consumers'

knowledge on sizing and fit issues concluded that consumers lack knowledge of size label

information because "there is no meaningful communication between the apparel industry and

the consumer" (Mason et al., 2008). Therefore, a properly maintained size label description is an

important factor that will allow the consumer to choose the right clothing.

The pricing label makes it easy for a consumer to choose an apparel product within their

budget. Consumers can make their purchase decision independently when a price label is

available with the clothing. A manufacturer label is mainly a code that is given by the buyers to

identify the product manufacturer. Because buyers use several sources for their products, a code

label identifies the manufacturer of each product.

An Eco-label serves as a way for consumers to choose more environmentally friendly

apparel, thus avoiding the textiles that are more polluting to the environment. According to Goel

(2012), "an eco-label is a label that approaches the overall environmental aspects of a product or

service within a certain or service category" (p. 337). Textile and apparel production processes

involve a huge amount of chemicals; an eco-label is important to identify items produced in a

manner that protects the environment from textile and apparel industrial pollution. Some

examples of different types of labels that are commonly used can be seen in Figure 2.2.

Figure 2.2. Examples of Different Types of Labels
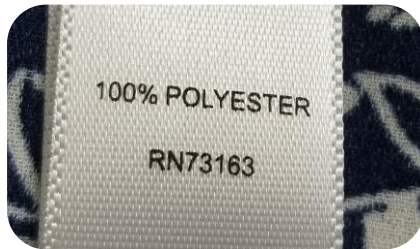
Fibre Content Label

Size Label

Eco Label
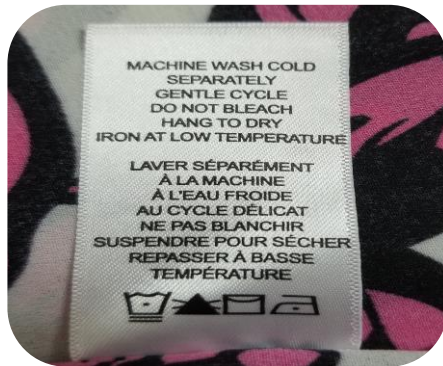
Care Label

Price Label

Country of Origin

Brand Label

Garment labelling is a way of communicating information to consumers to assist their purchasing decisions. It is obvious that consumers have the right to get their clothing-related information in an understandable manner. All the different kinds of labels, including brand label, care label, size label, price label, manufacturer label, and eco-label, are very important to provide product knowledge for consumers; despite this, consumers cannot confirm that their product is made in a safe environment. Although some studies mention environmental and ethical labels that indicate environmental impact from clothing consumption behaviour, these labels do not show there has been concern for the workplace conditions where workers are regularly exposed to various work-related exposures (Laitala & Klepp, 2013; Kang & Kim, 2013; Koos, 2011).

2.9. Factors affecting consumer perception toward apparel shopping

Different factors are involved in consumers' apparel purchase decision-making. Not all consumers have the same shopping preferences, since their purchase decisions depend on their gender, age group, education levels and personal likings. Tsalikis and Ortiz-Buonafina (1990) found that both female and male participants in their study sample had similar ethical beliefs; however, female consumers were more concerned than male consumers when they shopped for clothing. Consumers' inspiration and buying involvement frequently depends on age. Mature women selected their apparel carefully, preferred expensive clothing so that they could wear it for a long period of time, chose comfortable clothing which had "the properties of elastic fabrics, soft qualities and most importantly good fits," and preferred easy care clothes (Holmlund, Hagman, & Polsa, 2011, p. 118). All information regarding fabrics, size, and care instructions is available as labelling information.

In another study, consumers with young children were more concerned for their children's health and future because of the high use of pesticides and dyes in cotton fabrics (Gam et al., 2010). This study showed that parents had a higher interest in clothing using organic fibres rather than conventional cotton. Consumers were concerned for environmentally friendly products mainly when they were purchasing clothing for children. A survey by Stern and Ander revealed that "12% of participants actively, and 47% of participants occasionally considered purchasing eco-friendly products" (as cited in Gam et al., 2010, p. 648). The findings from these studies show that consumers have different shopping preferences, but workplace safety is not an issue of concern to consumers.

Chen-Yu and Seock (2002) investigated high school adolescents' clothing buying motivations, information sources and store selection criteria, and also investigated similarities and differences in buying behaviour between male and female adolescents. The result revealed that both male and female participants spent the same amount of money on clothing; both genders relied on friends as a source of clothing information; and their selection of clothing store depended on price. However, female participants shopped more frequently than male, and friends, books or magazines influenced female participants more frequently than males. A study by Parment (2013) investigated shopping behaviour and purchase involvement of generational cohorts: baby boomers and generation Y. According to Parment (2013) "Baby Boomers born between 1946 and 1955 and are characterized by a revolutionary outlook, ignited by the 1968 student revolt in Paris, France, and by the War in Vietnam" and "generation Y individuals were born between 1977 and 1990, and they came of age between the late 1990s until recently" (p. 192). The study reveals that the two different generations' purchasing behaviour is influenced by different values, attitudes, and preferences. At the beginning of the purchasing process Baby

Boomers depend on retailers' opinion to choose the right product; on the other hand, generation Y choose the product first by themselves.

Apeagyei, McLoughlin, and Omidvar (2013) investigated the perception of garment quality between consumers and professionals (experts from the clothing industry). Consumers in the study felt that good quality garments are associated with price, fit, construction, fabric, care, style and colour. The study found that fifty percent of the consumers followed fashion trends and were not willing to pay more for quality garments. All participants were convinced that retail store settings and environment represented good quality consumer products. Professionals had a better garment quality perception than consumers. Different consumers had different perceptions of garment quality, but none thought about the risks associated with their garments; moreover, reducing the garment price increased garment demand among the consumers. Feltham and Martin (2006) also found that price, fit, and style are highly considered when consumers purchase apparel for themselves over colour, brand name, recommended care, and fibre content; however, when consumers purchase for their spouse, they look for price, fit, style and colour instead of brand name, recommended care, and fibre content. When consumers are purchasing for a son, buying interest is focused on price, style, and recommended care rather than colour, brand name, and fit; and when purchasing for a daughter, price, style, and fit are more important than colour, brand name, recommended care, and fibre content (Feltham & Martin, 2006). Price, style, and fit are the most important aspects of consumer shopping decisions, but the important factor of fibre content is considered least.

Davis (1987) investigated consumer clothing pre-purchase behaviour and found that fabric and price are more important to buying decisions than quality and fashion-ability. Consumer purchase intentions chiefly depend on personal preferences. In Norway, most textiles

have no official eco-labels (Laitala & Klepp, 2013). Most Norwegian consumers are unaware of manufacturing processes and related health-risks of clothing manufacture. Consumers also mistakenly believed that natural fibres were more environmentally friendly than man-made fibres (Laitala, & Klepp, 2013).

Although clothing fulfills a basic need, it also represents a consumer's personal, cultural, and social identity. Different factors influence consumers' choices, and they purchase clothing which mainly represents their self-related clothing choices. Gender, age groups, education level, and personal preferences motivate clothing purchase decision-making.

2.10. Apparel certification and labelling

A label provides clothing-related information and is attached to clothing to help in consumer purchase decisions. Different labels: fibre content, brand name, care, manufacturer name, and eco-friendliness, provide information on different aspects of clothing. Developed countries require labelling mainly to inform consumers regarding their purchase. Labelling requirements have been developed to protect consumers from manufacturing chemicals and other clothing processing materials that might be harmful. However, to fulfill labelling requirements, manufacturers have to follow the exact process which results in proper maintenance of the consumer product. Many apparel certifications and labelling information have been proposed by researchers to protect the environment, consumers, and workers from textile and apparel industry pollutants.

A study by Dickson (2001) proposed a "No Sweat" label for clothing and examined the effectiveness of using a social label to reflect the working conditions of the apparel product manufacturing unit. A survey of two thousand U.S. apparel consumers to find the usefulness of a no sweat label indicated that consumers were concerned with price. The increased price

associated with a "No Sweat" label reduced the purchasing behaviour among all the consumers. Sixteen percent of the sample preferred the "No Sweat" label and showed an interest in this label over quality, colour, and fibre content, but only a few participants purchased clothes that carried a "No Sweat" label. The study also found that women consumers were more likely than men to buy and use "No Sweat" label clothing. Though there was limited response to "No Sweat" label clothing with a higher product price, consumers had an encouraging approach to this label. Consumers are unaware of conditions in the apparel and textile industry. Providing information to consumers about the real scenario of the working environment of workers could change consumer purchasing decisions.

Apparel industry workers are mistreated in the workplace where most apparel production work is done manually. Shaw et al. (2006) examined consumer behaviour towards ethically produced clothing. The study respondents had a greater intention to avoid sweatshop-produced clothing. In the study period, respondents bought 1 to 4 clothing items and 32% of the respondents believed that the purchases were sweatshop-free produced clothing; but, the majority did not know if the clothing actually had been produced in a sweatshop or not. Researchers identified four issues when respondents tried to purchase sweatshop-free clothing: "lack of information regarding the brands or retailers that are sweatshop free; difficulties in accessing ethical retailers; the limited range offered by ethical retailers, and the nature of the ethically produced clothing" (p. 3). Moreover, respondents had no way of obtaining information on whether a product had been made in a sweatshop. Lack of information regarding clothing production can change a consumer's purchasing intention. Ethically produced apparel may attract more consumers to purchase clothing (Shaw et al., 2006).

Another study emphasized fair trade labelling and certification to give consumers easy access to fair trade apparel (Jones & Williams, 2012). Fair trade is a service that intends to stop labour abuses by manufacturers in all industries (as cited in Jones & Williams, 2012). One fair trade retailer and two fair trade wholesalers participated in the research. Because wholesalers can deal directly with producers, they can influence changes in the production process; whereas retailers cannot. The participants did not show an interest in labelling that would indicate their fair trade business. The research was intended to create awareness among the manufacturers to adopt fair trade business practices and inform consumers about fair trade while purchasing. Though Jones and Williams (2012) proposed fair trade labelling, none of the apparel in the market provides this information yet.

According to Jana, socially responsible (SR) labelling indicates "commitment to the environment, fair labour, education, and other social causes" (as cited in Hyllegard et al., 2012). Hyllegard et al. (2012) investigated consumer responses to the use of labelling (hangtag) information that indicates SR business practices in the manufacturing unit. The results indicated that about 60% of the participants read hang tag information on a frequent or very frequent basis; mainly female consumers read and use the information before making their purchase decision. The research also focused on the presentation of the information on hang tags and the findings indicate that highly explicit messages and third-party SR logos influence consumers more effectively. College-aged consumers are more willing to pay more for the apparel purchase if the label information indicates labour-related information (Hustvedt & Bernard, 2010).

Hill and Lee (2012) investigated the young generation of consumers' perceptions on sustainability and environmental concerns. The findings of the study showed that young consumers have a positive sentiment towards sustainability and express a lack of knowledge on

sustainability of the garment industry. Consumers get limited information on clothing and most are not interested in learning of all the risks involved in producing their clothing. Consumers are usually not informed whether their clothing is tested or not tested for harmful substances. However, a study on consumers' willingness to pay for socially responsible products -- organic cotton apparel, sustainable cotton apparel, and US-grown cotton apparel -- found that consumers have stronger attitudes toward environmental protection and are willing to pay more (add $5.00 to the $30.00 retail value) for organic, sustainable, and US-grown cotton shirts (Ha-Brookshire & Norum, 2011). Consumers are willing to pay more for organic cotton shirts when a strong brand clearly represents an organic product; they are willing to pay more for sustainable cotton shirts that require fewer launderings or are easy care; and they are willing to pay more for shirts using US-grown cotton of high quality in a garment of good colour and fit.

OKEO-TEX ® has established a certification system for brands, retail companies, and manufacturers to maintain sustainable textile production (STeP). This certification system has many criteria and can be applied to all stages of textile processing from fibre production to ready-made garments. To obtain this certification approval, a manufacturer must meet some minimum requirements: management of chemicals, environmental performance, environmental management, social responsibility, quality management, and health and safety.

According to OKEO-TEX ® Association, health and safety criteria include "proof of sustainable measures to ensure the required health and safety in the workplace; guaranteed safety of building and production plants; risk prevention; and implementation of existing safety standards" (Sustainable Textile Production (STeP) (n.d., webpage)). This certification program is important to protect the environment and workers, as well as consumers' interests and health.

Although this certification program brings positive results from all the textile production systems, there is a cost involved to meet these standards; manufacturers have to make an investment to achieve this certificate from OKEO-TEX.

A label or certification from a third party is a commitment to consumers that the apparel is made in a safe environment: an aspect that can influence consumers to make more effective purchase decisions. Consumers must learn why a label is attached to clothing and what information it carries. Safety-related labelling must indicate ethical production of apparel. Table 2.16 shows three different study results on social labelling.

Table 2.16. *Consumers, Wholesalers, and Retailers' Response towards Social Labelling*

Social labelling	Participants' response	Reference	Comments
No Sweat Label	Small percentage of positive responses from the consumers	(Dickson, 2001)	In terms of higher price with a label indicating "No Sweat": most consumers not willing to purchase this product.
Fair trade labelling	Positive responses from conscientious consumers	(Jones & Williams, 2012)	Both wholesalers and retailers adopt different fair trade practices; they are not willing to add a label to inform consumers that they practice a fair trade business.
Socially responsible labelling	Positive responses towards SR labelling	(Hyllegard, et al.,2012)	Label or third-party logos indicate a SR business practice encourages consumers to shop for clothing.

2.11. Consumer Protection Act in Canada

Currently consumers receive information about clothing materials through labelling. Textile labelling helps consumers to decide whether to purchase the product. Some regulatory labels must be attached to Canadian apparel products to inform consumers about clothing materials and to protect them from unknown clothing-related hazards. The Canadian Textile Labelling Act and Textile Regulations keep consumers informed about fibre products and allow them to select textiles depending on fibre content (Textile Labelling and Advertising Regulations, 2010). Textile Labelling and

Advertising Regulations (2010) require some information that must be shown on a textile label. Fibre content of 5% or more must be presented through the generic name and amounts less than 5% as "other fibre". To indicate 100% fibre content, the word "all" or "pure" must be used; however, fibre like goose or duck must be addressed as "down" or 'feather' instead of "all" or "pure". In the case of reclaimed fibre, the word "reclaimed", "reprocessed" or "reused" must be shown. Both English and French languages are required on a Canadian label, except in places where only one official language is used. The country of origin, dealer's name and postal code must be included. Trimmings comprising more than 15% of total fibre content must be specified. The trademark which is registered in Canada or a descriptive term should also be added.

Consumer Packaging and Labelling Act (2015) of Canada mandates some of the following: without a declaration of quantity of the product, a dealer cannot sell, import or advertise any pre-packaged product; a net quantity declaration should be indicated clearly on the principal display panel of the label; the dealer cannot provide any false or misleading information on a label; they should indicate for whom the pre-packaged product was manufactured and the main business place; they should indicate the product generic name; nature, quality, age, size, material content, composition, geographic origin, performance, use or method of manufacture or production of the pre-packaged product; and sizes or shapes of containers.

The above-mentioned textile labelling Act, and consumer packaging and labelling Act outline the information that must be shown on consumer textile products for Canadian consumers to be informed about their clothing materials. However, this textile labelling Act does

not require any information regarding risk involvement with consumer clothing, or any statement that the clothing has been made in a safe environment.

All the labelling information is not mandatory for Canadian consumers such as care label, health and safety warnings, environmental and ethical labels, manufacturer or brand information, and technical performance. However, manufacturer-given information should be accurate and presented in an understandable manner. Consumers need to be more concerned while purchasing apparel and should select that product which creates no risk for the consumers, environment or workers. Consumers should be well informed and manufacturers should disclose all the clothing manufacturing processes and related risks. A label can provide all the information that will make consumers satisfied with the product. Although some previous studies mention socially responsible labelling, a study by Dickson (2001) shows a lack of interest among consumers because of the higher price involved. Consumer awareness of deaths of textile workers (spinning, weaving and dyeing) and apparel workers (spreading, cutting, sewing, ironing and packing) will raise concern for industry workers and environmental issues that are becoming more prevalent. Moreover, it is essential to inform consumers about workers' daily suffering that creates long-term health effects, and environmental hazards generated from the manufacturing processes of consumer apparel. Labelling would be an option to ensure consumers that their apparel product is made in a safe and healthy environment and would guide them to make a more socially responsible purchase decision.

2.12. Cause marketing

According to Marconi (2002) "cause marketing is the action through which a company, a nonprofit organization, or a similar entity markets an image, a product, a service or a message for mutual benefit" (2002, p. 3). Cause-related marketing organizations represent their marketing relationship by donating a portion of each consumer purchase to non-profit partners or for educational purposes and other awareness-creating activities. Consumer benefit is the aim of cause marketing; some people regard cause marketing as being kind and some regard it as maintaining social responsibility (Marconi, 2002). Cause-related marketing organizations are membership organizations and include different companies which intend to achieve commercial success through ethical business practices, and benefit consumers, employees, investors, communities and the environment (Marconi, 2002).

2.12.1. Benefits of cause marketing for manufacturers.

A research study by Drumwright found that cause-related marketing increases a company's sales and market share, influences employees, and enhances a brand's image and popularity (as cited in Farache et al., 2008). Another study claimed that American consumers trust those companies that are associated with a social cause and believe that "cause marketing should be standard practice for businesses" (Marconi, 2002, p. 4). Cause marketing presents a company's profile, practices, and services to the public. Cause-related marketing benefits a company to survive over their competitors, especially if that company is related to an attractive cause. Lafferty and Goldsmith (2005) found that a popular brand related to a cause benefits both the company and the cause more than an unpopular brand with a cause. A popular brand with a cause can hold its market position for the long term if nothing has changed in the meantime.

Cause-related marketing also refers to corporate social responsibility. Brown and Dacin (1997) stated that consumers are more convinced to try a new product from a company which shows social responsibility. Gorton et al. (2013) suggested that to achieve consumer positive responses, a responsible company person should carefully select a cause which fits their business.

For the clothing industry, it is crucial that clothing manufacturers having poor working conditions should think about social responsibility and get involved with cause-related marketing. This would enhance product sales and help gain consumer confidence. Business ethics is a very important issue to consider. A consumer survey of 23 countries disclosed that 60% of consumers considered punishing companies which had low ethical standards and one-third of 15 countries' consumers believed that larger companies have higher ethical standards and a responsibility to improve society (Marconi, 2002). A company can use cause-related marketing strategies to assure consumers that they are reliable, have proper policies and practices, and provide safe working environments for their workers.

Since textile labelling is an important way to communicate with the consumers, the textile and apparel supply chain can reveal their involvement in cause marketing through labelling. The current literature shows that environmental and ethical labels which indicate the environmental impact of clothing consumption behaviour are becoming more common; however, these labels do not show concern for the workplace conditions where workers are regularly exposed to various work-related dangers (Laitala & Klepp, 2013; Kang & Kim, 2013; Koos, 2011). A cause-related marketing label should be comprehensive and reliable enough to allow consumers to make informed decisions so that they are fully satisfied with the product they purchase.

2.12.2. Cause-related marketing and consumer purchase intention.

Cause-related marketing has become a common influence on consumer purchase decisions. Consumers have a greater interest in products that are related to a charity and a good cause (Farache et al., 2008). Farache et al. (2008) surveyed 200 consumers in the Brighton UK area and found that cause marketing had a significant influence on consumer attitude and behaviour. Consumers can change their attitude to purchase a good cause-related product. Consumer purchase intention more likely depends on a corporation's engagement with social responsibility (Maignan, 2001). He et al. (2015) examined the relationship between consumer moral identity and cause-related marketing and found that positive social responsibility and emotional attachment with brands has significant effects on consumer purchase intentions. Company loyalty is an important factor in consumer purchase decisions.

A study to investigate the impact of cause-related marketing campaigns on consumer purchase intention concludes that cause-related marketing campaigns do have an influence on consumer buying decisions (Qamar, 2013). Qamar's study also concluded that a company related to a good cause helps to boost the company's positive image, attracts consumers to their brands, and eventually influences consumers to change their purchase intention. Gorton et al. (2013) surveyed 401 participants from two UK cities to find consumer responses to cause-related voucher schemes. Their study identified that cause-related voucher schemes can encourage consumers to change their attitude and behavioural intention towards a product. Their study also emphasized selecting a good cause that aligns with the company profile.

Luo and Bhattacharya (2006) investigated the relationship between corporate social responsibility and market value. Their study found that consumer satisfaction of corporate social responsibility is an important factor in gaining market value. The effects of corporate social

responsibility on market value can be positive or negative, depending on the company's ability to support its corporate social responsibility. Mujahid and Mohiuddin (2008) found that consumers are willing to support new brands with a cause related to health and life savings concerns.

2.13. Conclusion

Overall, this literature review suggests that consumers are less knowledgeable about working conditions in the supply chain and in the textile and apparel industry in general. Since consumers have limited access to industry information, they remain uninformed. Though some studies indicate that consumer awareness of social issues is increasing, there is a behavioural gap. Consumers do not show support for companies that adopt safe practices by avoiding those who maintain unhealthy and unsafe workplace safety standards. Previous studies indicate that cause-related marketing is a good way to gain trustworthiness. Apparel retailers who adopt a good cause will stimulate consumers to purchase their products.

The present study examined consumer knowledge of problematic working conditions, attitudes toward helping to improve workers' environments, motivation in reducing hazardous work conditions, and willingness to protect workers in the textile and apparel industry. Furthermore, this study investigated how consumers wish to be informed about the conditions in which their clothing has been manufactured and how they wish to contribute in order to gain insight into a sense of social responsibility.

2.14. Research Proposal

All the production stages of the textile and apparel industry create different hazards for workers, the environment and consumers if proper safety procedures are not followed, appropriate chemical disposal techniques are not employed and the recommended level of dyes and chemicals are not used. Chemicals and dyes, dust, noise, heat, uncomfortable furniture, and work-related injuries are the major problems of the textile and apparel industries. According to comparative advantage theory developed by David Ricardo (1912), in order to develop economically, each country will produce goods for which they have an advantage in labour productivity. Later, Smith and Wight introduced absolute advantage and stated that "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage" (Smith & Wight, 2007, p. 294). However, the reality is that neither comparative nor absolute advantage is the motivation; rather the motivation is the profit maximization to create shareholder values by the Western multinationals through exploiting poor workers in developing countries. This study will investigate consumer attitudes towards the health effects of textile and garment industry workers in all areas of production from fibre to apparel. Consumer awareness of the working conditions leading to death, injury and other health-related problems seems to be low. Further, consumers may not be aware of the harmful effects of the chemicals that are used in various textiles and apparel processes. This study will investigate consumer awareness of worker protection. Increased awareness of the health effects of textiles may lead to increased demand from consumers for higher health standards in the industry. This research project is intended to investigate consumer preferences for clothing-related safety and worker safety, and whether consumers want a certification system and/or

textile labelling to confirm that no worker has died or suffered health consequences while making the apparel products. Consumers would be required to pay more for apparel to maintain a production system that will protect workers and the environment. Only when consumers are aware of the fact that some human deaths might have occurred, environmental damages have been committed and larger amounts of chemicals than recommended for making their apparel have been used, they would demand a "safety label" in clothing. This safety label will guarantee that apparel articles have been produced in a safe environment.

2.14.1. Advantages of a safety label.

Some of the expected advantages of a safety label are given below:

- Consumers will be well informed
- Easy to make purchase decision
- May increase product sales
- Proper chemicals and other processing materials and amounts will be used
- Comfortable work environment for workers will be provided
- Environmental safety

Chapter 3: Research Methodology

3.1. Introduction

The previous chapter reviewed thoroughly the textile and apparel workers' workplace risks, apparel labelling information and consumer shopping preferences with good cause-related marketing, which adds potential information for initiating and continuing a new safety label for consumer apparel products. This new safety label would inform consumers that their clothing was made in a safe work environment; as a result, workers could benefit when manufacturers have to maintain proper industrial functions. This research aimed to understand consumers' engagement in social action which may help textile and apparel industry workers by giving them a safer working environment. To study consumer behaviour, one qualitative and one quantitative method was used. The methods included participant interviews (qualitative) and a survey (quantitative) to establish whether a new safety label may be needed to aid consumers in the area of socially responsible apparel adoption. The study was designed with university-based consumers.

The analytic framework encompassed an in-depth understanding of consumers' perceptions towards textile and apparel workers' safety. The study is focused on: (1) consumer shopping motivations, (2) the likelihood of use of labelling information in consumer apparel purchase decision making, (3) consumers' attitude towards workers safety (4) consumers' level of awareness of health risks to textile and apparel workers, (5) consumers' willingness to protect workers by spending extra amounts, (6) finding a way of informing consumers about safe workplace and product safety, and (7) consumer participation in social actions.

3.2. Rationale for selecting university-based consumers

Both quantitative and qualitative approaches were used for this study. Quantitative research includes numerical data and these data were analyzed using statistics-based methods. Quantitative research develops knowledge through explaining phenomena of the numerical data and data collection process followed by surveys or experiments. On the other hand, qualitative research uses verbal and written words as data and produces knowledge which presents results more deeply. Qualitative can "give voice to a group of people or an issue; provide a detailed description of events or experiences; develop theory; interrogate the meaning in texts; identify discourses or demonstrate the discursive features of a text; and/or engage in social critique" (Braun & Clarke, 2013, p. 19-20). Qualitative research answers several issues related to a phenomenon and helps a researcher to understand the phenomenon deeply. Qualitative findings help to understand human behaviour from the participants' point of view. However, quantitative findings determine a fact from the data reported by participants. Qualitative data can be gathered through interviews, focus group discussions, and observations. On the other hand, quantitative data can be collected through different ways including surveys and lab experiments. Qualitative data are analyzed by themes from the participants' responses, and statistical methods are used for quantitative data analysis.

Both qualitative and quantitative research delivers stronger research findings with satisfactory clarification. In this study, there are two reasons behind selecting these two approaches: triangulation and complementarity. Triangulation is a process in which two or more methods are used to collect research data to determine the same phenomenon and provide more accurate results. Silverman argued that triangulation captures multiple "voices" or "truths" of the study field (as cited in Braun & Clarke, 2013). According to Jick (1979) "within-method

triangulation essentially involves cross-checking for internal consistency or reliability while between-method triangulation tests the degree of external validity" (p. 603). In this study, questions from the survey were also asked in the interview sessions to triangulate the data.

The complementarity approach brings qualitative and quantitative study together. In complementary research, "qualitative and quantitative methods are used to measure overlapping but also different facets of a phenomenon, yielding an enriched, elaborated understanding of that phenomenon" (Greene, Caracelli, & Graham, 1989, p. 258). These two research methods present numerical data of study results with a combination of text and narratives. To develop this research, both quantitative (survey) and qualitative (interview) methods were used to collect the study data and analyze results.

3.2.1. Face-to-face interview instrument: A qualitative approach.

A total of ten face-to-face interviews were conducted for the qualitative part of this study. Interview participants were involved in an in-depth interview with 22 questions, which generated textual data for the study. In order to prepare the interview questionnaire, I gained a better understanding of what is happening in textile and apparel industries in developing countries. I designed the interview questionnaire myself with the help of Dr. Tammi Feltham, one of my committee members. Also, research studies related to clothing industry incidents and workplace environment and literature on consumer behaviour helped me to design the interview questionnaire (for example, Nag & Patel, 1998; Dickson, 2001; Lane et al., 2004; Parimalam et al., 2006). However, later the questionnaire was modified according to the comments from the thesis Advisory Committee during my proposal defense. To make the research questions reasonable to the participants, a pre-test was done with two individuals before conducting the study. As pre-tests help researchers to ensure the simplicity of the research questions, the pre-test

helped me to select study participants. This was because of the difficulty to conduct interviews with the international students due to language barriers. For this reason, only Canadian citizens were selected for the interview considering that the main purpose of this study was to assess the consumer (Western) knowledge about the workplace conditions in developing countries and their willingness to help workers from unsafe workplace conditions.

Most of the interviews were 30 to 45 minutes long. A snowball sampling approach was used to recruit interview participants. Interviews were taken in three different rooms of the Human Ecology building at the University of Manitoba and ten-dollar gift cards were given to the participants after finishing each interview. Interviews were recorded by using a phone and an I-pad, and the interviews were recorded with the consent of the participants. Interview participants received an email with an invitation letter and interview schedules. Participants were asked to send their available time and based on their availability; they were sent a final schedule one week before the interview session. Before the interview, each participant was asked to read a consent form carefully, and sign and return it to the interviewer. A list of questions was asked of participants to obtain their knowledge and attitudes to protect apparel workers from unhealthy workplaces (the research interview questionnaire is presented in Appendix A and the informed consent form is presented in Appendix F). Though a list of questions was designed beforehand, a few additional related questions were added during the interview session to obtain participants' clear ideas on the topic. Transcriptions were made of those interviews and all the data were coded by manual coding process using NVIVO software.

3.2.1.1. How NVivo works. This research project involved working with a range and depth of data. For the ease of analysis, the qualitative data analyzing software NVivo was used. NVivo software was used to organize data, and analyze the thesis project. NVivo is widely used

in qualitative research. NVivo can be used to organize the literature review, perform data analysis, and assist in constructing the final report. For this study, NVivo was only used for data analysis. NVivo facilitates the making of transcripts of interviews and coding as well. Once all the sources are imported then NVivo helps to organize all materials under themes; this is called coding. It helps to make nodes and sub nodes of all the interviews by interviewers' names and organizes their themes as coding and sub-coding. NVivo can record demographic details about the interviewers and places. NVivo helps to place items from the same theme under one folder; that helps to differentiate similar or conflicting issues and helps to generate new ideas. NVivo can also create memos to capture findings and insights. When analyzing the data, the query option of this software allows the user to ask questions; for example, the user can search for the most frequently used words or specific text and other ways to analyze the data. It helps to create models, bar charts, and other diagrams to explore the connection between all the data and to present the findings of the query.

   3.2.1.2. Using NVivo for this study. After taking the interviews, transcripts were made of those interviews in a word file after each interview session. Transcripts of those interviews were imported into NVivo software for analysis. Interview data were coded with a manual coding process based on relevance with the research questions. Coded data from each transcript was kept under separate nodes. Further, data were analyzed by comparing participants' responses with one another using word frequency query and text search query. To gain reliability and validity of the study, member checking criteria and triangulation were used. Member checking refers to the practice of checking research analysis with the participants to avoid misrepresenting the participants' insight from the study. Member checking proves the reliability of the study, which indicates the results are credible and dependable from the participant's

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comments (Braun & Clarke, 2013). On the other hand, the reason for selecting triangulation is "triangulation seeks convergence, corroboration and correspondence of results across different methods" (Carcelli & Green, 1993, p. 196). For example, some of the questions asked in the interview were also asked in the survey to corroborate the results. Specifically, in the interview, participants were asked how much they would contribute for a new safety label to protect workers, and during the survey, participants were asked to select a percentage that they would provide for a new safety label. The final result of this research is determined based on the highest responses and evidence of participants' willingness to protect workers from unsuitable work environments. Finally, both interview and survey findings were brought together for results.

    3.2.1.3. Interview participants' demographic information. Participants in the face-to-face interviews (N=10) were 70% female and 30% male. All of the participants were Canadian, ranging in age from 19 to 24 to the over 60 categories, with 60% falling between the ages of 25 to 29. All of them were affiliated with the University of Manitoba, where 60% of participants were University of Manitoba staff, followed by 30% graduate studies, and 10% University of Manitoba faculty members. Participants' demographic information is presented below in Table 3.1.

Table 3.1. *Participants Demographic Information*

Name	Gender	Age (Year)	University of Manitoba Affiliation
Participant 1	Female	25-29	Staff
Participant 2	Male	25-29	Graduate student
Participant 3	Female	30-34	Staff
Participant 4	Female	40-44	Staff
Participant 5	Male	19-24	Staff
Participant 6	Female	25-29	Graduate student
Participant 7	Female	50-54	Staff
Participant 8	Female	25-29	Staff and faculty
Participant 9	Female	25-29	Staff
Participant 10	Male	25-29	Graduate student

Note: Participants names are kept confidential.

3.2.2. Survey instrument and data: A statistical analysis.

The survey gathered numerical data on participants' apparel purchase decision-making influence (shopping motivations), knowledge of label information, concern about aspects of workers' safety, and willingness to contribute for a new workplace safety label. Participants were asked to fill out 22 survey questions and four demographic questions (Appendix B). I designed the survey myself with the help of Dr. Tammi Feltham, one of my committee members. Literature on consumer behaviour, workplace conditions, effects on workers health, and workplace accidents (for example, Nag & Patel, 1998; Dickson, 2001; Lane et al., 2004; Parimalam et al., 2006; Iwanow, McEachern, & Jeffery, 2005; Kim & Damhorst, 1998) also helped to design the survey. I have used one demographic question from Dr. Feltham's study. To ensure the clarity of the survey questions, a pre-test was conducted with five individuals before circulating the survey to all participants. The pre-test helped to design the survey properly and gave an opportunity to learn how to analyze survey responses. Only University of Manitoba participants were surveyed because a large number of Canadian and international students and staff members are attending University of Manitoba. All the survey responses were analyzed, excluding two responses from "other" gender category.

The survey was conducted using SurveyMonkey software. SurveyMonkey was used to design the survey questions and to collect the survey responses. At the beginning of the survey, participants found a detailed consent form for the survey and risk and benefits for participation in the survey (Appendix E). Academic advisors from different Faculties at the University of Manitoba circulated the survey within their Faculty. A total of 106 responses were collected for this research. Initial calculations (averages, mean) were done from the survey responses using SurveyMonkey. Further statistical analysis was done using SPSS software. One Way ANOVA,

Matched Paired t-test, and Pearson's correlation coefficient were conducted to examine mean differences and relationships.

3.3. Reliability and validity of the study

The findings of the research project must be reliable and valid. According to Yardley, "reliability refers to the possibility of generating the same results when the same measures are administered by different researchers to a different participant group" (as cited in Braun & Clarke, 2013, p. 279). Reliability is a way of measuring research responses by different researchers or different times to identify differences or variances among different participant groups. Reliability is defined by consistency in results and the limitation of inaccurate measures. Asking participants the same questions at different intervals can be used to observe the reliability of a study (David & Sutton, 2004). However, "criterion validity involves the researcher undertaking some initial analysis of the measure to check that it performs in the way that it would be expected to" (David & Sutton, 2004, p. 171). To increase the reliability and validity of the research, member checking and triangulation criteria were used. After constructing the interview transcripts, participants were asked to read the results so that they could identify whether any misunderstandings existed. Triangulation was used by asking similar questions in the interviews and the survey to examine the same phenomenon with different research methods. Triangulation also enhances research credibility and helps establishes the validity of the research.

Survey reliability analysis was conducted using SPSS v22 software to determine the internal consistency of the survey responses. A total of 41 number of items, including 26 research questions and 15 sub-categories of the research questions (for example, question#1 has 5 sub-categories), were analyzed for the reliability test. Majority of the questions were designed in 5 point Likert scale. The Cronbach's alpha reliability test indicates that all the items in the

scale had a high level of internal consistency. The Cronbach's alpha reliability co-efficient was 0.834, which suggests a good internal consistency of the data. Cronbach's alpha for each items and sub-items in the scale shows a higher level of internal consistency ranging from 0.811 to 0.843. Moreover, Cronbach's alpha for each sub-items shows good internal consistency, with an average 0.839 for question #1, 0.834 for question #9, 0.835 for question #10, and 0.827 for question #18 (Table 3.2). The result of the Cronbach's alpha test is presented in Appendix H.

Table 3.2. *Calculations Cronbach's Alpha for each sub-scale*

Items		Cronbach's Alpha	
Question 1-26		0.834	
Question 1	Sub-scale	Cronbach's Alpha if item deleted	Cronbach's Alpha (Average)
	Q1	0.837	0.839
	Q2	0.839	
	Q3	0.839	
	Q4	0.843	
	Q5	0.840	
Question 9	Q1	0.834	0.834
	Q2	0.834	
	Q3	0.835	
	Q4	0.834	
	Q5	0.836	
Question 10	Q1	0.835	0.835
	Q2	0.834	
	Q3	0.836	
	Q4	0.836	
	Q5	0.836	
Question 18	Q1	0.827	0.827
	Q2	0.826	
	Q3	0.824	
	Q4	0.829	
	Q5	0.829	

3.4. Summary

This chapter elaborated the methodology used in collecting and analyzing the study results. Analyzing the data collected from the survey and interviews was expected to uncover consumer perceptions towards clothing and workers' safety aspects. Member checking and triangulation indicates the trustworthiness of the study (Braun & Clarke, 2013). This study

brought qualitative and quantitative studies together and presented increased attention to the issue of consumer attitudes towards garment and textile workers' safety.

Both qualitative and quantitative research approaches asked similar questions and were expected to provide unique results of the phenomenon, with the interview determining what issues consumers are observing and the statement of how they want to be informed, and the survey presenting their purchasing habits and levels of awareness to protect workers from unsafe workplaces.

There are some challenges in conducting qualitative and quantitative research together, which includes extensive data collection, limited time to analyze both text and numeric data, and the fact the researcher needs to be familiar with both qualitative and quantitative research approaches. However, qualitative and quantitative approaches contribute to stronger study results within a single research project.

Finally, this chapter disclosed methods that were used for this research and explained the participants' involvement with this research.

Chapter 4: Knowledge and Attitudes of Textile and Apparel Consumers: Analysis of Data from Face-to-face Interviews

4.1. Introduction

In Chapter Four, the interview findings demonstrated consumers' knowledge of problematic working conditions, their attitude toward helping to improve workers' environments, their motivation to be involved in reducing hazardous work conditions, and their willingness to protect workers in the textile and apparel industry. Furthermore, this study looked into how consumers wish to be informed about the conditions in which their clothing has been manufactured and how they want to contribute. As part of a face-to-face individual interview, ten responses were obtained from Canadian participants between May 07 and June 05, 2015. A qualitative software, NVivo, was used to analyze interview data. The interview data were coded with a content coding process through NVivo software. The main findings of the interview data address consumers' demand and willingness to ensure safe workplace for the workers who are engaged in all the clothing production stages.

4.2. Results

4.2.1. Purchasing knowledge and attitude.

The following section introduces participants' shopping attitude, experience and knowledge about textile labelling; all of the data are presented in table 4.1. The result shows that the majority (80%) of the participants responded affirmatively; however, two of them stated that they had not purchased clothing, outerwear, or footwear in the last thirty days prior to their interview session. Participants purchased mostly t-shirts, tops, pants, shoes and rain jackets. Shopping frequency ranged from once a month, once every two months, once every four to six

months, to two to six times a year. Nonetheless, participant shopping frequency and preferences also depended on the change of season and different activities (for example, clothing for professional wear, university wear, and sportswear).

Participants indicated that comfort, appearance, price, quality, fashion, and fit are the major priorities of their purchasing decisions. The majority of the participants have strong priorities regarding comfort and price; however, none of them mentioned that they look at whether the clothing meets safety standards criteria. 20% of the respondents were conscious of where the clothing comes from; one of the participants mentioned that most of his clothes did not indicate country of origin. These results support earlier work, which indicated price, quality, and style had a higher influence on consumers' shopping decisions (Iwanow et al., 2005). Another study by Carrigan and Attalla (2001) identified price, value, brand image, and fashion trends strongly influence buying decisions. Current participants also mentioned that they have limited information available on the clothing label as to whether the product was made in a safe environment. Responses included:

> *I knew that I was buying for certain country that was safer workplace than others,*
> *I'll choose that one, but I don't know when I'm making the purchase, it doesn't*
> *say on the label.*

To address health risks associated with clothing choices, all the participants' had positive responses; they never experienced any health issues from their clothing. One of the participants mentioned that he/she believes that there is a possibility of health risks in fabric processing with certain types of dyes and chemicals but he/she had not experienced this. Additionally, one of them stated that clothes made of fur or animal skin may have a health impact. Participants were not concerned about health risks, with one participant commenting, "My main concern would be

like I guess, if it was uncomfortable, rather than the health risks." On the other hand, participants

have their own demand when they purchase clothes for themselves; mostly they do not think of

health impacts which may arise later by wearing clothes. Some of the participants had concerns

for workplace health risks, and they mentioned improper workplace scenarios such as lack of fire

extinguisher, poor building quality, and child labour. Furthermore, one of the participants

reported that they try to avoid some stores because they heard through the news that those stores

imported garments from unsafe factories and for this reason they tend to buy clothes from

smaller boutique stores, which they believe manufactured more safely than big corporations.

Comments included:

> *We try not to buy clothes from like the Gap or stuff because we know, as I read a*
>
> *lot of reports that they contentiously have unsafe factories.*

60% of the participants were comfortable with the information available for their clothing

purchases whereas 40% of the participants believed that retailers are not providing enough

information to make their purchase decisions. Participants also claim that sometimes they have to

ask the sales person specific questions regarding a selected piece of clothing but the answers

were not always helpful. One of the participants was satisfied with their purchase because they

mostly purchase clothing from Mountain Equipment Co-op, which pride themselves on

maintaining fair trade and a high quality of garments that are not made in a sweatshop

environment. Although they purchase from this store with satisfaction, they are not 100% sure

that a shirt which cost 2 dollars was made in a high quality and safe environment. Participants

also have negative comments on their purchase decision, "I don't bother buying anything from a

store that doesn't give a material and a measurement." At the same time one of the participants

considered that consumers are not looking for in-depth information for their purchase, which

he/she thinks is not necessary because there is not such concern that a retailer needs to inform consumers. Although most of the participants mentioned that they are satisfied about the information provided by retailers, they are also asking for information regarding a safer work environment, which will also influence their purchase decision more effectively.

It is obvious that not all the participants check the textile labelling when they purchase clothing items. All the participants who stated that they check labels before purchase mostly check the care label, and infrequently check size label, price tag, fibre content, and country of origin. Approximately 70% of the participants check the textile labelling information when making purchase decisions. In comparison, a study found that 60% of the participants read hang tag information "on a frequent or very frequent basis when shopping for clothing" (Hyllegard et al., 2012, p. 62). Another study found that 11% of British consumers frequently check label information before purchasing apparel products (Iwanow et al., 2005). To compare with the current study, consumers are concerned day by day about their apparel purchase decision-making. One of the participants acknowledged that if they buy the same type of clothing they just check the size, not other labels. Participants felt that they should check the label when they purchase but they did not do it before; one of them said they just check the care label after they purchased clothes. Surprisingly, one of the participants did not know what textile labelling is. I explained to them the definition of textile labelling and they mentioned that sometimes they check textile labels. Participants pointed out that when they purchase expensive clothes they look for the care label; some of them do not look for other labels. One of the participants mentioned that they check labels on their bigger purchases because they want to make sure the clothing would last long and whether it would serve their intended purpose.

Most of the participants were fairly satisfied with the textile labelling information as their priority was mainly washing instructions, which are a common label with almost all the clothing items. For example, "It provides all that I need to know in terms of washing, drying, ironing," stated one graduate student. One of the participants mentioned that he/she is fairly satisfied with the available clothing label information but he/she would prefer more information like shoulder measurement, "how wide the shoulder is." Moreover, participants also want information on whether the company follows ethical standards and a way to declare this to the public, one of them commented:

> As far as content and care pretty good but I'd like to see some kind of a label like; you know you can buy chocolate bar and coffee where they are labelled like fair trade and with their ethical practices standards, it would be nice if there were something like a symbol on clothes.

Participants sometimes get limited information on the labels and sometimes they get a considerable amount of information, thus their satisfaction depends on the information available to them. One of the participants said they are satisfied with the information they are getting from textile labels but they reported "I do understand that what I am searching for is minimal so my threshold is very low for what I am expecting to see."

In terms of knowledge related to garments or textile factory accidents, 80% of the participants were aware of incidents that are happening all over these industries. 20% of the participants were unaware of the working conditions, and they did not hear about any incident in the past few years except for child labour and unfair wages. It is obvious that not all the incidental news reaches the public; for example, one of them spoke about "I am sure I don't hear it every time that happens." Participants also stated that whenever a big thing happens where a

big company is involved they are always committing to safer practices but in reality nothing changes, "all started signing agreements that they would fix their practices but that happened years ago too with Kathy Lee Gifford's clothing factories and she was like no we are gonna do good and now she is back to the same".

Table 4.1. *Participants' Knowledge and Purchasing Strategies*

Respondent	Purchased item in last thirty days	Purchase frequency	Priority	Anticipated health risks	Response on checking the textile labelling	Level of satisfaction with available labels	Knowledge about Garments Factory Accidents
P1	Some t-shirts and tops	N/A	Fashion, price, colour, fit, appearance	No	Depends on what it is	Skip the question	Never heard about accidents. Heard about child workers, unfair wages.
P2	T-shirt	Not often	Plain with no logos or anything, comfortable, very generic, fibre content	No (only sweat for certain types of clothing)	Sometimes	Fairly satisfied (little bit more information)	Fire problem
P3	Shoes	Two to six times a year	Comfort, affordability, quality, country of origin	No	Will check	Pretty good for care instruction (want label like fair trade and ethical standards)	Yes, there was a accident probably in Bangladesh
P4	N/A	N/A	Quality of the garment, price	No	Yes	Sometimes limited and sometimes lot of information.	Yes, a sewing factory caught fire and people died
P5	A rain jacket, shoes, and pants	N/A	Appearance, quality of materials, price	No	Yes (expensive purchase)	Satisfied	Yes, a massive building collapsed in Bangladesh
P6	Tang-tops	Once a month	Affordability, comfortable	No	No (just wash care)	Fine (more information about the product itself)	Yes, few garment buildings collapsed in Bangladesh
P7	Two tops, a pair of pants and pair of Capri	Once every two months	Fashion, cost	No	Yes	Enough that I need to know	Yes, a garment building collapsed in Bangladesh. Watched CBC documentary
P8	A pair of shoes, pair of running shoes, some shirts	Four to six months	Well made, price, fashion, country of origin, stitch	Misinterpreted the question	Yes	Sometimes not great	Yes, one recent incident and several others heard before. Watched investigative report
P9	Clothing and footwear	Once a month	Long lasting, well made, fit,	No	Yes, normally	Pretty satisfied	Early nineteen hundreds, fire killed "a bunch of textile workers", also heard about incidents few months ago.
P10	N/A	Not every often	Cost	No	No	Good enough	Not heard about accidents, but aware of working conditions

*N/A=not purchased, *N/A=not asked/answered

4.2.2. Participants' awareness of issues involved in textile and apparel industry workplace safety conditions.

Before consumers can take action, it is necessary that they become aware of the suffering of apparel supply chain manufacturing workers (ASCMW). During the interview session, participants were asked about their knowledge of the types of hazards and their reactions towards working in these conditions, their willingness to learn about the working conditions, their willingness to take action and suggestions for creating safe working conditions. Further, we asked participants whether or not in the past, factory conditions were on their mind when they purchased clothing items. Table 4.2 embodies the participants' responses regarding these aspects of the textile and apparel supply chain industry (TAASCI).

The majority (80%) of the participants were aware of the hazardous working conditions of the ASCMW. Further, participants could name the hazards that the ASCMW are encountering in their daily activities. Participants in this study shared their knowledge about the apparel production hazards including fire hazards, chemicals hazards, faulty machinery (unsafe machinery), unsafe building structures (no fire exit or fire alarm, not properly ventilated), lack of protective gear, working with sharp objects, high temperature, bad air quality, dust, crowded workspace, lack of training on machinery, long working hours, poor wages, and child labour. Below in Figure 4.1, I have grouped these hazards according to participants' knowledge of textile and apparel industry hazards. This level of knowledge about the working conditions in the textile and apparel industry by Western consumers is surprising because of the very long supply chain and most of the work in this field investigated the apparel factory conditions, not the textile and apparel supply chain. This is also contradictory with the findings of Dickson (1999), who

showed that US consumers were not knowledgeable about the global apparel industry, and they

are less concerned about foreign workers.

Figure 4.1. Types of Manufacturing Hazards in Textile and Apparel Industry
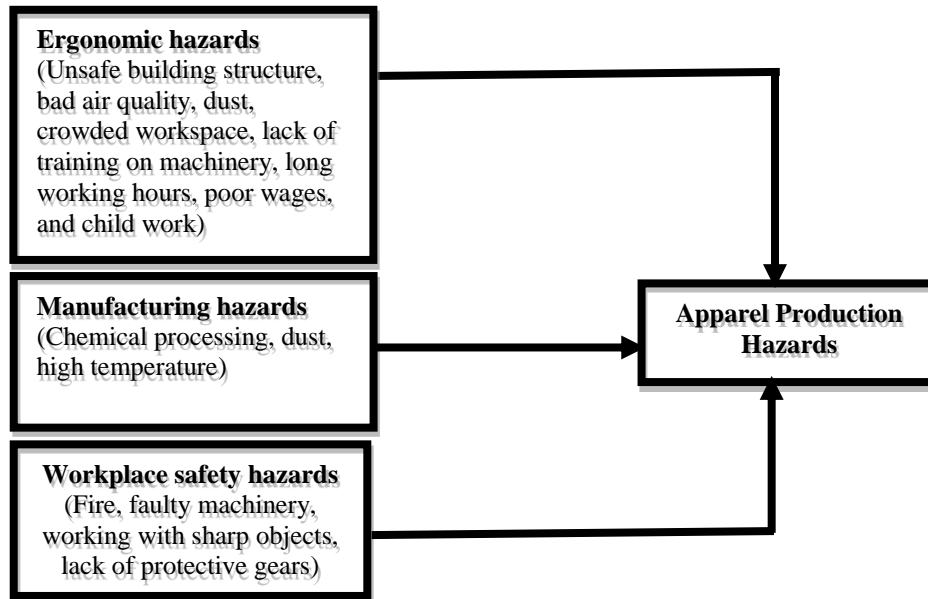
All of the participants reacted negatively to the hazardous working conditions in the

TAASCI. Participants were angry, shocked and upset, and they described the situation as bad,

terrible, unethical, inappropriate, and unacceptable. Further, almost all (90%) of the participants

answered affirmatively when asked about their "willingness to learn about manufacturing

hazards" in TAASCI. The responses can be seen in Table 4.2 (Column 4). For some participants

knowing hazardous conditions is important, fair, ethical, and "good to know." Also, a couple of

participants mentioned that knowing the hazard conditions in TAASCI helped them to make

informed decisions and would have influenced their buying decisions. However, participant #5 is

aware of factory conditions and does not want to learn further as, according to his/her opinion,

he/she is not concerned about the factory conditions and thought that this is up to the regulatory

body.

Since the majority of the study subjects were aware of the poor working conditions, participants were asked whether or not they thought about TAASCI while wearing apparel items. The responses varied, ranging from "yes.", "yes but not important to the participant.", "yes and struggling with this issue (due to family experience).", "yes only when it comes up in the news" and a simple "no.". Participants said that they have thought about what is really happening with this factory, as one participant stated, "I don't think I have actively thought about that when I am purchasing clothing. Maybe I should." Another participant said, "unfortunately I am ashamed to admit that the only time I really think about these issues is when something comes up in the news, like there was a building collapse that Rana Plaza in Bangladesh a couple of years ago." In terms of participants' positive concerns over the factory conditions, one of the participants' stated that,

> It's only something that you hear once in a while, you can only hear when there
> is a disaster or something really extreme and I know then these companies always
> say that they are going to improve their conditions and what not but, I mean of
> course their bottom line is money and they don't really care about human
> conditions. So you know that it's still happening.

Participants were willing to help protect workers from work-related risks. Participants also emphasize they need to research what they are buying, from where they are buying, and what safety standards are in place. Participants' intentions would make them more knowledgeable about these issues. Most of the participants mentioned that they have to avoid buying clothes from sweatshops, in order to force companies to change their production policy. In addition, one of the participants mentioned that, besides not shopping from sweatshops, consumers have to raise their voice "through the form of a letter to the company or you know

just some official statement like I don't agree with this, and then trying to track down,

organization and groups who are actually working to, to better those conditions." Participants

also stated that they need to keep themselves informed, which will help them to make their

purchase decisions, and support groups of companies which have safe work conditions.

Some participants have already taken action to avoid purchasing imported clothing. For

example, participant # 2 said this is "one of the reasons why I shop at MEC for most of my

bigger items." MEC stands for Mountain Equipment Co-op, a store that is owned by the people

who shop there. MEC sells products that are regarded as high quality, reasonable prices,

environment friendly and long-lasting.

Participants in this study mentioned some companies, such as Wal-Mart, Gap, H&M,

Loblaws, Joe-Fresh (participant 2, 3, 5, 6, 7, 8), which they heard are bringing products from

poor work environments, so participants are trying to avoid those stores for their clothing

purchases. Participants are getting more involved with small boutiques rather than big retailers

because they believe small stores engage in safer production comparatively. Sometimes

participants report that they are avoiding companies but in actuality they are not; for example,

Iwanow, McEachern, and Jaffrey (2005) investigated ethical trading policies on consumer

apparel decision-making process and concluded that 67% of the participants were concerned

about unethical practices (child labour) of GAP store but still they purchased from GAP store; on

the other hand, 25% of the participants avoid GAP store because they were aware of that issue.

Though participants of the Iwanow et al. (2005) study found that the majority of the participants

are aware, they are still buying from those stores which do not have safe practices. Participants in

our study who were aware acknowledged that every time a major accident occurs, companies

promise that they are going to change their industry policy but in actuality they do not change anything. Comments included:

> *all started signing agreements that they would fix their practices but that*
>
> *happened years ago too with Kathy Lee Gifford's clothing factories who*
>
> *committed to change but now she is back to the same.*

Participants explained some ways that they can take actions: sign an online petition, send a letter to that company, work with an activist group, spread word through social media, tweet at the company, write an article explaining this topic, boycott those companies, and meet a company contact person directly. A study by Rogers (1998) identified that 57% of the respondents would avoid buying a brand if they had child labour, and 21% agreed to support an action against unethical practice companies. There is a great difference in supporting an action and taking actual steps against unethical practices.

Participants in this study claimed that it is hard to track information about real workplace scenarios because no one is going to tell them the truth, since the company's intention is to always hide the facts. Similarly, one of the participants mentioned that companies sometimes gives consumers wrong information about their product whenever they say it is made in Canada. In reality, most of the parts of the products were made in other countries, they brought all the parts here and it was merely assembled in Canada.

Some of the participants stated that they had never protested problems like this before but now that they are aware of it, they are willing to protest in their own way. For example, one of the participants stated: "I would definitely tell my friends, I would say do not shop here, ... just word of mouth to people and actually that gets around very fast."

Participants were eager to help workers but they believe it is not possible to change anything alone; if all the people become aware of it that could bring positive change in TAASCI. Participants shared their ideas on how to create awareness among the consumers about this issue, one of them suggesting a new label with workplace safety information. In this way when a parent will buy new clothes their child may see that label and ask his/her parents what's going on in the background of cloth manufacturing.

Almost all the participants were willing to protect workers from unhealthy work environments but they want to depend on some strong steps (taken by any groups or other organizations that they can support) that could act to provide workers a safe workplace. One of the graduate students stated that they do not consider themselves an activist but they can change their consumer habits instead of actively protesting for improving the workplace conditions. Participants also reported that they actually want to help workers but they do not know where and how to participate with those kinds of activist groups; they do not even know if there is any existing activist group working to protect textile/garments workers from an unhealthy work environment. Similarly, one of them believes that there is no ongoing activity for this topic. Participants also had preferences supporting their own area of interest; for example, one of the participants mentioned that they are willing to give their time as an activist for protecting textiles/garments workers but right now their priority is "food security and aboriginal health specially like women's health." Another participant said, "I can make a difference with the animal welfare in my local community, so the extra time that I have for volunteering doing activist stuff goes into that avenue."

All the participants gave suggestions to bring workplace safety so that it can save thousands of workers from unhealthy work environments. For example, some participants emphasized the government's role and legislation influencing and implementing safe work practices. Participants shared their interest in the establishment of international standards and they emphasized governmental responsibility in ensuring proper procedures or policies in the TAASCI. Along with this, participants said that there should be strict financial penalties for whoever does not follow the proper safety standards, and for whoever accepts bribes.

Participants also thought that consumers should demand that retailers follow safe working practices so that the retailers respond to them. Some of the participants talked about business policies of large corporations; big companies always intend to make money and they use cheap labour to increase profits and cut on safety. If big companies change their policy this could bring positive changes in the clothing industry.

To change the workplace environment and maintain a safe manufacturing process will take time, said one of the participants. Participants also stated that it is possible if consumers, retailers, manufacturers, and government come forward to solve this issue. There is also a need to establish a strong organizational framework, and their unified efforts could make a difference on this subject. Some participants stated that manufacturing countries should ensure importers have products of good quality and in which their workers are working in a good environment.

Table 4.2. *Participants' Responses in Different Aspects of Protecting Clothing Workers*

Respondent	Knowledge on apparel production hazards for workers	Thought about textile factory conditions	Willingness to learn about manufacturing hazards	Spending Time as an Activist to Protect Workers	General reaction	Willingness to take action	Suggestions for creating safe work environment
P1	Poor machinery, chemicals, building collapse, lack of protective equipment, unsafe work environment	Not so much with the clothing manufacturing aspect	Yes, "it would be good to know"	Depends on how much time is required, willing to support activist group	Unacceptable	Need to do research more and select proper products, spreading word	Government role (strong policy and procedure), set a new safety label (indicates safe workplace)
P2	High temperature, long working hours, low paid, slave driver	Yes, few times	Yes, "it would be a good thing"	Yes, but if there is a guaranteed way to help workers	Bad	Stop buying	Need to take big action to change existing practices (like a revolution), retailers from importing countries role (ban imports from poor working conditions)
P3	Lack of training on emergency fire exits and using machinery, long working hours	Yes, that's makes feel bad	Yes, "we should all be aware of it"	Yes, but no idea how to participate actively	Stop purchasing from that specific company, spread word, share news stories, inform other people	Stop buying and present active voice against that company, support groups	Have a strong organization worldwide, who intend to protect workers
P4	No knowledge	Thoughts about where clothing comes from and how were they made	"Yes, absolutely"	Yes	Unethical, inappropriate, stop purchasing	No answer	Should have in charge person, whose responsibility will ensure health and safety policy, proper regulation, and ensure quality
P5	Chemical dyeing, fabric processing, poor working condition, improper machinery use, lack of use safety equipment	Yes, aware about it	No, "there should be regulatory body that I would support"	Yes	Terrible	"keep my ears open and be informed", "support groups"	Support implementation of proper laws and regulations

Table 4.2. *Participants' Responses in Different Aspects of Protecting Clothing Workers - Continued*

Name	Knowledge on apparel production hazards for workers	Thought about textile factory conditions	Willingness to learn about manufacturing hazards Spending Time as an Activist to Protect Workers		General reaction	Willingness to take action	Suggestions for creating safe work environment
P6	Unsafe building structure, fire, lack of protective measurements for the workers, , "working with sharp objects"	Yes but not something focus on	Yes, "this is really important to especially for larger chain companies"	Yes, but currently campaigning towards other issues	Shocked	To "be a wise consumer first", campaign	Have a international standards and government has to force companies to follow the international standards
P7	Unsafe building structure, fire, long working hours, dust, chemicals	Yes	Yes, "that would influence my buying decisions"	Yes	Upset, angry	Support "through the power of money approaches"	Raise awareness
P8	Fire, unsafe building, unsafe machinery, chemicals	Yes, "that something I kind of struggle with"	Yes, "that's entirely fare and ethical"	Yes	Upset, do not support that company financially, raise awareness, share information with others	"encouraging politician or organization agitating for that", spread word, "organize people to do educational visits or put pressure on the owner"	Strict regulation, strong financial punishment for companies who have poor working condition
P9	Building collapse, fire, machinery not properly ventilated, workplace injuries	Yes, only when it "comes up in the news"	Yes	Not sure	Bad	Stop buying clothes from unsafe workplaces, try to buy local things	Proper building codes, inspectors should not be bribed, build workers union to have worker's right
P10	No knowledge	No, "but I am aware of issues regarding that"	Yes, "help me make more informed decision"	Not as activist, but can change buying habit in terms of poor practices	Bad	Stop supporting companies who has poor condition may result in safe work environment	Government legislation

4.2.3. Ways to inform consumers about workplace safety standards

When participants were asked whether they are interested in having a new textile labelling system with workplace safety information, they were enthusiastic about the idea and felt this is important. Participants' responses were as follows:

"I think that would be extremely useful. That would be our first start in making a big change."

"Yes, absolutely, I would love that actually because that would help me a lot."

"Absolutely, I think that's also a really good one because it's something that the consumer would instantly recognize."

All the participants appreciated having the idea of a new label with safety information and felt that this would raise awareness towards safe work environments. One of the participants thought there should be a safe label with clothing purchases but he/she also thought about the possibility of a fake label to mislead consumers. We think this is a good approach to raise awareness among the consumers, though the participant did not mention the price difference of these two labels and how different brands could implement two different labels; also, this idea would allow people to try cheap stuff as usual. Another participant was concerned about how he/she would know that the information is authentic. Participants also commented that labelling the clothing could also increase the sale rate. In addition, participants felt that having an international standard for such labelling was extremely important. In this respect, Thomas (2008) called for addressing an urgent need for precise labelling for the apparel product, and recommended that it should include long descriptive information about the industry's ethical practices.

When participants were asked in which way they would prefer to be informed about workplace safety, participants showed a preference for a label on the clothing. The interview result shows that five of the participants would prefer label on the clothing, four of them would prefer a hang tag on the hanger and one of them chose all three options (certificate on wall, label on the clothing, and hang tag on hanger). This agrees with Connell's (2010) findings that consumers would like to receive environmentally preferable apparel information through the internet and product labelling. Table 4.3 presents the participants' responses on how they want to be informed about the safety of workplaces.

Table 4.3. *Participants' Responses on How they Want to be Informed*

Name	Response to have a new safe workplace indicated clothing label	Given three options			Participants suggestion
		Certificate on wall	Hang tag on hanger	Label on the clothing	
P1	Yes, "I think that would be extremely useful"		✓		
P2	Yes, "it would be good"			✓	Locally produced, factory open for public
P3	"Yes, absolutely, I would love that actually because that would help me a lot"			✓	A bigger public statement, an endorsement form, a logo
P4	Yes, interested to see the information on a label			✓	
P5	Yes, "absolutely"			✓	A logo or certificate on the label
P6	Yes, "I would definitely look for that if it is available"		✓		Tag, a third party website
P7	Yes, "one hundred percent"			✓	On the label, on store's website
P8	Yes, "of course"		✓		On the label, on the tag, advertising
P9	Yes, "I would love that"		✓		Store's website with "about us" section
P10	Yes, "would be a good idea"	✓	✓	✓	Advertising, a tag, a symbol or a statement

However, participants' also felt that advertising, presenting information on a tag or symbol or statement could be other ways of informing consumers about product safety. Moreover, participant # 6 shared an excellent idea for making a third party website where "companies have been [sic] linked to either good workplaces or unsafe workplaces." Consumers would obtain all the information including news stories behind the workers conditions in one website. He/She also mentioned that the third party website could list all different apparel retailers and brands, and rank their safety practices. He/She also highlighted about the importance of the website, to influence our next generation as they are becoming aware of the ethical responsibility; as a result, at the beginning, the third party website might have only a few people use it but it "could definitely grow into something that everyone would be using to keep companies responsible."

When asked about the trustworthiness of the proposed "Certificate on Wall, Hang Tag on Hanger and Label on the Clothing," all participants wanted an independent third party certification. A few of them wanted an independent third party certificate along with a government certificate from the importing country. Almost all of the participants wanted the involvement of an independent third party. Participants wanted the independent third party to be more objective and trustworthy and not have an economic interest, but rather a human rights interest. One participant said:

> *I'd want an organization that is accountable that has public records, you know*
>
> *that has very clear communication about how they rank these things and how*
>
> *often things get inspected. I think it would be better coming from a disconnected*
>
> *third party for developing a global standard.*

Regardless of whoever certifies the clothing, the participants felt that third party certifiers should not mislead them by giving them wrong information about the products. For instance, certifiers should not certify products which do not come from safe environments and are made in factories that do not maintain proper manufacturing processes. Participants strongly felt that having one international standard is important in monitoring and assuring consumers about the safety facts of the TAASCI.

4.2.4. Consumer willingness to contribute.

All the participants stated that they are willing to spend more for apparel with information about workplace safety. Almost all of the participants were willing to pay more for quality products that were manufactured in safe work environments. Although all of the participants were willing to pay more, when we asked how much more they would pay on a percentage basis, the answers varied (Table 4.4). Participants were asked to choose among the following increments: 5-10%, 10-15%, 10-20%, 20-30%, 25-30%, 35-40%, 50, and 100%, depending on the price of the clothes. One participant preferred to pay similar to tax (PST, GST) for safety label. In addition, one of the participants mentioned that as a student, they could only spend 10-15% more, but in the future they might able to afford more. One study found similar results that participants would "pay the premium for any good quality products that were produced through a more responsible approach" (Carrigan & Attalla, 2001, p. 570). Finally, the participants in this study were ready to spend more money on a quality product that comes from a safe work environment. Table 4.4 below show participants' willingness to spend more and the amount they can spend for the apparel that provides information about workplace safety. The findings of the Table 4.4 shows that all of the participants are willing to pay more for the

workplace safety information and the majority of them are willing to pay in between 10 to 20%

over the regular tag price.

Table 4.4. *Participants' Willingness to Spend more and the Amount they are Willing to Spend*

Name	Willingness to pay more	How much more?
P1	Yes	5-10%
P2	Yes	100%
P3	Yes	25-30%
P4	Yes	35-40%
P5	Depends on price difference	10-15%
P6	Yes	20-30%
P7	Yes	10-15%
P8	Yes	50%
P9	Yes	20-35%
P10	Yes	10-20%

4.3. Discussion

The results found that the majority of consumers are aware of the working conditions in

the textile and apparel supply chain industry. The results are surprising considering the very long

supply chains that are required to make apparel articles. This finding of the current research is

also contradictory with previous studies by Connell, (2010), and Hill and Lee (2012), who

reported that consumers were less knowledgeable. The finding of the current research could be

explained by the fact that the subjects of our study are well educated and are all Canadian

citizens. Further, the study subjects are working and/or studying in a higher educational institute

(University of Manitoba) where they meet with many international students who come from

countries where clothing is being made. Participants also mentioned that they became aware of

questionable working conditions in apparel factories from the news media. One participant stated

that:

Well, I just heard the conditions are so poor and health and safety policies are not

in place. I think there is one on the news that a sewing factory caught on fire and

people died in the fire. I don't know whether they could get out or not. I am not

exactly sure about the detail but definitely I heard about that.

Most of the study subjects are aware of textile and apparel factory workplace

safety conditions, and they want to learn more about manufacturing hazards that might

happen in factories where workplace safety is an issue. Participants argued that providing

manufacturing information in one sentence (for example, this apparel article was made in

a safe environment) in an apparel article would assist them to make informed decisions.

One participant (P10) stated that:

I think that would help me to make more informed decision. I think lot of people

would be interested in knowing that. If they know the background, that would

make a difference.

Almost all participants want to know more about workplace safety. Such workplace

safety information can be made available to them by retailers and manufacturers. A similar

proposition to increase consumer knowledge about workplace safety through educational and

marketing campaigns has been mentioned by Hill and Lee (2012).

Participants were appalled by the dangerous workplace conditions and the retailers'

practice of providing misleading information about the country of origin. Participant (P1) stated

that:

I think the best way would be doing little bit more research and finding out where

it is I am shopping? What it is I am buying? Where it is coming from, and what

those standards are for work safety or where clothes are coming from, I think that

would be best way to looking into further and doing little bit more research.

Becoming more knowledgeable, I guess, about it.

Participants felt it was necessary to protest against retailers who bought items from factories with poor workplace safety conditions. They also wanted to boycott these retailers as well as influence others not to buy any clothing article from these retailers (Figure 2). Participant 4 stated that:

I probably would not shop at that store or would not buy that clothing one, if I

knew that there is unethical treatment happening to the workers or they are

getting sick or there are any hazards involved.

In order to have an effective voice against unsafe workplace conditions, most of the participants wanted to engage with a consumer support group. Participant 3 stated:

...trying to track down <short pause>organization and groups who are actually

working to, to better those conditions, right. And trying to support them.

Figure 4.2. Consumer Thoughts on Taking Social Action

Participants mentioned spreading the word, sign online petition, buy locally produced, send protest letter to the company, boycott certain product, group protest, and campaign which are very strong supportive actions by the participants. However, the result suggests that almost all of our participants are purchasing their clothing from the major retailers such as GAP, Wal-Mart, and Joe Fresh, which have been accused of providing unsafe workplaces for textile and apparel workers that have led to the death of thousands of garment industry workers. Content analysis of participant responses through NVivo software revealed that participants purchase clothing from these retail stores due to:

- Lack of better options

- Lack of information about workplace safety standards

- Lack of concern for workplace safety standards

- Habits

Though participants wanted to protect workers from poor work environments, their behaviour did not match their attitudes. Participants' attitude and behavioural gap represents dissonance. The theory of cognitive dissonance establishes that dissonance exists when a decision has been taken between alternatives. The theory of cognitive dissonance is "the theory of the notion that the human organism tries to establish internal harmony, consistency, or congruity among his opinions, attitudes, knowledge, and values" (Festinger, 1957, p. 260). The theory states that existence of dissonance "leads to action to reduce" dissonance in three ways: "changing a behavioural element," "changing an environmental cognitive element," and "adding new cognitive elements" (p. 19-21). Current study findings reveal that participants are aware but still their purchasing habits do not reflect their concern for workplace safety issues. Though consumers are aware of the workplace conditions, in order to avoid purchasing from poor retailers they might think these workers are not among us (Canadian). Consumers' lack of concern for the developing countries' clothing workers' safety, however, has not led them to change their purchasing habit away from unsafe manufacturers.

In this study, the result indicates that participants want a new label ("safety label") with a statement about the safe garment production process throughout the supply chain. It is expected that by adding a safety label (cognitive element), dissonance might be decreased. The current mandatory textile labels only mentions the fibre content when it is more than 5%, the country of origin, and the dealer number. This information is written in both official languages for Canada (Textile Labelling and Advertising Regulations, n.d.). Retailers also voluntarily insert other labels, such as size and washing instruction labels to help consumers decide what size to buy and

maintain the product post-purchase. Regarding the inclusion of a new safety label in garment articles, one participant (P1) stated that:

I think that would be extremely useful. I think that would get a lot of people thinking. I think a lot of people are like me and I don't really think about it when they are buying clothes. But having a label, like, if it would be like the same thing like having food label right if we want the same information like that it was made in a safe environment, like if it's consumable. Same thing with clothing labels, having something that indicates that it was made in a safe workplace environment. I think that would be a great idea. I think more people would lean towards those clothing items rather than one that do not have that label. I think that could start a big change. That would be our first start in making a big change.

However, the participants wanted this "safety label" to be issued or certified by a trustworthy organization, such as a government and/ or an independent third party like ISO. In this regard, one of the participants (participant # 3) stated:

I like the third party… Because then you are not biased to that country's specific, economic interest and human right interest, it's an independent person who comes in and look at it. That would be the best.

Participants in two studies conducted by Sneddon, Soutar, and Lee (2014) also wanted authentic information. The researchers investigated wool apparel consumers' ethical concerns and preferences. Study 1 participants were concerned about the lack of information on labelling. They were also concerned about the authenticity of the information and wanted "more credible information" (p. 175) on labels. Participants in

their study also believed that small production (for example, homemade or artisan) units provide more credible information than larger production facilities. Surprisingly, study 2 participants valued country of origin, price, and brand more than ethical labelling. Although their study included some positive and negative results regarding ethical concern, the participants in our study emphasized adding more information about authenticity and felt this would increase consumers' awareness.

Although most of the participants would trust third party involvement, they also could not trust them completely because of possible corruption. Participants thought that a third party would not have all of the legal rights to inspect every single part of the industry or even if it did , after obtaining certification from the third party the factory could can go back to its previous substandard working conditions. One of the participants stated (P2):

> Problem is like I said, how would you get away from corruption, you just bribe one inspector or you know you just an inspector is coming; you know you set up in such a way that you know everything is nice and pretty, where as in the basement you have like ten times more workers working on it... I mean it's not like to go in into a factory check every inch of it and certify, because a week later it could go all the way back to bad conditions.

Participants believed that they would not be able to change anything single-handedly. Participants felt that they would need to have the support of other consumers to force companies to improve the workplace environments and the quality of products. These responses show that the participants felt that consumer awareness and international regulatory bodies would be necessary to create change.

Andreescu and Yaldiz (2015) identified that only 1.11% of the textile and apparel industry reported their involvement with the corporate social responsibility movement. The researchers pointed out that the textile and apparel industries engaged very little in socially responsible business practices and this was much less than other sectors. Given this situation, one possible solution is that there is a need for an international standard to force companies to maintain safe manufacturing processes and provide safe working environments for the workers. If there is an international standard for all of the companies and governments it would force a country to follow regulations, and a trustworthy inspector would ensure that the companies maintain these standards.

Participants also talked about other possible certifiers. Some participants felt that a government certificate from a producer country would be biased because they would want to "keep their sales and exports up for low cost," because "they want the best for their economy" (P1 & P3). Additionally, another participant disliked the idea of a provincial certificate because the standards could vary from province to province. He/She would trust an international independent third party. Moreover, one of the participants stated that he/she would trust an independent third party, if the importing country ensured that this third party was trustworthy. In fact, data analysis indicates that an independent third party is the most preferred medium of certification and all the participants hope that the role of the third party should be balanced and reliable, and would not mislead consumers.

Since almost all of the participants wanted a "safety label" in addition to current textile labels, they were asked whether or not they were willing to pay an additional cost for having the clothing made in a safe environment. Interestingly, one of the participants (P8) mentioned that

they already tried to pay more than the regular price tag for one of their clothing purchases from a local boutique shop. They stated that:

> *I already try, like with what I try to do with buying from smaller labels and smaller manufacturers and paying a little bit more than I probably would I use, you know hidden up billing for quality all the time or something.*

Another participant (P1) expressed that they would pay more if that improved the working conditions. They stated that:

> *I would, I am willing to spend more on things that last and things that are better quality. So I feel like a happy worker and having better work conditions might even improve the quality and manufacturing.*

A study by Ha-Brookshire and Norum (2011) revealed that consumers were willing to pay $5 more for the $30 organic, sustainable, and US-grown cotton shirt when a strong brand represents its self-identity as an organic product clearly. In addition they were willing to pay more for sustainable cotton shirts when these required fewer launderings or easy care. Furthermore, they were willing to pay more for US-grown shirts in terms of high quality, with mainly an emphasis on colour and fit.

The current research study is the first to investigate consumers' willingness to pay for a workplace safety label on the garments. This workplace safety label would assure consumers that the retailers import clothing from safe workplace environments. This study differs from others that investigated consumers' willingness to pay more for green products (Coddington, 1990; Suchard & Polonsky, 1991; Myburgh-Louw & O'Shaughnessy, 1994), locally produced products

(Carpio and Isengildina-Massa, 2009), eco-labelled food products (Loureiro, McCluskey, & Mittelhammer, 2002) and farm products that are produced in a safe working condition as well as provide a living wage for workers (Howard & Allen, 2008) were also reported.

Participants' responses in this study suggest that consumers may want to help raise safety standards in textile and apparel workplaces, which would ensure that textile and apparel workers are safe in their work environments. However, several prior conditions regarding consumer behaviour must be satisfied before retailers are forced to incorporate a "safety label" on a clothing article. I have modeled these prior conditions as shown in Figure 4.3.The model explains that consumers' knowledge and awareness are the key elements in bringing workplace safety. Through the formation of consumer support groups that protest for safe work environments, and consumers' willingness to eliminate the gap between actual behaviour and attitude (cognitive dissonance), and to pay a premium price for a product from safer factories, workplace safety standards can be achieved. Finally, the participants' responses that providing a safety label that is certified by an independent third party would eliminate consumer apprehension.

Figure 4.3. Considerations Leading to the Adoption of a Safety Label
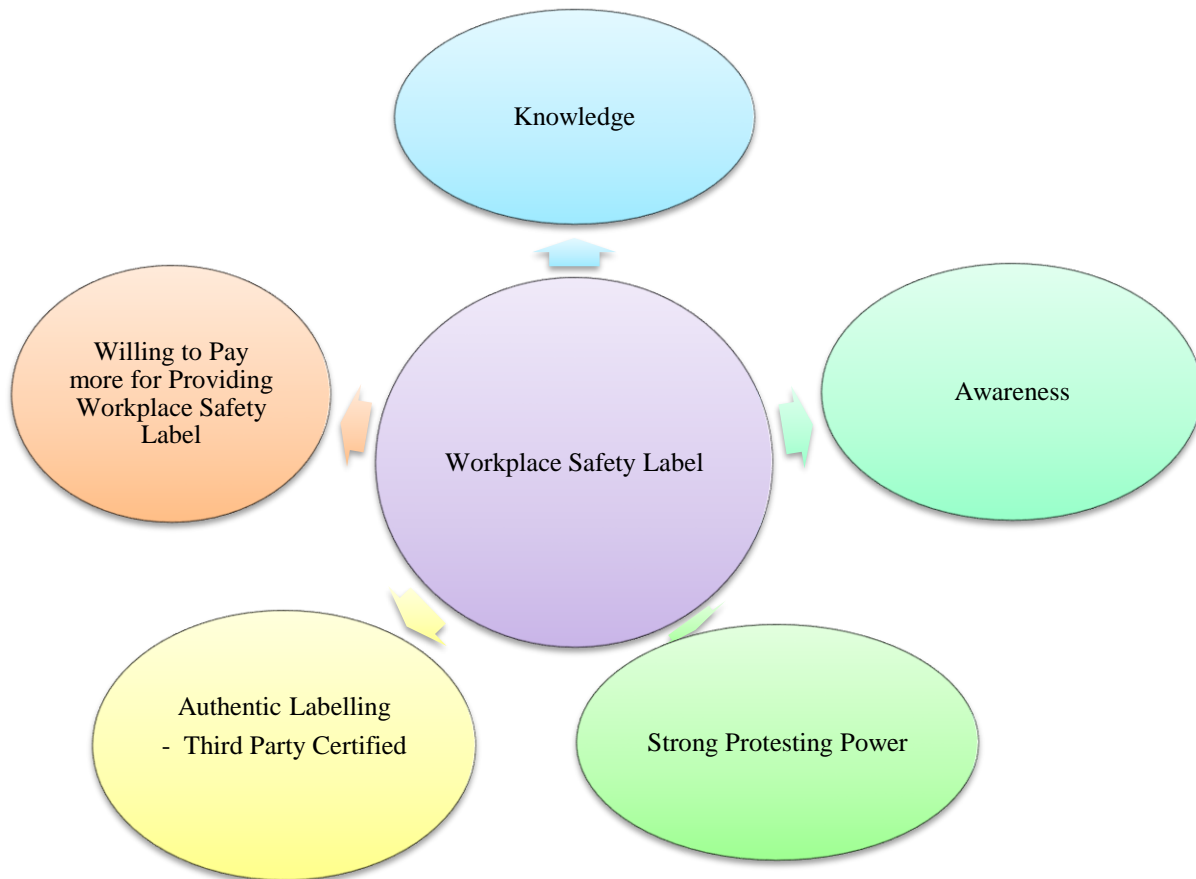
4.4. Conclusion

This study investigated consumers' concerns and preferences about improving workplace safety conditions and identified their willingness to pay a premium to protect workers from poor workplace conditions. The main contribution of this study is to incorporate these issues into a conceptual model grounded in the data. Currently, a model showing consumers' responses towards textile and apparel industry "workplace safety" and their willingness to pay a premium does not exist. The model developed in this study represents an important step in exploring the factors that could persuade consumers to take responsibility in making/ obtaining a workplace

safety label. The findings of this study revealed that participants are aware and they want more information about industry conditions. The participants appeared concerned about the working conditions of apparel manufacturing workers. Also, they identified that there is a need for raising consumers' awareness about their own responsibility and changing workplace safety conditions in the apparel industry. Participants described some actions they can take to show their support, and some of them even started taking action. For example, they stopped purchasing clothing from big retailers whom they believed practice unsafe production. The results of this study suggest that consumers are aware and they are willing to support the improvement of apparel production work environments, but they need to be better informed about apparel production processes. Improvement could be addressed by creating a new "workplace safety labelling system" with independent third party involvement which would monitor all the clothing manufacturing stages and strictly maintain policies and practices. A new well-informed label attached to garments could increase consumers' confidence in making socially responsible decisions when purchasing clothing. Further, this research study found that consumers are willing to pay a good amount of money for safer work environments and quality product development. This research suggests that textile and apparel manufacturers, retailers and policy makers could supply safe apparel products that consumers would demand.

Chapter 5: Practice and Choice-Preferences of Consumers: A Statistical Analysis of Survey Data

5.1. Introduction

The previous chapter explored consumers' interview data to learn about consumers' personal demand for apparel production and their willingness to protect workers from unsuitable work environments. This allowed a demonstration of individual responses, facilitating an investigation of perceptions that drive social action. This chapter will examine consumers' survey responses to similar issues. A survey was conducted with 106 responses obtained from the University of Manitoba from June 19 to November 13, 2015. Both interview and survey participants were from the University of Manitoba. The only difference was that the interview was conducted with a small sample size (ten subjects) whereas a large number of participants participated in the survey.

5.2. Data collection approach

Twenty-two research questions, four demographic questions, and a comment box were designed for the survey. The survey questionnaire was designed with two aspects: assessing participants' purchasing knowledge and experiences, and their willingness to contribute to workers' safety issues. This section of the thesis follows a quantitative approach to analyze the survey data. Survey Monkey software was used to design the survey questionnaire and to collect the survey responses as well as to analyze the survey data from the participants. Statistical analysis was conducted using SPSS version 22. To test differences in participants' responses, one-way ANOVA, matched pair t-test ($\mu_1 = \mu_2$ differences are equal or $\mu_1 \neq \mu_2$ differences are not

equal), and coefficient of correlation (r) were conducted. Survey questions were designed using five-point rating scales ranging from one to five. In order to analyze the survey results, participants choosing the "other" option from the gender categories were not included (N=2). Participants were asked to fill out a survey, which took approximately 15 to 20 minutes to complete. Communication specialists at the University of Manitoba assisted in circulating the survey. The main findings of the survey data may indicate the importance for a better means of communication with apparel consumers and indicate that there may be a desire to pay for better working conditions. Participants may also have increased their level of awareness by taking part in this survey.

5.3. Results and discussion

This section presents survey results with statistical analysis and interprets the significance of the findings. For the ease of analysis, the survey questions have been grouped into eight sections and the analysis was done under the following eight different sub-headings (5.3.1 to 5.3.8). The eight groupings are participants' shopping habits (question 2), participants' shopping motivations (question 1), participants' opinions on labelling (question 3 to 8), consumer concerns towards apparel production and workers safety (question 12, 13, 14, 15, 17), social actions against unsafe workplaces (question 18), participants' knowledge assessment (question 9, 10, 11, 16), consumer shopping convenience (question 19, 20), and consumer willingness to pay extra (question 21, 22).

Participants (N=106) were 82.11% Canadian (C) and 17.89% non-Canadian (NC). Of those who answered the gender question, 73.68% were female, and 24.21% were male, with two participants identifying as "other" 2.11%. In terms of age, 18.95% of the participants were over 60 years, followed by 15.79% who were 19 to 24 years. See Table 5.1 for the detailed age group

breakdown. In terms of educational affiliation, 10% of the participants were enrolled in

undergraduate studies, while 26.32% of the participants were U of M Staff. 25.26% were

probably recent graduates (these participants marked themselves not enrolled as a student) and

20.00% of the participants were U of M Faculty; an additional 17.89% were graduate students.

Tabular presentation of participants' demographic information is given below in Table 5.1.

Table 5.1. *Survey Participants' Demographic Information*

Citizenship Status(Canadian)	**Responses**	**Frequency**	
Yes	82.11%	78	
No	17.89%	17	
Gender	**Responses**	**Frequency**	
Male (M)	24.21%	23	
Female (F)	73.68%	70	
Others	2.11%	2	
Age Group	**Responses**	**Frequency**	
19 to 24	15.79%	15	
25 to 29	11.58%	11	
30 to 34	14.74%	14	
35 to 39	7.37%	7	
40 to 44	8.42%	8	
45 to 49	6.32%	6	
50 to 54	4.21%	4	
55 to 59	12.63%	12	
Over 60	18.95%	18	
U of M Affiliation		**Response**	**Frequency**
Graduate Studies (GS)		17.89%	17
Undergraduate Studies (UG)		10.53%	10
Probably Recent Graduate (PRG)		25.26%	24
U of M Staff (US)		26.32%	25
U of M Faculty (UF)		20.00%	19

*11 of total participants skipped questions about gender, age, and U of M affiliation.

5.3.1. Participants' shopping habits.

During the thirty days prior to conducting this survey, 63.73% of the total participants

had made a purchase of clothing, footwear, or outerwear (Question #2, Figure 5.1), while

36.27% of the participants did not purchase any such items. The results from cross-tabulation

show that during that time period more Canadian participants purchased (51) than non-Canadians

(10). Moreover, the analysis also indicated that female participants made more purchases (41)

than males (18) in the last thirty days. Participants aged 30+ made more purchases (44) than

those under 30 (17). Similarly, U of M staff made more purchases (44) than U of M students

(19). These results help determine how frequently participants were involved in the purchasing

process. The results indicate that participants who were over 30, staff members, Canadian and

female were more frequent clothing purchasers. Statistics Canada revealed that in 2015, $17.0

billion women's and $9.4 billion men's clothing and accessories were sold in Canada (Statistics

Canada, 2016). This result indicates that females are more frequent buyers than males. Figure 5.1

and Table 5.2 present participants' shopping engagement thirty days prior to the survey day.

Table 5.2. *Participants' Shopping Habit Assessment through Crosstab Analysis*

Participants last thirty days purchase	Demographic variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	<30	>30+	U of M Student	U of M Staff
Yes	51/78 65.38%	10/17 58.82%	18/23 78.26%	41/70 58.57%	17/26 65.38%	44/69 63.77%	19/27 70.37%	42/68 61.76%
No	26/78 33.33%	6/17 35.29%	5/23 21.74%	27/70 38.57%	9/26 34.62%	23/69 33.33%	8/27 29.63%	24/68 35.29%
Total	77/78 98.72%	16/17 94.12%	23/23 100%	68/70 97.14%	26/26 100%	66/69 95.65%	27/27 100%	66/68 97.06%

Figure 5.1. Participants' Last Thirty Days Purchasing

Participants' Last Thirty Days Purchase

■ Yes ■ No

36%

64%
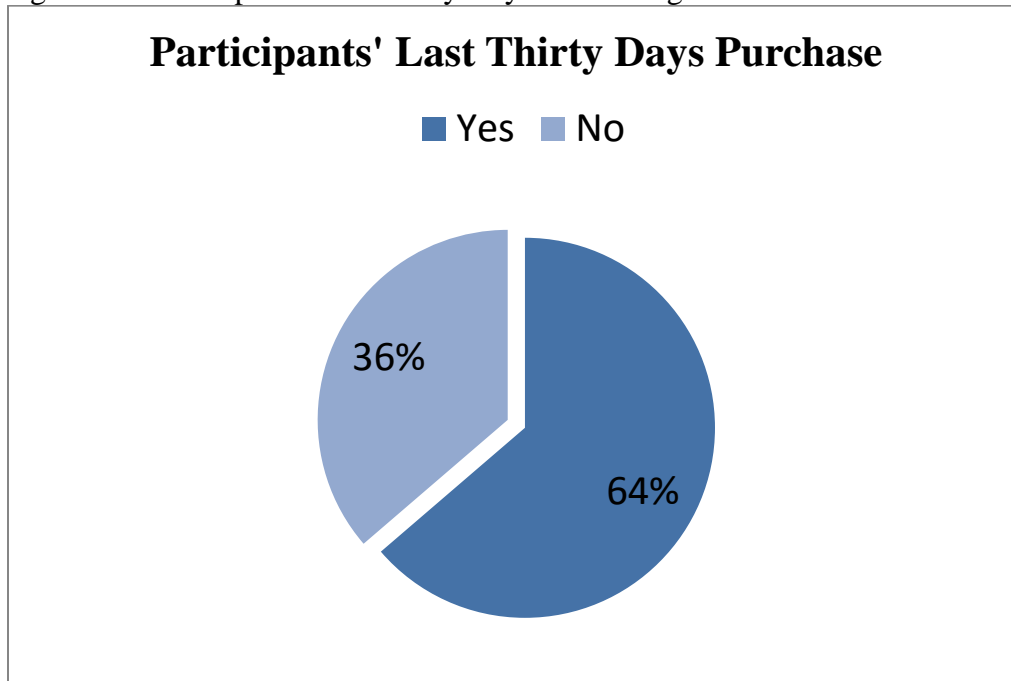
5.3.2. Participants' shopping motivations.

The following section asks about participants' shopping motivations by soliciting their

agreement with five different Statements (S1-S5). Participants were asked to rate their level of

agreement with five different attitude Statements on a five-point Likert scale. Table 5.3 presents

data on participants' level of agreement and their weighted average. The data in Table 5.3

highlighted the highest responses on the Statements. The result shows that the highest percentage

of the participants "Somewhat Agree" (33.98%) and "Disagree" (29.13%) on S1, "I always

follow the latest fashion trends," while only 4.85% of the participants "Strongly Agree" that they

follow the latest fashion trends, which motivates them to buy clothes. In terms of buying branded

clothing (S2), only 1.94% of total participants "Strongly Agree" and the majority of the

participants (41.47%) "Disagree" that brands influence their buying decisions. Regarding S3,

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"My clothing selection is influenced by my parents," 47.57% and 33.01% of the participants "Strongly Disagree" and "Disagree" respectively. Only 0.97% "Strongly Agree" that their shopping decisions are motivated by parents. This is not surprising given the age of the participants. When asked if their apparel selection is motivated by friends (S4) only 3% "Strongly Agree" and 28.16% "Somewhat Agree." The majority of the participants (33.01%) "Disagree" on that Statement. For responses on S5, "I use my own personal opinions and do not pay attention to what others think when buying clothing,"34.91% "Somewhat Agree", 32.08% "Agree", and 20.75% "Strongly Agree". These Statements support that mostly participants are independent in their decision-making process when they shop for clothing.

Further analysis was done based on a calculation of weighted average (M) (Table 5.3).[1] The results show that for the five Statements about shopping decision-making influences, the highest average is for S5,"I use my own personal opinions and do not pay attention to what others think when buying clothing," with an average weighted score of 3.58. This means that on average, participants valued their own personal opinion in terms of shopping decision-making. The lowest average (1.78) was for S3, "My clothing selection is influenced by my parents." Similar shopping influences were seen among the participants on S1, S2 and S4, with weighted averages of 2.60, 2.17 and 2.39 respectively.

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[1] Weighted average "reflects the relative importance of its components. Each element is allotted a proportion of 100% according to its relative importance. Its contribution to the total is then reduced by that percentage. The average is then calculated using the adjusted total" (Weighted average, 2016).

Table 5.3. *Participants' Level of Agreement with the Following Statements which Motivates Purchase Decision*

Statement No.	Statements	Strongly Disagree [1]	Disagree [2]	Somewhat Agree [3]	Agree [4]	Strongly Agree [5]	Total Response (N)	Weighted Average (M)
S1	"I always follow the latest fashion trends"	17.48% [18]*	29.13% [30]	33.98% [35]	14.56% [15]	4.85% [5]	103	2.60
S2	"I always buy branded clothing"	27.18% [28]	41.75% [43]	20.39% [21]	8.74% [9]	1.94% [2]	103	2.17
S3	"My clothing selection is influenced by my parents"	47.57% [49]	33.01% [34]	14.56% [15]	3.88% [4]	0.97% [1]	103	1.78
S4	"My clothing selection is influenced by my friends"	23.30% [24]	33.01% [34]	28.16% [29]	12.62% [13]	2.91% [3]	103	2.39
S5	"I use my own personal opinions and do not pay attention to what others think when buying clothing"	2.83% [3]	9.43% [10]	34.91% [37]	32.08% [34]	20.75% [22]	106	3.58

* Figure within parentheses exhibit total number of frequencies.

Before conducting a detailed analysis of variance (ANOVA) test using SPSS v22 to reveal significant differences between any two Statements, a matched pair t-test was carried out to find out whether the highest weighted average of 3.58 (Table 5.3) is different from the lowest weighted average of 1.78 (Table 5.3). Table 5.3 includes pair Statements, N (sample size), M (weighted average), SD (standard deviation), df (degrees of freedom), t-value, and p-value. The results indicate that there is a significant difference (t=-11.31, p=0.00<0.05) between the responses for "I use my own personal opinions and do not pay attention to what others think when buying clothing" and "My clothing selection is influenced by my parents" (Table 5.4). This finding suggests that people's shopping motivations depend more on their personal opinions. In particular, people use their own opinions more than taking their parents' suggestions for making purchase decisions.

Table 5.4. *Matched Pair t-Test to Show the Highest Average is Different from the Lowest Average*

Pairs	Statements	N	M (SD)	Df	T	P
Pair1	S3. "My clothing selection is influenced by my parents"	103	1.78(0.91)			
	S5. "I use my own personal opinions and do not pay attention to what others think when buying clothing"	103	3.58(1.00)	102	-11.31	0.00

5.3.2.1. Analysis of one way ANOVA. From the results (Tables 5.3 and 5.4), it is clear that participants valued their own personal opinions rather than outside influences. An in-depth statistical analysis was carried out using ANOVA to understand whether the Statements (for example, "I always follow the latest fashion trends") have significant differences for different test variables (for example, age or gender). Age was grouped into two categories (below 30 and 30+) for further analysis. Similarly, data were grouped into two categories for university affiliation (student (S) and staff (St)) instead of five categories (GS, UG, PRG, US, and UF).

Table 5.5 embodies the result of ANOVA analysis to find out whether the mean (weighted average, M) differences between groups are statistically significant using participants' demographic variables for the five different Statements (S1-S5). This Table contains Statements, variables (age, gender, citizenship status, and current U of M affiliation), category (<30, 30+, Male/Female, etc.), number of participants (N), mean or weighted average (M), standard deviation (SD), F- value and p- value. Larger F-value (F calculated) than the $F_{critical}$ (F_{cr}) value of the test shows higher effects of the test variables (age, gender, etc.) that the means are statistically different. Also, p-value of the test shows the effects of the factors, when p-value is lower than $p<0.05$ indicates the significant importance of the factors. For S1, "I always follow the latest fashion trends," there are no significant differences among the groups measured (<30, 30+: F=3.58, $F_{cr1, 90}$=3.95; Male/Female: F=1.34, $F_{cr1, 88}$=3.95; C/NC: F=2.59, $F_{cr1, 90}$=3.95; S/St: F=2.01, $F_{cr1, 90}$=3.95). However, the age of the participants came close at p=0.06 where those under 30 are more likely to say that they follow the latest fashion trends.

For S2, "I always buy branded clothing," the mean level is significantly higher [F=22.59, p=0.00, df. $F_{1, 88}$] in male (M=2.95, SD =1.13) participants than female at (M=1.91, SD=0.81). Citizenship status is significant [F=11.21, p=0.00, df. $F_{1, 90}$] in that non-Canadians (M=2.93,

SD=1.07) are more likely to buy branded clothing than Canadians (M=2.01, SD=0.92). These two demographic variables had p-values less than the critical value of p<0.01, so there is a significant difference of the responses of these two groups for S2 it implies that males over females and non-Canadians over Canadians are more likely to buy branded clothing. The finding of the current research on male participants' preference of purchasing branded clothing agrees with Koca & Koc (2016) and Bakewell & Mitchell (2006) as these two groups of researchers reported that male consumers were more influenced by brand while female consumers' purchasing habits were more fashion-oriented. The current study is the first to report shopping behaviour between Canadians and non-Canadian consumers. Primary data reveal that the non-Canadian student group (mainly GS) was more likely to buy branded clothing than the non-Canadian staff group. Perhaps the reason could be they are coming from affluent families who come to pursue higher education abroad and in most cases they have financial support from the University.

The mean level of S3 (Table 5.5), "My clothing selection is influenced by my parents", is significant (F=3.88, p=0.05≤0.05, df. $F_{1, 90}$) between participants aged under 30 (M= 2.08, SD= 0.97) and 30+ (M =1.66, SD=0.87). A similar significant difference level (F=3.88, p=0.05≤0.05, df. $F_{1, 90}$) is evident between U of M student group (M=2.08, SD=1.02) and staff group (M=1.66, SD=0.86). A similar study by Mascarenhas and Higby (1993) identified teens' informative (brand, store selection) and normative (choice, loyalties) shopping influence from their parents when they shop for special clothing (formal clothing, gold jewelry) over ordinary clothing (casual clothing, inexpensive sneakers). However, their study also suggested that parental influence decreases with age. In the current study the average age of the participants under 30 is between 22 and 27.

There were two significant mean differences (Table 5.4) for S4 "My clothing selection is influenced by my friends" where those under 30 (M= 3.00, SD= 1.22) versus 30+ (M=2.12, SD=0.97), [F=13.65, p=0.00<0.01, df. $F_{1, 90}$]; and U of M students (M=3.08, SD= 1.21) versus staff (M=2.09, SD=0.89), [F=18.11, p=0.00<0.01, df. $F_{1, 90}$]. It is apparent that participants under 30 and U of M students were more likely to say that their friends influenced their clothing purchases. Zhang and Kim's (2013) study found that many Chinese consumers (over 85% between 19 to 30 years old, and 33.5% student) have friends and celebrities as a fashion influence for purchasing luxury fashion items. Chen-Yu and Seock (2002) identified that female adolescents (9th to 12th grade school students) had more friends' influence than male adolescents.

Although young participants (under 30) and U of M students value their parents' (S3) and friends' (S4) opinions when purchasing clothing; when asked to rate their own opinion on a more generic choice provided in S5, "I use my own personal opinions and do not pay attention to what others think when buying clothing," no statistically significant differences were observed.

Table 5.5. *Differences in Shopping Motivation Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test)*

Statements	Variables	Category	N	M (SD)	F	p
S1. "I always follow the latest fashion trends"	Age	Under 30	24	3.00(1.10)	3.58(df $F_{1, 90}$)	0.06
		30+	68	2.51 (1.07)		
	Gender	Male	22	2.91(1.27)	1.34(df $F_{1, 88}$)	0.25
		Female	68	2.60(1.01)		
	Citizenship status	Canadian	78	2.56(1.06)	2.59(df $F_{1, 90}$)	0.11
		Non-Canadian	14	3.07(1.21)		
	Current affiliation	U of M student	24	2.92(1.28)	2.01(df $F_{1, 90}$)	0.15
		Staff	68	2.54(1.01)		
S2. "I always buy branded clothing"	Age	Under 30	24	2.13(0.95)	0.24(df $F_{1, 90}$)	0.88
		30+	68	2.16(1.02)		
	Gender	Male	22	2.95(1.13)	22.59(df $F_{1, 88}$)	0.00**
		Female	68	1.91(0.81)		
	Citizenship status	Canadian	78	2.01(0.92)	11.21(df $F_{1, 90}$)	0.00**
		Non-Canadian	14	2.93(1.07)		
	Current affiliation	U of M student	24	2.29(1.16)	0.63(df $F_{1, 90}$)	0.43
		Staff	68	2.10(0.93)		
S3."My clothing selection is influenced by my parents"	Age	Under 30	24	2.08(0.97)	3.88(df $F_{1, 90}$)	0.05*
		30+	68	1.66(0.87)		
	Gender	Male	22	1.77(0.97)	0.01(df $F_{1, 88}$)	0.93
		Female	68	1.79(0.91)		
	Citizenship status	Canadian	78	1.76(0.94)	0.14(df $F_{1, 90}$)	0.71
		Non-Canadian	14	1.86(0.77)		
	Current affiliation	U of M student	24	2.08(1.02)	3.88(df $F_{1, 90}$)	0.05*
		Staff	68	1.66(0.86)		
S4. "My clothing selection is influenced by my friends"	Age	Under 30	24	3.00(1.22)	13.65(df $F_{1, 90}$)	0.00**
		30+	68	2.12(0.92)		
	Gender	Male	22	2.36(1.18)	0.00(df $F_{1, 88}$)	0.97
		Female	68	2.35(1.06)		
	Citizenship status	Canadian	78	2.36(1.09)	0.06(df $F_{1, 90}$)	0.82
		Non-Canadian	14	2.29(0.99)		
	Current affiliation	U of M student	24	3.08(1.21)	18.11(df $F_{1, 90}$)	0.00**
		Staff	68	2.09(0.89)		

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Table 5.5. *Differences in Shopping Motivation Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test) -Continued*

Statements	Variables	Category	N	M (SD)	F	p
S5. "I use my own personal opinions and do not pay attention to what others think when buying clothing"	Age	Under 30	26	3.38(1.10)	1.26(df $F_{1, 93}$)	0.27
		30+	69	3.65(1.01)		
	Gender	Male	23	3.35(1.03)	1.19(df $F_{1, 91}$)	0.28
		Female	70	3.61(1.03)		
	Citizenship status	Canadian	78	3.59(1.18)	0.05(df $F_{1, 93}$)	0.83
		Non-Canadian	17	3.53(1.18)		
	Current affiliation	U of M student	27	3.41(1.01)	1.03(df $F_{1, 93}$)	0.31
		Staff	68	3.65(1.05)		

**. p-value is significant at the 0.01 level; *. p-value is significant at the 0.05 level

5.3.2.2. Analysis of matched pair t-test. The previous section (Section 5.3.2.1) analyzed data using One Way ANOVA to find mean differences based on participants' demographic variables (Table 5.5). The findings of the previous section can help apparel business (retailers and manufacturers) to target certain types of consumers for their products, as the results have indicated consumers' interest based on age and gender. This section of the study examines whether there are significant differences among the Statements (S1 to S5) using matched pair t-tests.

Matched pair t-tests were carried out to find out if the differences were significant between Statements among all subjects as variables and categories were not considered for this analysis ($\mu_1 = \mu_2$ or $\mu_1 \neq \mu_2$). The results of different pairs (S1 to S5), sample size (N), mean (M), standard deviation (SD), degrees of freedom (df), t-value and p-value are shown in Table 5.6. Matched pair t-tests determine whether the mean responses between two Statements among all participants (N=106) are significantly different.

The result from the pair test showed that all of the pairs were significantly different except pair 3 (S1 & S4) and pair 6 (S2 & S4). There was a significant difference [t=4.45, p=0.00] in the response for "I always follow the latest fashion trends" (M=2.60, SD=1.09) and "I always buy branded clothing" (M=2.17, SD=0.99). These results suggest that people follow the latest fashion trends more than buying branded clothing. There was also significant difference [t=6.55, p=0.00] between S1, "I always follow the latest fashion trends" (M=2.60, SD=1.09) and S3, "My clothing selection is influenced by my parents" (M=1.78, SD=0.91). The result indicates that the study participants follow the latest fashion trends more than they follow parents' opinions. However, there was no significant difference [t=1.74, p=0.09] between the responses for "I always follow the latest fashion trends" (M=2.60, SD=1.09) and "My clothing selection is

influenced by my friends" (M=2.39, SD=1.07). This result suggests that those who follow the latest fashion trends also are influenced by friends; there was no evidence that they have different shopping influence. Similarly, there was no significant difference [t=-1.74, p=0.09] between "I always buy branded clothing" (M=2.17, SD=0.99) and "My clothing selection is influenced by my friends" (M=2.39, SD=1.07).

On the other hand, there is a significant difference [t=-5.58, p=0.00] between "I always follow the latest fashion trends" (M=2.60, SD=1.07) and "I use my own personal opinions and do not pay attention to what others think when buying clothing" (M=3.58, SD=1.00). The result suggests that those who use their own opinions when purchasing clothing do not necessarily follow the latest fashion trends. It was observed that 22 participants "Strongly Agree" on own opinions (S5) while only five participants "Strongly Agree" on latest fashion trend (S1). In particular, when people shopped for clothing, they valued their own personal opinion more than they followed the latest fashion trends. The result indicates that following the latest fashion and the use of one's opinion does have a significant effect on people's shopping motivations. Moreover, most of the results shown in Table 5.5 found significant differences between Statements, and the use of one's opinion has the highest influence on shopping motivations. There were two exceptions with the Statements related to "My clothing selection is influenced by my friends," where p-values (0.09) were not significant when related to latest fashion trends and buy branded clothing. This means there were no significant differences among the responses for Statement 1 and 2 when they related to friends' influence variables. On the other hand, there are significant differences identified among the use of personal opinion and parents' influence when they relate to friends' influence. This mean differences showed that participants valued their own opinion more than their friends' influence. Also, the mean difference indicated that participants

valued friends' influence more than parents' influence. Overall, it was seen that participants valued their own opinion more than the other four different aspects of shopping motivations. Shopping motivation ranking has been suggested as per the findings of Table 5.5, S5> S1=S2=S4>S3 (based on significance level). This ranking shows that S5 had the highest agreement and most significant shopping motivation. Finally, this ranking could help apparel business (retailers, manufacturers) to choose their target customers.

Table 5.6. *Participants' Shopping Motivations to Determine Significant Differences (95% Confidence Intervals, Matched Pair t-Test)*

Pairs	Statement No.	Statements	N	M (SD)	df	t	P
Pair 1	S1	"I always follow the latest fashion trends"	103	2.60(1.09)	102	4.45	0.00
	S2	"I always buy branded clothing"	103	2.17(0.99)			
Pair 2	S1	"I always follow the latest fashion trends"	103	2.60(1.09)	102	6.55	0.00
	S3	"My clothing selection is influenced by my parents"	103	1.78(0.91)			
Pair 3	S1	"I always follow the latest fashion trends"	103	2.60(1.09)	102	1.74	0.09
	S4	"My clothing selection is influenced by my friends"	103	2.39(1.07)			
Pair 4	S1	"I always follow the latest fashion trends"	103	2.60(1.09)	102	-5.58	0.00
	S5	"I use my own personal opinions and do not pay attention to what others think when buying clothing"	103	3.58(1.00)			
Pair 5	S2	"I always buy branded clothing"	103	2.17(0.99)	102	3.14	0.00
	S3	"My clothing selection is influenced by my parents"	103	1.78(0.91)			
Pair 6	S2	"I always buy branded clothing"	103	2.17(0.99)	102	-1.74	0.09
	S4	"My clothing selection is influenced by my friends"	103	2.39(1.07)			
Pair 7	S2	"I always buy branded clothing"	103	2.17(0.99)	102	-8.56	0.00
	S5	"I use my own personal opinions and do not pay attention to what others think when buying clothing"	103	3.58(1.00)			
Pair 8	S3	"My clothing selection is influenced by my parents"	103	1.78(0.91)	102	-6.13	0.00
	S4	"My clothing selection is influenced by my friends"	103	2.39(1.07)			
Pair 9	S3	"My clothing selection is influenced by my parents"	103	1.78(0.91)	102	-11.31	0.00
	S5	"I use my own personal opinions and do not pay attention to what others think when buying clothing"	103	3.58(1.00)			
Pair 10	S4	"My clothing selection is influenced by my friends"	103	2.39(1.07)	102	-6.56	0.00
	S5	"I use my own personal opinions and do not pay attention to what others think when buying clothing"	103	3.58(1.00)			

5.3.2.3. Analysis of Pearson's correlation coefficient. To determine whether a linear association existed between the Statements, Pearson's correlation coefficient (r), sig 2-tailed, and sample (N) was used in Table 5.7 (linear association: +1=strong, 0=no association, -1=negative association). The Pearson's r for the correlation between S1, "I always follow the latest fashion trends," and S2, "I always buy branded clothing," is 0.54, there was a strong linear relationship between these two Statements, and changes in one Statement were strongly correlated with changes in the other Statement. The p-values (2-tailed) for following the latest fashion trends and buying branded clothing were less than the significance level of p=0.00<0.01, which means that the correlation coefficient was significant and they moved in the same direction. People who follow the latest fashion trends also intended to buy branded clothing.

The Pearson's r for the correlation between S1, "I always follow the latest fashion trends," and S4, "My clothing selection is influenced by my friends," was 0.33. There was a significant positive linear relationship between these two Statements p=0.00<0.01, which means people who followed the latest fashion trends were also likely to have friends influence their shopping. There was a significant negative correlation (r=-0.35, p=0.00<0.01) among responses on S1, "I always follow the latest fashion trends," and S5, "I use my own personal opinions and do not pay attention to what others think when buying clothing." The mean for use of own personal opinions was significantly higher (more agreement with the Statement) than the mean score for following the latest fashion trends according to the matched pair t-test results and these two statement averages move in opposite directions. The more a respondent followed their own personal opinions, the less they paid attention to the fashion trends. There is a moderate negative correlation (r=-0.35) among responses on S2, "I always buy branded clothing," and S5, "I use my own personal opinions and do not pay attention to what others think when buying clothing,"

which means that the more people use their own personal opinions when shopping, the less likely they are to buy branded clothing. Moreover, matched pair t-test result shows that the mean level of agreement with using own opinions was significantly higher than the mean level of agreement with always buying branded clothing.

There is a significant negative correlation (r=-0.39, p=0.00<0.01) among responses on S3, "My clothing selection is influenced by my parents," and S5, "I use my own personal opinions and do not pay attention to what others think when buying clothing," meaning that there is a negative correlation between clothing selection influenced by parents and the use of personal opinions. This is not surprising since one would assume that if people are influenced by their parents, then they are not using their personal opinions. Also, the younger the person, the more parental influence (Feltham, 1998). The Pearson's r for the correlation between "My clothing selection is influenced by my parents" and "My clothing selection is influenced by my friends" is 0.49 which is significant p=0.00<0.01. There is a moderate linear relationship between these two Statements, and a change in one Statement is correlated with positive changes in the other Statement, perhaps showing the influence of others in general. The result also shows a significant moderate negative correlation (r=-0.49, p=0.00) between responses on clothing selection influenced by friends versus the use of personal opinion. Moreover, matched pair t-test result shows that differences in these two variables are significant.

All the correlations associated with the use of own personal opinion variables showed negative correlations, which implies that people who value their own personal opinion (Statement 5) are not motivated in the same way as the other four Statements. The finding suggests that when participants use their own opinion, they care less about the latest fashion, brands, parents' or friends' opinions.

Table5.7. *Analysis of Linear Association between Two Variables (Bivariate Correlation)*

Statements		S1. "I always follow the latest fashion trends"	S2. "I always buy branded clothing"	S3. "My clothing selection is influenced by my parents"	S4. "My clothing selection is influenced by my friends"	S5. "I use my own personal opinions and do not pay attention to what others think when buying clothing"
		Correlations				
S1. "I always follow the latest fashion trends"	Pearson Correlation N=103	1				
S2. "I always buy branded clothing"	Pearson Correlation N=103	0.54**	1			
S3. "My clothing selection is influenced by my parents"	Pearson Correlation N=103	0.19	0.13	1		
S4. "My clothing selection is influenced by my friends"	Pearson Correlation N=103	0.33**	0.20*	0.49**	1	
S5. "I use my own personal opinions and do not pay attention to what others think when buying clothing"	Pearson Correlation N=106	-0.35**	-0.35**	-0.39**	-0.49**	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed)

5.3.3. Participants' opinions on labelling.

This section describes participants' opinions about the current textile label that retailers must attach to a clothing article to comply with the Textile Labelling Act. The detail about the legal content in a textile label is given in Chapter 2, Section 2.11. Six questions (see Appendix B for the survey) asked about this textile labelling: …likely to read textile labels (Question # 3), …usefulness of the current labels (Question # 4), …satisfaction with current labels (Question # 5), …enough information in textile labels (Question # 6), interested in a new safety label (Question # 7) and …important to include a new safety label (Question # 8). It is worth mentioning here that Question # 2 is discussed in the later section in this chapter.

The results of these six questions (Q3-Q8) on a five-point rating scale, as well as the number of participants in brackets with the weighted average are given in Table 5.8. The findings show that the highest percentage of the participants are "Very Likely" (32.08%) to read labelling information when purchasing clothing items, while only 9.43% of the participants are "Very Unlikely" to read the labels (Question # 3). With respect to the usefulness of the current labels (Question 4), 45.28% of the participants find the textile labelling information "Somewhat Useful" and 10.38% reported that they find the labelling information "Not Very Useful." However, 29.25% of the participants find the labelling information "Useful." Almost half of the participants 49.06% stated they were "Somewhat Satisfied" with the present labelling information that is given with the selected apparel, while 21.70% of the participants reported they were "Not Very Satisfied" with available labelling information (Question # 5). Only, 2.83% of the participants reported "Very Satisfied" and/or "Not at all Satisfied" with the textile labelling information given. 35.85% of the participants think "Often" and 32.08% of the participants think "Sometimes" textile labels provide enough information to help them make a

purchasing decision (Question # 6). On the other hand, only 5.66%, of participants, stated that textile labels "Always" provide sufficient information to help them make a buying decision. Regarding participants' interest in a new safety label including safe workplace environment information (safety label, Question # 7), 81% of the participants responded that they were either "Interested" (43.27%) or "Very Interested" (37.50%) in a new clothing label that includes the information that clothes were made in a safe environment. Further, the majority (74%) of the participants responded that it was "Important" (41.35%) or "Very Important" (32.69%) that clothing contains workplace production safety standards label information (Question # 8). Only 3.85% of the participants thought that it was "Not at all Important" that clothing include this informative safety label. This finding suggests that participants were interested in a new safety label which could assure them that their clothing was produced in a safe environment.

Table 5.8. *Existing Clothing Labels Influence on Participants' Purchase Decision*

Question No.		Participants' responses				Total (N)	Weighted average (M)
3. Likely to read labels	Very Unlikely 9.43% [10]*	Unlikely 16.04% [17]	Somewhat Likely 22.64% [24]	Likely 19.81% [21]	Very Likely 32.08% [34]	106	3.49
4. Usefulness of the current labels	Not at all Useful 2.83% [3]	Not Very Useful 10.83% [11]	Somewhat Useful 45.28% [48]	Useful 29.25% [31]	Very Useful 12.26% [13]	106	3.38
5. Satisfaction with current labels	Not at all Satisfied 2.83% [3]	Not Very Satisfied 21.70% [23]	Somewhat Satisfied 49.06% [52]	Satisfied 23.58% [25]	Very Satisfied 2.83% [3]	103	3.02
6. Textile labels provide enough information	Never 6.60% [7]	Rarely 19.81% [21]	Sometimes 32.08% [34]	Often 35.85% [38]	Always 5.66% [6]	106	3.14
7. Interest in a new safety labels	Not at all Interested 2.88% [3]	Slightly Interested 4.81% [5]	Somewhat Interested 11.54% [12]	Interested 43.27% [45]	Very Interested 37.50% [39]	104	4.08
8. Important to include a new safety label	Not at all Important 3.85% [4]	Slightly Important 8.65% [9]	Somewhat Important 13.46% [14]	Important 41.35% [43]	Very Important 32.69% [34]	104	3.90
Rating scale	1	2	3	4	5		

* Figure within parentheses exhibit total number of frequencies.

5.3.3.1. Analysis of one way ANOVA. Further, statistical analysis was carried out to find the statistical significance of the results using ANOVA and correlation coefficient tests. Table 5.9 below shows the result of ANOVA tests using participants' demographic characteristics for six different types of questions (Question # 3 – Question # 8) related to textile labelling. The result showed that there was only one significant difference ($F=12.30 > F_{cr}$ 3.94, $p=0.00$, df. $F_{1, 93}$) identified among the groups measured when asked about how likely they were to read label information when purchasing clothing items. The mean level was significantly higher at M= 3.81, SD= 1.17 in the age group of 30+ than the age group under 30 (M=2.77, SD=1.58). The result indicates that people aged 30+ were more likely to read labels than people aged under 30. Responses about the usefulness of the current labels showed that there were no significant differences among all the groups measured. However, the citizenship status of the participants came close with p=0.07 where non-Canadians were more likely to say they find the current textile label information useful. Similarly, there were no significant demographic differences when measuring the level of satisfaction with the current labels. However, whether textile labels provided enough information or not, responses showed that the mean level was significantly higher ($F=4.01 > F_{cr}$ 3.94, $p=0.05$, df. $F_{1, 93}$) in non-Canadians (M=3.53, SD=0.87) than Canadians (M=2.99, SD=1.04). Citizenship status (p=0.05) was significant, in that non-Canadians were more likely to say textile labels provide enough information to make their purchase decisions.

There were no significant differences identified for participants' interest in a new safety label or how important they think it is to include a new safety label. The p-values are greater than significance level 0.05, which means that the mean values were not significantly different in each category. The results from the primary data showed that the majority of the participants were

"Interested" in including a new safety label (43.27%) and the majority of them think it is "Important" to have a new safety label (41.35%). The results also showed that higher numbers of participants were "very interested" (37.50%) and they think it is "Very Important" (32.69%) to include a new safety label. The findings from the ANOVA tests showed insignificant mean differences between these two responses meaning that participants, regardless of demographics measured, have the same opinions about a new safety label and the primary data showed that almost all of them had a positive response to the idea of this new label and its importance. Thus, this new informative safety label could assure consumers that their clothing has come from a safe work environment where proper manufacturing practices have been implemented and no one was harmed while making the clothing. A study by Dirnbach (2008) stated that tens of millions of workers are engaged in the sweatshop-related global apparel industry, with conditions comprised of low wages, long working hours, unsafe working environment, forced work, child labour, contractual employment for a short time, discrimination and sexual harassment, and lack of freedom at work. Another study identified that 16% of the study participants were interested on a "No Sweat" label indicating the work environment of the manufacturing unit (Dickson, 2001). On the other hand, in Shaw et al.'s (2006) study, the majority of the participants lacked information on whether they purchased from sweatshop produced clothing or not. The current study finding identified that consumers welcome a new safety label that will help them purchase clothing made without harming humans and the environment. Further, when manufacturers implement this safety label, they will be forced to implement a sweatshop-free work environment, proper workplace health and safety, as well as safe production practices and work environment.

Table 5.9. *Differences in Participants' Responses Regarding Labelling Information Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test)*

Question number	Variables	Category	N	M (SD)	F	P
3. Likely to read labels	Age	Under 30	26	2.77(1.58)	12.30(df $F_{1, 93}$)	0.00**
		30+	69	3.81 (1.17)		
	Gender	Male	23	3.70(1.26)	0.45(df $F_{1, 91}$)	0.50
		Female	70	3.47(1.42)		
	Citizenship status	Canadian	78	3.41(1.35)	3.22(df $F_{1, 93}$)	0.08
		Non-Canadian	17	4.05(1.34)		
	Current affiliation	U of M student	27	3.22(1.60)	1.88(df $F_{1, 93}$)	0.17
		Staff	68	3.65(1.26)		
4.Usefulness of the current labels	Age	Under 30	26	3.15(1.08)	2.57(df $F_{1, 93}$)	0.11
		30+	69	3.49(0.85)		
	Gender	Male	23	3.40(1.03)	0.00(df $F_{1, 91}$)	0.97
		Female	70	3.40(0.91)		0.07
	Citizenship status	Canadian	78	3.32(0.92)	3.28(df $F_{1, 93}$)	
		Non-Canadian	17	3.76(0.90)		0.59
	Current affiliation	U of M student	27	3.48(1.09)	0.29(df $F_{1, 93}$)	
		Staff	68	3.37(0.86)		
5.Satisfaction with current labels	Age	Under 30	26	2.85(0.92)	1.38(df $F_{1, 93}$)	0.24
		30+	69	3.06(0.73)		
	Gender	Male	23	3.17(0.78)	1.32(df $F_{1, 91}$)	0.25
		Female	70	2.96(0.79)		
	Citizenship status	Canadian	78	2.95(0.74)	1.88(df $F_{1, 93}$)	0.17
		Non-Canadian	17	3.24(0.97)		
	Current affiliation	U of M student	27	3.04(1.02)	0.08(df $F_{1, 93}$)	0.77
		Staff	68	2.99(0.68)		
6.Textile labels provide enough information	Age	Under 30	26	2.81(1.36)	2.64(df $F_{1, 93}$)	0.11
		30+	69	3.19(0.86)		
	Gender	Male	23	3.26(1.10)	0.94(df $F_{1, 91}$)	0.32
		Female	70	3.01(1.01)		
	Citizenship status	Canadian	78	2.99(1.04)	4.01(df $F_{1, 93}$)	0.05*
		Non-Canadian	17	3.53(0.87)		
	Current affiliation	U of M student	27	3.11(1.31)	0.03(df $F_{1, 93}$)	0.87
		Staff	68	3.07(0.90)		

Table 5.9. *Differences in Participants' Responses Regarding Labelling Information Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test) -Continued*

Question number	Variables	Category	N	M (SD)	F	P
7.Interest in a new label	Age	Under 30	26	3.88(1.11)	2.61(df $F_{1,93}$)	0.11
		30+	69	4.21(0.80)		
	Gender	Male	23	4.22(0.67)	0.45(df $F_{1,91}$)	0.50
		Female	70	4.07(0.97)		
	Citizenship status	Canadian	78	4.12(0.93)	0.06(df $F_{1,93}$)	0.80
		Non-Canadian	17	4.18(0.81)		
	Current affiliation	U of M student	27	4.07(0.87)	0.13(df $F_{1,93}$)	0.72
		Staff	68	4.15(0.92)		
8.Important to include a new label	Age	Under 30	26	3.38(1.10)	0.06(df $F_{1,93}$)	0.81
		30+	69	3.65(1.01)		
	Gender	Male	23	4.09(0.79)	0.86(df $F_{1,91}$)	0.36
		Female	70	3.85(1.09)		
	Citizenship status	Canadian	78	3.89(1.02)	1.91(df $F_{1,93}$)	0.17
		Non-Canadian	17	4.24(1.03)		
	Current affiliation	U of M student	27	4.00(1.04)	0.19(df $F_{1,93}$)	0.66
		Staff	68	3.90(1.02)		

**p-value is significant at the 0.01 level, *p-value is significant at the 0.05 level

5.3.3.2. Analysis of Pearson's correlation coefficient. The Pearson's correlation coefficient (Table 5.10) between "likely to read labels" and "usefulness of the current labels" was 0.59. The result showed a strong positive linear relationship between these two questions, meaning changes in one question were correlated with positive changes in the other question. The p-values of these two questions were less than the significance level $p=0.00<0.01$, which means that correlation was significant and they move in the same direction. People who were likely to read the label were also likely to find the current labels useful. Similarly, the analysis showed significant differences between "likely to read labels and "satisfaction with current labels" ($r=0.19$, $p=0.05\leq0.05$) meaning that people who were likely to read labels were satisfied with the current labels. The Pearson's correlation coefficient between "likely to read labels" and "textile labels provide enough information" was 0.35; there was a significant ($p=0.00<0.011$) moderate positive relationship between these two questions. People who were likely to read labels were also interested in a new label. Interestingly, there were no significant differences identified between "likely to read labels" and "important to include a new label" ($r=0.11$, $p=0.27$); those who read labels do not think that it is important to include a new label.

The Pearson's r for the correlation between "usefulness of the current labels" and "satisfaction with current labels" is 0.58 and p-value ($p=0.00<0.01$) is significant. The result indicated that people who thought the current labels are useful were also satisfied with the current labels. There was also a strong linear relationship identified between "usefulness of the current labels" and "textile labels provide enough information" which is 0.51. The p-value ($p=0.00<0.01$) was significant and they move in the same direction. People who found the current textile labels useful also believed current textile labels provide enough information to make their purchase decision. However, there was no significant linear association between

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"usefulness of the current labels" and "interest in a new label" (r=-.01, p=0.91), and "usefulness of the current labels" and "important to include a new label" (r=-.04, p=0.68).

The Pearson's correlation coefficient between "satisfaction with current labels" and "textile labels provides enough information" was 0.61. The result showed a strong significant linear relationship between these two questions (p=0.00<0.01), which means that changes in one question were strongly correlated with positive changes in the other variable. People who were satisfied with the current labels were also likely to say that the textile label should provide more information.

On the other hand, people who thought textile labels provide enough information did not have an "Interest in a new safety label" (r = 0.09, p=0.38>0.05) nor did they think there was importance in having a new safety label (r= 0.08, p=0.41>0.05). There was also a significant strong linear relationship identified between "Interest in a new label" and "important to include a new label" (r=0.77, p=0.00<0.01). People who were interested in having a new label also thought a new informative label was important to include.

Table 5.10. *Analysis of Linear Association between Two Variables (Bivariate Correlation)*

Question no		3. Likely to read labels	4. Usefulness of the current labels	5. Satisfaction with current labels	6. Textile labels provide enough information	7. Interest in a new label	8. Important to include a new label
3. Likely to read labels	Pearson Correlation N=106	1					
4.Usefulness of the current labels	Pearson Correlation N=106	0.59**	1				
5.Satisfaction with current labels	Pearson Correlation N=106	0.19	0.58**	1			
6.Textile labels provide enough information	Pearson Correlation N=106	0.35**	0.51**	0.61**	1		
7.Interest in a new label	Pearson Correlation N=104	0.28**	-0.01	-.023*	0.09	1	
8.Important to include a new label	Pearson Correlation N=104	0.11	-0.04	-0.22*	0.08	0.77**	1

**. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

5.3.4. Consumer concern about apparel production and workers' safety.

The following Table 5.11 represents participants' concerns over the apparel production process and the work environment for the workers. Five questions (Question#12-15, 17) were asked about this topic. The results showed that 40.63% of total participants "Strongly Agree" that they were concerned about the apparel factory conditions (Question #12), while only 3.13% of the participants "Disagree" about it. Additionally, 37.50% of the participants "Agree" and 18.75% of the participants "Somewhat agree" that they were concerned about the conditions under which their apparel was being made. Similarly, the majority of the participants, 56.84% and 35.79%, "Strongly Agree" and "Agree" that they should be concerned (Question #13) for the apparel workers safety issues. Only 1.05% of the participants "Disagree" on showing their concern for workers well-being. Participants had positive responses to stay away from retail shops that stock apparel made in unsafe working conditions (Question #14). 52.08% of the participants responded "Rarely" and 36.46% of the participants responded "Never" to purchasing from the specific retailer who stocks clothing made under poor working conditions for the manufacturing workers. However, 8.33% and 3.13% of the participants reported "Sometimes" and "Often" they do purchase clothing from sweatshop-oriented retail shops.

In terms of favourite brands, participants are willing to avoid their favourite brands (Question #15) if the apparel was made in an unsafe workplace. The majority of the participants (50.53%) acknowledged "Rarely" and 36.46% acknowledge "Never" to purchase their favourite brand clothing if they knew that this brand supplies apparel from an unhealthy workplace. Only a few of participants reported "Sometimes" (11.58%) and "Often" (3.16%) that they purchase their favourite branded apparel that has a sweatshop association. Although this study found that

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consumers were knowledgeable because of their educational background and concerned about the apparel workers' unsafe working condition, 56.25% of total participants reported "Never" and 30.21% reported "Rarely" would they complain to the retailers (Question #17) in regards to better working conditions. The results also indicated that the weighted average was much higher for "consumers should be concerned for the safety of workers" (Question # 13), with an average weighted score of M=4.48, which means that consumers acknowledge that they should be more concerned about the factory conditions than the status quo (Question # 12, M = 4.16).

Table 5.11. *Participants' Concerns and Anticipated Actions against Unsafe Working Environments*

Question No	Participants' responses					Total (N)	Weighted average (M)
12. Concerned about factory conditions	Strongly Disagree 0.00% [0]*	Disagree 3.13% [3]	Somewhat Agree 18.75% [18]	Agree 37.50% [36]	Strongly Agree 40.63% [39]	96	4.16
13. Should be concerned for the safety of workers	Strongly Disagree 0.00% [0]	Disagree 1.05% [1]	Somewhat Agree 6.32% [6]	Agree 35.79% [34]	Strongly Agree 56.84% [54]	95	4.48
14. Purchase from unsafe working conditions retailers	Never 36.46% [35]	Rarely 52.08% [50]	Sometimes 8.33% [8]	Often 3.13% [3]	Always 0.00% [0]	96	1.78
15. Purchase favourite brand associated with unsafe workplace	Never 34.74% [33]	Rarely 50.53% [48]	Sometimes 11.58% [11]	Often 3.16% [3]	Always 0.00% [0]	95	1.83
17. Complain to the retailer	Never 56.25% [54]	Rarely 30.21% [29]	Sometimes 9.38% [9]	Often 4.17% [4]	Always 0.00% [0]	96	1.61
Rating Scale	[1]	[2]	[3]	[4]	[5]		

* Figure within parentheses exhibit total number of frequencies.

5.3.4.1. Analysis of one way ANOVA. Additional statistical analysis was done to find the statistical significance of the results. Analysis of variance, matched pair t-test, and correlation coefficient tests were conducted to analyze the significance of the results. Differences in participants' responses regarding concern towards apparel production and safety of workers were analyzed using participants' demographic variables (Table 5.12).

To analyze participants' concerns about factory conditions, the mean level was significantly higher ($F=5.12>F_{cr}$ 3.94, $p=0.03$, df. $F_{1, 93}$) in participants aged 30+ (M=4.28, SD=0.75) than those under 30 (M=3.85, SD=1.01). The findings also showed that current U of M affiliation was significant ($F=5.21>F_{cr}$ 3.94, $p=0.03$, df. $F_{1, 93}$); U of M staff (M=4.28, SD=0.79) were more concerned about factory conditions than U of M students (M=3.85, SD=0.91). Those over 30 and U of M staff members were more concerned about factory conditions than people under 30 and U of M students. However, there were no significant differences among the demographic variables for whether consumers should be concerned for the safety of workers. Particularly, all of the participants have the same mean opinion about whether they should be concerned more (Question # 13) for this safety aspect. In regards to participants' responses for purchasing from retailers which have unsafe working conditions (Question # 14), citizenship status ($F=4.36>F_{cr}$ 3.94, $p=0.04$, df. $F_{1, 93}$) and university affiliation ($F=7.72>F_{cr}$ 3.94, $p=0.01$, df. $F_{1, 92}$) showed significant differences among the groups measured. Non-Canadians (M=2.12, SD=0.99) were more likely to avoid purchases from unsafe working conditions than Canadians (M=1.72, SD=0.64), p-value is less than critical value $p=0.05$, a significant difference. Similarly, U of M students (M=2.11, SD=0.93) were more likely to avoid purchases from unsafe working conditions than U of M staff (M=1.66, SD=0.59), p-value is less than critical value $p=0.01$ which is significant. Participants' responses on avoiding favourite

brands (Question # 15) which are associated with unsafe practices showed no significant

differences among the groups measured. The immediate inference is that all participants

regardless of age, gender, citizenship status and university affiliation were ready to avoid their

favourite brand where unsafe practices were present. However, there were significant differences

($F=4.29 > F_{cr}$ 3.94, $p=0.04$, df. $F_{1, 91}$) identified in the responses about complaints to the retailer to

change their unsafe practices, the mean level was significantly higher in male ($M=1.87$,

$SD=0.69$) participants than female ($M=1.49$, $SD=0.79$) although both means represent low levels

of complaining behaviour. This finding suggests that male participants would complain slightly

more than female participants about unsafe workplace issues.

Table 5.12. *Differences in Participants' Responses Regarding Concern towards Apparel Production and Safety of Workers Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test)*

Question No	Variables	Category	N	M (SD)	F	P
12. Concerned about factory condition	Age	Under 30	26	3.85(1.01)	5.12(df F $_{1, 93}$)	0.03*
		30+	69	4.28 (0.75)		
	Gender	Male	23	4.00(0.74)	0.97(df F$_{1, 91}$)	0.33
		Female	70	4.20(0.88)		
	Citizenship status	Canadian	78	4.14(0.83)	0.17(df F$_{1, 93}$)	0.68
		Non-Canadian	17	4.24(0.90)		
	Current affiliation	U of M student	27	3.85(0.91)	5.21(df F$_{1, 93}$)	0.03*
		Staff	68	4.28(0.79)		
13. Should concern for the safety of workers	Age	Under 30	25	4.56(0.65)	0.38(df F $_{1, 92}$)	0.54
		30+	69	4.46(0.68)		
	Gender	Male	23	4.35(0.57)	1.16(df F$_{1, 90}$)	0.28
		Female	69	4.52(0.70)		
	Citizenship status	Canadian	77	4.48(0.70)	0.07(df F$_{1, 92}$)	0.79
		Non-Canadian	17	4.53(0.51)		
	Current affiliation	U of M student	26	4.58(0.58)	0.62(df F$_{1, 92}$)	0.44
		Staff	68	4.46(0.70)		
14. Purchase from unsafe working conditions retailers	Age	Under 30	26	1.92(0.89)	1.21(df F $_{1, 93}$)	0.27
		30+	69	1.74(0.66)		
	Gender	Male	23	1.83(0.83)	0.10(df F$_{1, 91}$)	0.76
		Female	70	1.77(0.71)		
	Citizenship status	Canadian	78	1.72(0.64)	4.36(df F$_{1, 93}$)	0.04*
		Non-Canadian	17	2.12(0.99)		
	Current affiliation	U of M student	27	2.11(0.93)	7.72(df F$_{1, 92}$)	0.01**
		Staff	68	1.66(0.59)		
15. Purchase favourite brand associated with unsafe practices	Age	Under 30	26	2.00(0.94)	1.63(df F $_{1, 92}$)	0.21
		30+	68	1.78(0.67)		
	Gender	Male	22	1.77(0.75)	0.21(df F$_{1, 90}$)	0.65
		Female	70	1.86(0.77)		
	Citizenship status	Canadian	77	1.81(0.69)	0.93(df F$_{1, 92}$)	0.34
		Non-Canadian	17	2.00(1.00)		
	Current affiliation	U of M student	27	2.00(0.88)	1.72(df F$_{1, 92}$)	0.19
		Staff	67	1.78(0.69)		

Table 5.12. *Differences in Participants' Responses Regarding Concern towards Apparel Production and Safety of Workers Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test) -Continued*

Question No	Variables	Category	N	M (SD)	F	P
17. Complain to the retailer	Age	Under 30	26	1.46(0.81)	1.34(df $F_{1, 93}$)	0.25
		30+	69	1.68(0.83)		
	Gender	Male	23	1.87(0.69)	4.29(df $F_{1, 91}$)	0.04*
		Female	70	1.49(0.79)		
	Citizenship status	Canadian	78	1.62(0.83)	0.02(df $F_{1, 93}$)	0.89
		Non-Canadian	17	1.64(0.86)		
	Current affiliation	U of M student	27	1.78(0.97)	1.36(df $F_{1, 93}$)	0.25
		Staff	68	1.56(0.76)		

**. p-value is significant at the 0.01 level, *. p-value is significant at the 0.05 level

5.3.4.2. Analysis of matched pair t-test. Further analysis using matched pair t-tests was conducted to find out whether there was a significant difference between the means of two questions ($\mu_1 = \mu_2$ or $\mu_1 \neq \mu_2$). In this section, five questions are divided into two groups, questions 12-13 (anchored by the term "*Strongly Disagree*" to "*Strongly Agree*"), shown in Table 5.13 and questions 14,15, &17 (Never to Always), shown in Table 5.14, because of different Likert options. Pair 1 (Table 5.13) showed that participants think they should have more concern for the safety of workers (M=4.48, SD=0.67) than their present level of concern about the factory conditions (M=4.16, SD=0.84). In particular, participants' mean answer was "agree" when considering their current level of concern about the factory conditions, while more respondents chose "strongly agree" with respect to being more attentive to the safety of workers. Similar levels of response were found for Questions 14, 15 and 17 in Table 5.14. There were no significant differences (t= -0.73, p=0.47) among the variables "purchase from unsafe working conditions retailers," "purchase favourite brand associated with unsafe practices" and "complain to the retailer" where p-values were greater than then critical significance level. In particular, participants who are willing to avoid purchases from their favourite brands also want to stop purchasing from the retailers who do not provide safe working conditions for the workers. Additionally, participants who do not want to purchase from unsafe working conditions retailers rarely complain to the retailer to improve their working conditions. Similarly, participants who want to avoid their favourite brands rarely complain to the retailer to change their poor workplace.

Table 5.13. *Participants' Concern towards Apparel Production and Safety of Workers to Determine Significant Differences (95% Confidence Intervals, Matched Pair t-Test)*

Pair	Question type	N	M (SD)	df	t	p
Pair 1	Concerned about factory condition	95	4.16(0.84)	94	-4.95	0.00
	Should concern for the safety of workers	95	4.48(0.67)			

Table 5.14. *Participants' Anticipation towards Apparel Production and Safety of Workers to Determine Significant Differences (95% Confidence Intervals, Matched Pair t-Test)*

Pair	Question type	N	M (SD)	df	t	p
Pair 1	Purchase from unsafe working conditions retailers	95	1.79(0.73)	94	-0.73	0.47
	Purchase favourite brand associated with unsafe practices	95	1.83(0.75)			
Pair 2	Purchase from unsafe working conditions retailers	96	1.78(0.73)	95	1.47	0.15
	Complain to the retailer	96	1.61(0.83)			
Pair 3	Purchase favourite brand associated with unsafe practices	95	1.83(0.75)	94	1.87	0.07
	Complain to the retailer	95	1.60(0.82)			

5.3.4.3. Analysis of Pearson's correlation coefficient. To find out linear association between questions, Pearson's correlation coefficient was calculated and reported in Table 5.15. The Pearson's r for the correlation between "concerned about factory condition" and "should be concerned for the safety of workers" was 0.66; there was a strong positive linear association between these two questions. The result means that changes in one question were strongly correlated with changes in the other question. The p-value (0.00) of these two questions were less than the significance level p=0.00<0.01. In particular, participants who were concerned about the workplace issues were likely to consider they should be more concerned about the safety of workers. Also, matched pair t-tests showed significant differences of these two questions. Participants believe that they should show more concern for the safety of workers than their current level.

The Pearson's correlation between "concerned about factory condition" and "purchase from unsafe working conditions retailers" was -0.38 which was significant p=0.00<0.01. People who are showing their concern for the factory conditions are likely to not want to purchase from unsafe working conditions retailers.

There was a moderate negative correlation between "concerned about factory conditions" and "purchase favourite brand associated with unsafe practices"; it is -0.35 and the p-value is significant p=0.00<0.01. Specifically, people who were concerned about workplace conditions were also interested in avoiding their favourite brand. There was no significant linear relationship between "concerned about factory conditions" and "complain to the retailer" (r=0.07, p=0.48). There was a significant moderate negative correlation with "should be concerned for the safety of workers" and "purchase from unsafe working conditions retailers" (r=-0.28, p=0.01), and between "should be concerned for the safety of workers" and "purchase

favourite brand associated with unsafe practices" (r=-0.31, p=0.00). Particularly, participants who believe they should be more concerned for the safety of workers were likely to avoid retailers and their favourite brands that have poor workplace conditions. However, there was no significant correlation between "should be concerned for the safety of workers" and "complain to the retailer" (r=0.08, p=0.47), which was a weak linear association. There was also little evidence to suggest that participants who think they should be more concerned for the workers safety would also complain to the retailer to improve workplace conditions.

There was a significant strong linear relationship identified to the questions, "purchase favourite brand associated with unsafe practices" and "purchase from unsafe working conditions retailers" (r=0.71, p=0.00). In particular, participants who were likely to stop purchasing their favourite brand associated with poor practices were likely to stop purchasing from other poor workplace retailers. Furthermore, the Pearson's correlation between "complain to the retailer" and "purchase from unsafe working conditions retailers" was not significant. The p-value (p=0.85>0.01) is greater than the critical significance level. People who do not want to "purchase from unsafe working conditions retailers" were not more likely to complain to the retailer than those who would not avoid an unsafe retailer. The same results were found for the correlation between "purchase favourite brand associated with unsafe practices" and "complain to the retailer" (r=-0.18, p=0.08). People who want to avoid their favourite brands are not more likely to complain to the retailer than other people.

Table 5.15. *Analysis of Linear Association between Two Variables (Bivariate Correlation)*

Question No		12. Concerned about factory condition	13.Should be concerned for the safety of workers	14. Purchase from unsafe working conditions retailers	15. Purchase favourite brand associated with unsafe practices	17. Complain to the retailer
				Correlations		
12.Concerned about factory condition	Pearson Correlation N=96	1				
13. Should be concerned for the safety of workers	Pearson Correlation N=95	0.66**	1			
14.Purchase from unsafe working conditions retailers	Pearson Correlation N=96	-0.38**	-0.28**	1		
15.Purchase favourite brand associated with unsafe practices	Pearson Correlation N=95	-0.35**	-0.31**	0.71**	1	
17.Complain to the retailer	Pearson Correlation N=96	0.07	0.08	-0.02	-0.18	1

**. Correlation is significant at the 0.01 level (2-tailed).

5.3.5. Social action against unsafe workplaces.

To understand participants' involvement with some kind of social action (Question#18), participants were asked how often they participated in the following actions: "Signed up for an online petition to save workers from unsuitable working conditions" (Q#18, S6), "Send a protest letter to the manufacturer to provide a healthy workplace for the workers" (Q#18, S7), "Boycott retailer or brand" (Q#18, S8), "Donate to victims of textile/garments factory accidents" (Q#18, S9). Table 5.16 presents data on participants' participation in social actions under four different Statements (S6-S9) on a five-point Likert scale (1=Never to 5=Regularly). It was observed that participants were more like to boycott a retailer or brand (M=2.76) than sign up for an online petition (M=1.58), send a protest letter (M=1.19) or donate to victims (M=1.39) (Table 5.16).

The majority (64.58%) of these participants had never signed up for an online petition (S6). Only 2.08% of the participants "Regularly" and 22.92% of the participants "Once" signed up for online petition. Similarly, almost all of the participants (91.58%) "Never" sent a protest letter (S7) to the manufacturer to provide a healthy workplace for the workers, while a greater percent of the participants had boycotted a retailer or brand (S8) before at least "Once" (14.74%),"Twice" (11.58%) and "More than twice" (26.32%). When it comes to "Donate to victims" (S9), the majority (78.95%) of the participants never donated to the victims of textile or garments factory accidents, only11.58% of the participants donated "Once", while a few of the participants donated "Twice (3.16%)," "More than twice (4.21%)" and "Regularly (2.11%)." When compared to participating "Regularly" for three social actions (S6: 2.08%, S7: 0.0%, S9: 2.11%), a high number of participants regularly (14.74%) boycotted retailers or brands whose clothing items were made in poor working conditions. These results indicate that participants'

engagement in social actions was very low, with the majority of the participants reporting

"Never" for all four social actions.

Table 5.16. *Responses on Participants' Participations in Social Actions*

Statement No	Statements concerning personal measure	Never [1]	Once [2]	Twice [3]	More than twice [4]	Regularly [5]	Total [N]	Weighted Average [M]
S6	"Sign up for an online petition"	64.58% [62]*	22.92% [22]	4.17% [4]	6.25% [6]	2.08% [2]	96	1.58
S7	"Send a protest letter"	91.58% [87]	2.11% [2]	2.11% [2]	4.21% [4]	0.00% [0]	95	1.19
S8	"Boycott retailer or brand"	32.63% [31]	14.74% [14]	11.58% [11]	26.32% [25]	14.74% [14]	95	2.76
S9	"Donate to victims"	78.95% [75]	11.58% [11]	3.16% [3]	4.21% [4]	2.11% [2]	95	1.39

* Figure within parentheses exhibit total number of frequencies

5.3.5.1. Analysis of one way ANOVA. Table 5.17 shows the result of the mean differences among the data on participants' participation in social actions compared with demographic variables using ANOVA. Participants' responses regarding signing up for an online petition showed significant differences [$F=6.99 > F_{cr}3.94$, $p=0.01 < 0.05$, df. $F_{1, 93}$] in the university affiliation. U of M students were more likely to sign up for online petition (M=2.00, SD=1.18) to protest against unsafe work environment than U of M staff (M=1.43, SD=0.85). There were no significant differences identified for sending protest letters, boycotting retailers or brands, or donating to victims of textile and apparel industry incidents. Participants' responses on their participation in these three social actions were similar as shown in Table 5.16 (majority of them responded "Never") regardless of age, gender, citizenship status and current U of M affiliation.

Table 5.17. *Differences in Participants' Responses against Unsafe Workplace Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test)*

Statement No	Statements concerning personal measure	Variables	Category	N	M (SD)	F	P
S6	"Sign up for an online petition"	Age	Under 30	26	1.73(0.83)	0.72(df $F_{1,93}$)	0.39
			30+	69	1.54(1.04)		
		Gender	Male	23	1.74(1.36)	1.45(df $F_{1,91}$)	0.23
			Female	70	1.47(0.74)		
		Citizenship status	Canadian	78	1.62(0.97)	0.30(df $F_{1,93}$)	0.59
			Non-Canadian	17	1.47(1.07)		
		Current affiliation	U of M student	27	2.00(1.18)	6.99(df $F_{1,93}$)	0.01**
			Staff	68	1.43(0.85)		
S7	"Send a protest letter"	Age	Under 30	26	1.15(0.61)	0.11(df $F_{1,92}$)	0.74
			30+	68	1.21(0.70)		
		Gender	Male	23	1.35(0.93)	2.81(df $F_{1,90}$)	0.10
			Female	69	1.10(0.46)		
		Citizenship status	Canadian	77	1.19(0.67)	0.01(df $F_{1,92}$)	0.92
			Non-Canadian	17	1.18(0.73)		
		Current affiliation	U of M student	27	1.37(0.97)	2.70(df $F_{1,92}$)	0.10
			Staff	67	1.12(0.51)		
S8	"Boycott retailer or brand"	Age	Under 30	26	2.50(1.50)	0.94(df $F_{1,92}$)	0.33
			30+	68	2.84(1.51)		
		Gender	Male	23	2.91(1.62)	0.51(df $F_{1,90}$)	0.48
			Female	69	2.65(1.48)		
		Citizenship status	Canadian	77	2.77(1.46)	0.09(df $F_{1,92}$)	0.77
			Non-Canadian	17	2.65(1.77)		
		Current affiliation	U of M student	27	2.44(1.48)	1.51(df $F_{1,92}$)	0.22
			Staff	67	2.87(1.52)		

Table 5.17. *Differences in Participants' Responses against Unsafe Workplace Related to Age, Gender, Citizenship Status and U of M Affiliation (One Way ANOVA Test) -Continued*

Statement No	Statements concerning personal measure	Variables	Category	N	M (SD)	F	P
		Age	Under 30	26	1.54(1.14)	1.87(df $F_{1, 92}$)	0.18
			30+	68	1.28(0.67)		
S9		Gender	Male	23	1.57(0.99)	1.90(df $F_{1, 90}$)	0.17
			Female	69	1.29(0.77)		
	Donate to victims	Citizenship status	Canadian	77	1.31(0.73)	0.97(df $F_{1, 92}$)	0.33
			Non-Canadian	17	1.53(1.18)		
		Current affiliation					
			U of M student	27	1.59(1.19)	3.32(df $F_{1, 92}$)	0.07
			Staff	67	1.25(0.61)		

**. p-value is significant at the 0.01 level; * p-value is significant at the 0.05 level

5.3.5.2. Analysis of matched pair t-test. Table 5.18 exhibits the result from matched pair t-tests. There was a significant difference [t=5.28, p=0.00] for responses in pair 1, "Sign up for an online petition" (S6) (M=1.57, SD=0.98) and "Send a protest letter" (S7) (M=1.19, SD=0.67). The result suggested that participants would sign up for an online petition more than they would send a protest letter to the responsible authority. However, when "Sign up for an online petition" (M=1.57, SD=0.98) is compared with "Boycott retailer or brand" (M=2.76, SD=1.51) in pair 2, the difference is significant [t=-7.48, p=0.00]. This result indicated that participants were more likely to "Sign up for an online petition" than "Boycott a retailer or brand". The results were not significant [t=1.58, p=0.12] for the Statements "Sign up for an online petition" and "Donate to victims," where the p-value was greater than the significance level of 0.05. Participants who sign up for online petitions are equally likely to donate to victims. However, there was a significant difference [t=-10.15, p=0.00] in pair 4 "Send a protest letter" (M=1.19, SD=0.67) and "Boycott retailer or brand" (M=2.76, SD=1.51). In particular, people had a tendency to boycott more than they sent protest letters.

The result showed that the highest rated action was "Boycott retailer or brand" (S8) and it was significantly higher than "Sign up for an online petition" (S6). Also, the findings indicated that participants' action to "Sign up for an online petition" (S6) was higher than "Donate to victims" (S9), and "Donate to victims" (S9) was higher than to "Send a protest letter" (S7). This can be ranked in the following descending order: S8>S6>S9>S7, which means "Boycott retailer or brand" (S8) is the most effective action to encourage consumers to undertake and it might be more effective as a campaign tactic.

Table 5.18. *Participants' Responses against Unsafe Workplace to Determine Significant Differences (95% Confidence Intervals, Matched Pair t-Test)*

Pairs	Statements No	Statements concerning personal measures	N	M (SD)	df	t	P
Pair 1	S6	"Sign up for an online petition"	95	1.57(0.98)	94	5.28	0.00
	S7	"Send a protest letter"	95	1.19(0.67)			
Pair 2	S6	"Sign up for an online petition"	95	1.57(0.98)	94	-7.48	0.00
	S8	"Boycott retailer or brand"	95	2.76(1.51)			
Pair 3	S6	"Sign up for an online petition"	95	1.57(0.98)	94	1.58	0.12
	S9	"Donate to victims"	95	1.39(0.90)			
Pair 4	S7	"Send a protest letter"	95	1.19(0.67)	94	-10.15	0.00
	S8	"Boycott retailer or brand"	95	2.76(1.51)			
Pair 5	S7	"Send a protest letter"	95	1.19(0.67)	94	-1.90	0.06
	S9	"Donate to victims"	95	1.39(0.90)			
Pair 6	S8	"Boycott retailer or brand"	95	2.76(1.51)	94	8.18	0.00
	S9	"Donate to victims"	95	1.39(0.90)			

5.3.5.3. Analysis of Pearson's correlation coefficient. The Pearson's r for the correlation between "Sign up for an online petition" (S6) and "Send a protest letter" (S7) was 0.683 (Table 5.19); there was a strong positive linear association between these two Statements. The p-value for these two variables was significant at 0.01 level, p=0.00<0.01. Specifically, participants who signed up for an online petition were also likely to send a protest letter. Conversely, the result from matched pair t-test shows significant differences of these two Statements. Respondents were significantly more likely to sign an online petition than to send a protest letter although they are positively correlated.

Additionally, a significant relationship could be seen between Statements, "Sign up for an online petition" (S6) when compared with "Boycott retailer or brand" (S8) and "Donate to victims" (S9). For Boycott (r=0.296, p=0.00) and Donation (r=0.234, p=0.02). The Pearson's correlation revealed that participants who signed up for online petition were likely to boycott poor working environment produced clothing and donate to the victims. Matched pair t-tests showed that participants boycotted more than they signed up for online petitions and donated to victims.

A significant relationship was identified between "Boycott retailer or brand" (S8) and "Send a protest letter" (S7) (r=0.224, p=0.03). Participants who did boycott were likely to send a protest letter. A matched pair t=test showed significant differences between these two Statements; participants boycotted more than they sent a protest letter. However, a significant relationship did not exist between "Send a protest letter" (S7) and "Donate to victims" (S9) (r=0.175, p=0.09). A matched pair t-test also showed no significant differences between these two Statements. Similarly, a significant relationship did not exist between "Boycott retailer or brand" (S8) and "Donate to victims" (S9) (r=0.156, p=0.13).

Table 5.19. *Analysis of Linear Association between Two Variables (Bivariate Correlation)*

Statements concerning personal measure		S6. "Sign up for an online petition"	S7. "Send a protest letter"	S8. "Boycott retailer or brand"	S9. "Donate to victims"
S6. "Sign up for an online petition"	Pearson Correlation N=96	1			
S7. "Send a protest letter"	Pearson Correlation N=95	0.683**	1		
S8. "Boycott retailer or brand"	Pearson Correlation N=95	0.296**	0.224*	1	
S9. "Donate to victims"	Pearson Correlation N=95	0.234*	0.175	0.156	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed)

5.3.6. Participants' knowledge assessment.

To assess participants' knowledge of their clothing sources, the majority of the

participants (84.38%) stated that between 76 to 99% of their clothing is imported from other

countries (Question #16, Figure 5.2). Additionally, only one of the participants of this sample

thought that 100% of clothing in Canadian stores were imported. In 2015, the Canadian retailers

imported 95.2% of apparel products (Government of Canada, 2017). Moreover, in 2012, Canada

imported apparel products with a value of nine million US dollars (World Trade Organization,

2012). Crosstab analysis with participants' demographic variables showed that the majority of

the Canadian/non-Canadian and U of M staff/students had the same opinion; they thought 91 to

99% of apparel are imported here in Canada. However, the results showed that the majority of

females and those under 30 thought 76 to 90% of the apparel sold in Canada are imported, and

the majority of the male and age 30+ thinks 91 to 99% are imported. All of the participants knew

that the majority of their clothing was imported. Table 5.20 presents participants' knowledge of

their imported garments percentage.

Table 5.20. *Participants' Knowledge of Their Imported Garment Items (Crosstab Analysis)*

% of garment imports in stores in Canada	Demographic Variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	< 30	>30+	U of M Student	U of M Staff
26 to 50%	0/78	2/17	1/23	1/70	1/26	1/69	2/27	0/68
	0%	11.76%	4.35%	1.43%	3.85%	1.45%	7.41%	0%
51 to 75%	10/78	2/17	1/23	10/70	3/26	9/69	4/27	8/68
	12.82%	11.76%	4.35%	14.29%	11.54%	13.04%	14.81%	11.76%
76 to 90%	32/78	6/17	5/23	32/70	12/26	26/69	10/27	28/68
	41.03%	35.29%	21.74%	45.71%	46.15%	37.68%	37.04%	41.18%
91 to 99%	35/78	7/17	15/23	27/70	10/26	32/69	11/27	31/68
	44.87%	41.18%	65.22%	38.57%	38.46%	46.38%	40.74%	45.59%
100%	1/78	0/17	1/23	0/70	0/26	1/69	0/27	1/68
	1.28%	0%	4.35%	0%	0%	1.45%	0%	1.47%
Total	78/78	17/17	23/23	70/70	26/26	69/69	27/27	68/68
	100%	100%	100%	100%	100%	100%	100%	100%

Figure 5.2. Summary Data of Participants' Knowledge about Imported Garments in Canada
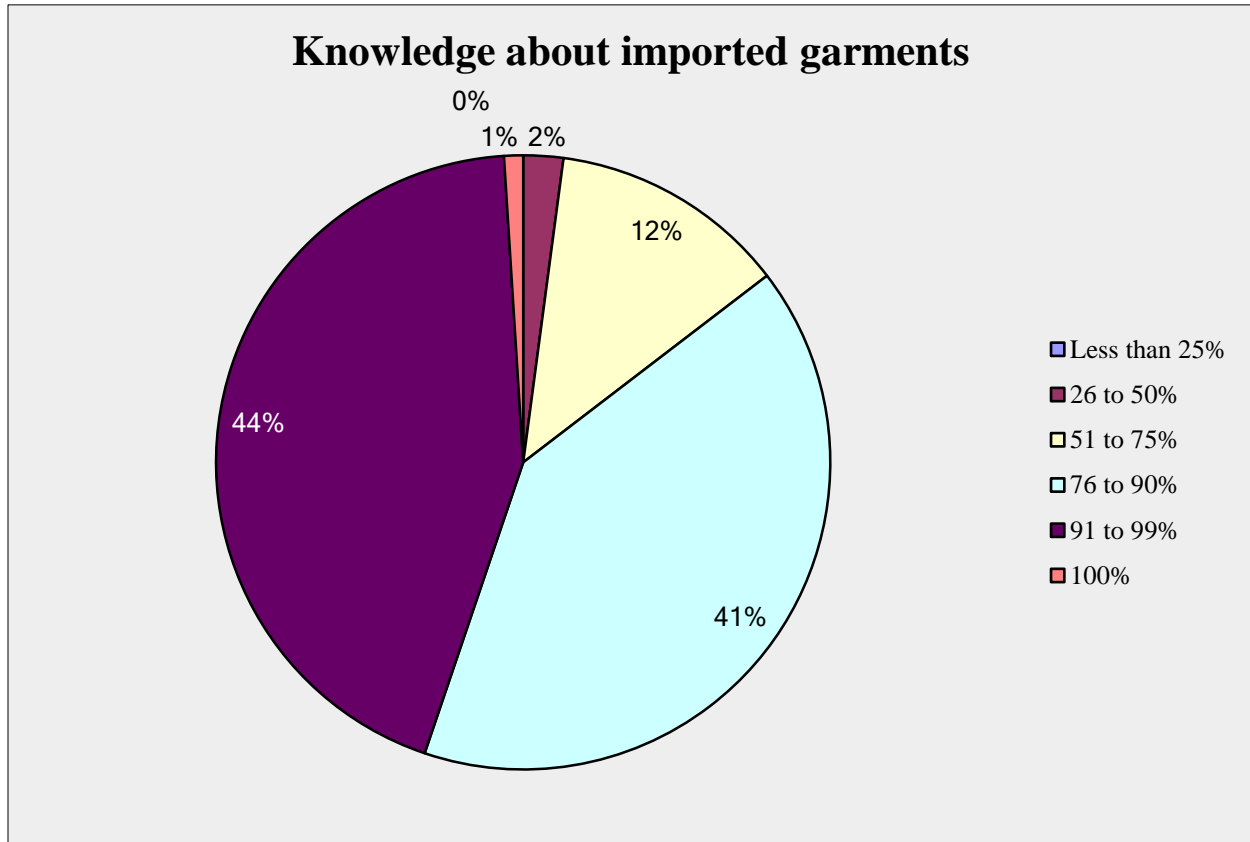
Consumers' knowledge of industrial hazards that may affect workers' health was

investigated (Question #9).The results indicated that almost all of the participants were aware of

the health risks associated with clothing production workers. Most of the participants (96.94%)

selected chemical exposure; 89.80% selected dyes used in manufacturing; 84.69% selected

bleaching use; 69.39% selected washing agents; and 65.31% stated that dust exposure can cause

workers health problems (Figure 5.3). Further analysis of the data based on crosstab analysis

showed that the majority of participants, regardless of demographic variables, selected chemicals

as the most hazard-causing substance for the workers' health. Participants also added some

probable hazard-causing materials which may pose risks for workers health. From their selection

and comments about hazard-causing substances, it was established that participants of this study

were knowledgeable about workers' health outcomes from clothing production processes. Participants also added some possible sources of hazardous workplace environment in the comment box such as fabric variety, pests, poor lighting, poor machinery, lack of building safety, herbicides and pesticides used in fibre cultivation, lack of emergency exits, and child labour. The results from section 5.3.3 of this chapter reveal that participants were very concerned about the clothing industry workplace conditions. Participants aged 30+ and U of M staff were more concerned than those under 30 and U of M students; see Table (5.12). Participants were willing to avoid those retailers who engage with unsafe workplaces.

In terms of consumers' response to health risks (Question #10) arising from clothing production stages, the majority of the participants (82.95%) chose chemicals used in clothing production, others also reported dust (52.27%), dyes (76.14%), and washing agents (56.82%) can affect consumers' health (Figure 5.4). Crosstab analysis with participants' demographic variables indicated that the highest rated risk causing substances were chemicals and dyes. This result also showed participants' positive concern about health risk association with clothing for their health (Table 5.21).

Table 5.21. *Participants' Knowledge on Workers and Consumers Health Hazards (Crosstab Analysis)*

Questions	Name of hazards	Demographic variables							
		Canadian		Gender		Age		Current Affiliation	
		Yes	No	Male	Female	<30	>30+	U of M Student	U of M Staff
Hazards associated with workers health	Dust	51/78 65.38%	12/17 70.59%	14/23 60.86%	48/70 68.57%	15/26 57.69%	48/69 69.57%	18/27 66.67%	45/68 66.18%
	Dyes	69/78 88.46%	15/17 88.24%	18/23 78.26%	64/70 91.43%	22/26 84.62%	62/69 89.86%	23/27 85.19%	61/68 89.71%
	Chemicals	75/78 96.15%	16/17 94.12%	21/23 91.30%	68/70 97.14%	25/26 96.15%	66/69 95.65%	26/27 96.30	65/68 95.59%
	Bleaching	68/78 87.18%	12/17 70.59%	17/23 73.91%	61/70 87.14%	19/26 73.08%	61/69 88.41%	20/27 74.07%	60/68 88.24%
	Washing agents	56/78 71.79%	9/17 52.94%	16/23 69.57%	47/70 67.14%	13/26 50%	52/69 75.36%	15/27 55.56%	50/68 73.53%
Hazards associated with consumer health	Dust	36/78 46.15%	8/17 47.06%	10/23 43.48%	34/70 48.57%	11/26 42.31%	33/69 47.83%	12/27 44.45%	32/68 47.06%
	Dyes	53/78 67.95%	12/17 70.59%	14/23 60.86%	50/70 71.43%	16/26 61.54%	49/69 71.01%	18/27 66.67%	47/68 69.12%
	Chemicals	57/78 73.08%	14/17 82.35%	13/23 56.52%	57/70 81.43%	21/26 80.77%	50/69 72.46%	22/27 81.48%	49/68 72.06%
	Bleaching	43/78 55.13%	3/17 17.65%	8/23 34.78%	37/70 52.86%	11/26 42.31%	35/69 50.72%	10/27 37.04%	36/68 52.94%
	Washing agents	45/78 57.69%	3/17 17.65%	7/23 30.43%	40/70 57.14%	12/26 46.15%	36/69 52.17%	11/27 40.74%	37/68 54.41%

Figure 5.3. Hazards Associated with Clothing Production which may Affect Workers' Health

Workers health hazards from clothing production phases

- Dust left in clothing: 65.3%
- Dyes used in manufacturing: 89.8%
- Chemicals used in manufacturing: 96.9%
- Bleaching used in manufacturing: 84.7%
- Washing agents in manufacturing: 69.4%
- Other (please specify): 14.3%

Figure 5.4. Hazards Associated with Clothing Production which may Affect Workers' Health

Consumers health hazards from clothing production phases

52.3%	76.1%	83.0%	55.7%	56.8%	6.8%
Dust left in clothing	Dyes used in manufacturing	Chemicals used in manufacturing	Bleaching used in manufacturing	Washing agents in manufacturing	Other (please specify)
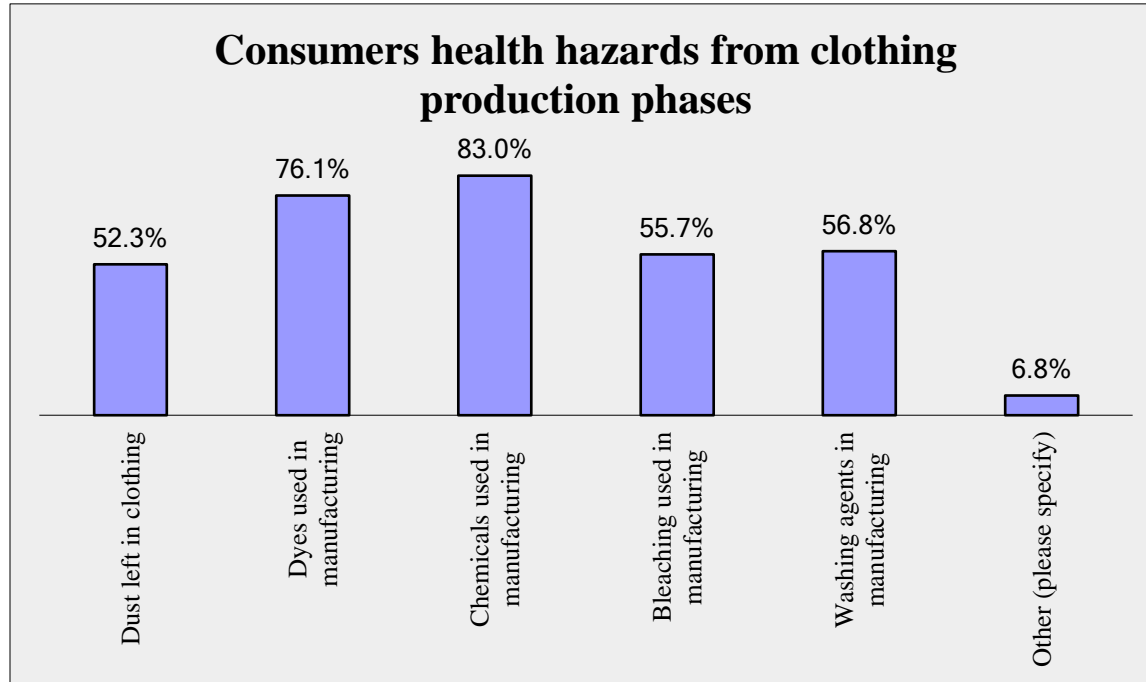
Participants were also knowledgeable about the diseases associated with direct contact with chemicals (Question #11). The majority of the participants (89.80%) acknowledged that skin burn, allergy, headache, chronic pulmonary diseases, cancer, and death may be associated with direct contact with chemicals. The majority of the participants chose "All of the above" to indicate their knowledge (Table 5.22, Figure 5.5).

Table 5.22. *Participants' Knowledge on Health Diseases with Direct Contact with Chemicals (Crosstab Analysis)*

Health diseases from chemicals	Demographic variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	<30	>30+	U of M Student	U of M Staff
Allergy	0/78	2/17	1/23	1/70	1/26	1/69	1/27	1/68
	0%	11.64%	4.35%	1.43%	3.85%	1.45%	3.7%	1.47%
Headache	1/78	0/17	0/23	1/70	1/26	0/69	1/27	0/68
	1.28%	0%	0%	1.43%	3.85%	0%	3.7%	0%
Chronic pulmonary diseases	1/78	1/17	1/23	1/70	1/26	1/69	1/27	1/68
	1.28%	5.88%	4.35%	1.43%	3.85%	1.45%	3.7%	1.47%
Cancer	2/78	1/17	1/23	2/70	2/26	1/69	2/27	1/68
	2.56%	5.88%	4.35%	2.85%	7.69%	1.45%	7.41%	1.47%
All of the above	7/78	13/17	18/23	65/70	21/26	64/69	22/27	63/68
	8.97%	76.47%	78.26%	92.86%	80.77%	92.75%	81.48%	92.65%
None of the above	1/78	0/17	1/23	0/70	0/26	1/69	0/27	1/68
	1.28%	0%	4.35%	0%	0%	1.45%	0%	1.47%
Total	77/78	17/17	22/23	70/70	26/26	68/69	27/27	67/68
	98.72%	100%	95.65%	100%	100%	98.55%	100%	98.53%

Figure 5.5. Participants' Knowledge about Health Impact from Direct Exposed to Chemicals
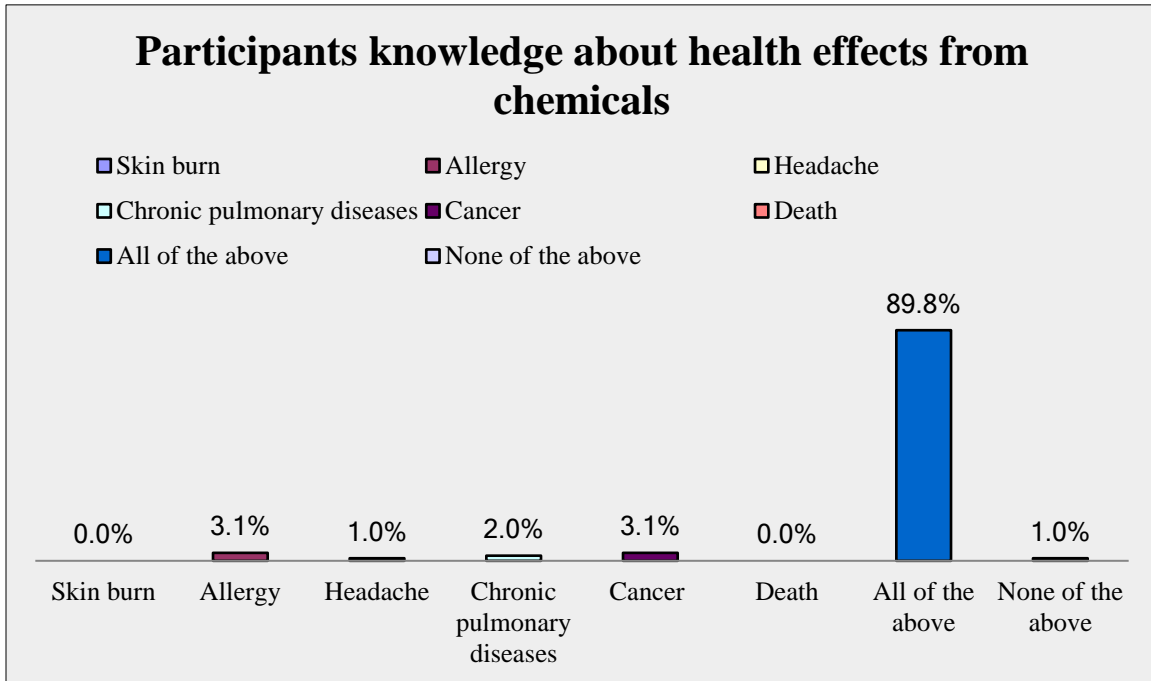
Overall, all the responses from this section established that participants of this study were knowledgeable about the apparel industrial functions. They knew about the Canadian apparel market, workers' health risks, and their own health risks from poorly managed work environments.

5.3.7. Consumer shopping convenience.

54.74% of the participants acknowledged "Label in the clothing" would be the way to be informed that their selected garment was produced in a safe environment (Question #19, Figure 5.6). In addition, 24.21% of the participants preferred "Hang tags on hanger" and 10.53% of the participants preferred "certificate on wall" to be informed about this safety practice. Further, crosstab analysis (Table 5.23) showed that a higher number of Canadian (41), female (40), aged 30+ (41), and U of M staff (38) wanted to be informed through a "Label in the clothing" than non-Canadian (11), male (10), aged under 30 (11) and U of M student (14). Participants also

added some new ideas about how they could be informed about safety information such as a company's online presence, a QR code on the label, the media, and Health Canada/independent lab. The results from Table 5.7 also showed that the majority of the participants were interested in having a new clothing label and the majority of them thought that it was important to include a new safety label with clothing.

Table 5.23. *Crosstab Analysis with Participants' Demographic Variables*

How would you like to be informed about safe production environment?	Demographic variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	<30	>30+	U of M Student	U of M Staff
Label in the clothing	41/78 52.56%	11/17 64.71%	10/23 43.48%	40/70 57.14%	11/26 42.31%	41/69 59.42%	14/27 51.85%	38/68 55.88%
Hang tag on hanger	19/78 24.36%	4/17 23.53%	7/23 30.43%	16/70 22.86%	9/26 34.62%	14/69 20.29%	9/27 33.33%	14/68 20.59%
Certificate on wall	9/78 11.54%	1/17 5.88%	4/23 17.39%	6/70 8.57%	3/26 11.54%	7/69 10.14%	1/27 3.7%	9/68 13.24%
Total	69/78 88.46%	16/17 94.12%	21/23 91.3%	62/70 88.57%	23/26 88.46%	61/69 88.41%	24/27 88.89%	61/68 89.71%

Figure 5.6. Participants' Responses on How they Want to be Informed about a Safe Environment
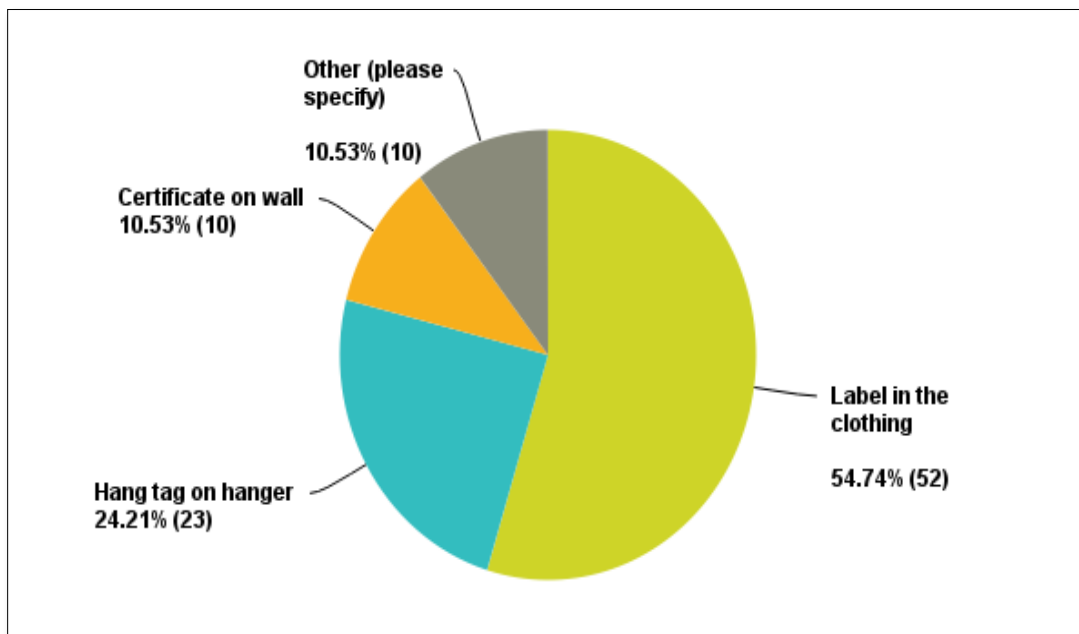
The results of Question 20 (Figure 5.7) showed that 61.46% of the participants chose an "Independent third party certificate" as the way to confirm a garment is made in a safe environment. Another 30.21% of felt that a "Federal certificate from the importing country" was preferred and 3.13% preferred a "Government certificate from the producer country." Moreover, results from a crosstab analysis showed that across all the demographic variables the independent third party certification was the best medium (Table 5.24).

Table 5.24. *Crosstab Analysis with Participants' Demographic Variables about their Trust Medium*

Who would you trust to certify that the garment is made in a safe environment?	Demographic variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	<30	<30+	U of M Student	U of M Staff
Independent third party certified	47/78 60.26%	11/17 64.71%	15/23 65.22%	41/70 58.57%	11/26 42.31%	47/69 68.12%	14/27 51.85%	44/68 64.71%
Government certificate from producer country	2/78 2.56%	1/17 5.88%	0/23 0%	3/70 4.29%	3/26 11.54%	0/69 0%	3/27 11.11%	0/68 0%
Federal certificate from importing country	24/78 30.77%	5/17 29.41%	8/23 34.78%	21/70 30%	11/26 42.31%	18/69 26.09%	9/27 33.33%	20/68 29.41%
Total	74/78 94.87%	17/17 100%	23/23 100%	65/70 92.86%	25/26 96.15%	65/69 94.2%	26/27 96.30%	64/68 94.12%

Figure 5.7. Participants' Responses to Who They Would Trust more for the Safety Label
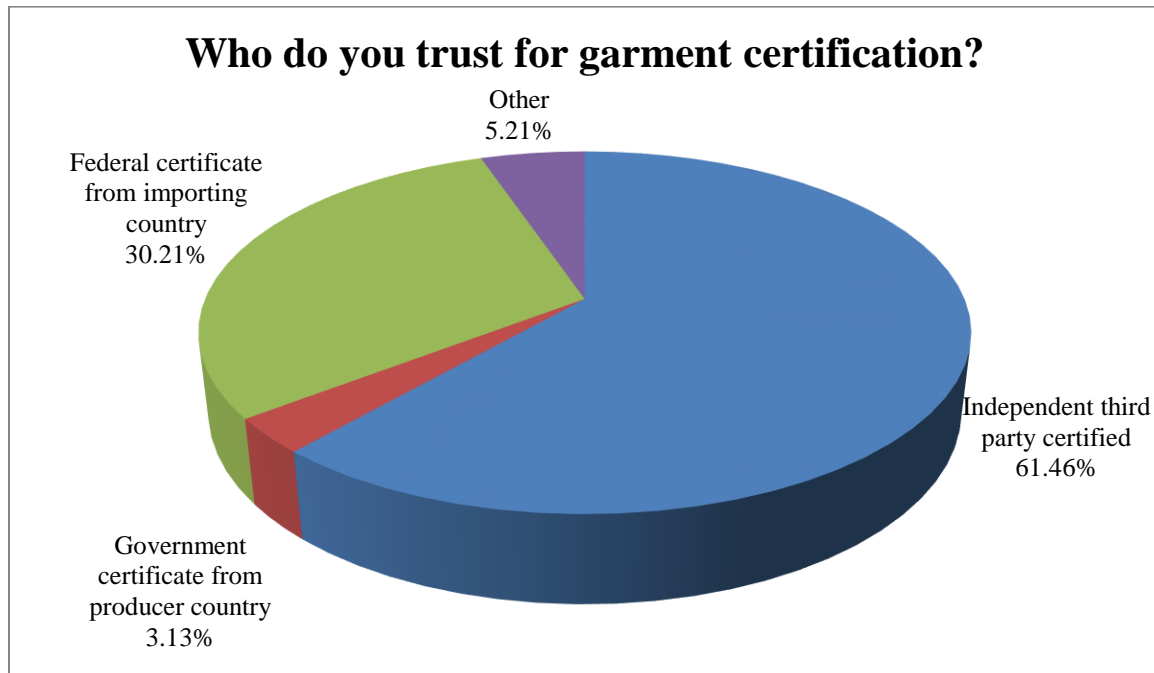
5.3.8. Consumer willingness to pay extra.

Participants were asked to provide their responses on whether they were willing to pay more for clothing that provided information on safe production (Question #21). 83.33% of the participants responded positively that they would spend more for this type of safe practice. However, 16.67% of the participants declined to pay more and ten of the total participants skipped this question. The majority of the participants (42.55%) were willing to spend 10% more than the regular price tag for safe production information. Some of them (27.66%) were also eager to spend 20% more for this information (Question #22, Table 5.25). However, a previous study shows that consumers were not willing to pay more for the quality of the garment (Apeagyei, McLoughlin, & Omidvar, 2013). All the samples of this current study have university affiliation, they are all well educated; on the other hand, Apeagyei et al.'s study participants were randomly selected from a shopping mall in UK and they did not mention participants' education

level. The difference in country and demographic characteristics could be the reason why these two studies findings are different. Crosstab analysis with participants' demographic variables shows that most of the participants were willing to pay 10% extra over the regular tag price (Table 5.26). However, section 4.2 indicated that most consumers had not participated in social actions before, whereas this section of the study suggested that currently consumers were willing to help workers by providing extra money for the assurance of a safe workplace environment for the workers.

Table 5.25. *How much more would you be willing to spend on a percentage basis for safe production information?*

Answer Choice (%)	Responses (%)	N
0	9.57	9
10	42.55	40
20	27.66	26
30	7.45	7
40	1.06	1
50	4.26	4
60	0.00	0
70	0.00	0
80	0.00	0
90	1.06	1
100	1.06	1
Other (specified)	5.32	5

Table 5.26. *Paying for Safety Information Crosstab Analysis with Participants' Demographic Variables*

How much more would you be willing to spend on a percentage basis?	Demographic variables							
	Canadian		Gender		Age		Current Affiliation	
	Yes	No	Male	Female	Under 30	30+	U of M Student	U of M Staff
0%	6/78 7.69%	2/17 11.76%	1/23 4.35%	7/70 10%	3/26 11.54%	5/69 7.25%	2/27 7.41%	6/68 8.82%
10%	32/78 41.03%	8/17 47.06%	10/23 43.48%	30/70 42.86%	9/26 34.62%	31/69 44.93%	12/27 44.44%	28/68 41.18%
20%	23/78 29.49%	3/17 17.65%	7/23 30.43%	17/70 24.29%	7/26 26.92%	19/69 27.54%	7/27 25.93%	19/68 27.94%
30%	7/78 8.97%	0/17 0%	1/23 4.35%	6/70 8.57%	1/26 3.85%	6/69 8.7%	1/27 3.7%	6/68 8.82%
40%	1/78 1.28%	0/17 0%	0/23 0%	1/70 1.43%	1/26 3.85%	0/69 0%	1/27 3.7%	0/68 0%
50%	3/78 3.85%	1/17 5.88%	2/23 8.7%	2/70 2.86%	1/26 3.85%	3/69 4.35%	1/27 3.7%	3/68 4.41%
90%	0/78 0%	1/17 5.88%	0/23 0%	1/70 1.43%	0/26 0%	1/69 1.45%	0/27 0%	1/68 1.47%
100%	1/78 1.28%	0/17 0%	1/23 4.35%	0/70 0%	0/26 0%	1/69 1.45%	0/27 0%	1/68 1.47%
Total	63/78 80.77%	15/17 88.24%	22/23 95.65%	64/70 91.43%	22/26 84.62%	66/69 95.65%	24/27 88.89%	58/68 85.29%

Finally, the results showed that participants were willing to contribute to bringing a new safety label which would assure consumers about safe work environments and safe production practices. The majority of the participants were willing to pay an extra 10% over the regular price for a new informative label.

5.4. Conclusion

The present study assessed consumer knowledge on several textile and apparel industry-related issues, focusing mainly on the working environments of the workers. The findings show that participants were not totally satisfied with the existing clothing-related information for their shopping convenience; they preferred more information to be attached with the clothing labels. Consumers in this study were aware of the poor working conditions of clothing manufacturing

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industries, and they seemed to want workers to have fair working conditions. Participants wanted to be informed that clothing workers were working in safe environments and their clothing was being produced in a safe manner. The findings reveal that participants aged over 30 and U of M staff were more concerned for the workers' safety issues than those aged under 30 and U of M students. In addition, respondents expressed agreement with a new clothing label which would include this information, and they were willing to pay extra over the regular price of clothing to bring this informative safety label to market. Respondents also desired that this new label be certified by a third party, which would increase their trustworthiness towards apparel items.

Chapter 6: Discussion and Conclusion

6.1. Introduction

This thesis was an investigation of consumer perception towards safe clothing and workers' safety using both interview and survey instruments. The purpose of this research was to study consumers' levels of awareness of workplace conditions and their willingness to help workers. Furthermore, this study intended to find out whether consumers were interested in a new medium of communication which would indicate that consumer apparel was made in a safe environment.

6.2. Research objectives

This final chapter relates the findings of the study to the objectives detailed in Chapter One. Comments are also added on the findings of the study. Finally, the significance of the study is analysed and recommendations for future research are provided.

As presented in Chapter One, the objectives of the study were (1) to identify hazardous working conditions for the workers in the textile and apparel industry, (2) to identify consumer knowledge on health risks to the workers and consumers in apparel and textile industries, (3) to investigate consumers' level of satisfaction with current textile labels, (4) to explore consumer purchase behaviour, and (5) to assess consumer participation in social actions. The study also intended to find better means of communication between consumers and apparel companies to inform consumers that apparel is made in a safe environment, and to determine consumers' willingness to pay more for their apparel purchases to protect workers, especially in developing countries. Accompanying the objectives of the study was a series of research questions and assumptions. Four major issues were addressed in this thesis: consumer purchasing behaviour,

knowledge and awareness about apparel industry conditions, participation in social actions, and willingness to spend extra money for a new safety label concerning safe practices in production. The following section compares the findings of chapters four and five concerning the objectives addressed in Chapter One.

6.2.1. Consumer knowledge on working conditions and health risks for workers.

The interview and survey questionnaires were designed with some similarities and dissimilarities to assess consumers' perception on this topic. The exploration of both interview and survey data revealed that participants knew that the majority of their clothing items were imported and participants were aware of the textile and apparel industry workplace conditions. Choudhury (2006) stated that developed countries like Canada, those in the European Union (EU) and the USA import up to 80% of their apparel textiles from the developing countries. Working environments in developing countries are mostly unhealthy, as described in section 2.4.2 in Chapter two. A high percentage of the interview (80%) and survey (78.13%) participants were concerned about the hazardous working conditions of this industry. Almost all of the interview participants were willing to be informed more about the industry conditions, and survey participants thought they should be concerned more for the safety of their clothing workers. However, the interview findings revealed that consumers only become familiar with industry conditions when an accident occurs and comes to news media. Though consumers are not getting all the information about workplace situations, they know the majority of the workplaces are not safe for workers. Participants know about the possible health risks of workers (and consumers) due to hazardous working conditions, and they rated chemicals and dyes as the most hazardous substances that can cause health risks for both workers and consumers.

Moreover, participants had good knowledge on possible health outcomes from exposure to this industrial environment such as skin burns, allergies, headaches, chronic pulmonary diseases, cancer, and even death.

6.2.2. Consumer level of satisfaction with current textile labels.

The study also explored consumers' level of satisfaction with the current labelling information. The results from interview and survey data indicated that participants were moderately satisfied with the current labelling information because only 35.85% of the total survey participants and 40% of the interview participants found current textile labels provided enough information to make their purchase decisions. The results also indicated that participants were likely to read label information while making a purchase. Nonetheless, interview participants mentioned that they mainly checked care instructions before making a purchase decision. The findings suggest that consumers were not fully satisfied with the current available label information and they were interested in a new informative safety label. Participants also pointed out the importance of a new safety label. A study by Torres, Summers, and Belleau (2001) suggested that stores with different brands (diverse products) need to provide more information about brands, styles and fashion trends to their consumers to increase sale service.

6.2.3. Consumer shopping behaviour.

This interview data helped to demonstrate participants' purchasing behaviour and the depth of their thoughts regarding workers' safety. The findings show that participants were frequent buyers of clothing, footwear, or outerwear as a majority of the interview (80%) and survey (63.73%) participants bought these items in the thirty days preceding this study. The survey data revealed that consumers' shopping decision-making process was mostly motivated

by their personal preferences, with consumers under 30 years old and students having their shopping decisions influenced by their parents and friends. On the other hand, interview participants considered comfort and price in making their purchase decisions.

6.2.4. Consumer participation in social actions.

The survey and interview findings showed that participants were not generally actively involved with social actions against unsafe workplaces, but they wanted to avoid purchasing from retailers and even stop purchasing their favourite brands when they were produced in unsafe workplace environments. Participants believed that avoiding purchasing sweatshop-produced clothing can compel manufacturers to implement proper safety management in the workplace. The interview participants pointed to a major issue in that they have a lack of access to knowledge about whether any specific retailers are selling garments which came from sweatshops. In this case, a new safety label could assure consumers that they are buying non-sweatshop-produced clothing items, and retailers who will be practicing this safety labelling may attract more consumers to their product. The study findings indicated that participants were aware of the situation and they wanted to protest against sweatshops. 14.74% of the survey participants already "Regularly" boycotted retailers or brands connected with poor manufacturers. Similarly, one of the interview participants stated that they were avoiding some stores which import clothing from unsafe workplaces. Participants mentioned some ways they could raise their voice by signing online petitions, sending letters to that company, working with an activist group, spreading the word through social media, tweeting at the company, writing an article explaining this topic, boycotting those companies, and meeting with a company contact person directly. These results suggest retailers/brands should do business with manufacturers who have safe workplace environments.

6.2.5. A new safety label and consumer willingness to pay a premium.

Participants were willing to have a new informative safety label with their clothing purchases, which might increase product sales and gain trustworthiness for the retail company. 54.74% of the survey participants (Question #19) and five out of ten interview participants (Question #19) were in favour of a new safety label indicating safety presence in the workplace. The majority of both interview and survey participants favour the involvement of a regulatory body (third party certification) to defend them from misleading information. A third party certified safety label may increase consumer awareness and trustworthiness about garment items. Producing a new label could be costly and participants were willing to contribute to bringing about this safety label. Survey findings showed a total of 83.33% of the participants were willing to pay more, and the majority of them said they would pay 10% over the regular tag price. Similarly, interview results confirmed that all of the participants were willing to pay more for the textile and apparel workplace safety issues, and the majority of them would spend between 10-20% extra. Ha-Brookshire and Norum (2011) found that consumers were agreeable to paying $5 or more on a $30 cotton shirt purchase if it was organic, sustainable, and US-grown. On the contrary, Apeagyei et al.'s (2013) study shows that consumers were not willing to spend extra money for the quality of the garment. Apeagyei et al's study participants valued price more than the quality of the product because of continuous changes of fashion trends. Furthermore, the current study finding indicated that consumers were ready to help textile and apparel workers by providing extra money for their workplace safety aspects. Participants in this study are well educated and conscious about the textile and apparel workers' sufferings, and willing to support those industry workers. Finally, consumer awareness and willingness to stand by are the important factors to bring safety management to the workplace.

6.3. Relationship between qualitative and quantitative findings

Qualitative research presents exploratory findings of the study whereas quantitative research quantifies the findings using numerical data. The qualitative research (interview) of this study helps to gain a better understanding of consumer motivations, opinions, and underlying problems. For example, qualitative research showed that consumers shared their knowledge about the workplace safety and gave their opinions about what needs to be done. On the other hand, the quantitative findings measure their opinions using numerical data. Quantitative research (survey) of this study revealed exact results from the structured questions. For example, 83.33% of the survey participants want to pay extra money over the regular price tag for bringing a new workplace safety label. In this current study, similar types of questions were asked to the participants in both interviews and surveys.

The findings of the interviews showed that comfort, appearance, price, quality, fashion, and fit were their priority for clothing shopping. The majority of the participants expressed a strong priority towards comfort and price. However, in the survey, while participants were asked about their shopping motivations, the highest number of them (33.98%) showed neutral ("Somewhat Agree") responses on the latest fashion trends. Moreover, the survey in the quantitative research showed that, the majority of the participants (41.47%) "Disagree" on brand influence. The same number of participants "Disagree" (33.01%) that parents and friends influence their purchasing decision. 32.08% of the participants "Agree" and 20.75% "Strongly Agree" that they use their own personal opinion while purchasing clothing.

Interview participants in qualitative research explained their knowledge about the apparel production hazards which affect workers' health, including fire hazards, chemicals hazards, faulty machinery (unsafe machinery), unsafe building structures (no fire exit or fire alarm, not

properly ventilated), lack of protective gear, working with sharp objects, high temperature, bad air quality, dust, crowded workspace, lack of training on machinery, long working hours, poor wages, and child labour. On the other hand, in the quantitative research, 96.94% of the survey participants selected chemicals, 89.80% selected dyes, 84.69% selected bleach, 69.39% selected washing agents, and 65.31% selected dust as factors that can cause workers' health problems. In terms of participants' responses to their health risks arising from clothing production stages, interview participants mentioned that they never experienced any health risks by wearing clothes except sweat from certain kinds of clothing. However, 82.95% of the survey participants selected chemicals, 52.27% selected dust, 76.14% selected dyes, and 56.82% selected washing agents as aspects that can affect consumers' health. Although unsafe building structures, fire exits, and faulty machinery were not provided as options in the survey questions, both interview and survey participants were able to identify "chemical hazards" and "dust" as causing production hazards.

In the qualitative research, six out of ten interview participants believed that textile labels provide enough information to make their purchase decision, whereas 35.85% of the survey participants in the quantitative research "Often" and 5.66% "Always" believed that textile labels provide enough information to help them make a purchasing decision. The difference in opinions between these two groups might be due to country connection; all the interview participants were Canadian, whereas in the survey findings non-Canadians were more likely to say textile labels provide enough information than Canadians.

Seven out of ten interview participants checked the textile labelling information when making purchase decisions and they mostly checked the care label, and infrequently checked the size label, price tag, fibre content, and country of origin. The survey findings showed that

32.08% of the participants were "Very Likely" and 19.81% were "Likely" to read labelling information while purchasing clothing items.

Most of the interview participants were satisfied with the textile labelling information as their priority was mainly washing instructions (the care label as discussed in the previous paragraph). On the contrary, the majority of the survey participants were not satisfied with the current labelling information (49.06% of the survey participants were "Somewhat Satisfied" and 21.70% "Not Very Satisfied").

In terms of participants' knowledge related to textile or apparel factory accidents, eight out of ten interview participants were aware of the working conditions and incidents that were happening all over these industries. Similarly, the majority of the survey participants (78.13%) "Strongly Agree" (40.63%) and "Agree" (37.50%) that they were concerned about the apparel factory conditions. Almost all the interview participants believed that they should learn more about the working conditions while 56.84% of the survey participants "Strongly Agree" and 35.79%"Agree" that they should be concerned more.

Interview participants were asked how they would react if they knew unsafe workplace practices were happening. They described the situation as bad, terrible, unethical, inappropriate, and unacceptable and they were angry, shocked and upset. Most of the interview participants mentioned that they had to avoid buying clothes from sweatshops in order to force companies to change their production policy. Similarly, 52.08% of the survey participants responded "Rarely" and 36.46% responded "Never" to purchase from clothing produced under poor working conditions .

The interview results indicate that some of the participants have already taken steps against sweatshops; for example, shopping from MEC (page 95), avoiding Wal-Mart, Gap,

H&M, Loblaws, and Joe-Fresh. Interview participants also mentioned some ways that they could take actions against unsafe workplaces, including signing online petitions, sending letters to that company, working with activist groups, spreading word through social media, tweeting at the company, writing article explaining this topic, boycotting those companies, and meeting company contact persons directly. On the other hand, the majority of the survey participants had "Never" signed up for an online petition (64.58%), "Never" sent a protest letter (91.58%) to the manufacturers, and "Never" (78.95%) donated to the victims of textile or garment factory accidents, while a greater percent of the participants had boycotted a retailer or brand before at least "Once" (14.74%),"Twice" (11.58%) and "More than twice" (26.32%). Although some of the interview participants stated that they had already raised their voice against unsafe workplaces, social desirability bias (described in details page 193) can exist in their responses, where people respond in a manner that is more socially acceptable.

When both interview and survey participants were asked whether they were interested in a new safety label including safe workplace environment information, interview participants valued the new safety label idea. For example, one participant stated that "I think that would be extremely useful. That would be our first start in making a big change." Similarly, 43.27% of the survey participants responded "Interested" and 37.50% responded "Very Interested" in a new clothing label that includes the information that clothes were made in a safe environment. Further, the majority (74%) of the survey participants responded that it was "Important" (41.35%) or "Very Important" (32.69%) that clothing contains workplace production safety standards label information. Interview participants also felt that it is important to include a new safety label with their clothing purchase.

Moreover, when both interview and survey participants had to choose from four options about the way they would prefer the workplace safety information to be available, five of the interview participants would prefer a label on the clothing, four of them would prefer a hang tag on the hanger and one of them chose all three options. Also, all of the interview participants wanted an independent third party certification to enhance their trustworthiness about the product. Similarly, 54.74% of the survey participants selected "Label in the clothing," 24.21% selected "Hang tags on hanger" and 10.53% selected "certificate on wall" as the ways to be informed that their selected garment was produced in a safe environment. In addition, 61.46% of survey participants chose an "Independent third party certificate" as the way to ensure the reliability of the safety label.

All of the interview participants were willing to pay more than the regular price tag for the workplace safety label and the majority of them were willing to pay 10-20% extra. On the other hand, 83.33% of the survey participants would spend more (percentage from 0 to 100) for this new label and 42.55% of the participants were willing to spend 10% more than the regular price tag for safe production information.

Finally, there are a few differences that can be seen among the qualitative and quantitative findings of this study. Interview participants stated that their shopping priorities were comfort, appearance, price, quality, fashion, and fit while survey participants valued their own personal opinion as a shopping motivator. The findings of both the interview and survey showed that participants were knowledgeable about the production hazards and both study participants were able to identify "chemicals" and "dust" that can cause workers' health problems. Six interview participants (Canadian) and 41.51% survey participants (majority non-Canadian) believed that textile labels provide enough information to make their purchase

decision. The results of this study revealed that the highest number of participants (seven

interview and 51.89% survey participants) read textile labelling information while shopping. In

addition, interview participants mentioned that they mostly check clothing care instructions.

Both qualitative and quantitative analysis indicates that there is difference in participants' level

of satisfaction towards current labelling information. Most of the interview participants were

satisfied while the majority of the survey participants were not satisfied with the current labels. A

similar percent of participants (80% interview and 78.13% survey participants) were concerned

for the workplace environment of the workers. Interview participants felt bad, terrible, unethical,

inappropriate, and unacceptable about the unsafe workplace while 36.46% of the survey

participants mentioned "Never" they will purchase from these poor retailers. Some of the

interview participants were avoiding buying from some retailer and found alternatives to those

they knew had associations with unsafe workplaces. However, the results indicate that survey

participants were rarely taking actions against unsafe workplaces except some of them did only

boycott. Furthermore, both qualitative and quantitative analysis came up with the same

conclusion that consumers wanted a new safety label (50% interview and 54.74% survey

participants) with an independent third party certification (100% interview and 61.46% survey

participants). The result also showed that both interview and survey participants were willing to

help workers by providing extra money for a new safety label through their regular purchase.

The following Table 6.1 shows the findings of both qualitative and quantitative analysis.

Table 6.1. *Findings of Both Qualitative (Interview) and Quantitative (Survey) Responses*

Questions	Interview Participants	Survey Participants
Shopping priority/motivation	comfort, appearance, price, quality, fashion, and fit	Own personal opinion
knowledgeable about the production hazards	Chemicals, dust, faulty building constructions and etc.	96.94% chemicals, 89.80% dyes, 84.69% bleach, 69.39% washing agents, and 65.31% dust
Textile label providing enough information	60%	Often: 35.85% Always: 5.66%
Read textile labelling	70%	Very likely: 32.08% Likely: 19.81%
Satisfaction with current labels	60%	Somewhat Satisfied: 49.06% Not Very Satisfied: 21.70%
Concerned about the factory conditions.	80%	Strongly Agree: 40.63% Agree: 37.50%
Participants reaction against unsafe manufacturers	bad, terrible, unethical inappropriate, and unacceptable	Rarely: 52.08% Never: 36.46% to purchase
Take actions against unsafe workplace	sign online petition, sending letter to that company, work with activist group, spread word through social media, tweeting at the company and etc.	Never: 64.58% (signed up for an online petition) Never: 91.58% (sent a protest letter) Never: 78.95% (donated) More than twice: 26.32% (boycotted a retailer or brand).
Safety label	50%	54.74%
Independent third party certification	100%	61.46%
Pay additional price for clothing	100%	83.33%

6.4. Social desirability effect

This study was also concerned with the social desirability bias effect where participants respond differently than their actual behaviour. According to Lavrakas (2011), "Social desirability is the tendency of some respondents to report an answer in a way they deem to be more socially acceptable than would be their 'true' answer" (p.2). For example, the majority (88.54%) of the current study participants reported "Never" or "Rarely" they would purchase from retailers who associated with unsafe working conditions, but the reality is they are still purchasing from those retailers. This study suggests the behavioural gap between participants' attitude and actual behaviour. Moreover, social desirability bias can be seen in this study because

Canadian consumers may not be interested in helping overseas workers as the workplace environment in Canada is safe. Social desirability bias is most likely at work regarding their stated willingness to pay. While social desirability bias is difficult to ignore, care should be taken while developing research questions. To reduce the effect of social desirability bias, similar research questions were developed for both the interview and the survey.

6.5. Significance, limitations and recommendations for future work

This thesis highlighted the unsuitable workplace conditions in the textile and apparel industry in developing countries. Further, this study examined the knowledge of Canadian apparel consumers regarding textile and apparel industry working conditions, and investigated consumer willingness to help improve these hazardous conditions. However, further research is necessary to verify the validity and reliability of the different concepts introduced such as consumer shopping motivations (Chapter Five, section 5.3.2), consumer action model to protest unethical practices (Chapter Four, Figure 4.2), considerations leading to the adoption of a safety label model (Chapter Four, Figure 4.3), and consumers' willingness to pay more for garments so that a safety label could be implemented (Chapter Four, Table 4.4 and Chapter Five, Table 5.25). Significant concepts requiring further research are described in detail below.

Consumer knowledge and awareness of workplace safety are key elements (Chapter 4, Figure 4.3) to be examined before the implementation of a safety label. The next steps are to reduce the gap between actual behaviour and attitude among consumers by increasing participation in social action, thus bridging the gap between attitude and actual behaviour. The willingness to pay a premium price for clothing produced from safer factories having workplace safety standards would need to be encouraged. Finally, a safety label is achievable if consumers

show interest in it. The current research suggests that consumers are aware of the scenario but would prefer to be informed through third party certified labelling. To implement such labelling, future research should expand the present research by applying a similar research design and focussing on the design and implementation of a safety label.

This research also contributes to our understanding of consumer participation in social actions. Though the current findings suggest that consumer involvement in social action is low; the consumers seemed to think that they would be more concerned in the future. Further research should explore consumer participation in social actions.

Further, this research shows that consumers, similar to the study participants, know about textile and apparel industry workplace conditions and the physical risks that workers have to deal with everyday. Consumers seem willing to protect the workers by spending extra money for an item to improve the workplace conditions.

This study was limited to the participants from the University of Manitoba only, of which 106 were survey respondents and ten were interview participants. Considering this limitation, the study recommends future research should focus on a wider population; for example, to conduct surveys in shopping malls where participants can be from different cultures, different education levels, and different occupations. The findings from a survey of the general population may differ significantly from the present study findings. The present study participants are all well-educated and knowledgeable about industry conditions. On the other hand, the background characteristics of the general population and their educational status are likely to be different; their perception and concerns for workplace safety issues would also be different. Further limitation in this study is that it was conducted in 2015, and the findings showed that consumers were aware of the textile and apparel industry workplace environment in developing countries;

whereas, previous studies by Hill and Lee (2012), and Gam and Banning (2011) revealed that consumers were less knowledgeable. As the present study suggests that consumer awareness is increasing day by day, studies in the future, with a larger sample size, may reveal more positive outcomes. For statistical analysis, the larger sample size may also help to find more significant relationships from the data.

The present study did not calculate the cost of a safety label on clothing purchases. Future study should develop a strategy to show the minimum cost of a safety label. Apparel companies could be interested in practicing safety measures in the workplace and informing consumers about these practices if the cost of a safety label could be recouped through an increased price on the garment. Future study should determine the cost of a safety label for apparel products.

In this study, some of the survey questions were designed using a five-point Likert scale with middle point as "Somewhat Agree" which is not a true middle point. This gave no 'neutral' points for participants to answer and three positive responses. For this reason, bias can be present in participants' responses towards the positive selection of the scale.

The findings of the survey question #22 (participants were asked how much more they are willing to pay on a percentage basis) show that the highest percentage of the participants were willing to pay an extra 10% on the cost of a clothing item. The findings could change if the question were designed with smaller intervals, or 0%, 1%, 2%,......,100%. Future study should use smaller intervals to determine any difference with the present study findings on consumers' willingness to pay extra for a safety label.

This study is also limited through declaring if the interview and survey participants were the same. Snowball sampling approach was used to recruit interview participants and communication specialists from the University of Manitoba circulated the survey link to the

participants. There was no way to determine if the interview participants had also participated in the survey. However, if the interview and survey participants were the same, there is a high possibility of obtaining positive responses in a surveyof participant knowledge about working conditions and their participation in social action.

Generalisation of this study result should not be made (or could be made with caution) as a university-based consumer group in Manitoba, Canada was the only subjects of the study. This small sample size does not reflect the responses of the apparel consumer population in Canada. Future research should use a sample from broad consumer groups with various demographic characteristics (e.g. income, education, marital status, occupation, age).

In spite of the comprising number of limitations, the results of this current study present some unique results regarding consumer willingness to pay for a workplace safety label that may guarantee that clothing was made in a safe environment. The study findings may help apparel manufacturers to practice safety management in the workplace. Workers could benefit by working in a safe environment. To my knowledge, this study is the first in Canada to investigate consumer knowledge of safety in the textile and apparel industry and a willingness to pay for a label assuring safe work in this industry.

6.6. Suggestion for a worker-friendly and economically viable industry

This research concluded that in order to bring about workplace safety, raising consumers' level of awareness is the only way. The findings may help apparel industries to establish safety management in their workplace, which may increase their product demand in the global market. Regarding the safety of the workplaces in developing countries, there were concerns about

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"poorly designed workstations, unsuitable furniture, lack of ventilation, inappropriate lighting, excessive noise, insufficient protection form dangerous chemicals, insufficient safety measures in fire emergencies and lack of personal protective equipment" (Parimalam et al., 2006, p.74). Manufacturers could change their practices by improving the workplace environment, providing proper training to the workers, and offering protective equipment to the workers. Implementing these new practices in the workplace could be costly, however, it would be economically beneficial for the industry in the future. These safety practices could reduce the cost for workers' compensation, while increasing the comfort in the workplace environment may increase the production rate and quality of the products. The economic benefits of reducing unsafe and uncomfortable conditions of workplaces include an improved production rate, product quality, accident compensation (injury and death), and health costs, as discussed in the following sub-section.

6.6.1. Reducing production rate and its economic impact.

Absenteeism is very common in unsafe and unhealthy workplaces. Absenteeism increases the company's cost as it reduces the production rate. The temperature of various textile processing sections can reach as high as 55°C, which is very uncomfortable work environment for any human. It is known that due to high temperature workers make many excuses (washroom, prayer and so forth) to go outside of the production floor by turning off the machine or by asking another worker to take additional responsibility. In the textile industry, if a ring machine is turned off for 30 minutes, the production loss that occurs is about 3.75 kg of spun yarn (spindle speed: 20000 rpm, TPI: 20, yarn tex: 25), which in the current market is U$18.75. Now the question is how much would it cost to run the air conditioning to bring down the

temperature to 20°C for 30 minutes? Although the details of the required economic analysis is beyond the scope of the current study, the apparent cost is reported to around $0.50 per hour.

6.6.2. Quality of product and its economic impact.

Breakage of slivers, roving and yarn is very common in this industry. This breakage occurs in carding, draw frame, roving frame, ring machine, winding, warping, sizing, and loom sections. The quality of the product depends on the quality of the knot size, splice (splice strength and linear density) and the number of loose ends (not joined). After a breakage occurs, workers make a knot or splice the two broken ends. The price of the first quality product is much higher than the second quality product. Additionally, sometimes buyers cancel the order because of the low quality product and the company has to bear the whole production cost.

6.6.3. Workplace accidents and their economic impact.

A lack of organizational commitment and decision-making issues, and sometimes work overload, can lead to work-related accidents (Metzner & Fischer, 2010; Safari et al., 2013; Nag & Patel, 1998). Work-related injuries include superficial skin injuries, open wounds, burns, fractures, dislocations, strains, or sprains, crush injuries, chemical intoxication, foreign bodies, organ damage, nerve injuries, traumatic amputations, and injuries to blood vessels (Sanati et al., 2009). Workplace accidents can cause death; for example, fire killed 289 workers in Karachi, Pakistan (Pakistan plant owners turn up, 2012). A study result showed that 52% of the workers reported injury to fingers while using cutting machines and due to continuous using of cutting shears, which caused the swelling of fingers and cornifications of the finger skin (Parimalam et al., 2006). These accidents increase the company's cost as they may cause the need for

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replacement of labour and also increase the cost of the investigation of the incident. The replacement of the machinery is one of the largest expenses incurred by the company. For example, the lack of proper handling and long-time use can damage machinery so that it requires replacement.

6.6.4. Health effects and their economic impact

Workers' health effects from clothing processing hazards are as follows: (1) exposure to chemicals can cause skin irritation, watery eyes, sneezing, asthma, cholera, typhoid, gastroenteritis, ulcers, dysentery, diarrhoea, vomiting, poor blood circulation, skin lesions, damage to the nervous system, damage to the brain, damage to the heart, and damage to the kidneys, birth defects, hormonal and reproductive effects, stomach cancer, bladder cancer, and thyroid cancer (Ahmed et al., n.d.; Mastrangelo et al., 2002; Sengupta & Behera, 2013; Husaini et al., 2011). (2) Heat exposure can cause discomfort, loss of concentration and efficiency at work, and lead to workplace accidents (Nag & Patel, 1998; Parmalam et al., 2006). (3) A high level of noise can cause low productivity, lack of discipline, unauthorized absenteeism, agitation, constant weariness, disorientation, headache, vertigo, hypertension, cardioarrhythmia and nervous and psychic disorders, and high workplace accident rates (Noweir, 1984; Roozbahani et al., 2009). (4) Exposure to dust can cause rhinitis symptoms, byssinosis, chronic bronchitis with emphysema, and chronic cough (De et al., 2013; Shi et al., 2010; Occupational safety and health, 1988).

In developed countries, workers get compensation for the workplace injuries. Workers' compensation is given based on a calculation of the impairment rating of a body function of injured workers. Based on the Workplace Health, Safety and Compensation Commission of

Newfoundland and Labrador (2009), an assessment of impairment rating was done by a physician who is experienced and knowledgeable about the body function. The physician considered some factors while observing injured workers such as loss of sensation, impaired circulation, muscular weakness, and loss of range of movement in the affected area. Generally, impairment ratings are based on the loss of a body function and expressed by a percentage of total body function. A minimum of $1,000.00 is to be paid to the injured workers for the percentage of permanent functional impairment. The ratings for compensation for the loss of hearing is calculated using the ANSI audio metric calibration. The total loss of hearing considers exposure to an average of 80 decibels, unilateral hearing loss considers an average of hearing loss of at least 35 decibels in one ear, and bilateral hearing loss considers an average of hearing loss of at least 35 decibels in each ear.

The impairment ratings are as follows:

Deafness, complete one ear 5%; Deafness, complete both ears 30%; Deafness, complete in both ears occurring as a sudden traumatic loss of hearing 60%; Difference of 30 - 39 dB HL 1%; Difference of 40 - 49 dB HL 2%; Difference of 50 - 59 dB HL 3%; Difference of 60 - 69 dB HL 4%; Difference of 70 dB HL or greater 5%; 35 dB HL in single ear 0.4%; 40 dB HL in single ear 0.7%; 45 dB HL in single ear 1.0%; 50 dB HL in single ear 1.4%; 55 dB HL in single ear 1.8%; 60 dB HL in single ear 2.3%; 65 dB HL in single ear 2.8%; 70 dB HL in single ear 3.4%; 75 dB HL in single ear 4.0%; 80 dB HL in single ear 5.0%.

However, the noise level in textile processing section is very high, as 85 to 90 dBA indentified in carding, draw frame, winding, warping and sizing sections, 90-92 dBA identified in the ring frame, and 102 to 105 dBA identified in the loom (Talukder, 2001; Ashraf, et al.,

2009). In addition, Slater (2003) suggested that workers cannot stay more than 1 hour

unprotected in the noise level of 102 to 105 dBA. However, the majority of workers in

developing countries are working more than 10 hours in the noise level of 102 to 105 dBA

without wearing ear plugs. The minimum cost of an ear plug is around U$ 0.16 for more than 50

pieces. Despite the huge economic benefits of providing a safe workplace, manufacturers might

still get away from it. This study suggests that the use of a safety label may make the consumers

aware of whether the companies provided the safe workplace or not. This may encourage the

companies to develop a safe workplace.

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Appendices

Appendix A: Interview Questions

1. In the last 30 days have you made a purchase of clothing, footwear, or outerwear like coats and gloves?

2. What is your priority while purchasing clothes?

3. Do you anticipate what types of health hazard is associated with your clothing choice?

4. Does the retailer provide enough information to make you confident that you can purchase the clothing?

5. Do you usually check the textile labelling information while purchasing a clothing item?

6. How satisfied are you with the textile labelling information that is given?

7. Have you ever thought about the textile factory condition of the textile product you are wearing?

8. Do you ever hear about garments factory accident that kills thousands of workers?

9. . Do you feel like you should know about the manufacturing hazard associated with clothing that you are wearing?

10. Do you know which hazards are associated with clothing production that may affect workers health?

11. How do you react if you know that workers are suffering from various diseases because of unsuitable work place?

12. Are you going to take initiative to save workers or you might think that it is not your responsibility?

13. How would you protest to the manufacturer or retailer after knowing that this retailer provides clothing that is made in an unsafe working environment?

14. In your opinion what is the best possible way for you to contribute to protect workers from work related risks?

15. Are you willing to give your time as an activist to protect workers from an unsuitable working environment?

16. What would be your suggestion to bring work place safety, so that we can save thousands of workers?

17. Would you be interested in a clothing label that tells you that the apparel was made in a safe environment?

18. Do you think that it is important that clothing should contain work place production safety standard label information?

19. As a consumer how would you like to be informed that the garments was made in a safe environment?

20. Who would you trust to certify that the garment was made in a safe environment?

21. Would you be willing to spend more for the apparel that provides the information about the work place safety?

22. How much more would you be willing to spend on a percentage basis?

Appendix B: Survey Question

A Study of Consumer Perception towards Safe Clothing and Workers Safety
Thank you for taking the time to complete this survey. This survey is a part of a study of consumer knowledge and habits related to clothing selection and opinions on the risks posed by the textile industry to workers' health. Your response is truly valuable for this study. All responses will be kept confidential.

1. Select your level of agreement with the following statements associated with what motivates you to buy clothes.

	1=Strongly Disagree	2=Disagree	3=Somewhat Agree	4=Agree	5= Strongly Agree
I always follow the latest fashion trends					
I usually buy branded clothing					
My clothing selection is influenced by my parents					
My clothing selection is influenced by my friends					
I use my own personal opinions and do not pay attention to what others think when buying clothing					

2. In the last 30 days have you made a purchase of clothing, footwear, or outerwear like coats and gloves?

   ☐ Yes   ☐ No

3. How likely are you to read the textile labelling of your clothing when purchasing?
   ☐ 1=Very Unlikely
   ☐ 2=Unlikely
   ☐ 3=Somewhat Likely
   ☐ 4=Likely
   ☐ 5=Very Likely

4. How useful do you find the information on the textile labels?
   - ☐ 1=Not at all Useful
   - ☐ 2=Not Very Useful
   - ☐ 3=Somewhat Useful
   - ☐ 4=Useful
   - ☐ 5=Very Useful

5. How satisfied are you with the textile labelling information given?
   - ☐ 1=Not at all Satisfied
   - ☐ 2=Not Very Satisfied
   - ☐ 3=Somewhat Satisfied
   - ☐ 4=Satisfied
   - ☐ 5=Very Satisfied

6. Does the other label (country where product was made, fibre content) provide enough information to help you make a buying decision?
   - ☐ 1=Never
   - ☐ 2=Rarely
   - ☐ 3=Sometimes
   - ☐ 4=Often
   - ☐ 5=Always

7. Would you be interested in a clothing label that tells you that the apparel was made in a safe environment?
   - ☐ 1=Not at all Interested
   - ☐ 2=Slightly Interested
   - ☐ 3=Somewhat Interested
   - ☐ 4=Interested
   - ☐ 5= Very Interested

8. How important do you feel it is that clothing should contain workplace production safety standards label information?

  - ☐ 1=Not at all Important
  - ☐ 2=Slightly Important
  - ☐ 3=Somewhat Important
  - ☐ 4=Important
  - ☐ 5=Very Important

9. Do you know which of the following hazards associated with clothing production may affect workers health?

  - ☐ Dust left in clothing
  - ☐ Dyes used in manufacturing
  - ☐ Chemicals used in manufacturing
  - ☐ Bleaching used in manufacturing
  - ☐ Washing agents in manufacturing
  - ☐ If Other, Please Specify

10. Do you know which of the following hazards associated with clothing production may affect consumer health?

  - ☐ Dust left in clothing
  - ☐ Dyes used in manufacturing
  - ☐ Chemicals used in manufacturing
  - ☐ Bleaching used in manufacturing
  - ☐ Washing agents in manufacturing
  - ☐ If Other, Please Specify

11. Workers are directly exposed to various toxic chemicals which have severe health effects. Do you know which of the following health diseases may be associated with direct contact with chemicals?

☐ Skin burn

☐ Allergy

☐ Cancer

☐ Headache

☐ Chronic pulmonary diseases

☐ Death

☐ All of the above

☐ None of the above

12. I am concerned about the factory conditions under which a garment was made.

☐ 1=Strongly Disagree

☐ 2=Disagree

☐ 3=Somewhat Agree

☐ 4=Agree

☐ 5=Strongly Agree

13. As a consumer do you agree or disagree that you should be concerned for the safety of workers who are making your clothing?

☐ 1=Strongly Disagree

☐ 2=Disagree

☐ 3=Somewhat Agree

☐ 4=Agree

☐ 5=Strongly Agree

14. As a consumer, if you became aware that clothing from a particular retailer was made in unsafe working conditions for the workers, would you purchase the clothing from that retailer?

☐ 1=Never

☐ 2=Rarely

☐ 3=Sometimes

☐ 4=Often

☐ 5=Always

15. Are you willing to purchase your favourite brands if the clothing is produced in an unhealthy workplace?

☐ 1=Never

☐ 2=Rarely

☐ 3=Sometimes

☐ 4=Often

☐ 5=Always

16. What percentage of garments in stores in Canada do you think are imported from other countries?

☐ Less than 25%

☐ 26 to 50%

☐ 51 to 75%

☐ 76 to 90%

☐ 91 to 99%

☐ 100%

17. Once you are aware that clothing is produced in an unhealthy work environment, do you complain to the retailers to improve their workplace conditions?

☐ 1=Never

☐ 2=Rarely

☐ 3=Sometimes

☐ 4=Often

☐ 5=Always

18. How often do you participate in the following actions?

	Never	Once	Twice	More than twice	Regularly
Sign up for an online petition to save workers from unsuitable working conditions					
Send a protest letter to the manufacturer to provide a healthy workplace for the workers					
Boycott retailer or brand					
Donate to victims of textile factory accidents					

19. As a consumer, how would you like to be informed that the garment was produced in a safe environment?

☐ Label in the clothing

☐ Hang tag on hanger

☐ Certificate on wall

☐ If Other, Please Specify

20. As a consumer, who would you trust to certify that the garment is made in a safe environment?

☐ Independent third party certified (i.e. ISO certified)

☐   Government certificate from producer country (i.e. Bangladesh)

☐ Federal certificate from importing country (i.e. Canada)

☐   Provincial government certificate for retailers

☐   If other, please specify ……………

21. Would you be willing to spend more for clothing that provides information explaining that the clothing was made in a safe environment?

Yes☐   No ☐

22. How much more would you be willing to spend on a percentage basis?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

23. If you have any further comments concerning this topic, please share them with us here:

………
………
………
………

About yourself

1. Are you Canadian?

☐ Yes   ☐ No

2. Please select your gender:

☐ Male   ☐ Female   ☐ other

3. Which of the following age brackets would best describe you? (Please check the appropriate box)

☐ 19 to 24 years   ☐ 45 to 49 years
☐ 25 to 29 years   ☐ 50 to 54 years
☐ 30 to 34 years   ☐ 55 to 59 years
☐ 35 to 39 years   ☐ over 60 years

□ 40 to 44 years

4. Are you currently enrolled as a student/staff/faculty?

☐ Yes, graduate studies

☐ Yes, undergraduate studies

☐ No, I am not currently enrolled as a student

☐ U of M Staff

☐ U of M Faculty

Appendix C: Letter of Invitation for the Interview Participants

Dear Participant,

I am writing to ask a favour of you?

I am conducting research among consumers about their perception of the workplace safety of workers in the textile and apparel industry. The purpose of this study is to measure Canadian consumer knowledge about the health risks to textile and apparel factory workers who are making apparel items for Western consumers in developing countries, such as Bangladesh. Your answer will help me better understand what consumers are looking for in clothing. My thesis may hopefully give recommendations to the clothing manufacturers to maintain safe work environments and consumers may increase their level of awareness of the health risks of those workers working in the textile and apparel industry. Finally, this study finding may include better communication (label or third party certified apparel) between consumers and manufacturers by informing consumers about workplace safety.   I would like to receive your opinion regarding your clothing purchases and your concerns about the safe work environment for textile and apparel industry workers.

The questionnaire is very brief and will take 30-45 minutes. Of course all the answers and opinions that you provide will be kept confidential and will be used only for research purposes at the University of Manitoba. If you are interested in receiving the summary of results of this research, just email your contact information to me at khanomm@myumanitoba.ca after you complete the interview. I will be glad to send you a complementary summary of results when ready.

I would appreciate if you could help me by taking part in this interview. If you have any questions, please feel free to contact me.

<div align="right">

Sincerely,

Marjia Khanom

</div>

Appendix D: Letter of Invitation for the Survey Participants

Dear Participant,

I am writing to ask a favour of you?

I am conducting research among consumers about their perception of the workplace safety of workers in the textile and apparel industry. The purpose of this study is to measure Canadian consumer knowledge about the health risks to textile and apparel factory workers who are making apparel items for Western consumers in developing countries, such as Bangladesh. Your answer will help me better understand what consumers are looking for in clothing. My thesis may hopefully give recommendations to the clothing manufacturers to maintain safe work environments and consumers may increase their level of awareness of the health risks of those workers working in the textile and apparel industry. Finally, this study finding may include better communication (label or third party certified apparel) between consumers and manufacturers by informing consumers about workplace safety. I would like to receive your opinion regarding your clothing purchases and your concerns about the safe work environment for textile and apparel industry workers.

The questionnaire is very brief and will take 15-20 minutes to fill out. Of course all the answers and opinions that you provide will be kept confidential and will be used only for research purposes at the University of Manitoba. If you are interested in receiving the summary of results of this research, just email your contact information to me at khanomm@myumanitoba.ca after you complete the interview. I will be glad to send you a complementary summary of results when ready.

I would appreciate if you could help me by taking part in this survey. If you have any questions, please feel free to contact me.

Sincerely,

Marjia Khanom

Appendix E: Consent Form (Survey)

Faculty of Human Ecology
Textile Sciences

OF MANITOBA

303 Human Ecology Building
Winnipeg, Manitoba
Canada R3T 2N2
E-mail: khanomm@myumanitoba.ca

Research Project Title: A Study of Consumer Perception towards Safe Clothing and Workers Safety.

Principal Investigator: Marjia Khanom

Contact Information: khanomm@myumanitoba.ca

Research Supervisor: Dr. Mashiur Rahman

Contact Information: Mashiur.Rahman@umanitoba.ca

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take time to read this carefully and to understand any accompanying information.

Purpose of the research:

The purpose of this study is to measure Canadian consumer knowledge about the health risks to textile and apparel factory workers who are making apparel items for Western consumers in developing countries, such as Bangladesh. The findings of the study may provide evidence which may include a better means of communication (label or third party certified apparel) between consumers and manufacturers by informing consumers about workplace safety.

Research Procedures:

The total number of survey participants will be one hundred and thirty. Among them 100 University of Manitoba participants will receive a survey questionnaire through email. An academic advisor in the Faculty of Human Ecology, University of Manitoba will circulate the survey questionnaire to the University of Manitoba participants. In addition, I will select 30 more consumers as participants for the survey by visiting consumers in different shopping malls. The SurveyMonkey software will be used to conduct the survey. A total of twenty questions

have been designed for the participants who will be asked to fill out a concise survey about their perception of the workplace safety of workers in the textile and apparel industry. It will take about 15-20 minutes to complete the survey. The survey has three parts: the first part asks about the participants' purchasing knowledge and experiences; the second part, which is the major section, asks about their awareness of workers' health risks; and the third part asks participants to provide some basic information about themselves (for example, age range and gender). If the participants have questions later, they can contact the researcher.

Risks and Benefits:

There is minimal risk to the participants from participating in this study. Participants may develop their knowledge and understanding of issues related to clothing manufacturing and may increase their level of awareness of the health risks of those workers working in the textile and apparel industry.

Degree of Confidentiality:

All the information about the participants will be kept strictly confidential. Only the researcher and research supervisor will have access to data collected for this research. Data will be kept secure in a password protected computer. All information provided by the participants for this survey will be anonymous; no names will be used in the research; an alpha-numeric code will be used to identify data. Information containing personal identifiers (for example, this consent form) will be destroyed as soon as it is no longer necessary for scientific purposes. Participation in this study is voluntary and participants may withdraw from the research at any time without negative consequences; his/her data will be deleted from the research report. If participants want to withdraw from the study, they should directly contact the researcher at khanomm@myumanitoba.ca . Any information collected will be securely stored and used only by the researcher for scholarly purposes. Participants may request a copy of the results of the study through email, and it will be provided to the participants once the work is published. All collected information will be destroyed within five years.

Dissemination:

This study is a master's thesis and the results of the current study will be published in the thesis format and kept in the online catalogue of the University of Manitoba library. Further, the study results will be presented at national and international conferences and will be submitted for publication in consumer related academic journals.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Joint-Faculty REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Participant's signature ……………………………………. Date……………………….

Researcher and/or Delegate's Signature ………………………. Date.………………………

Appendix F: Consent Form (Interview)

Faculty of Human Ecology
Textile Sciences

OF MANITOBA

303 Human Ecology Building
Winnipeg, Manitoba
Canada R3T 2N2
E-mail: khanomm@myumanitoba.ca

Research Project Title: A Study of Consumer Perception towards Safe Clothing and Workers Safety.

Principal Investigator: Marjia Khanom

Contact Information: khanomm@myumanitoba.ca

Research Supervisor: Dr. Mashiur Rahman

Contact Information: Mashiur.Rahman@umanitoba.ca

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take time to read this carefully and to understand any accompanying information.

Purpose of the research:

The purpose of this study is to measure Canadian consumer knowledge about the health risks to textile and apparel factory workers who are making apparel items for Western consumers in developing countries, such as Bangladesh. The findings of the study may provide evidence which may include a better means of communication (label or third party certified apparel) between consumers and manufacturers by informing consumers about workplace safety.

Research Procedures:

The total number of interview participants will be ten**.** Of those ten I will select four students and three employees of the University of Manitoba and three apparel retail managers as interview participants. Interview participants (students and employees) will be recruited through the snowball method by asking friends to participate in this study. Participants will be asked to provide some information regarding the workplace safety of workers in the textile and apparel

industry. The interview will be conducted face-to-face and will take approximately 30-45 minutes. The student and employee interviews will be held in room 303, Human Ecology Building, University of Manitoba.

Recording devices:

The interview will be recorded using a digital recorder with the consent of the participants.

Risks and Benefits:

There is minimal risk to the participants from participating in this study. Participants will be able to share their opinions on this topic. Participants may develop their knowledge and understanding of issues related to clothing manufacturing and may increase their level of awareness of the health risks of those workers working in the textile and apparel industry.

Degree of Confidentiality:

All the information about the participants will be kept strictly confidential. Only the researcher and research supervisor will have access to data collected for this research. Data will be kept secure in a password protected computer. All information provided by the participants for this interview will be anonymous; no names will be used in the research; an alpha-numeric code will be used to identify data. Information containing personal identifiers (for example, this consent form) will be destroyed as soon as it is no longer necessary for scientific purposes.

Participation in this study is voluntary and participants may withdraw from the research at any time without negative consequences; his/her data will be deleted from the research report. If participants want to withdraw from the study, they should directly contact the researcher at khanomm@myumanitoba.ca. Any information collected will be securely stored and used only by the researcher for scholarly purposes. A transcription of the interviews will be made within two weeks and I will provide a copy of the transcription to interview participants so that they can comment on and ensure the accuracy of their responses. Participants may request a copy of the results of the study through email, and it will be provided to the participants once the work is published. All collected information will be destroyed within five years.

A gift card to the University of Manitoba bookstore will be provided to the participant equivalent to the amount of $ 15.00 after completion of the interview.

Dissemination:

This study is a master's thesis and the results of the current study will be published in the thesis format and kept in the online catalogue of the University of Manitoba library. Further, the study results will be presented at national and international conferences and will be submitted for publication in consumer related academic journals.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Joint-Faculty REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

I agree to be audio-recorded. (Please check the appropriate box)

☐ Yes ☐ No

Participant's signature ……………………………………. Date……………………………..

Researcher and/or Delegate's Signature ……………………… Date …………………………….

Appendix G: Survey Results

Appendix 1, Question 1: ANOVA Test with Age Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
I always follow the latest fashion trends	1.00	24	3.0000	1.10335	.22522	2.5341	3.4659	1.00	5.00
	2.00	68	2.5147	1.07193	.12999	2.2552	2.7742	1.00	5.00
	Total	92	2.6413	1.09526	.11419	2.4145	2.8681	1.00	5.00
I always buy branded clothing	1.00	24	2.1250	.94696	.19330	1.7251	2.5249	1.00	4.00
	2.00	68	2.1618	1.01644	.12326	1.9157	2.4078	1.00	5.00
	Total	92	2.1522	.99377	.10361	1.9464	2.3580	1.00	5.00
My clothing selection is influenced by my parents	1.00	24	2.0833	.97431	.19888	1.6719	2.4947	1.00	4.00
	2.00	68	1.6618	.87435	.10603	1.4501	1.8734	1.00	5.00
	Total	92	1.7717	.91511	.09541	1.5822	1.9613	1.00	5.00
My clothing selection is influenced by my friends	1.00	24	3.0000	1.21584	.24818	2.4866	3.5134	1.00	5.00
	2.00	68	2.1176	.92283	.11191	1.8943	2.3410	1.00	5.00
	Total	92	2.3478	1.07350	.11192	2.1255	2.5701	1.00	5.00
I use my own personal opinions	1.00	26	3.3846	1.09825	.21538	2.9410	3.8282	1.00	5.00
	2.00	69	3.6522	1.01208	.12184	3.4090	3.8953	1.00	5.00
	Total	95	3.5789	1.03738	.10643	3.3676	3.7903	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I always follow the latest fashion trends	Between Groups	4.178	1	4.178	3.581	.062
	Within Groups	104.985	90	1.167		
	Total	109.163	91			
I always buy branded clothing	Between Groups	.024	1	.024	.024	.877
	Within Groups	89.846	90	.998		
	Total	89.870	91			
My clothing selection is influenced by my parents	Between Groups	3.153	1	3.153	3.884	.052
	Within Groups	73.054	90	.812		
	Total	76.207	91			
My clothing selection is influenced by my friends	Between Groups	13.811	1	13.811	13.650	.000
	Within Groups	91.059	90	1.012		
	Total	104.870	91			
I use my own personal opinions	Between Groups	1.352	1	1.352	1.260	.265
	Within Groups	99.806	93	1.073		
	Total	101.158	94			

ANOVA Test with University Affiliation Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
I always follow the latest fashion trends	1.00	24	2.9167	1.28255	.26180	2.3751	3.4582	1.00	5.00
	2.00	68	2.5441	1.01384	.12295	2.2987	2.7895	1.00	5.00
	Total	92	2.6413	1.09526	.11419	2.4145	2.8681	1.00	5.00
I always buy branded clothing	1.00	24	2.2917	1.16018	.23682	1.8018	2.7816	1.00	5.00
	2.00	68	2.1029	.93265	.11310	1.8772	2.3287	1.00	5.00
	Total	92	2.1522	.99377	.10361	1.9464	2.3580	1.00	5.00
My clothing selection is influenced by my parents	1.00	24	2.0833	1.01795	.20779	1.6535	2.5132	1.00	4.00
	2.00	68	1.6618	.85711	.10394	1.4543	1.8692	1.00	5.00
	Total	92	1.7717	.91511	.09541	1.5822	1.9613	1.00	5.00
My clothing selection is influenced by my friends	1.00	24	3.0833	1.21285	.24757	2.5712	3.5955	1.00	5.00
	2.00	68	2.0882	.89335	.10833	1.8720	2.3045	1.00	5.00
	Total	92	2.3478	1.07350	.11192	2.1255	2.5701	1.00	5.00
I use my own personal opinions	1.00	27	3.4074	1.00992	.19436	3.0079	3.8069	2.00	5.00
	2.00	68	3.6471	1.04759	.12704	3.3935	3.9006	1.00	5.00
	Total	95	3.5789	1.03738	.10643	3.3676	3.7903	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I always follow the latest fashion trends	Between Groups	2.462	1	2.462	2.077	.153
	Within Groups	106.701	90	1.186		
	Total	109.163	91			
I always buy branded clothing	Between Groups	.632	1	.632	.637	.427
	Within Groups	89.238	90	.992		
	Total	89.870	91			
My clothing selection is influenced by my parents	Between Groups	3.153	1	3.153	3.884	.052
	Within Groups	73.054	90	.812		
	Total	76.207	91			
My clothing selection is influenced by my friends	Between Groups	17.566	1	17.566	18.108	.000
	Within Groups	87.304	90	.970		
	Total	104.870	91			
I use my own personal opinions	Between Groups	1.110	1	1.110	1.032	.312
	Within Groups	100.048	93	1.076		
	Total	101.158	94			

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ANOVA Test with Gender Category

<div align="center">Descriptives</div>

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
I always follow the latest fashion trends	1.00	22	2.9091	1.26901	.27055	2.3464	3.4717	1.00	5.00
	2.00	68	2.6029	1.00950	.12242	2.3586	2.8473	1.00	5.00
	Total	90	2.6778	1.07920	.11376	2.4517	2.9038	1.00	5.00
I always buy branded clothing	1.00	22	2.9545	1.13294	.24154	2.4522	3.4569	1.00	5.00
	2.00	68	1.9118	.80549	.09768	1.7168	2.1067	1.00	4.00
	Total	90	2.1667	.99719	.10511	1.9578	2.3755	1.00	5.00
My clothing selection is influenced by my parents	1.00	22	1.7727	.97257	.20735	1.3415	2.2039	1.00	5.00
	2.00	68	1.7941	.90700	.10999	1.5746	2.0137	1.00	4.00
	Total	90	1.7889	.91792	.09676	1.5966	1.9811	1.00	5.00
My clothing selection is influenced by my friends	1.00	22	2.3636	1.17698	.25093	1.8418	2.8855	1.00	5.00
	2.00	68	2.3529	1.06175	.12876	2.0959	2.6099	1.00	5.00
	Total	90	2.3556	1.08422	.11429	2.1285	2.5826	1.00	5.00
I use my own personal opinions	1.00	23	3.3478	1.02730	.21421	2.9036	3.7921	1.00	5.00
	2.00	70	3.6143	1.02565	.12259	3.3697	3.8588	1.00	5.00
	Total	93	3.5484	1.02699	.10649	3.3369	3.7599	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I always follow the latest fashion trends	Between Groups	1.558	1	1.558	1.343	.250
	Within Groups	102.098	88	1.160		
	Total	103.656	89			
I always buy branded clothing	Between Groups	18.075	1	18.075	22.586	.000
	Within Groups	70.425	88	.800		
	Total	88.500	89			
My clothing selection is influenced by my parents	Between Groups	.008	1	.008	.009	.925
	Within Groups	74.981	88	.852		
	Total	74.989	89			
My clothing selection is influenced by my friends	Between Groups	.002	1	.002	.002	.968
	Within Groups	104.620	88	1.189		
	Total	104.622	89			
I use my own personal opinions	Between Groups	1.229	1	1.229	1.168	.283
	Within Groups	95.803	91	1.053		
	Total	97.032	92			

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ANOVA Test with Citizenship Status Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	Upper Bound	Minimum	Maximum
I always follow the latest fashion trends	Yes	78	2.5641	1.06405	.12048	2.3242	2.8040	1.00	5.00
	No	14	3.0714	1.20667	.32250	2.3747	3.7681	1.00	5.00
	Total	92	2.6413	1.09526	.11419	2.4145	2.8681	1.00	5.00
I always buy branded clothing	Yes	78	2.0128	.91869	.10402	1.8057	2.2200	1.00	5.00
	No	14	2.9286	1.07161	.28640	2.3098	3.5473	1.00	5.00
	Total	92	2.1522	.99377	.10361	1.9464	2.3580	1.00	5.00
My clothing selection is influenced by my parents	Yes	78	1.7564	.94231	.10670	1.5440	1.9689	1.00	5.00
	No	14	1.8571	.77033	.20588	1.4124	2.3019	1.00	3.00
	Total	92	1.7717	.91511	.09541	1.5822	1.9613	1.00	5.00
My clothing selection is influenced by my friends	Yes	78	2.3590	1.09277	.12373	2.1126	2.6054	1.00	5.00
	No	14	2.2857	.99449	.26579	1.7115	2.8599	1.00	4.00
	Total	92	2.3478	1.07350	.11192	2.1255	2.5701	1.00	5.00
I use my own personal opinions	Yes	78	3.5897	1.01208	.11460	3.3616	3.8179	1.00	5.00
	No	17	3.5294	1.17886	.28592	2.9233	4.1355	2.00	5.00
	Total	95	3.5789	1.03738	.10643	3.3676	3.7903	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I always follow the latest fashion trends	Between Groups	3.055	1	3.055	2.591	.111
	Within Groups	106.108	90	1.179		
	Total	109.163	91			
I always buy branded clothing	Between Groups	9.954	1	9.954	11.210	.001
	Within Groups	79.916	90	.888		
	Total	89.870	91			
My clothing selection is influenced by my parents	Between Groups	.120	1	.120	.142	.707
	Within Groups	76.086	90	.845		
	Total	76.207	91			
My clothing selection is influenced by my friends	Between Groups	.064	1	.064	.055	.816
	Within Groups	104.806	90	1.165		
	Total	104.870	91			
I use my own personal opinions	Between Groups	.051	1	.051	.047	.829
	Within Groups	101.107	93	1.087		
	Total	101.158	94			

Matched Pair t-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always follow the latest fashion trends	2.6019	103	1.08772	.10718
	I always buy branded clothing	2.1650	103	.99111	.09766

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always follow the latest fashion trends - I always buy branded clothing	.43689	.99676	.09821	.24209	.63170	4.448	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always follow the latest fashion trends	2.6019	103	1.08772	.10718
	I use my own personal opinions	3.5437	103	.99781	.09832

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always follow the latest fashion trends - I use my own personal opinions	-.94175	1.71399	.16888	-1.27673	-.60677	-5.576	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always follow the latest fashion trends	2.6019	103	1.08772	.10718
	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always follow the latest fashion trends - My clothing selection is influenced by my parents	.82524	1.27899	.12602	.57528	1.07521	6.548	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always follow the latest fashion trends	2.6019	103	1.08772	.10718
	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always follow the latest fashion trends - My clothing selection is influenced by my friends	.21359	1.24971	.12314	-.03065	.45783	1.735	102	.086

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always buy branded clothing	2.1650	103	.99111	.09766
	I always follow the latest fashion trends	2.6019	103	1.08772	.10718

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always buy branded clothing - I always follow the latest fashion trends	-.43689	.99676	.09821	-.63170	-.24209	-4.448	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always buy branded clothing	2.1650	103	.99111	.09766
	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I always buy branded clothing - My clothing selection is influenced by my parents	.38835	1.25427	.12359	.14322	.63348	3.142	102	.002

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always buy branded clothing	2.1650	103	.99111	.09766
	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529

Paired Samples Test

		Paired Differences							Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	I always buy branded clothing - My clothing selection is influenced by my friends	-.22330	1.30558	.12864	-.47846	.03186	-1.736	102	.086

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I always buy branded clothing	2.1650	103	.99111	.09766
	I use my own personal opinions	3.5437	103	.99781	.09832

Paired Samples Test

			Paired Differences							Sig. (2-tailed)
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df		
Pair 1	I always buy branded clothing - I use my own personal opinions	-1.37864	1.63369	.16097	-1.69793	-1.05935	-8.564	102		.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934
	I always follow the latest fashion trends	2.6019	103	1.08772	.10718

Paired Samples Test

		Paired Differences							Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my parents - I always follow the latest fashion trends	-.82524	1.27899	.12602	-1.07521	-.57528	-6.548	102	.000

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Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934
	I always buy branded clothing	2.1650	103	.99111	.09766

Paired Samples Test

		Paired Differences								Sig. (2-tailed)
				Std. Error Mean	95% Confidence Interval of the Difference					
		Mean	Std. Deviation		Lower	Upper	T	df		
Pair 1	My clothing selection is influenced by my parents - I always buy branded clothing	-.38835	1.25427	.12359	-.63348	-.14322	-3.142	102		.002

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934
	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529

Paired Samples Test

				Paired Differences					
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my parents - My clothing selection is influenced by my friends	-.61165	1.01202	.09972	-.80944	-.41386	-6.134	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934
	I use my own personal opinions	3.5437	103	.99781	.09832

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my parents - I use my own personal opinions	-1.76699	1.58550	.15622	-2.07686	-1.45712	-11.311	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529
	I always follow the latest fashion trends	2.6019	103	1.08772	.10718

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my friends - I always follow the latest fashion trends	-.21359	1.24971	.12314	-.45783	.03065	-1.735	102	.086

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529
	I always buy branded clothing	2.1650	103	.99111	.09766

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my friends - I always buy branded clothing	.22330	1.30558	.12864	-.03186	.47846	1.736	102	.086

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529
	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my friends - I always buy branded clothing	.22330	1.30558	.12864	-.03186	.47846	1.736	102	.086

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529
	I use my own personal opinions	3.5437	103	.99781	.09832

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	My clothing selection is influenced by my friends - I use my own personal opinions	-1.15534	1.78643	.17602	-1.50448	-.80620	-6.564	102	.000

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Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I use my own personal opinions	3.5437	103	.99781	.09832
	I always follow the latest fashion trends	2.6019	103	1.08772	.10718

Paired Samples Test

		Paired Differences							
				Std. Error Mean	95% Confidence Interval of the Difference				
		Mean	Std. Deviation		Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I use my own personal opinions - I always follow the latest fashion trends	.94175	1.71399	.16888	.60677	1.27673	5.576	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I use my own personal opinions	3.5437	103	.99781	.09832
	I always buy branded clothing	2.1650	103	.99111	.09766

Paired Samples Test

		Paired Differences							
				Std. Error Mean	95% Confidence Interval of the Difference				
		Mean	Std. Deviation		Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I use my own personal opinions - I always buy branded clothing	1.37864	1.63369	.16097	1.05935	1.69793	8.564	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I use my own personal opinions	3.5437	103	.99781	.09832
	My clothing selection is influenced by my parents	1.7767	103	.90675	.08934

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I use my own personal opinions - My clothing selection is influenced by my parents	1.76699	1.58550	.15622	1.45712	2.07686	11.311	102	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I use my own personal opinions	3.5437	103	.99781	.09832
	My clothing selection is influenced by my friends	2.3883	103	1.06856	.10529

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	I use my own personal opinions - My clothing selection is influenced by my friends	1.15534	1.78643	.17602	.80620	1.50448	6.564	102	.000

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Pearson's Correlation

Correlations		S1. I always follow the latest fashion trends	S2. I always buy branded clothing	S3. My clothing selection is influenced by my parents	S4. My clothing selection is influenced by my friends	S5. I use my own personal opinions and do not pay attention to what others think when buying clothing
Conditions						
S1. I always follow the latest fashion trends	Pearson Correlation	1	0.544**	0.187	0.328**	-0.350**
	Sig. (2-tailed)		0.000	0.058	0.001	0.000
	N	103	103	103	103	103
S2. I always buy branded clothing	Pearson Correlation	0.544**	1	0.129	0.198*	-0.349**
	Sig. (2-tailed)	0.000		0.195	0.045	0.000
	N	103	103	103	103	103
S3. My clothing selection is influenced by my parents	Pearson Correlation	0.187	0.129	1	0.485**	-0.385**
	Sig. (2-tailed)	0.058	0.195		0.000	0.000
	N	103	103	103	103	103
S4. My clothing selection is influenced by my friends	Pearson Correlation	0.328**	0.198*	0.485**	1	-0.494**
	Sig. (2-tailed)	0.001	0.045	0.000		0.000
	N	103	103	103	103	103
S5. I use my own personal opinions and do not pay attention to what others think when buying clothing	Pearson Correlation	-0.350**	-0.349**	-0.385**	-0.494**	1
	Sig. (2-tailed)	0.000	.000	0.000	0.000	
	N	103	103	103	103	106

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Appendix 2, Question 3-8: ANOVA Test with Age Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0003_0001	1.00	26	2.7692	1.58260	.31037	2.1300	3.4085	1.00	5.00
	2.00	69	3.8116	1.16664	.14045	3.5313	4.0919	1.00	5.00
	Total	95	3.5263	1.36711	.14026	3.2478	3.8048	1.00	5.00
q0004_0001	1.00	26	3.1538	1.08415	.21262	2.7159	3.5917	1.00	5.00
	2.00	69	3.4928	.85101	.10245	3.2883	3.6972	1.00	5.00
	Total	95	3.4000	.92713	.09512	3.2111	3.5889	1.00	5.00
q0005_0001	1.00	26	2.8462	.92487	.18138	2.4726	3.2197	1.00	5.00
	2.00	69	3.0580	.72526	.08731	2.8837	3.2322	1.00	5.00
	Total	95	3.0000	.78551	.08059	2.8400	3.1600	1.00	5.00
q0006_0001	1.00	26	2.8077	1.35703	.26614	2.2596	3.3558	1.00	5.00
	2.00	69	3.1884	.86220	.10380	2.9813	3.3955	1.00	5.00
	Total	95	3.0842	1.02794	.10546	2.8748	3.2936	1.00	5.00
q0007_0001	1.00	26	3.8846	1.10732	.21716	3.4374	4.3319	1.00	5.00
	2.00	69	4.2174	.80201	.09655	4.0247	4.4101	2.00	5.00
	Total	95	4.1263	.90203	.09255	3.9426	4.3101	1.00	5.00
q0008_0001	1.00	26	3.8846	1.27521	.25009	3.3695	4.3997	1.00	5.00
	2.00	69	3.9420	.92170	.11096	3.7206	4.1634	2.00	5.00
	Total	95	3.9263	1.02357	.10502	3.7178	4.1348	1.00	5.00

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
q0003_0001	Between Groups	20.518	1	20.518	12.298	.001
	Within Groups	155.166	93	1.668		
	Total	175.684	94			
q0004_0001	Between Groups	2.169	1	2.169	2.565	.113
	Within Groups	78.631	93	.845		
	Total	80.800	94			
q0005_0001	Between Groups	.847	1	.847	1.379	.243
	Within Groups	57.153	93	.615		
	Total	58.000	94			
q0006_0001	Between Groups	2.737	1	2.737	2.635	.108
	Within Groups	96.589	93	1.039		
	Total	99.326	94			
q0007_0001	Between Groups	2.091	1	2.091	2.614	.109
	Within Groups	74.393	93	.800		
	Total	76.484	94			
q0008_0001	Between Groups	.062	1	.062	.059	.809
	Within Groups	98.422	93	1.058		
	Total	98.484	94			

ANOVA Test with Gender Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0003_0001	1.00	23	3.6957	1.25896	.26251	3.1512	4.2401	1.00	5.00
	2.00	70	3.4714	1.42159	.16991	3.1325	3.8104	1.00	5.00
	Total	93	3.5269	1.37991	.14309	3.2427	3.8111	1.00	5.00
q0004_0001	1.00	23	3.3913	1.03305	.21541	2.9446	3.8380	1.00	5.00
	2.00	70	3.4000	.90730	.10844	3.1837	3.6163	1.00	5.00
	Total	93	3.3978	.93413	.09687	3.2055	3.5902	1.00	5.00
q0005_0001	1.00	23	3.1739	.77765	.16215	2.8376	3.5102	2.00	5.00
	2.00	70	2.9571	.78824	.09421	2.7692	3.1451	1.00	5.00
	Total	93	3.0108	.78705	.08161	2.8487	3.1728	1.00	5.00
q0006_0001	1.00	23	3.2609	1.09617	.22857	2.7869	3.7349	1.00	5.00
	2.00	70	3.0143	1.01429	.12123	2.7724	3.2561	1.00	5.00
	Total	93	3.0753	1.03458	.10728	2.8622	3.2883	1.00	5.00
q0007_0001	1.00	23	4.2174	.67126	.13997	3.9271	4.5077	3.00	5.00
	2.00	70	4.0714	.96791	.11569	3.8406	4.3022	1.00	5.00
	Total	93	4.1075	.90244	.09358	3.9217	4.2934	1.00	5.00
q0008_0001	1.00	23	4.0870	.79275	.16530	3.7441	4.4298	2.00	5.00
	2.00	70	3.8571	1.09393	.13075	3.5963	4.1180	1.00	5.00
	Total	93	3.9140	1.02846	.10665	3.7022	4.1258	1.00	5.00

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
q0003_0001	Between Groups	.870	1	.870	.454	.502
	Within Groups	174.312	91	1.916		
	Total	175.183	92			
q0004_0001	Between Groups	.001	1	.001	.001	.969
	Within Groups	80.278	91	.882		
	Total	80.280	92			
q0005_0001	Between Groups	.813	1	.813	1.318	.254
	Within Groups	56.176	91	.617		
	Total	56.989	92			
q0006_0001	Between Groups	1.053	1	1.053	.983	.324
	Within Groups	97.420	91	1.071		
	Total	98.473	92			
q0007_0001	Between Groups	.369	1	.369	.450	.504
	Within Groups	74.556	91	.819		
	Total	74.925	92			
q0008_0001	Between Groups	.914	1	.914	.863	.355
	Within Groups	96.398	91	1.059		
	Total	97.312	92			

ANOVA Test with University Affiliation Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0003_0001	1.00	27	3.2222	1.60128	.30817	2.5888	3.8557	1.00	5.00
	2.00	68	3.6471	1.25502	.15219	3.3433	3.9508	1.00	5.00
	Total	95	3.5263	1.36711	.14026	3.2478	3.8048	1.00	5.00
q0004_0001	1.00	27	3.4815	1.08735	.20926	3.0513	3.9116	1.00	5.00
	2.00	68	3.3676	.86222	.10456	3.1589	3.5763	1.00	5.00
	Total	95	3.4000	.92713	.09512	3.2111	3.5889	1.00	5.00
q0005_0001	1.00	27	3.0370	1.01835	.19598	2.6342	3.4399	1.00	5.00
	2.00	68	2.9853	.68005	.08247	2.8207	3.1499	1.00	4.00
	Total	95	3.0000	.78551	.08059	2.8400	3.1600	1.00	5.00
q0006_0001	1.00	27	3.1111	1.31071	.25225	2.5926	3.6296	1.00	5.00
	2.00	68	3.0735	.90300	.10950	2.8550	3.2921	1.00	5.00
	Total	95	3.0842	1.02794	.10546	2.8748	3.2936	1.00	5.00
q0007_0001	1.00	27	4.0741	.87380	.16816	3.7284	4.4197	2.00	5.00
	2.00	68	4.1471	.91854	.11139	3.9247	4.3694	1.00	5.00
	Total	95	4.1263	.90203	.09255	3.9426	4.3101	1.00	5.00
q0008_0001	1.00	27	4.0000	1.03775	.19971	3.5895	4.4105	1.00	5.00
	2.00	68	3.8971	1.02418	.12420	3.6492	4.1450	1.00	5.00
	Total	95	3.9263	1.02357	.10502	3.7178	4.1348	1.00	5.00

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
q0003_0001	Between Groups	3.488	1	3.488	1.884	.173
	Within Groups	172.196	93	1.852		
	Total	175.684	94			
q0004_0001	Between Groups	.250	1	.250	.289	.592
	Within Groups	80.550	93	.866		
	Total	80.800	94			
q0005_0001	Between Groups	.052	1	.052	.083	.774
	Within Groups	57.948	93	.623		
	Total	58.000	94			
q0006_0001	Between Groups	.027	1	.027	.026	.873
	Within Groups	99.299	93	1.068		
	Total	99.326	94			
q0007_0001	Between Groups	.103	1	.103	.125	.724
	Within Groups	76.381	93	.821		
	Total	76.484	94			
q0008_0001	Between Groups	.205	1	.205	.194	.661
	Within Groups	98.279	93	1.057		
	Total	98.484	94			

ANOVA Test with Citizenship Status Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0003_0001	Yes	78	3.4103	1.35259	.15315	3.1053	3.7152	1.00	5.00
	No	17	4.0588	1.34493	.32619	3.3673	4.7503	1.00	5.00
	Total	95	3.5263	1.36711	.14026	3.2478	3.8048	1.00	5.00
q0004_0001	Yes	78	3.3205	.91869	.10402	3.1134	3.5276	1.00	5.00
	No	17	3.7647	.90342	.21911	3.3002	4.2292	2.00	5.00
	Total	95	3.4000	.92713	.09512	3.2111	3.5889	1.00	5.00
q0005_0001	Yes	78	2.9487	.73674	.08342	2.7826	3.1148	1.00	4.00
	No	17	3.2353	.97014	.23529	2.7365	3.7341	2.00	5.00
	Total	95	3.0000	.78551	.08059	2.8400	3.1600	1.00	5.00
q0006_0001	Yes	78	2.9872	1.03815	.11755	2.7531	3.2212	1.00	5.00
	No	17	3.5294	.87447	.21209	3.0798	3.9790	1.00	5.00
	Total	95	3.0842	1.02794	.10546	2.8748	3.2936	1.00	5.00
q0007_0001	Yes	78	4.1154	.92555	.10480	3.9067	4.3241	1.00	5.00
	No	17	4.1765	.80896	.19620	3.7605	4.5924	2.00	5.00
	Total	95	4.1263	.90203	.09255	3.9426	4.3101	1.00	5.00
q0008_0001	Yes	78	3.8590	1.01578	.11501	3.6300	4.0880	1.00	5.00
	No	17	4.2353	1.03256	.25043	3.7044	4.7662	1.00	5.00
	Total	95	3.9263	1.02357	.10502	3.7178	4.1348	1.00	5.00

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
q0003_0001	Between Groups	5.871	1	5.871	3.215	.076
	Within Groups	169.813	93	1.826		
	Total	175.684	94			
q0004_0001	Between Groups	2.754	1	2.754	3.282	.073
	Within Groups	78.046	93	.839		
	Total	80.800	94			
q0005_0001	Between Groups	1.146	1	1.146	1.875	.174
	Within Groups	56.854	93	.611		
	Total	58.000	94			
q0006_0001	Between Groups	4.104	1	4.104	4.008	.048
	Within Groups	95.222	93	1.024		
	Total	99.326	94			
q0007_0001	Between Groups	.052	1	.052	.063	.802
	Within Groups	76.432	93	.822		
	Total	76.484	94			
q0008_0001	Between Groups	1.977	1	1.977	1.905	.171
	Within Groups	96.508	93	1.038		
	Total	98.484	94			

Pearson's Correlation

Correlations

		q0003_0001	q0004_0001	q0005_0001	q0006_0001	q0007_0001	q0008_0001
q0003_0001	Pearson Correlation	1	.591**	.189	.347**	.283**	.109
	Sig. (2-tailed)		.000	.052	.000	.004	.269
	N	106	106	106	106	104	104
q0004_0001	Pearson Correlation	.591**	1	.584**	.506**	-.012	-.040
	Sig. (2-tailed)	.000		.000	.000	.907	.684
	N	106	106	106	106	104	104
q0005_0001	Pearson Correlation	.189	.584**	1	.607**	-.231*	-.215*
	Sig. (2-tailed)	.052	.000		.000	.018	.029
	N	106	106	106	106	104	104
q0006_0001	Pearson Correlation	.347**	.506**	.607**	1	.087	.082
	Sig. (2-tailed)	.000	.000	.000		.380	.406
	N	106	106	106	106	104	104
q0007_0001	Pearson Correlation	.283**	-.012	-.231*	.087	1	.769**
	Sig. (2-tailed)	.004	.907	.018	.380		.000
	N	104	104	104	104	104	104
q0008_0001	Pearson Correlation	.109	-.040	-.215*	.082	.769**	1
	Sig. (2-tailed)	.269	.684	.029	.406	.000	
	N	104	104	104	104	104	104

**. Correlation is significant at the 0.01 level (2-tailed).

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

Appendix 3, Question 12-15, 17: ANOVA Test with Age Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0012_0001	1.00	26	3.8462	1.00766	.19762	3.4391	4.2532	2.00	5.00
	2.00	69	4.2754	.74526	.08972	4.0963	4.4544	3.00	5.00
	Total	95	4.1579	.84193	.08638	3.9864	4.3294	2.00	5.00
q0013_0001	1.00	25	4.5600	.65064	.13013	4.2914	4.8286	3.00	5.00
	2.00	69	4.4638	.67692	.08149	4.3012	4.6264	2.00	5.00
	Total	94	4.4894	.66792	.06889	4.3526	4.6262	2.00	5.00
q0014_0001	1.00	26	1.9231	.89098	.17474	1.5632	2.2830	1.00	4.00
	2.00	69	1.7391	.65646	.07903	1.5814	1.8968	1.00	4.00
	Total	95	1.7895	.72779	.07467	1.6412	1.9377	1.00	4.00
q0015_0001	1.00	26	2.0000	.93808	.18397	1.6211	2.3789	1.00	4.00
	2.00	68	1.7794	.66570	.08073	1.6183	1.9405	1.00	4.00
	Total	94	1.8404	.75210	.07757	1.6864	1.9945	1.00	4.00
q0017_0001	1.00	26	1.4615	.81146	.15914	1.1338	1.7893	1.00	4.00
	2.00	69	1.6812	.83124	.10007	1.4815	1.8808	1.00	4.00
	Total	95	1.6211	.82744	.08489	1.4525	1.7896	1.00	4.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
q0012_0001	Between Groups	3.479	1	3.479	5.123	.026
	Within Groups	63.153	93	.679		
	Total	66.632	94			
q0013_0001	Between Groups	.170	1	.170	.378	.540
	Within Groups	41.319	92	.449		
	Total	41.489	93			
q0014_0001	Between Groups	.639	1	.639	1.209	.274
	Within Groups	49.151	93	.529		
	Total	49.789	94			
q0015_0001	Between Groups	.915	1	.915	1.629	.205
	Within Groups	51.691	92	.562		
	Total	52.606	93			
q0017_0001	Between Groups	.911	1	.911	1.335	.251
	Within Groups	63.447	93	.682		
	Total	64.358	94			

ANOVA Test with Gender Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0012_0001	1.00	23	4.0000	.73855	.15400	3.6806	4.3194	3.00	5.00
	2.00	70	4.2000	.87807	.10495	3.9906	4.4094	2.00	5.00
	Total	93	4.1505	.84630	.08776	3.9762	4.3248	2.00	5.00
q0013_0001	1.00	23	4.3478	.57277	.11943	4.1001	4.5955	3.00	5.00
	2.00	69	4.5217	.69892	.08414	4.3538	4.6896	2.00	5.00
	Total	92	4.4783	.67087	.06994	4.3393	4.6172	2.00	5.00
q0014_0001	1.00	23	1.8261	.83406	.17391	1.4654	2.1868	1.00	4.00
	2.00	70	1.7714	.70549	.08432	1.6032	1.9396	1.00	4.00
	Total	93	1.7849	.73499	.07621	1.6336	1.9363	1.00	4.00
q0015_0001	1.00	22	1.7727	.75162	.16025	1.4395	2.1060	1.00	4.00
	2.00	70	1.8571	.76681	.09165	1.6743	2.0400	1.00	4.00
	Total	92	1.8370	.75995	.07923	1.6796	1.9943	1.00	4.00
q0017_0001	1.00	23	1.8696	.69442	.14480	1.5693	2.1699	1.00	3.00
	2.00	70	1.4857	.79387	.09489	1.2964	1.6750	1.00	4.00
	Total	93	1.5806	.78467	.08137	1.4190	1.7422	1.00	4.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
q0012_0001	Between Groups	.692	1	.692	.966	.328
	Within Groups	65.200	91	.716		
	Total	65.892	92			
q0013_0001	Between Groups	.522	1	.522	1.161	.284
	Within Groups	40.435	90	.449		
	Total	40.957	91			
q0014_0001	Between Groups	.052	1	.052	.095	.759
	Within Groups	49.647	91	.546		
	Total	49.699	92			
q0015_0001	Between Groups	.119	1	.119	.205	.652
	Within Groups	52.435	90	.583		
	Total	52.554	91			
q0017_0001	Between Groups	2.551	1	2.551	4.291	.041
	Within Groups	54.094	91	.594		
	Total	56.645	92			

ANOVA Test with Citizenship Status Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0012_0001	Yes	78	4.1410	.83315	.09434	3.9532	4.3289	2.00	5.00
	No	17	4.2353	.90342	.21911	3.7708	4.6998	3.00	5.00
	Total	95	4.1579	.84193	.08638	3.9864	4.3294	2.00	5.00
q0013_0001	Yes	77	4.4805	.69982	.07975	4.3217	4.6394	2.00	5.00
	No	17	4.5294	.51450	.12478	4.2649	4.7939	4.00	5.00
	Total	94	4.4894	.66792	.06889	4.3526	4.6262	2.00	5.00
q0014_0001	Yes	78	1.7179	.64259	.07276	1.5731	1.8628	1.00	4.00
	No	17	2.1176	.99262	.24075	1.6073	2.6280	1.00	4.00
	Total	95	1.7895	.72779	.07467	1.6412	1.9377	1.00	4.00
q0015_0001	Yes	77	1.8052	.68899	.07852	1.6488	1.9616	1.00	4.00
	No	17	2.0000	1.00000	.24254	1.4858	2.5142	1.00	4.00
	Total	94	1.8404	.75210	.07757	1.6864	1.9945	1.00	4.00
q0017_0001	Yes	78	1.6154	.82542	.09346	1.4293	1.8015	1.00	4.00
	No	17	1.6471	.86177	.20901	1.2040	2.0901	1.00	4.00
	Total	95	1.6211	.82744	.08489	1.4525	1.7896	1.00	4.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
q0012_0001	Between Groups	.124	1	.124	.173	.678
	Within Groups	66.508	93	.715		
	Total	66.632	94			
q0013_0001	Between Groups	.033	1	.033	.074	.786
	Within Groups	41.456	92	.451		
	Total	41.489	93			
q0014_0001	Between Groups	2.230	1	2.230	4.360	.040
	Within Groups	47.560	93	.511		
	Total	49.789	94			
q0015_0001	Between Groups	.528	1	.528	.934	.336
	Within Groups	52.078	92	.566		
	Total	52.606	93			
q0017_0001	Between Groups	.014	1	.014	.020	.887
	Within Groups	64.344	93	.692		
	Total	64.358	94			

ANOVA Test with University Affiliation Category

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Descriptives

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		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
q0012_0001	1.00	27	3.8519	.90739	.17463	3.4929	4.2108	2.00	5.00
	2.00	68	4.2794	.78883	.09566	4.0885	4.4703	2.00	5.00
	Total	95	4.1579	.84193	.08638	3.9864	4.3294	2.00	5.00
q0013_0001	1.00	26	4.5769	.57779	.11331	4.3435	4.8103	3.00	5.00
	2.00	68	4.4559	.70040	.08494	4.2863	4.6254	2.00	5.00
	Total	94	4.4894	.66792	.06889	4.3526	4.6262	2.00	5.00
q0014_0001	1.00	27	2.1111	.93370	.17969	1.7418	2.4805	1.00	4.00
	2.00	68	1.6618	.58871	.07139	1.5193	1.8043	1.00	3.00
	Total	95	1.7895	.72779	.07467	1.6412	1.9377	1.00	4.00
q0015_0001	1.00	27	2.0000	.87706	.16879	1.6530	2.3470	1.00	4.00
	2.00	67	1.7761	.69240	.08459	1.6072	1.9450	1.00	4.00
	Total	94	1.8404	.75210	.07757	1.6864	1.9945	1.00	4.00
q0017_0001	1.00	27	1.7778	.97402	.18745	1.3925	2.1631	1.00	4.00
	2.00	68	1.5588	.76064	.09224	1.3747	1.7429	1.00	4.00
	Total	95	1.6211	.82744	.08489	1.4525	1.7896	1.00	4.00

ANOVA

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
q0012_0001	Between Groups	3.533	1	3.533	5.207	.025
	Within Groups	63.099	93	.678		
	Total	66.632	94			
q0013_0001	Between Groups	.276	1	.276	.615	.435
	Within Groups	41.214	92	.448		
	Total	41.489	93			
q0014_0001	Between Groups	3.902	1	3.902	7.909	.006
	Within Groups	45.887	93	.493		
	Total	49.789	94			
q0015_0001	Between Groups	.965	1	.965	1.718	.193
	Within Groups	51.642	92	.561		
	Total	52.606	93			
q0017_0001	Between Groups	.927	1	.927	1.358	.247
	Within Groups	63.431	93	.682		
	Total	64.358	94			

Matched Pair t-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	q0012_0001	4.1579	95	.84193	.08638
	q0013_0001	4.4842	95	.66626	.06836
Pair 2	q0012_0001	4.1563	96	.83764	.08549
	q0014_0001	1.7813	96	.72842	.07434
Pair 3	q0012_0001	4.1474	95	.83753	.08593
	q0015_0001	1.8316	95	.75305	.07726
Pair 4	q0012_0001	4.1563	96	.83764	.08549
	q0017_0001	1.6146	96	.82551	.08425

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	q0012_0001 & q0013_0001	95	.659	.000
Pair 2	q0012_0001 & q0014_0001	96	-.375	.000
Pair 3	q0012_0001 & q0015_0001	95	-.348	.001
Pair 4	q0012_0001 & q0017_0001	96	.073	.481

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	q0012_0001 - q0013_0001	-.32632	.64317	.06599	-.45734	-.19530	-4.945	94	.000
Pair 2	q0012_0001 - q0014_0001	2.37500	1.29980	.13266	2.11164	2.63836	17.903	95	.000
Pair 3	q0012_0001 - q0015_0001	2.31579	1.30680	.13407	2.04958	2.58200	17.272	94	.000
Pair 4	q0012_0001 - q0017_0001	2.54167	1.13246	.11558	2.31221	2.77112	21.990	95	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	q0013_0001	4.4842	95	.66626	.06836
	q0012_0001	4.1579	95	.84193	.08638
Pair 2	q0013_0001	4.4842	95	.66626	.06836
	q0014_0001	1.7789	95	.73193	.07509
Pair 3	q0013_0001	4.4787	94	.66767	.06886
	q0015_0001	1.8298	94	.75688	.07807
Pair 4	q0013_0001	4.4842	95	.66626	.06836
	q0017_0001	1.6105	95	.82893	.08505

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	q0013_0001 & q0012_0001	95	.659	.000
Pair 2	q0013_0001 & q0014_0001	95	-.280	.006
Pair 3	q0013_0001 & q0015_0001	94	-.305	.003
Pair 4	q0013_0001 & q0017_0001	95	.075	.468

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	q0013_0001 - q0012_0001	.32632	.64317	.06599	.19530	.45734	4.945	94	.000
Pair 2	q0013_0001 - q0014_0001	2.70526	1.11921	.11483	2.47727	2.93326	23.559	94	.000
Pair 3	q0013_0001 - q0015_0001	2.64894	1.15197	.11882	2.41299	2.88488	22.294	93	.000
Pair 4	q0013_0001 - q0017_0001	2.87368	1.02357	.10502	2.66517	3.08220	27.364	94	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	q0014_0001	1.7813	96	.72842	.07434
	q0012_0001	4.1563	96	.83764	.08549
Pair 2	q0014_0001	1.7789	95	.73193	.07509
	q0013_0001	4.4842	95	.66626	.06836
Pair 3	q0014_0001	1.7895	95	.72779	.07467
	q0015_0001	1.8316	95	.75305	.07726
Pair 4	q0014_0001	1.7813	96	.72842	.07434
	q0017_0001	1.6146	96	.82551	.08425

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	q0014_0001 & q0012_0001	96	-.375	.000
Pair 2	q0014_0001 & q0013_0001	95	-.280	.006
Pair 3	q0014_0001 & q0015_0001	95	.711	.000
Pair 4	q0014_0001 & q0017_0001	96	-.019	.853

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	q0014_0001 - q0012_0001	-2.37500	1.29980	.13266	-2.63836	-2.11164	-17.903	95	.000
Pair 2	q0014_0001 - q0013_0001	-2.70526	1.11921	.11483	-2.93326	-2.47727	-23.559	94	.000
Pair 3	q0014_0001 - q0015_0001	-.04211	.56334	.05780	-.15686	.07265	-.728	94	.468
Pair 4	q0014_0001 - q0017_0001	.16667	1.11135	.11343	-.05851	.39185	1.469	95	.145

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	q0015_0001	1.8316	95	.75305	.07726
	q0012_0001	4.1474	95	.83753	.08593
Pair 2	q0015_0001	1.8298	94	.75688	.07807
	q0013_0001	4.4787	94	.66767	.06886
Pair 3	q0015_0001	1.8316	95	.75305	.07726
	q0014_0001	1.7895	95	.72779	.07467
Pair 4	q0015_0001	1.8316	95	.75305	.07726
	q0017_0001	1.6000	95	.81736	.08386

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	q0015_0001 & q0012_0001	95	-.348	.001
Pair 2	q0015_0001 & q0013_0001	94	-.305	.003
Pair 3	q0015_0001 & q0014_0001	95	.711	.000
Pair 4	q0015_0001 & q0017_0001	95	-.180	.081

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	q0015_0001 - q0012_0001	-2.31579	1.30680	.13407	-2.58200	-2.04958	-17.272	94	.000
Pair 2	q0015_0001 - q0013_0001	-2.64894	1.15197	.11882	-2.88488	-2.41299	-22.294	93	.000
Pair 3	q0015_0001 - q0014_0001	.04211	.56334	.05780	-.07265	.15686	.728	94	.468
Pair 4	q0015_0001 - q0017_0001	.23158	1.20683	.12382	-.01426	.47742	1.870	94	.065

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	q0017_0001	1.6146	96	.82551	.08425
	q0012_0001	4.1563	96	.83764	.08549
Pair 2	q0017_0001	1.6105	95	.82893	.08505
	q0013_0001	4.4842	95	.66626	.06836
Pair 3	q0017_0001	1.6146	96	.82551	.08425
	q0014_0001	1.7813	96	.72842	.07434
Pair 4	q0017_0001	1.6000	95	.81736	.08386
	q0015_0001	1.8316	95	.75305	.07726

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	q0017_0001 & q0012_0001	96	.073	.481
Pair 2	q0017_0001 & q0013_0001	95	.075	.468
Pair 3	q0017_0001 & q0014_0001	96	-.019	.853
Pair 4	q0017_0001 & q0015_0001	95	-.180	.081

Paired Samples Test

		Paired Differences								
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	q0017_0001 - q0012_0001	-2.54167	1.13246	.11558	-2.77112	-2.31221	-21.990	95	.000
Pair 2	q0017_0001 - q0013_0001	-2.87368	1.02357	.10502	-3.08220	-2.66517	-27.364	94	.000
Pair 3	q0017_0001 - q0014_0001	-.16667	1.11135	.11343	-.39185	.05851	-1.469	95	.145
Pair 4	q0017_0001 - q0015_0001	-.23158	1.20683	.12382	-.47742	.01426	-1.870	94	.065

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Pearson's Correlation

Correlations

		q0012_0001	q0013_0001	q0014_0001	q0015_0001	q0017_0001
q0012_0001	Pearson Correlation	1	.659**	-.375**	-.348**	.073
	Sig. (2-tailed)		.000	.000	.001	.481
	N	96	95	96	95	96
q0013_0001	Pearson Correlation	.659**	1	-.280**	-.305**	.075
	Sig. (2-tailed)	.000		.006	.003	.468
	N	95	95	95	94	95
q0014_0001	Pearson Correlation	-.375**	-.280**	1	.711**	-.019
	Sig. (2-tailed)	.000	.006		.000	.853
	N	96	95	96	95	96
q0015_0001	Pearson Correlation	-.348**	-.305**	.711**	1	-.180
	Sig. (2-tailed)	.001	.003	.000		.081
	N	95	94	95	95	95
q0017_0001	Pearson Correlation	.073	.075	-.019	-.180	1
	Sig. (2-tailed)	.481	.468	.853	.081	
	N	96	95	96	95	96

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 4, Question 18: ANOVA Test with Age Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Sign up for an online petition	1.00	26	1.7308	.82741	.16227	1.3966	2.0650	1.00	4.00
	2.00	69	1.5362	1.03724	.12487	1.2871	1.7854	1.00	5.00
	Total	95	1.5895	.98386	.10094	1.3891	1.7899	1.00	5.00
Send a protest letter	1.00	26	1.1538	.61269	.12016	.9064	1.4013	1.00	4.00
	2.00	68	1.2059	.70306	.08526	1.0357	1.3761	1.00	4.00
	Total	94	1.1915	.67643	.06977	1.0529	1.3300	1.00	4.00
Boycott retailer or brand	1.00	26	2.5000	1.50333	.29483	1.8928	3.1072	1.00	5.00
	2.00	68	2.8382	1.51224	.18339	2.4722	3.2043	1.00	5.00
	Total	94	2.7447	1.50937	.15568	2.4355	3.0538	1.00	5.00
Donate to victims	1.00	26	1.5385	1.13950	.22347	1.0782	1.9987	1.00	5.00
	2.00	68	1.2794	.66570	.08073	1.1183	1.4405	1.00	4.00
	Total	94	1.3511	.82576	.08517	1.1819	1.5202	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Sign up for an online petition	Between Groups	.715	1	.715	.736	.393
	Within Groups	90.275	93	.971		
	Total	90.989	94			
Send a protest letter	Between Groups	.051	1	.051	.110	.741
	Within Groups	42.502	92	.462		
	Total	42.553	93			
Boycott retailer or brand	Between Groups	2.152	1	2.152	.944	.334
	Within Groups	209.721	92	2.280		
	Total	211.872	93			
Donate to victims	Between Groups	1.262	1	1.262	1.868	.175

Within Groups	62.153	92	.676		
Total	63.415	93			

ANOVA Test with Gender Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Sign up for an online petition	1.00	23	1.7391	1.35571	.28268	1.1529	2.3254	1.00	5.00
	2.00	70	1.4714	.73665	.08805	1.2958	1.6471	1.00	4.00
	Total	93	1.5376	.92735	.09616	1.3466	1.7286	1.00	5.00
Send a protest letter	1.00	23	1.3478	.93462	.19488	.9437	1.7520	1.00	4.00
	2.00	69	1.1014	.45842	.05519	.9913	1.2116	1.00	4.00
	Total	92	1.1630	.61621	.06424	1.0354	1.2907	1.00	4.00
Boycott retailer or brand	1.00	23	2.9130	1.62125	.33805	2.2120	3.6141	1.00	5.00
	2.00	69	2.6522	1.48350	.17859	2.2958	3.0085	1.00	5.00
	Total	92	2.7174	1.51423	.15787	2.4038	3.0310	1.00	5.00
Donate to victims	1.00	23	1.5652	.99206	.20686	1.1362	1.9942	1.00	4.00
	2.00	69	1.2899	.76891	.09257	1.1051	1.4746	1.00	5.00
	Total	92	1.3587	.83313	.08686	1.1862	1.5312	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Sign up for an online petition	Between Groups	1.241	1	1.241	1.450	.232
	Within Groups	77.878	91	.856		
	Total	79.118	92			
Send a protest letter	Between Groups	1.047	1	1.047	2.813	.097
	Within Groups	33.507	90	.372		
	Total	34.554	91			
Boycott retailer or brand	Between Groups	1.174	1	1.174	.509	.477
	Within Groups	207.478	90	2.305		
	Total	208.652	91			
Donate to victims	Between Groups	1.308	1	1.308	1.903	.171
	Within Groups	61.855	90	.687		
	Total	63.163	91			

ANOVA Test with Citizenship Status Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Sign up for an online petition	Yes	78	1.6154	.97008	.10984	1.3967	1.8341	1.00	5.00
	No	17	1.4706	1.06757	.25892	.9217	2.0195	1.00	5.00
	Total	95	1.5895	.98386	.10094	1.3891	1.7899	1.00	5.00
Send a protest letter	Yes	77	1.1948	.66962	.07631	1.0428	1.3468	1.00	4.00
	No	17	1.1765	.72761	.17647	.8024	1.5506	1.00	4.00
	Total	94	1.1915	.67643	.06977	1.0529	1.3300	1.00	4.00
Boycott retailer or brand	Yes	77	2.7662	1.45906	.16627	2.4351	3.0974	1.00	5.00
	No	17	2.6471	1.76569	.42824	1.7392	3.5549	1.00	5.00
	Total	94	2.7447	1.50937	.15568	2.4355	3.0538	1.00	5.00
Donate to victims	Yes	77	1.3117	.73017	.08321	1.1460	1.4774	1.00	4.00
	No	17	1.5294	1.17886	.28592	.9233	2.1355	1.00	5.00
	Total	94	1.3511	.82576	.08517	1.1819	1.5202	1.00	5.00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Sign up for an online petition	Between Groups	.293	1	.293	.300	.585
	Within Groups	90.697	93	.975		
	Total	90.989	94			
Send a protest letter	Between Groups	.005	1	.005	.010	.920
	Within Groups	42.549	92	.462		
	Total	42.553	93			
Boycott retailer or brand	Between Groups	.198	1	.198	.086	.770
	Within Groups	211.675	92	2.301		
	Total	211.872	93			
Donate to victims	Between Groups	.660	1	.660	.968	.328

Within Groups		62.755	92	.682				
Total		63.415	93					

ANOVA Test with University Affiliation Category

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Sign up for an online petition	1.00	27	2.0000	1.17670	.22646	1.5345	2.4655	1.00	5.00
	2.00	68	1.4265	.85197	.10332	1.2202	1.6327	1.00	5.00
	Total	95	1.5895	.98386	.10094	1.3891	1.7899	1.00	5.00
Send a protest letter	1.00	27	1.3704	.96668	.18604	.9880	1.7528	1.00	4.00
	2.00	67	1.1194	.50819	.06208	.9954	1.2434	1.00	4.00
	Total	94	1.1915	.67643	.06977	1.0529	1.3300	1.00	4.00
Boycott retailer or brand	1.00	27	2.4444	1.47631	.28412	1.8604	3.0285	1.00	5.00
	2.00	67	2.8657	1.51653	.18527	2.4958	3.2356	1.00	5.00
	Total	94	2.7447	1.50937	.15568	2.4355	3.0538	1.00	5.00
Donate to victims	1.00	27	1.5926	1.18514	.22808	1.1238	2.0614	1.00	5.00
	2.00	67	1.2537	.61159	.07472	1.1046	1.4029	1.00	4.00
	Total	94	1.3511	.82576	.08517	1.1819	1.5202	1.00	5.00

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Sign up for an online petition	Between Groups	6.357	1	6.357	6.986	.010
	Within Groups	84.632	93	.910		
	Total	90.989	94			
Send a protest letter	Between Groups	1.212	1	1.212	2.697	.104
	Within Groups	41.341	92	.449		
	Total	42.553	93			
Boycott retailer or brand	Between Groups	3.415	1	3.415	1.507	.223
	Within Groups	208.458	92	2.266		
	Total	211.872	93			
Donate to victims	Between Groups	2.210	1	2.210	3.322	.072
	Within Groups	61.205	92	.665		
	Total	63.415	93			

Matched Pair t-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sign up for an online petition	1.5789	95	.98477	.10103
	Send a protest letter	1.1895	95	.67311	.06906
Pair 2	Sign up for an online petition	1.5789	95	.98477	.10103
	Boycott retailer or brand	2.7579	95	1.50683	.15460
Pair 3	Sign up for an online petition	1.5789	95	.98477	.10103
	Donate to victims	1.3895	95	.90265	.09261

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sign up for an online petition & Send a protest letter	95	.683	.000
Pair 2	Sign up for an online petition & Boycott retailer or brand	95	.296	.004
Pair 3	Sign up for an online petition & Donate to victims	95	.234	.022

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Sign up for an online petition - Send a protest letter	.38947	.71896	.07376	.24301	.53593	5.280	94	.000
Pair 2	Sign up for an online petition - Boycott retailer or brand	-1.17895	1.53664	.15766	-1.49198	-.86592	-7.478	94	.000
Pair 3	Sign up for an online petition - Donate to victims	.18947	1.16960	.12000	-.04879	.42773	1.579	94	.118

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Send a protest letter	1.1895	95	.67311	.06906
	Sign up for an online petition	1.5789	95	.98477	.10103
Pair 2	Send a protest letter	1.1895	95	.67311	.06906
	Boycott retailer or brand	2.7579	95	1.50683	.15460
Pair 3	Send a protest letter	1.1895	95	.67311	.06906
	Donate to victims	1.3895	95	.90265	.09261

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Send a protest letter & Sign up for an online petition	95	.683	.000
Pair 2	Send a protest letter & Boycott retailer or brand	95	.224	.029
Pair 3	Send a protest letter & Donate to victims	95	.175	.090

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Send a protest letter - Sign up for an online petition	-.38947	.71896	.07376	-.53593	-.24301	-5.280	94	.000
Pair 2	Send a protest letter - Boycott retailer or brand	-1.56842	1.50639	.15455	-1.87529	-1.26155	-10.148	94	.000
Pair 3	Send a protest letter - Donate to victims	-.20000	1.02729	.10540	-.40927	.00927	-1.898	94	.061

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Boycott retailer or brand	2.7579	95	1.50683	.15460
	Sign up for an online petition	1.5789	95	.98477	.10103
Pair 2	Boycott retailer or brand	2.7579	95	1.50683	.15460
	Send a protest letter	1.1895	95	.67311	.06906
Pair 3	Boycott retailer or brand	2.7579	95	1.50683	.15460
	Donate to victims	1.3895	95	.90265	.09261

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Boycott retailer or brand & Sign up for an online petition	95	.296	.004
Pair 2	Boycott retailer or brand & Send a protest letter	95	.224	.029
Pair 3	Boycott retailer or brand & Donate to victims	95	.156	.131

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Boycott retailer or brand - Sign up for an online petition	1.17895	1.53664	.15766	.86592	1.49198	7.478	94	.000
Pair 2	Boycott retailer or brand - Send a protest letter	1.56842	1.50639	.15455	1.26155	1.87529	10.148	94	.000
Pair 3	Boycott retailer or brand - Donate to victims	1.36842	1.63116	.16735	1.03614	1.70071	8.177	94	.000

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Donate to victims	1.3895	95	.90265	.09261
	Sign up for an online petition	1.5789	95	.98477	.10103
Pair 2	Donate to victims	1.3895	95	.90265	.09261
	Send a protest letter	1.1895	95	.67311	.06906
Pair 3	Donate to victims	1.3895	95	.90265	.09261
	Boycott retailer or brand	2.7579	95	1.50683	.15460

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Donate to victims & Sign up for an online petition	95	.234	.022
Pair 2	Donate to victims & Send a protest letter	95	.175	.090
Pair 3	Donate to victims & Boycott retailer or brand	95	.156	.131

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Donate to victims - Sign up for an online petition	-.18947	1.16960	.12000	-.42773	.04879	-1.579	94	.118
Pair 2	Donate to victims - Send a protest letter	.20000	1.02729	.10540	-.00927	.40927	1.898	94	.061
Pair 3	Donate to victims - Boycott retailer or brand	-1.36842	1.63116	.16735	-1.70071	-1.03614	-8.177	94	.000

Pearson's Correlation

		Correlations			
		Sign up for an online petition	Send a protest letter	Boycott retailer or brand	Donate to victims
Sign up for an online petition	Pearson Correlation	1	.683**	.296**	.234*
	Sig. (2-tailed)		.000	.004	.022
	N	96	95	95	95
Send a protest letter	Pearson Correlation	.683**	1	.224*	.175
	Sig. (2-tailed)	.000		.029	.090
	N	95	95	95	95
Boycott retailer or brand	Pearson Correlation	.296**	.224*	1	.156
	Sig. (2-tailed)	.004	.029		.131
	N	95	95	95	95
Donate to victims	Pearson Correlation	.234*	.175	.156	1
	Sig. (2-tailed)	.022	.090	.131	
	N	95	95	95	95

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Appendix H: Survey Reliability Analysis

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excludedª	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.834	.824	41

Item Statistics

	Mean	Std. Deviation	N
q1r1	2.54	1.148	106
q1r2	2.10	1.041	106
q1r3	1.73	.941	106
q1r4	2.32	1.126	106
q1r5	3.58	1.013	106
q2	1.31	.541	106
q3	3.49	1.340	106
q4	3.38	.930	106
q5	3.02	.828	106
q6	3.14	1.018	106
q7	4.00	1.113	106
q8	3.83	1.191	106
q9r1	.61	.489	106
q9r2	.84	.369	106
q9r3	.91	.294	106
q9r4	.79	.407	106
q9r5	.65	.479	106
q10r1	.44	.499	106
q10r2	.64	.482	106
q10r3	.70	.461	106
q10r4	.47	.502	106
q10r5	.48	.502	106
q11	6.19	2.057	106
q12	3.76	1.458	106
q13	4.02	1.512	106
q14	1.61	.868	106

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q15	1.64	.907	106
q16	3.89	1.463	106
q17	1.46	.917	106
q18r1	1.43	1.042	106
q18r2	1.07	.734	106
q18r3	2.47	1.657	106
q18r4	1.25	.954	106
q19	1.21	.870	106
q20	1.43	1.042	106
q21	1.06	.494	106
q22	2.31	1.796	106
q23	1.06	.513	106
q24	1.54	.706	106
q25	1.55	.678	106
q26	1.54	.679	106

	q1r1	q1r2	q1r3	q1r4	q1r5	q2	q3	q4	q5	q6	q7	q8	q9r1	q9r2	q9r3	q9r4	q9r5	q10r1	q10r2	q10r3	q10r4	q10r5	q11	q12	q13	q14	q15	q16	q17	q18r1	q18r2	q18r3	q18r4	q19	q20	q21	q22	q23	q24	q25	q26
q1r1	1	0.598	0.278	0.418	-0.412	-0.257	-0.043	0.067	0.019	-0.017	-0.142	-0.149	-0.118	0.138	0.124	0.078	-0.071	-0.121	0.128	0.148	0.085	0.043	0.049	0.008	-0.017	0.115	0.031	0.071	0.069	-0.03	0.048	-0.055	0.026	0.183	0.098	0.097	0.034	0.045	0.063	-0.002	0.053
q1r2	0.598	1	0.224	0.296	-0.401	-0.142	0.052	0.097	-0.124	0.049	-0.058	-0.093	-0.107	0.069	0.063	0.141	0.131	-0.034	0.037	0.066	0.051	0.013	-0.103	-0.103	-0.14	-0.051	-0.091	-0.011	0.079	-0.103	-0.034	-0.018	-0.064	0.071	0.002	-0.104	0.013	0.06	-0.232	0	-0.026
q1r3	0.278	0.224	1	0.542	-0.43	-0.056	-0.081	-0.066	-0.274	-0.158	0	0.12	-0.191	0.119	0.044	0.024	-0.066	-0.124	-0.113	0.005	-0.107	0.12	-0.037	-0.117	-0.11	-0.037	-0.004	0.053	-0.139	0.045	-0.015	-0.142	-0.062	-0.035	-0.004	-0.192	0.023	-0.086	0.023	-0.106	-0.081
q1r4	0.418	0.296	0.542	1	-0.534	-0.103	-0.225	-0.098	-0.129	-0.098	-0.03	-0.016	-0.101	0.056	0.035	0.001	-0.073	-0.205	-0.032	0.097	0.016	0.045	-0.047	-0.232	-0.171	-0.028	-0.073	-0.053	-0.025	0.059	0.043	-0.209	-0.109	-0.001	-0.014	-0.05	0.03	-0.197	-0.075	-0.257	-0.253
q1r5	-0.412	-0.401	-0.43	-0.534	1	0.116	0.13	-0.095	0.032	0.085	0.169	0.13	0.019	-0.078	-0.133	-0.003	0.111	0.104	-0.035	-0.148	-0.061	-0.053	-0.008	0.178	0.111	-0.054	-0.081	-0.026	0.096	0.001	-0.014	0.072	0.077	-0.161	-0.062	-0.01	-0.023	-0.028	-0.018	0.057	0.051
q2	-0.257	-0.142	-0.056	-0.103	0.116	1	0.129	-0.065	-0.013	0.023	0.032	0.009	0.027	0.062	0.067	0.123	0.056	0.119	-0.116	0.075	-0.125	0.004	0.015	0.022	-0.007	-0.066	-0.062	-0.027	0.129	0.028	0.02	-0.038	-0.076	-0.078	-0.005	-0.067	-0.042	0.005	0.106	-0.001	0.033
q3	-0.043	0.052	-0.081	-0.225	0.13	0.129	1	0.591	0.189	0.347	0.319	0.166	0.089	0.122	0.119	0.084	-0.013	0.113	0.127	0.072	0.035	0.028	0.063	0.196	0.151	0.042	-0.097	0.082	0.224	0.146	0.151	0.337	-0.035	-0.031	0.017	-0.129	0.205	0.181	0.021	0.268	0.147
q4	0.067	0.097	-0.066	-0.098	-0.095	-0.065	0.591	1	0.584	0.506	0.018	-0.01	0.135	0.095	0.062	0.158	-0.001	0.128	0.135	0.113	0.044	0.056	0.052	0.045	0.076	0.265	0.139	0.074	0.14	-0.004	0.047	0.137	0.013	0.032	0.055	-0.047	0.14	0.174	0.051	0.153	0.022
q5	0.019	-0.124	-0.274	-0.129	0.032	-0.013	0.189	0.584	1	0.607	-0.155	-0.151	0.23	0.104	0.007	0.096	0.137	0.095	0.065	0.14	0.047	0.001	0.009	-0.13	-0.054	0.249	0.263	-0.038	-0.012	-0.164	-0.033	-0.09	0.018	-0.005	-0.065	0.044	-0.049	0.042	-0.083	0.015	-0.069
q6	-0.017	0.049	-0.158	-0.098	0.085	0.023	0.347	0.506	0.607	1	0.05	0.051	0.054	0.038	-0.05	0.117	0.005	0.063	-0.012	0.051	-0.001	0.07	-0.131	-0.099	-0.101	0.095	0.086	-0.2	-0.061	-0.112	-0.089	-0.068	-0.085	0.01	-0.229	-0.167	0.127	0.021	-0.2	-0.03	-0.139
q7	-0.142	-0.058	0	-0.03	0.169	0.032	0.319	0.018	-0.155	0.05	1	0.819	-0.052	-0.023	0.029	0	0	-0.223	-0.107	-0.093	-0.222	-0.085	0.183	0.487	0.408	0.01	-0.009	0.211	0.299	0.263	0.268	0.315	-0.081	0.059	0.057	-0.087	0.386	0.25	0.182	0.341	0.277
q8	-0.149	-0.093	0.12	-0.016	0.13	0.009	0.166	-0.01	-0.151	0.051	0.819	1	-0.065	0.002	0.063	-0.014	-0.005	-0.193	-0.107	-0.112	-0.168	-0.053	0.138	0.427	0.33	-0.009	0.005	0.153	0.151	0.206	0.231	0.089	-0.038	0.007	0.052	-0.161	0.354	0.25	0.11	0.199	0.161
q9r1	-0.118	-0.107	-0.191	-0.101	0.019	0.027	0.089	0.135	0.23	0.054	-0.052	-0.065	1	0.445	0.406	0.453	0.394	0.436	0.335	0.279	0.246	0.222	-0.012	-0.036	0.1	0.048	0.028	0.058	0.063	0.033	-0.008	0.098	0.083	-0.19	0.164	-0.027	-0.165	0.126	-0.026	-0.016	-0.027
q9r2	0.138	0.069	0.119	0.056	-0.078	0.062	0.122	0.095	0.104	0.036	-0.023	0.002	0.445	1	0.738	0.664	0.489	0.235	0.37	0.441	0.413	0.318	-0.06	-0.036	-0.029	-0.017	-0.031	-0.069	-0.088	-0.115	-0.101	-0.046	0.005	-0.073	0.084	-0.159	0.004	0.099	0.005	-0.141	-0.071
q9r3	0.124	0.063	0.044	0.035	-0.133	0.067	0.119	0.062	0.007	-0.05	0.029	0.063	0.406	0.738	1	0.551	0.305	0.288	0.364	0.491	0.305	0.182	-0.096	-0.052	-0.06	-0.107	-0.128	-0.069	-0.155	-0.176	-0.103	-0.103	-0.053	-0.034	0.042	-0.225	0.002	0.036	0.017	-0.121	-0.03
q9r4	0.078	0.141	0.024	0.001	-0.003	0.123	0.084	0.158	0.096	0.117	0	-0.014	0.453	0.664	0.551	1	0.601	0.363	0.345	0.373	0.437	0.446	-0.021	-0.083	-0.04	-0.121	-0.074	-0.072	0.03	-0.01	0.014	0.09	0.034	-0.065	0.102	-0.178	-0.197	0.011	-0.072	-0.137	-0.075
q9r5	-0.071	0.131	-0.066	-0.073	0.111	0.056	-0.013	-0.001	0.137	0.005	0	-0.005	0.394	0.489	0.305	0.601	1	0.255	0.402	0.294	0.414	0.388	-0.136	-0.119	-0.017	-0.213	-0.181	-0.125	0.002	-0.094	0.039	0.005	0.043	-0.122	0.001	-0.197	-0.182	0.004	-0.256	-0.11	-0.091
q10r1	-0.121	-0.034	-0.124	-0.205	0.104	0.119	0.113	0.128	0.095	0.063	-0.223	-0.193	0.436	0.235	0.288	0.363	0.255	1	0.311	0.38	0.374	0.433	-0.073	-0.064	0.065	0.092	0.06	0.017	-0.036	0.048	0.075	0.067	0.149	-0.148	-0.062	-0.025	-0.145	0.161	-0.007	-0.02	-0.008
q10r2	0.128	0.037	-0.113	-0.032	-0.035	-0.116	0.127	0.135	0.065	-0.012	-0.107	-0.107	0.335	0.37	0.364	0.345	0.402	0.311	1	0.537	0.588	0.444	-0.085	-0.027	0.062	0.03	-0.079	0.05	0.012	0.047	0.148	0.047	0.069	-0.048	0.123	-0.034	0.031	0.083	-0.072	-0.123	-0.046
q10r3	0.148	0.066	0.005	0.097	-0.148	0.075	0.072	0.113	0.14	0.051	-0.093	-0.112	0.279	0.441	0.491	0.373	0.294	0.38	0.537	1	0.498	0.386	-0.231	-0.192	-0.142	-0.009	-0.102	-0.093	-0.162	-0.2	-0.053	-0.086	-0.025	-0.198	-0.062	-0.133	-0.127	-0.008	-0.14	-0.228	-0.237
q10r4	0.085	0.051	-0.107	0.016	-0.061	-0.125	0.035	0.044	0.047	-0.001	-0.222	-0.168	0.246	0.413	0.305	0.437	0.414	0.374	0.588	0.498	1	0.603	-0.198	-0.159	-0.087	-0.102	-0.085	-0.095	-0.147	-0.14	-0.085	-0.075	0.094	-0.117	0.024	-0.032	-0.154	-0.031	-0.078	-0.234	-0.165
q10r5	0.043	0.013	0.12	0.045	-0.053	0.004	0.028	0.056	0.001	0.07	-0.085	-0.053	0.222	0.318	0.182	0.446	0.388	0.433	0.444	0.386	0.603	1	-0.126	-0.169	-0.138	-0.093	-0.036	-0.159	-0.053	-0.002	0.042	-0.069	0.05	-0.231	-0.021	-0.188	-0.21	0.004	-0.092	-0.193	-0.18
q11	0.049	-0.103	-0.037	-0.047	-0.008	0.015	0.063	0.052	0.009	-0.131	0.183	0.138	-0.012	-0.06	-0.096	-0.021	-0.135	-0.073	-0.085	-0.231	-0.198	-0.126	1	0.628	0.63	0.377	0.419	0.643	0.403	0.321	0.377	0.34	0.364	0.388	0.335	0.514	0.283	0.396	0.552	0.581	0.575
q12	0.008	-0.103	-0.117	-0.232	0.178	0.022	0.196	0.045	-0.13	-0.099	0.487	0.427	-0.036	-0.036	-0.052	-0.083	-0.119	-0.064	-0.027	-0.192	-0.159	-0.169	0.628	1	0.875	0.341	0.332	0.698	0.467	0.407	0.46	0.52	0.323	0.309	0.313	0.481	0.498	0.578	0.615	0.7	0.698
q13	-0.017	-0.14	-0.11	-0.171	0.111	-0.007	0.151	0.076	-0.054	-0.101	0.408	0.33	0.1	-0.029	-0.06	-0.04	-0.017	0.065	0.062	-0.142	-0.087	-0.138	0.63	0.875	1	0.419	0.394	0.755	0.461	0.412	0.48	0.525	0.399	0.337	0.394	0.547	0.422	0.6	0.615	0.659	0.649
q14	0.115	-0.061	-0.037	-0.028	-0.054	-0.066	0.042	0.265	0.249	0.095	0.01	-0.009	0.048	-0.017	-0.107	-0.121	-0.213	0.092	0.03	-0.009	-0.102	-0.093	0.377	0.341	0.419	1	0.814	0.513	0.298	0.135	0.22	0.035	0.127	0.36	0.345	0.451	0.261	0.541	0.42	0.412	0.324
q15	0.031	-0.091	-0.004	-0.073	-0.081	-0.062	-0.097	0.139	0.263	0.086	-0.009	0.005	0.028	-0.031	-0.128	-0.074	-0.181	0.06	-0.079	-0.102	-0.085	-0.036	0.419	0.332	0.394	0.814	1	0.522	0.155	0.075	0.136	0.057	0.136	0.3	0.257	0.449	0.204	0.474	0.467	0.384	0.378
q16	0.071	-0.011	0.053	-0.053	-0.026	-0.027	0.082	0.074	-0.038	-0.2	0.211	0.153	0.058	-0.069	-0.069	-0.072	-0.125	0.017	0.05	-0.093	-0.095	-0.159	0.643	0.698	0.755	0.513	0.522	1	0.451	0.307	0.371	0.478	0.375	0.333	0.401	0.562	0.394	0.529	0.576	0.668	0.686
q17	0.069	0.079	-0.139	-0.025	0.096	0.129	0.224	0.14	-0.012	-0.061	0.299	0.151	0.063	-0.088	-0.155	0.03	0.002	-0.036	0.012	-0.162	-0.147	-0.053	0.403	0.467	0.461	0.298	0.155	0.451	1	0.535	0.648	0.438	0.37	0.237	0.097	0.278	0.23	0.369	0.186	0.462	0.331
q18r1	-0.03	-0.103	0.045	0.059	0.001	0.028	0.146	-0.004	-0.164	-0.112	0.263	0.206	0.033	-0.115	-0.176	-0.01	-0.094	0.048	0.047	-0.2	-0.14	-0.002	0.321	0.407	0.412	0.135	0.075	0.307	0.535	1	0.734	0.437	0.371	0.278	0.167	0.248	0.217	0.274	0.159	0.294	0.192
q18r2	0.048	-0.034	-0.015	0.043	-0.014	0.02	0.151	0.047	-0.033	-0.089	0.268	0.231	-0.008	-0.101	-0.103	0.014	0.039	0.075	0.148	-0.053	-0.085	0.042	0.377	0.46	0.48	0.22	0.136	0.371	0.648	0.734	1	0.421	0.357	0.262	0.137	0.357	0.208	0.319	0.17	0.367	0.253
q18r3	-0.055	-0.018	-0.142	-0.209	0.072	-0.038	0.337	0.137	-0.09	-0.068	0.315	0.089	0.098	-0.046	-0.103	0.09	0.005	0.067	0.047	-0.086	-0.075	-0.069	0.34	0.52	0.525	0.035	0.057	0.478	0.438	0.437	0.421	1	0.348	0.222	0.151	0.293	0.197	0.293	0.245	0.387	0.399
q18r4	0.026	-0.064	-0.062	-0.109	0.077	-0.076	-0.035	0.013	0.018	-0.085	-0.081	-0.038	0.083	0.006	-0.053	0.034	0.043	0.149	0.069	-0.025	0.094	0.05	0.364	0.323	0.399	0.127	0.136	0.375	0.37	0.371	0.357	0.348	1	0.294	0.131	0.374	0.049	0.263	0.156	0.144	0.118
q19	0.183	0.071	-0.035	-0.001	-0.161	-0.078	-0.031	0.032	-0.005	0.01	0.059	0.007	-0.19	-0.073	-0.034	-0.065	-0.122	-0.148	-0.048	-0.198	-0.117	-0.231	0.388	0.309	0.337	0.36	0.3	0.333	0.237	0.278	0.262	0.222	0.294	1	0.372	0.371	0.257	0.315	0.297	0.322	0.39
q20	0.098	0.002	-0.004	-0.014	-0.062	-0.005	0.017	0.055	-0.065	-0.229	0.057	0.052	0.164	0.084	0.042	0.102	0.001	-0.062	0.123	-0.062	0.024	-0.021	0.335	0.313	0.394	0.345	0.257	0.401	0.097	0.167	0.137	0.151	0.131	0.372	1	0.396	0.12	0.328	0.327	0.227	0.286
q21	0.097	-0.104	-0.192	-0.05	-0.01	-0.067	-0.129	-0.047	0.044	-0.167	-0.087	-0.161	-0.027	-0.159	-0.225	-0.178	-0.197	-0.025	-0.034	-0.133	-0.032	-0.188	0.514	0.481	0.547	0.451	0.449	0.562	0.278	0.248	0.357	0.293	0.374	0.371	0.396	1	0.066	0.4	0.512	0.333	0.419
q22	0.034	0.013	0.023	0.03	-0.023	-0.042	0.205	0.14	-0.049	0.127	0.386	0.354	-0.165	0.004	0.002	-0.197	-0.182	-0.145	0.031	-0.127	-0.154	-0.21	0.283	0.498	0.422	0.261	0.204	0.394	0.23	0.217	0.208	0.197	0.049	0.257	0.12	0.066	1	0.291	0.227	0.406	0.385
q23	0.045	0.06	-0.086	-0.197	-0.028	0.005	0.181	0.174	0.042	0.021	0.25	0.25	0.126	0.099	0.036	0.011	0.004	0.161	0.083	-0.008	-0.031	0.004	0.396	0.578	0.6	0.541	0.474	0.529	0.369	0.274	0.319	0.293	0.263	0.315	0.328	0.4	0.291	1	0.467	0.485	0.404
q24	0.063	-0.232	0.023	-0.075	-0.018	0.106	0.021	0.051	-0.083	-0.2	0.182	0.11	-0.026	0.005	0.017	-0.072	-0.256	-0.007	-0.072	-0.14	-0.078	-0.092	0.552	0.615	0.615	0.42	0.467	0.576	0.186	0.159	0.17	0.245	0.156	0.297	0.327	0.512	0.227	0.467	1	0.474	0.623
q25	-0.002	0	-0.106	-0.257	0.057	-0.001	0.268	0.153	0.015	-0.03	0.341	0.199	-0.016	-0.141	-0.121	-0.137	-0.11	-0.02	-0.123	-0.228	-0.234	-0.193	0.581	0.7	0.659	0.412	0.384	0.668	0.462	0.294	0.367	0.387	0.144	0.322	0.227	0.333	0.406	0.485	0.474	1	0.886
q26	0.053	-0.028	-0.081	-0.253	0.051	0.033	0.147	0.022	-0.069	-0.139	0.277	0.161	-0.027	-0.071	-0.03	-0.075	-0.091	-0.008	-0.046	-0.237	-0.165	-0.18	0.575	0.698	0.649	0.324	0.378	0.686	0.331	0.192	0.253	0.399	0.118	0.39	0.286	0.419	0.385	0.404	0.623	0.886	1

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
q1r1	78.92	212.489	.098	.	.837
q1r2	79.36	216.270	-.009	.	.839
q1r3	79.74	217.853	-.060	.	.839
q1r4	79.14	219.799	-.120	.	.843
q1r5	77.88	218.204	-.072	.	.840
q2	80.15	217.177	-.025	.	.836
q3	77.97	203.990	.295	.	.831
q4	78.08	209.145	.262	.	.832
q5	78.44	215.392	.041	.	.836
q6	78.32	215.782	.008	.	.838
q7	77.46	203.527	.388	.	.828
q8	77.63	206.101	.279	.	.831
q9r1	80.85	215.348	.103	.	.834
q9r2	80.62	215.704	.114	.	.834
q9r3	80.56	216.611	.043	.	.835
q9r4	80.67	215.461	.121	.	.834
q9r5	80.81	216.993	-.011	.	.836
q10r1	81.02	215.923	.061	.	.835
q10r2	80.82	214.987	.131	.	.834
q10r3	80.76	217.515	-.048	.	.836
q10r4	80.99	217.628	-.055	.	.836
q10r5	80.98	217.238	-.028	.	.836
q11	75.27	179.953	.596	.	.819

q12	77.70	184.537	.768	.	.813
q13	77.44	182.402	.793	.	.811
q14	79.85	204.339	.483	.	.826
q15	79.82	205.482	.414	.	.828
q16	77.58	185.732	.732	.	.814
q17	80.00	201.714	.557	.	.824
q18r1	80.03	202.752	.446	.	.827
q18r2	80.40	205.061	.546	.	.826
q18r3	78.99	192.086	.484	.	.824
q18r4	80.22	206.495	.352	.	.829
q19	80.25	206.573	.390	.	.829
q20	80.03	205.171	.362	.	.829
q21	80.41	210.567	.436	.	.830
q22	79.15	192.339	.432	.	.827
q23	80.41	207.424	.635	.	.827
q24	79.92	206.051	.519	.	.827
q25	79.92	203.812	.661	.	.824
q26	79.92	204.547	.621	.	.825

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
81.46	217.070	14.733	41