UNIVERSITY STUDENTS' ATTITUDE TOWARDS CLOTHES IN TERMS OF ENVIRONMENTAL SUSTAINABILITY AND SLOW FASHION

ÜNİVERSİTE ÖĞRENCİLERİNİN GİYSİLERE DAİR TUTUMLARININ ÇEVRESEL SÜRDÜRÜLEBİLİRLİK VE YAVAŞ MODA AÇISINDAN DEĞERLENDİRİLMESİ

Derya TAMA[1], Berna CÜREKLIBATIR ENCAN[2], Ziynet ÖNDOĞAN[1]

Ege University, Department of Textile Engineering, Izmir, Turkey
[2]Ege University, Emel Akın Vocational Training School, Izmir, Turkey

ABSTRACT

Recently, environmental sustainability became a crucial matter in order to maintain life and natural resources. Slow fashion, which is the antithesis of fast fashion, is a sustainable fashion movement in which slowing down the consumption is aimed. In this context, education is an essential tool for achieving sustainability. This study aimed to analyze university students' knowledge and attitude towards clothes in terms of environmental sustainability and slow fashion. In accordance with the aim of the research, a questionnaire form consisting of 17 questions was prepared. The research was conducted in Ege University, with the students of various academic programmes (associate, bachelor, master, PhD.). According to the results of our research, approximately 80% of the university students didn't have enough knowledge and awareness about slow fashion. Also, approximately half of them are not informed about environmental sustainability. It was also obtained that, attended academic programme has an effect on the environmental awareness of the university students.

Keywords: Environmental sustainability, slow fashion, fast fashion, university students, environmental awareness.

ÖZET

Son yıllarda, çevresel sürdürülebilirlik, yaşamın ve doğal kaynakların devam ettirilebilmesi açısından oldukça önemli bir konu haline gelmiştir. Hızlı modanın tam tersi olan yavaş moda, tüketimin yavaşlatılmasını amaçlayan bir sürdürülebilir moda hareketidir. Bu kapsamda, eğitim, sürdürülebilirliğin başarılmasında önemli bir araçtır. Bu çalışmada, üniversite öğrencilerinin giysilere dair tutumlarının ve bilgilerinin çevresel sürdürülebilirlik ve yavaş moda açısından değerlendirilmesi amaçlanmıştır. Bu amaç doğrultusunda, 17 sorudan oluşan bir anket formu hazırlanmıştır. Çalışma Ege Üniversitesinde farklı akademik programlarda öğrenim gören öğrenciler ile gerçekleştirilmiştir. Araştırmamızın sonuçlarına gore, üniversite öğrencilerinin yaklaşık %80'inin yavaş moda hakkında yeterli bilgi ve farkındalığa sahip olmadığı belirlenmiştir. Aynı zamanda, üniversite öğrencilerinin yarısının çevresel sürdürülebilirlik hakkında hiç bir bilgisi yoktur. Çalışmada ayrıca, akademik programın üniversite öğrencilerinin çevresel farkındalıkları üzerinde etkili olduğu belirlenmiştir.

Anahtar Kelimeler: Çevresel sürdürülebilirlik, yavaş moda, hızlı moda, üniversite öğrencileri, çevresel farkındalık.

Corresponding Author: Derya Tama, e-mail: derya.tama@ege.edu.tr

1. INTRODUCTION

Fashion, stated by Frisby and Simmel as a social form that combines the attraction of differentiation and change, with the similarity and harmony (1), has become the focus of many individuals' lives as clothes become easily accessible and affordable due to fast fashion concept. Fast fashion is a contemporary term used by fashion retailers to acknowledge that designs move from catwalk to store in the fastest time to capture current trends in the market. The apparel products are designed and manufactured quickly and cheaply to allow the mainstream consumer to take advantage of current clothing styles at a lower price (2). Within fast fashion concept, the products have limited time in the market place from their introduction stage to decline (3). With small batches and limited merchandise stock an artificial scarcity, which provides creating brand loyalty,

decreasing discount rates and accelerating inclination of purchase, is established (1). The aspect of "here today, gone tomorrow" encourages consumers to visit fast fashion stores more frequently (4).

Fast fashion concept provides latest fashion products to the market in affordable prices as soon as possible according to changing fashion industry and customer demands (5); on the other hand, it is blamed for being an unsustainable track. There has been growing concern about the environmental impacts of textiles. According to the Environmental Impact of Products (EIPRO) study, clothing alone is responsible for 2 to 10 % of the EU's life-cycle environmental impacts. These results in textiles coming fourth in the ranking of product category which cause the greatest environmental impact, just after food & drinks, transport and housing (6). Short-term use, frequent clothing replacement and increasing textilewaste cause an environmental burden. Consumers possess increasing amounts of short lifetime garments, which have been bought without deep consideration and used only a few times before being disposed of (7).

As clothes become cheaper due to fast fashion concept, they are also consumed faster. When something new wears out in such a short time, enviromental, social and economical problems arise. In order to deal with these problems effectively, fashion trends should slow down and sustainability should be maintained in textile and fashion industries (8). However, fast fashion and sustainability are contradicting concepts. Therefore, a change is needed in terms of consumption habits. Slow fashion movement has arisen as an antithesis to fast fashion.

A slow design approach aims to prolong a product's lifetime and to deepen product satisfaction. Slow fashion is designed to be used over a long time period, and it is made with high quality and high ethical values; it is durable and made of sustainable materials. The design lasts over time as styles and colors are classical, and the materials age well (7). 'Slow' is not only about the temporality of fashion, it also embraces other important aspects (9). Slow fashion also involves using recyclable materials, encouraging sustainable agriculture and providing humane working conditions for the labor force. Individuals may also contribute to slow fashion by using clothes neatly, repairing and re-adjusting them to body (8). In slow fashion concept, clothes should be manufactured with local resources. This movement aims to lead consumers to think about the origin and material of their clothes (10).

Evidence shows that consumers, being at the end of the marketing channel, have shown hesitation and resistance to actually walk the talk for the sustainability movement (11). In Europe, statistics show that even though 50% of European consumers claim that they are willing to pay a higher price for sustainable products, the final market share is less than 1% (11, 12). A study conducted by Crewe and Davenport (1992) stated that young people of the population that constitute Generation Y would prefer a higher number of low-quality, cheap and fashionable clothes as compared to baby boomers, who would prefer to purchase fewer number of higher quality clothes (4). Joy et al. (2012) stated that, for

the young people at the age of between 20 and 25, sustainable fashion is not a priority (13). However, Niinimaki and Hassi (2011) showed that younger people are more worried about the environmental and ethical aspects in textiles and clothing. In addition, women worry about these aspects more than men. In the light of mentioned information, this study aims to investigate university students' (both male and female) knowledge and attitude towards clothes in terms of environmental sustainability and slow fashion.

2. MATERIALS AND METHOD

This research was conducted in Ege University, Izmir with the approval of Ege University Scientific Research and Publication Ethics Comission (EGE-BAYEK.15-2015). 552 students of various academic programmes (associate, bachelor, master, PhD.) were interviewed face to face on university campus.

The survey used in the study consisted of 17 questions and 2 parts. First part included 8 questions of demographics and the second part included 9 questions about students' awareness about sustainability and their buying and using behavior of clothing. The collected data were evaluated with PASW Statistics 18 program.

3. GENERAL FINDINGS

When the demographic properties of the participants were evaluated, it was obtained that, 66% of the participants were women and the remaining 34% was men. Approximately 40% of the participants aged between 18-20, 40% was between 21-23, 10% was between 24-26, 4% aged between 27-29 and 6% was 30 and over. Approximately 30% of the participants attended associate degree and 58% attended undergraduate programmes, whereas 4% were studying for master and 8% were studying for doctorate degrees. 49% of the participating university students were attending programmes related to textile or fashion and 51% were studying at other departments. 28% of participants were in their fist year in higher education, 35% were in the second, 19% were in the third, 11% were in the fourth, 6% were in the fifth and 1% were in the sixth and over years in higher education.

51% of participants were living in metropolises before university while 20% in cities, 25% in districts, 1% in towns, 2% in villages and less than 1% lived abroad. About 52% of the participants indicated their monthly average clothing expense were up to €30, 28% spent for clothing between €31-60, 11% between €61-90, 6% between €91-120, 1% between €121-150 and 2% spent for clothing 151€ and over monthly. All the participants were university students and most of them lived with family support and scholarships during their educations. With regard to this, they had low monthly average clothing expense.

The participants were asked to state if they have knowledge about environmental sustainability. 16% of participants were informed while 42% of participants did not have any knowledge about environmental sustainability. 42% of participants heard something about environmental sustainability but they did not know in detail.

The participants were also asked to state if they are familiar with fast and slow fashion concepts. 33% had knowledge about fast fashion while 24% had knowledge about slow fashion. 31% of participants heard something about fast fashion and %19 of participants heard about slow fashion but they did not know in detail. For fast fashion 36% of participants and for slow fashion 47% did not have any information.

The survey contained 6 factors which were considered as the influencing factors for long-term use of a textile/apparel product. The participants were required to choose their first 3 significant factors. "1" represents "the most significant". The findings were given in Table 1.

Table 1. Factors affecting the long-term use of a textile/apparel product

	N	Mean	Std. Deviation
Style	308,00	1,84	0,88
Durability	338,00	1,88	0,76
The fabric properties	256,00	1,95	0,80
Comfort	380,00	2,00	0,81
The accessory/ print/ embroidery properties	68,00	2,41	0,70
Color	153,00	2,45	0,67

Approximately 27% of participants considered the style of the garment as the most significant factor which affects the long-term use of a textile/apparel product (Mean=1,84). Style was followed by durability (Mean=1,88), fabric properties (Mean=1,95), comfort (Mean=2,00), accessory/ print/embroidery properties (Mean=2,41) and color (Mean=2,45) respectively.

The survey offered 7 statements about the factors which affect the purchasing behaviours of participants. In quinary likert scale, "I absolutely don't agree" was coded as 1 and "I absolutely agree" was coded as 5. The findings were given in Table 2.

Approximately 80% of the participants accepted that if the prices are the same, they would rather purchase environment friendly clothes (Mean=4,01). About 48% of the participants indicated that they accept paying more to environment friendly clothes while 30% of the participants had no idea about it (Mean=3,26). Although 42% of the participants accepted that they are attentive to shop from environmentally conscious brands, 36% of the participants had no idea and 22% of the participants disagreed (Mean=3,20). Nearly 75% of the participating students agreed that they prefer to purchase long-term use clothes instead of the clothes which become quickly unfashionable (Mean=3,83). Approximately 55% of the participants indicated that they don't rent clothes for special days and 18% of the participants had no idea (Mean=2,55). 58% of the participants accepted that they may reuse clothes after reparation, while 15% had no idea and 27% of the participants disagreed (Mean=3,34). About 70% of the students indicated that they do not purchase second hand clothes and 19% had no idea about this statement (Mean=2,07).

In the survey, 5 different statements regarding environment and fashion production were given to the participating students and they were asked to mark the significance of these statements (Table 3). In the five-point Likert scale, "very important" was coded as 1 and "does not matter" was coded as 5.

Table 2. Factors affecting the purchasing behaviours of participants

	N	Mean	Std. Deviation
If the prices are the same, I would rather purchase environment friendly clothes	552	4,01	1,123
I prefer to purchase long-term use clothes instead of clothes which become quickly unfashionable	552	3,83	1,130
I may reuse clothes after reparation	552	3,34	1,186
I accept paying more to environment friendly clothes	552	3,26	1,024
I am attentive to shop from environmentally conscious brands	552	3,20	0,975
I may rent clothes for special occasions (evening dress, tuxedo, etc.)	552	2,55	1,232
I may purchase second hand clothes	552	2,07	1,068

Table 3. Statements about environment and fashion production

	N	Mean	Std. Deviation
Textile/apparel products having environment friendly manufacturing prosesses	550	2,37	1,023
Recyclable fabric/product	548	2,48	1,067
Having fashionable clothes	547	2,49	1,171
Purchasing at least one fashionable garment every season	544	2,78	1,326
Place of origin of the textile/apparel products I buy	548	3,27	1,239

Nearly 46% of the participating university students considered the environment-friendly manufacturing processes of the textile or apparel product as important, while 18% of the participants considered as very important, 23% of the participants considered as moderately important and 5% of the participants considered as not important (Mean=2,37). Approximately 40% of the participants indicated that it is very important for them that the fabric or the product is recyclable (Mean=2,48). For 21% of the students, it was very important to wear fashionable clothes, for 37% of the participants it was important, for 23% moderately important, for %11 somewhat important and for 8% it didn't matter (Mean=2,49). About 19% of the participants indicated that, it was very important to purchase at least one fashionable garment every season, while 28% indicated as important and 22% as moderately important (Mean=2,78). Nearly 21% of the participants stated that, it doesn't matter where the textile or apparel products were manufactured (Mean =3, 27).

The survey offered 10 different garments and the participating were asked to mark the usage time of these clothes. In the scale "1-2 seasons" was coded as 1, "1-2" years as 2, "3-4" years as 3 and "5 years and over" was coded as 4. The findings were given in Table 4.

Table 4. The usage time of various garments

	N	Mean	Std. Deviation
Underwear	542	1,42	0,655
T-Shirt	543	1,78	0,813
Swimsuit	498	1,84	0,899
Pullover/sweatshirt	545	2,13	0,816
Shirt	547	2,16	0,793
Skirt/dress	433	2,21	0,815
Sweatsuit	545	2,22	0,903
Trousers	533	2,22	0,928
Jean	546	2,26	0,845
Outerwear	546	2,71	0,871

When the usage time of garments were analyzed, it was observed that approximately 60% of the students prefer to use outerwear more than 3 years (Mean=2,71). 47% of the participants prefer using jeans (Mean=2,26), trousers (Mean=2,22) and sweatsuits (Mean=2,22) for 1-2 years. 66% of the participants indicated that the usage time of underwear is only 1-2 seasons (Mean=1,42). Likewise, 83%

indicated that the usage time of t-shirts (Mean=1,78) and 80% indicated that the usage time of swimsuits (Mean=1,84) are maximum 2 years.

The survey included 5 statements about when the purchasing decision of a new garment is made. The participants were required to choose their first 3 significant factors. "1" represents "the most significant". The findings were given in Table 5.

Table 5. Statements about making decision to purchase a new garment

	N	Mean	Std. Deviation
When my clothes wear out	376	1,61	0,785
When I encounter a piece I like	416	2,09	0,788
When I am bored with my current clothes	414	2,11	0,735
When the new clothes are put on the market	242	2,12	0,882
Others	21	2,67	0,577

The most significant factor which affects nearly 40% of participating students to make decision to purchase a new garment was "when my clothes wear out" (Mean=1,61). Some of the participants indicated that, when they encounter a piece they like, they decide to purchase (Mean=2,09). Boredom of current clothes was also an important factor (Mean=2,11). The participants also indicated that, they make decision to purchase a new garment when they think their current clothes are lacking, when their size has changed and when there is seasonal discount.

The survey also contained 7 statements about how the participants turn old clothes to good account. The participants were required to choose their first 3 significant factors. "1" represents "the most significant". The findings were given in Table 6.

Approximately 32% of participants indicated that they continue using their old clothes, which was the most significant factor (Mean=1,61). The participating students also considered giving their old clothes to someone they know as the second significant factor (Mean=1,84). It was also indicated that, they would turn their old clothes to good account by using them during cleaning or turning them into toys.

Table 6. Statements about how the participants turn old clothes to good account

	N	Mean	Std. Deviation
I continue wearing them	296	1,61	0,791
I give them to someone I know	428	1,84	0,769
I keep them in my wardrobe but don't use	308	2,01	0,799
I donate them to aid agencies	184	2,21	0,719
Others	21	2,33	0,856
I can reuse them after renovation	145	2,41	0,723
I throw them away	85	2,65	0,667

4. MULTIPLE COMPARISON TESTS

Test of normality was evaluated by Shapiro-Wilk and it was shown that, the obtained data was non-parametric. Afterwards, effects of gender and attended academic programme on purchase behavior were analysed furtherly. It was determined that, there was a statistically significant difference between participating women and men with respect to purchasing environment friendly clothes, if the prices are the same with regular ones (Table 7). When compared to men, women gave more importance to purchase environment friendly clothes, if the prices are the same.

A statistically significant difference was found between women and men in terms of purchasing long-term use clothes instead of the clothes which become quickly unfashionable (p=0,007). When compared to men, women preferred purchasing long-term use clothes instead of fast fashion clothes. Similarly, a statistically significant difference was observed based on gender about reusing clothes after reparation (0,000). When compared to men, women would reuse clothes after reparation. There was a statistically significant difference depending on gender in aspect of importance given to fabric/product's recyclability (p=0,022). When compared to women, men gave more importance to the fabric/product's recyclability.

A statistically significant difference was found between women and men with respect to wearing fashionable clothes (p=0,002). When compared to women, men gave more importance to wear fashionable clothes. Likewise, a statistically significant difference was observed between women and men in aspect of importance given to purchasing at least one fashionable garment every season (p=0,003). When compared to women, men gave more importance to purchase at least one fashionable dress every season.

When participants' academic majors were considered, a statistically significant difference was found for purchasing environment friendly clothes, if the prices were the same with regular ones (Table 8). It was seen that students majoring in areas not related to textile or fashion, gave more importance to purchase environment friendly clothes, if the prices were same.

Similarly, a statistically significant difference was found for being attentive to shop from environmentally conscious brands when students' academic majors were considered (p=0,019). It was observed that students majoring in areas not related to textile or fashion were more attentive to shop from environmentally conscious brands. However, a statistically significant difference was observed between participants' academic majors in aspect of environment friendly manufacturing processes of the textile or apparel products they have bought (p=0,004). It was shown that students majoring in textile or fashion gave more importance to purchase garments which were manufactured environment friendly.

There was a statistically significant difference between participants' majors in aspect of importance given to fabric/product's recyclability (Table 9). When compared to other departments, students studying related to textile or fashion gave more importance to fabric/product's recyclability.

There was a statistically significant difference between participants' study departments with respect to wearing fashionable clothes (Table 10). The participating university students who were studying at departments which were related to textile or fashion gave more importance to wear fashionable clothes.

Table 7. Purchasing environment friendly clothes based on gender

	N	Mean Rank	Sum. Of Ranks	Z	MWU	Sig. (2-tailed)
Women	363	286,08	103848,5	-2,330	30098,5	0,20
Men	187	254,95	47676,5			

Table 8. Students' majors in regard to purchasing environment friendly clothes

	N	Mean Rank	Sum. Of Ranks	Z	MWU	Sig. (2-tailed)
Textile or Fashion	265	296,42	78551,00	-3,103	32484,0	0,002
Other Departments	286	257,08	73525,00			

Table 9. Participants' departments with regard to fabric/product's recyclability

	N	Mean Rank	Sum. Of Ranks	Z	MWU	Sig. (2-tailed)
Textile or Fashion	264	253,97	67047,0	-2,998	32067,0	0,003
Other Departments	283	292,69	82831,0			

Table 10. Participants' study departments with respect to wearing fashionable clothes

	N	Mean Rank	Sum. Of Ranks	Z	MWU	Sig. (2-tailed)
Textile or Fashion	263	257,71	67778,0	-2,343	33062,0	0,019
Other Departments	283	288,17	81553,0			

There was a statistically significant difference between students' academic majors regarding purchasing at least one fashionable garment every season (p=0,001). When compared to other departments, students who were majoring in textile or fashion gave more importance to purchase at least one fashionable garment every season. Similarly, a statistically significant difference was found between students' majors regarding purchasing environment friendly clothes, if the prices were same with regular clothes (p=0,004). It was observed that master students gave more importance to purchase environment friendly clothes, if the prices are same. The opinions of the participants within different education levels differed significantly in aspect of paying more to environment friendly clothes (p=0,006). Master students accepted paying more to environment friendly clothes. Moreover, differences between the participants' monthly average clothing expense and the factors which affect purchasing behaviors of participants were evaluated. It was determined that, the opinions of the participants within different monthly average clothing expense differed significantly with respect to renting clothes for special days (p=0,000). The participants which spent up to 30€ in a month, indicated that, they can rent clothes for special days. Likewise, a statistically significant difference was found between participants' monthly average clothing expense with respect to reusing clothes after reparation (p=0,013). The participants which spent up to 30€ in a month, would reuse clothes after reparation.

5. RESULTS AND GENERAL EVALUATION

The results of our research indicated that, approximately half of the students didn't have any knowledge about slow fashion and environmental sustainability. In the light of this, it is clearly understood that the university students don't have enough awareness about environmental sustainability. The general run of university students also accepted that if the prices are same, they would rather purchase environment friendly clothes. They didn't prefer to rent clothes for special occasions and purchase second hand clothes. As might be expected, most of university student used their underwear only 1-2 seasons, their outerwear more than 3 years, their jeans, trousers and sweatsuits 1-2 years.

Approximately half of the university students considered purchasing a new garment when their current clothes became unusable. At the same time, most of university students preferred giving their old clothes to someone they know instead of throwing them away. Nevertheless, male university students gave more importance to wear fashionable clothes and they purchase at least one fashionable piece every season. Therefore, it can be

concluded that, male university students are interested in fast fashion products. When compared to men, women gave more importance to purchase environment friendly clothes, if the prices are same and they preferred purchasing long-term use clothes instead of the clothes which become quickly unfashionable. It was seen that shopping behaviors of female university students fit in with their thoughts about environmental sustainability. According to the results of our research, it can be said that, female university students give more importance to environmental sustainability.

In this research, it was also obtained that the attended academic programme affects the environmental awareness of the university students. Master students gave more importance to purchase environment friendly clothes, if the prices are the same and also accepted to pay more for these garments. It could be argued that, when the educational level rises, people become more conscious about environment and environmental sustainability.

In the globalized world, sustainability becomes an important factor in textile and apparel industry. When manufacturing process of a textile product is analyzed, it is clearly seen that there are various production steps from fiber to the garment. The production volume in the world textile industry in 2014 rose by 3.4% to 96.0 million tones. This includes an increase of 4.9% in the manmade fiber segments and 0.7% growth of natural fibers (14). Additionally, it is widely known that more than half of fiber demand is for synthetic fibers, in which the manufacturing process is totally chemical. During manufacturing process of fibers, yarns, fabrics and garments, there are also some other factors, which are related to sustainable manufacturing together with chemical process, such as labor, energy, water and raw material consumption, the fuel consumption during transportation etc. In order to reduce these factors' consumption, initially it is necessary to decrease the demand or to encourage manufacturers and consumers in using natural resources. At this point, a term "slow fashion" comes up. In the conducted research, we observed that, approximately 80% of the university students didn't have enough knowledge and awareness about slow fashion. Also, approximately half of them didn't have any information about environmental sustainability. In order to reduce the demand for fast fashion products, it is necessary to increase the consciousness about slow fashion and environmental sustainability. At this stage, a compulsory lesson about environmental sustainability should be in the curriculum academic programmes regardless of students' majors. Thus, they may be encouraged to use their current clothes for a longer time and the concept of slow fashion may become widespread.

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