

## A Study About Female Bag Purchasing Preferences Regarding to Sustainability and Ergonomics

Sertaç GÜNEY\*

<sup>1</sup> Faculty of Architecture and Design, Handicrafts Department, Selçuk University, Konya, Türkiye

\*(sertac.guney@selcuk.edu.tr) Email of the corresponding author

**Abstract** – Sustainability and Ergonomics are the words which we come across most of the time. These two definitions are related to people and intersected in “people-centered” designs. The growing interest on the "people-centered" design can be observed in the various design areas from product design and architectural design. Today's users prefer products that will make their lives easier. In addition, the eco-friendly products have started to rank higher among the reasons for choosing products in developed countries. While product designers using ergonomics and sustainability effectively in their designs, users should also attach importance and interest to these concepts at same rate. Only through mutual interaction can design achieve its true purpose. This interaction is more important in some product designs. One of them is bag design. Bags are a part of daily life and therefore they need to be ergonomic to make our lives easier. Additionally, the materials used in bag production also vary and these materials should be eco-friendly and have a design that will provide a long service life for sustainable expect. In this study, a survey was conducted for female users about purchasing preferences regarding to sustainability and ergonomics. Through the survey, results were obtained about product purchasing preferences regarding to ergonomic product design, functionality, sustainability in bag design. It is thought that this study will give ideas to bag designers and manufacturers in our country.

**Keywords** – Sustainability, Ergonomics, Bag Design, Ergonomic Design, Purchasing Preferences.

### I. INTRODUCTION

Nowadays ergonomic and sustainable in designs are more attractive and creative field at almost all production fields. The growing interest on the "people-centered" design can be observed in the various design areas from product design and architectural design. Ergonomics is an important part of "people-centered" design, and it is defined as that ergonomics deals with the consideration of human attributes, expectations, and behaviors in the design of the things people use in everyday lives and their work [1]. In other hand, sustainability has become an essential part in every design fields. It is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” [2]. So, the global producers are searching creative solutions for issues of

sustainability of the production and consumption processes, protection of the environment and non-renewable resources [3]. In this regard, they continually present new designs in production by combing ergonomics with sustainable matters. Some many new approaches are around the people day by day. But another issue is how much people are aware of this matter. While product designers using ergonomics and sustainability effectively in their designs, users should also attach importance and interest to these concepts at same rate. Only through mutual interaction can design achieve its true purpose. This interaction is more important in some product designs. One of them is bag design. Bags are a part of daily life and therefore they need to be ergonomic to make our lives easier. Additionally, the materials used in bag production

also vary and these materials should be eco-friendly and have a design that will provide a long service life for sustainable expect.

When the literature was searched, it was observed that it was mostly investigated on plastic bags or eco bags being used for shopping. The fact that this study will proceed through the female everyday bag purchasing preferences will also make a different contribution to the literature.

Jonathan (2017), investigated on consumer preferences and their perceptions on the use of ecofriendly bags being used by supermarkets. He carried out a survey participated with 230 respondents in the city of Tagum (Philippines). The results showed that consumers had the highest perception on the use of Eco Bags in terms of environmental benefits [4].

Dongqing et al (2022), investigated on consumer attitudes about reusable bag usage. He carried out a survey participated with 481 Chinese consumers. They suggested that the government should widely emphasize the implementation of the plastic ban and create a cultural atmosphere conducive to reusable bag consumption. They emphasized that it is important to create a strong comprehension of reusable consumption so that consumers are aware [5].

Bairong and Yong (2022), conducted a survey participated with 361 Chinese consumers to investigate their intention to bring a reusable bag for shopping. They emphasized that Environmental concern positively impacts consumers' attitudes towards bringing reusable bags for shopping [6].

Gupta. T. (2016) conducted a survey participated with 100 female consumers to investigate their buying behaviors for handbag shopping in selected malls in South Delhi. The result shows that economically working women in the age group of 25-45 tend to spend more on handbag shopping. Almost, 86% of the women preferred to buy handbags under the influence of sales promotion strategies [7].

In this study, a survey was conducted for female users about purchasing preferences regarding to sustainability and ergonomics. Through the survey,

results were obtained about product purchasing preferences regarding to ergonomic product design, functionality, sustainability in bag design. It is thought that this study will give ideas to bag designers and manufacturers in our country.

## II. METHOD

This study conducted an online survey on 100 Turkish female consumers to learn their purchasing preferences and intention to buy sustainable and ergonomic products. The participants are different from each other as it includes females from different age groups (20-35), economic status and marital status. The survey contains selective and open-end questions about ergonomics and sustainable features on bag design.

## III. RESULTS

Results are shown under question titles below:

### a) What Kind of Bags Do You Prefer to Use?

70.5% of total female consumers preferred the type of "carried on the shoulder with a strap". 32.6% of them preferred the type of "carried as a backpack" and 12.6 % of them preferred the type of "handbag".

### b) Which One Would You Prefer to be At the Forefront of Your Bag? Elegance or functionality

65.6% of them preferred "functionality" in bag design. 34.4% of them preferred "elegance" at the forefront of their bags.

### c) Which Do You Prefer in Bag Surface Design? Colourful or One colour

91.7% of them preferred "one colour" on their bag surface. 8.3% of them preferred colourful design on their bag surface.

### d) Which One Do You Prefer for Using Possibilities in The Bag? Few pockets or Many pockets.

71.6% of them preferred the bags with many pockets. 28.4% of them preferred the bags having few pockets.

e) Do You Want to Personalize your bag?

80.2% of them wanted to personalize your bag as their wishes. 19.8% of them did not want to do any changes.

f) When Choosing Your Bag, Do You Pay Attention If It is Recyclable or Made of Recycled Materials?

59.4% of them answered that they do not pay attention to this matter. %40.6% of them answered positively to this question.

g) Do You Prefer Side Products Compatible with the Bag? (Example: Belt, Wallet, Scarf, etc.)

64.6% of them preferred side production compatible with the bag. 35.4% of them said that they do not care of this kind of sales method.

h) When Choosing a Bag, Do You Pay Attention to Its Size Suitable for Your Comfort?

93.7% of them preferred the bags that are suitable for your body and comfort. 6.3% of them said that they do not care.

i) Would You Consider Repairing and Using Your Damaged Bag Again?

74% of them considered repairing and re-using. 26% of them did not prefer to do.

j) How Many Bags Do You Own Approximately?

47.9% of them said that they had 1-5 pieces of bag. 36.5% of them said that they had 6-10 pieces of bag. 15.6% of them said that they had 10 and above pieces of bag.

k) Among Your Bags You Have, Why Do You Prefer the Bag That You Use the Most Often?

Participants gave different answers to this open-end question. Almost all answers are regarding to ergonomics in design. Some of them are regarding to elegance features because of female attributes. There is no answer regarding to sustainable matters.

l) What Do You Think Means Quality in A Bag?

Participants gave different answers to also this open-end question. The answers are regarding to materials used in bag and ergonomics in design.

#### IV. DISCUSSION

From the responses given by the female participants, there have been the following findings with respect to purchasing preferences regarding to sustainability and ergonomics:

Most of the female participates aware of ergonomics in design and prefer simple but functional designs to make their lives easier. They want to be provided with some options to personalize their bag. Almost half of them are not care of sustainability. But participates show that they would want to do by preferring to repair their bag and re-use them. The high numbers of owned bag show that sustainable materials should be considered in bag design in close future.

#### V. CONCLUSION

The eco-friendly products have started to rank higher among the reasons for choosing products in developed countries. While product designers using ergonomics and sustainability effectively in their designs, users should also attach importance and interest to these concepts at same rate. Only through mutual interaction can design achieve its true purpose. The result of the survey showed that female consumers are interested in ergonomics in bag design and eager to be aware of sustainable products. For the future, consumers should have in mind that ergonomics and sustainability are complementary to each other and have a great impact on the health and welfare of society.

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