

# Determination of consumer awareness about sustainable fashion

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**Abstract.** The concept of sustainability has begun to gain importance in fashion industry. The companies, which are acting in sustainable fashion, want to gain recognition, inform the consumer about their products and services and generate a demand from the consumers. But the awareness of the consumers about sustainability is still an unknown. In this study, the level of awareness of consumers about sustainable fashion was tried to be determined with a survey established in Turkey in which the socio-demographic characteristics and the awareness level of the participants were questioned. The result of the survey showed that the level of awareness among the participants is not so high and the perception of sustainability is mostly limited to some aspects of sustainable fashion such as “Usage of organic materials” and “Recycling”. Besides, the analysis of the relation between socio-demographic characteristics and awareness level of sustainable fashion showed that the awareness level increased with the education level and income to some extent. But specifically, the males and the participants aged between 24-29 have higher levels of awareness compared with the other participants.

## 1. Introduction

The sense of fashion in apparel consumers caused the increase in consumption and the changes in demand patterns. Today’s consumer is much more following the fashion trends and is showing more willingness to identify themselves with their dressing. In accordance with the change in the demand of consumers, the fast fashion concept became more popular, which responses quickly changing needs and tastes; but some threats have come presence in terms of reduction of world reserves and increase in industrial wastes recently. Therefore, the concept of sustainability has begun to gain importance in fashion industry, which enabled sustainable fashion idea to spread up. Actually, the concept of sustainability was first developed in 1972 at a United Nations conference. Conceptually, it encompassed three issues: (1) the interdependence of human beings and the natural environment; (2) the links between economic development, social development, and environmental protection; and (3) the need for a global vision and common principles [1]. Actually, these concepts were taken for granted by governments, retailers, producers and the environmental regulations and procedures became stricter and more compelling.

Sustainability concept was also adopted in fashion industry. In fashion, it refers to fair production and selling, which does not harm the environment and provide good working conditions, use of environmentally friendly raw materials as well as recycled materials in the products with a longer life time use and eco-labels [2,3]. The companies, which are acting in sustainable fashion, wants to gain



recognition, inform the consumer about their products and services and generate a demand from the consumers. In their marketing programs, they use marketing claims to trigger especially the health concerns of the consumers and the sense of decreasing the harm given to the environment. Nevertheless, it is not clear whether the consumers are really aware of features of sustainable fashion products and what the sustainability term corresponds to. If the level of awareness and knowledge of consumers about sustainable fashion is known, it becomes possible to eliminate the confusion about sustainability, to enlighten the consumer market and to give the correct messages in marketing communications which will lead to convince consumers for purchasing sustainable fashion products.

In this study, it was aimed to determine the level of awareness of consumers about sustainable fashion and understand various benefits, they are seeking for. To this aim, a survey was conducted among Turkish consumers including the following sections: (1) Socio-demographic characteristics of participants, (2) Awareness of sustainable fashion and (3) The relationship between socio demographic characteristics and awareness about sustainable fashion. The 16 questions under 8 criteria regarding the awareness of sustainability was adapted from the study established by Shen et al [1] and the socio demographic characteristics and its relation with the awareness level of sustainable fashion were analysed using statistical analysis and statistical charts.

## 2. Method

The data for this study was obtained from the survey conducted among 336 people living in Turkey. The questionnaire was prepared in two sections. The first section included questions about the socio-demographic properties and the second section was dedicated to include 16 questions under 8 criteria regarding the awareness of sustainability. The 16 questions were taken from the study established by Shen et al[1]. The eight criteria of sustainable fashion were defined to be recycling, usage of organic materials, reusing of products, giving no harm to animal, producing products in good working condition, producing products locally, custom made products with long life time, and fair production and selling [4]. The participants were asked to indicate which of the sixteen statements under eight criteria were the examples of sustainable fashion by answering yes/no questions.

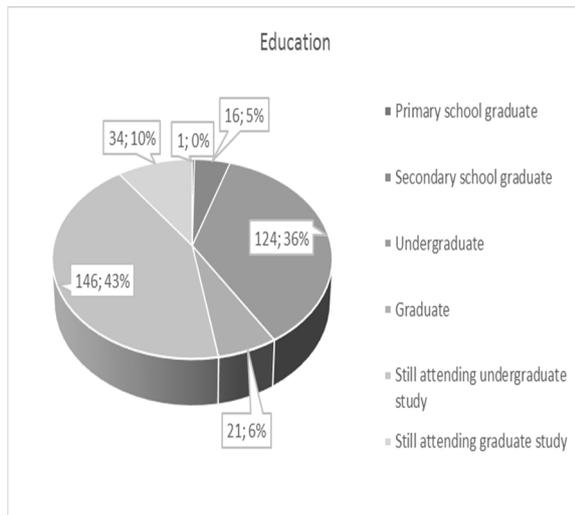
The data obtained from these sections and the relationship between socio demographic characteristics and the awareness level of sustainability were analysed using pie charts and statistical measures such as measures of location such as mean and frequency.

## 3. Results

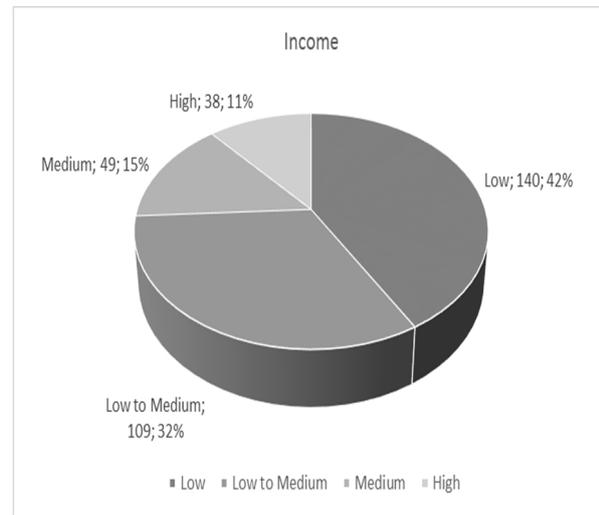
The questionnaire was conducted within a time period of three weeks in November 2016. 336 participants answered, 28% of which are male and 72% are female. The majority of the participants belonged to the age group of 18-23 which was followed with the age groups of 24-29, 30-35 and 36 plus with the percentages of 53.9%, 36%, 6% and 9%. Among the participants 42.7% are still attending universities as undergraduate whereas 36.3% are the under graduates. The rest of the participants are respectively are graduates, high school graduates, still attending their graduate studies, primary school graduates and high school graduates with the percentages of 6.1%, 4.7%, 9.9%, 0.3% and 4.7% as seen in Figure 1. Considering the income level, it can be stated that most of the participants belonged to low income class with 42% which was followed with low to medium, medium and high income classes with the percentages 32%, 15% and 11% respectively as seen in Figure 2.

The level of awareness of the participants were measured using the 16 questions which were suggested by Shen, Richard and Liu. The researchers derived these 16 questions by closely examining the extent sets of sustainability criteria developed in the literature. These questions were classified under eight categories which are (1) Recycle (2) organic (3) Vintage (4) Vegan (5) Artisan (6) Locally made (7) Custom and (8)Fair trade. In this study the same sixteen questions and 8 categories were used but the eight categories were renamed differently for better understanding. The name of the

categories and the related questions with these categories were given in Table 1 in which the original name of the categories were shown in parenthesis within the categories column.



**Figure 1.** The education levels of the participants



**Figure 2.** The income level of the participants.

**Table 1.** The classification categories of the questions

Categories	Question numbers
Recycling (Recycle)	Question 1 and Question 7
Usage of organic materials (Organic)	Question 11 and Question 15
Reusing of products (Vintage)	Question 3 and Question 12
Giving no harm to animal (Vegan)	Question 4 and Question 16
Producing products in good working condition (Artisan)	Question 6 and Question 8
Producing products locally (Locally made)	Question 5 and Question 9
Custom made products with long life time (Custom made)	Question 10 and Question 13
Fair production and selling (Fair trade)	Question 2 and Question 14

The sixteen questions were given in Table 2 with the overall answers from the participants. Since all the statements within the questionnaire are the definition for sustainable production, the column with the Title YES shows the number of participants giving the correct answer to the question; the column with the title NO shows the number of the participants giving the wrong answer to the question; the column with the title NA shows the number of participants that did not give any answer to the question. The last column within Table 2 shows the percentage of the participants that give the correct answer to the questions.

The percentage of correct answers became between 89.3% and 47%. When the answers given by the respondents are analysed, it is seen that the four questions under two categories which were renamed as “Usage of organic material” and “Recycling” had the highest number of positive answer. This meant that the term sustainability is usually associated with the usage of organic materials within the production and having the capability of recycling of the products after their beneficial life. The other two categories that received higher amount of correct answers became “Fair production and selling” and “Reusing of product”. These points put forward that the activities which were established to make the people adopt the issues such as corporate social responsibility and fair trade regarding sustainable fashion reached their objectives. Besides, the re-usage of the garments which is

encouraged with the vintage fashion trend seems to have an indirect influence of the increasing of the awareness of the consumers about the sustainability.

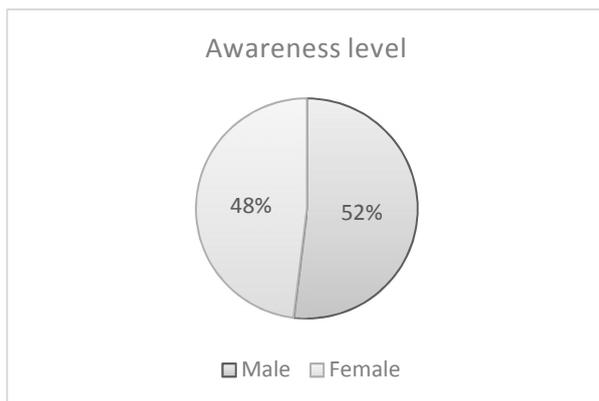
On the other hand, it was seen that, the aspects of sustainability regarding the categories “Giving no harm to animals”, “Producing product in good working conditions”, “Custom made products with long life time” and “Fair production and selling” were not so much understood by the customers. Getting a mixed rank for the questions under these categories, it can be said that these aspects of sustainability is either not explained to the final consumer well enough or they are not thought as these issues having a direct influence on the sustainable fashion.

**Table 2.** The overall answers to the questions

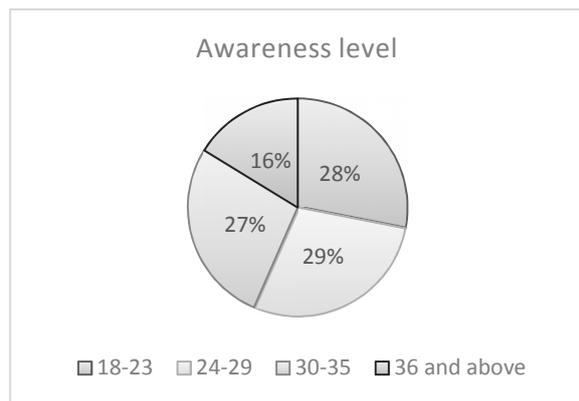
No	QUESTIONS	YES	NO	NA	%
1	A garment is made from recycled materials. Once the useful life of the piece is over, it will biodegrade, instead of adding to a landfill.	277	57	2	82,4
2	A garment is made by a company who follows standards of environmentalism and social policy in areas related to production of goods.	275	60	1	81,8
3	Second-hand clothes that have been given a new life through some sort of customization. So the life of the item is extended so that it stays out of a landfill and new resources are not used to create it..	271	61	4	80,7
4	Products that have been made without the use of leather.	157	175	4	46,7
5	When something is made near you, then fewer resources were used in the transport of the item.	183	152	1	54,5
6	The maker of the garment has comfortable working conditions and enjoys a good quality of life thanks to a higher wage. The product is likely to last season after season, thus reducing your need to buy a new item.	198	135	3	58,9
7	Anything that has been made from already existing materials, fabrics, metals or fibers. These are often reclaimed from previously made clothing and accessories and reworked into new ones.	291	40	5	86,6
8	Products that have been crafted using artisan skills such as embroidery, which preserve the perpetuation of ancestral traditions.	166	168	2	49,4
9	When purchasing the locally made product, it's like investing in your local community.	189	142	5	56,3
10	A custom-made garment you cherish all your life and pass down to loved ones, which means less consumption.	194	138	4	57,7
11	A garment is made from materials grown without the use of pesticides, such as organic cotton.	288	45	3	85,7
12	Second-hand clothes or up-cycled clothes by using existing materials.	267	65	4	79,5
13	A made-to-order garment, which is also called demi-couture. This is a way of encouraging quality and "slow fashion" over mass-produced disposable fashion.	182	150	4	54,2
14	A garment is made by a company who follows standards of international labor, such as reasonable work hours, no child labor, the right to unionize, a fair Uving wage.	222	109	5	66,1
15	Natural fibers that have been grown without any pesticides and other toxic materials, preserving the health of humans and the environment.	300	29	7	89,3
16	Products that have been made without the use of animal tissue products.	217	113	6	64,6

The result obtained from the study was also analysed to see the relationship between the socio demographic characteristics and the awareness level of sustainability. Within these analyses the average number of correct answers to the 16 questions was selected as a comparison parameter and the relationship was visualized with the pie charts showing the percentage level of awareness in Figures 3-6.

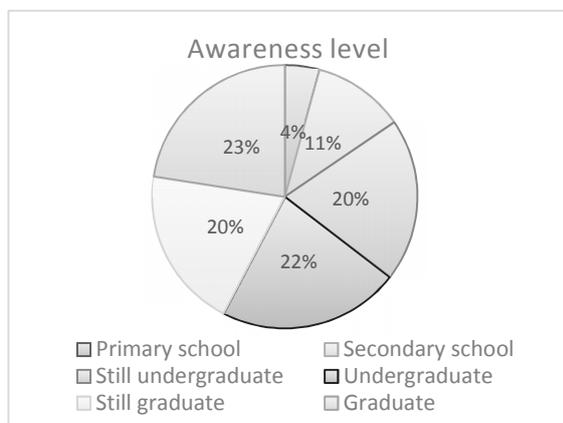
The awareness level of male participants was found to be higher than the awareness of female participants getting average score of correct answers of 5.1 and 4.8 which correspond to 32.1% and 29.8%. When the relationship between the age intervals and awareness level was analysed, it was seen that the awareness level was highest for the participants aged between 24 and 29, with an average score of 5 correct answers. The age intervals following this group became 18-23, 30-35 and 36 and above with the average scores of 4.9, 4.8 and 2.9 respectively. The awareness level for the first three groups are very close to each other whereas the people belonged to the oldest group had the lowest level of awareness. Regarding the education level, it was observed that the awareness level was highest for the graduates, which was followed with participants who are undergraduates, still attending undergraduate, still attending graduate, secondary school graduates and primary school graduates with the average scores of correct answers 5.4, 5.3, 4.8, 4.7, 2.7 and 1 respectively. This finding states that education level positively affect the awareness level of sustainability. Since there is no much difference for the participants, which are graduate and undergraduate, it can be stated that the awareness level is increased more in the university.



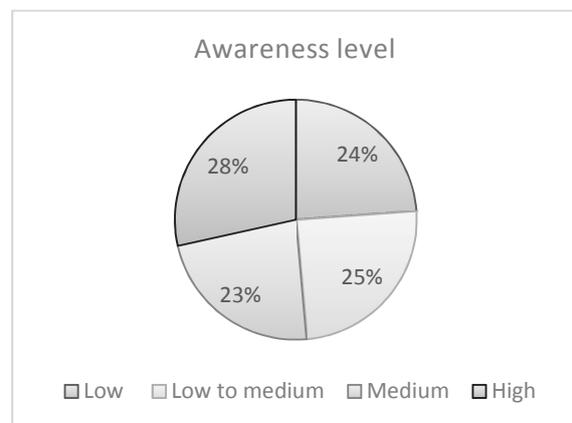
**Figure 3.** The awareness level in different genders



**Figure 4.** The awareness level according to different ages



**Figure 5.** The awareness level according to different education level



**Figure 6.** The awareness level according to different income level

Finally, the relationship between the income levels and level of awareness to sustainability showed that the level of awareness was highest for the participants belonged to high income class getting the highest score of 5.7 which was far better than the rest of the scores. In fact, the income classes, low to medium, medium and low followed the top ranked data with the average scores of correct answers which are 4.9, 4.7 and 4.6 respectively. The reason that the level of awareness is higher for low to medium class may be related with the fact that, most of the participant which are still attending undergraduate studies fell in this class.

#### 4. Conclusion

This study investigated the level of awareness of consumers about sustainable fashion in Turkey.

The results of the study showed that the awareness level is not so high for the participants covering all the aspects of sustainability. Some aspects of sustainability were much more favoured by the participants such as “Usage of organic material”, “Recycling”, “Fair production and selling” and “Reusing of products”. Thus the products made from organic materials seem to be more acceptable as sustainable fashion products. Moreover, the other two aspects related with recycling and re-usage of the products was perceived to be more related to sustainable fashion by the participants.

The analysis of the relation between socio-demographic characteristics and awareness levels of consumers about sustainable fashion revealed that the male participants and the participants with high income level have higher degree of awareness. Nonetheless, the awareness level was not found to be associated with income linearly. Actually both relationship which are between awareness level and age groups and awareness level and education level showed that, the participants aged between 24-29 and the ones which had graduate and undergraduate degree were found to have higher level of awareness.

Based on these results, it can be said that the new generation which are well educated have higher level of awareness about sustainable fashion but some aspects of sustainable fashion is still not well known. Thus, the aspects of sustainable fashion should clearly be explained to these people to increase their level of awareness and to increase the positive approach towards sustainable fashion products.

#### References

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