

*Ustenko T.*

*Kyiv National University of Technologies and Design*

**THE SOCIAL PROJECT & STARTUP "DESIGNER PRODUCTS FROM TEXTILE WASTE, SOCIAL & ECO ATELIER"**

**Abstract.** The article about the project & startup the goal of which is to start an eco atelier to create designer products from textile offcuts and provide work for people in need of special social protection, including people with disabilities.

**Keywords:** textile waste; upcycling; second-hand clothes; textile offcuts; social & eco atelier.

**Устенко Т., студентка**

*Київський національний університет технологій та дизайну*

**СОЦІАЛЬНИЙ ПРОЕКТ І СТАРТАП "ДИЗАЙНЕРСЬКА ПРОДУКЦІЯ З ТЕКСТИЛЬНИХ ВІДХОДІВ, СОЦІАЛЬНЕ ТА ЕКОАТЕЛЬЄ"**

**Анотація.** Стаття про проект та стартап, метою якого є створення екоательє для створення дизайнерських виробів із текстильних відходів та забезпечення роботи людям, які потребують особливого соціального захисту, включаючи людей з обмеженими можливостями.

**Ключові слова:** текстильні відходи; апциклінг; одяг секонд-хенд; текстильні відрізки; соціальне та екоательє.

**Introduction.**

**Idea Conception.** The Ukraine textile market is saturated with expensive designer clothes & accessories and simultaneously with cheap textile consumer goods (partly made from textile waste). Our idea is to invest in our products in both sectors, such as an individual author's design and a low-cost product. The main thing that we see in our products is the sense, the mission, and responsibility. We believe 100% recyclable products are the products of the future.



**Problem statement.**

**Problem No 1.** In Ukraine, textile waste average 7% of all waste. Local companies recycle only 3–5%. 95% of textile waste remains a source of pollution.

**Problem No 2.** There are thousands of vulnerable people, especially people with disabilities, who cannot find work in Ukraine.

*Interim solution:*

- to research the prospects for using textile waste recycling innovative technologies in Ukraine;
- to start a social & eco atelier to create designer clothes from environmentally friendly raw materials at an affordable price, ensuring reuse, repair and recycling of the textile waste;
- to provide training and employment for the most vulnerable people.

*Long-Term solution:*

- to create a company with the full-cycle technological process from the recycling of textile waste up to the creation of eco-products.

*Goal.* Conduct research into the prospect of creating a social & eco atelier that can provide upcycling of second-hand clothes & textile offcuts to create new products.

*Practical meaning.* The results obtained will help to organize a social & eco atelier (during pandemic a virtual version) for upcycling of second-hand clothes & textile offcuts to create new products.

*Research Methods:* Literature analysis, classification of facts and generalization of information, methods of questioning by conducting market research and customer surveys.

*Expected research results.* In the textile industry current and projected rates of material, consumption is not sustainable. According to WRI, "if consumption continues at its current rate, we will need three times as many natural resources by 2050 compared to what we used in 2000". Addressing the problem of textile waste environmental pollution through the conversion of such waste to the resource is an essential part of the "circular economy". By developing and further introducing innovative business models for recycling, it is necessary to make the secondary raw materials "take an active part" in the economy, and thus preserve valuable stocks and natural resources. Creating clothes from 1 kg of recycled materials can help eliminate the use of 6000 litres of water, 300 grams of fertilizer and 200 grams of pesticides. It can also help reduce carbon dioxide emissions up to 3.6 kg.

The fact is that after the collapse of the USSR, the textile waste disposal system was almost destroyed in Ukraine. The network of textile waste collection points named Stimulus has been closed. That recycling system entirely stimulated people of our country to collect and recycle textile waste. For example, 10 kg of textile waste could be exchanged for books or consumer goods that were in short supply at that time.

The Ukraine textile market is oversaturated with second-hand goods. Over the past ten years, more than 1 million tons of second-hand clothes have been imported to Ukraine (2.6 kg per each Ukrainian). The volume of textile waste increased significantly due to imports from abroad. It is a great opportunity to repair, reuse or recycle

**A brief analysis of recent research & work.**

1. The social project "Designer Products from Recycled Textile Waste" became a winner of Creative Spark Big Idea Challenge organized by the British Council. The project received three awards: Social Impact category country winner, Ukrainian People Choice winner, and the International Public Voting Award in Oxford. The project passed the startup accelerator at London Metropolitan University. The first phase of the project was funded by a grant from the British Council and completed successfully. The products from the first collection were presented at the exhibition in London.

2. The startup "Social & Eco Atelier" entered the top nine of the best startups in Ukraine within the University Startup World Cup 2020.

We developed the Lean Canvas business model and the standard business plan to solve the problems of the project. According to the business plan, we developed a product line for different target customer segments. The following products by upcycling textile offcuts and second-hand textile were created:

- designer clothes: dresses and skirt suits;

- designer accessories: different kinds of bags.

Our clients were the clients aged 18–35 years, mostly female gender who concern about the environment and ethical products.

At the first stage of the project, promotion activity and sales of the products were made mainly on the Internet on social networks: Facebook and Instagram. We also used online clothes & accessories sales sites.

Our competitors:

- upcycling companies and handmade products manufacturers;
- designers and manufacturers of standard textile products.

Raw materials for our products are very cheap in Ukraine because there is no active system for recycling textile waste. The producers of conventional textile products do not know what to do with textile offcuts. We bought raw materials in second-hand markets, in clothing factories, in design studios, as well as on the Internet, for example, waste.ua.

**Selection of unresolved parts of the overall problem.** Our products can successfully compete at the expense of affordable prices, in design and quality. Our unique value proposition is that our project solves problems competitors cannot do:

- we can decrease the amount of textile waste that goes into landfills;
- we can provide work for people in need of special social protection.

We are going to realize our project step by step. However, each stage should be an optimal investment solution with minimal financial risks.

**Setting objectives.** At the second stage of the project, we are planning to realize the startup "Social & Eco Atelier" (during pandemic a virtual version). We are planning to do as follows: rent premises, buy necessary sewing equipment; hire people with disabilities; and provide them with the offcuts and second-hand clothes to create new products by upcycling & repair. In the future, we are planning to use more efficient channels:

- through our online store on the Internet;
- through retailers specializing in the sale of clothes and accessories.

**Obtained research results:**

Table 1

### SWOT-analysis of prospects for the introduction of processing technologies in the textile industry

#### SWOT - ANALYSIS

#### Prospects for the introduction of processing textile waste in Ukraine

Strengths	Weaknesses
1.Source of textile waste is free of charge (costs for installation of textile waste bins and transport of textile residues); 2. Weak competition in Ukraine; 3.Low infrastructure requirements (energy, communications, raw materials, etc.); 4.There is no need to use primary fibers; 5.New products are 100% made up of recycled raw materials;	1.High price for textile waste recycling equipment; 2.The risks associated with the sale of both raw materials and finished products on the domestic and foreign markets; 3.Imperfection of legislative acts on improving the investment climate and attracting investors; 4.Low ecological culture of the population.
Opportunities	Threats
1.Growth of interest in solving problems of recycling of textile waste; 2.Support from international environmental organizations: Global Nest, Global Environment Facility, Conscious Foundation, UNEP; 3.Preservation of natural resources and improvement of the ecological state.	1.Imperfection of the regulatory framework: lack of incentives to develop new technologies for the recycling of textile waste; 2.Insufficient level of priority of the state ecological policy in the absence of effective environmental monitoring; 3.Significant volumes of production and consumption waste;

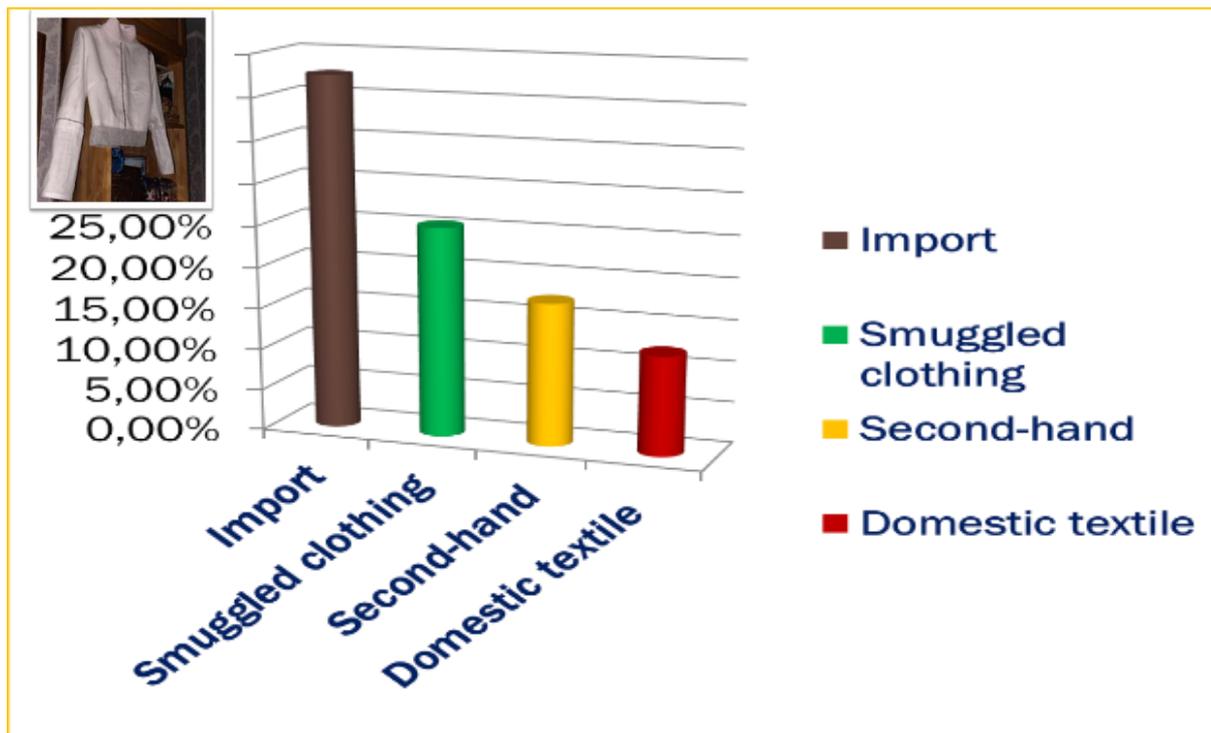


Figure 1. Analysis of the textile market in Ukraine

Table 2

**"LEAN CANVAS" BUSINESS-MODEL OF A SOCIAL & ECO ATELIER**

№	Components of the business model	Summary
1	Customer segments	The focus is on middle-class customers between the ages of 18 and 35, mostly female gender who care about the environment, ECO products
2	Problems	95% of textile waste remains a source of pollution. There are thousands of vulnerable people, especially people with disabilities, who cannot find work in Ukraine
3	Revenue streams	income from sales of products, income from maintenance (repair and reuse)
4	Solution	to start a social & eco atelier to create designer clothes from environmentally friendly raw materials at an affordable price
5	Unique Value Proposition	ensuring reuse, repair and recycling of the textile waste
6	Sales channels	social networks, online store, a network of retailers
7	Key metrics	sales revenue, net profit, employee satisfaction rate, customer acquisition cost, monthly website traffic
8	Cost structure	purchase of equipment, rent of the building, channels of advancement on the market, salary of the personnel, expenses for carriers, suppliers of textile waste
9	Unfair Advantage	customer base, technology patent, license, TM registration

Our products from textile waste:

- Custom-made clothes & accessories.
- Fashion show clothes.
- Smart clothes.

Example: Women's suits made from 100% bandage offcuts.



**Expected research results.** The second phase of the project is a startup to create an eco-social atelier (virtual during the covid-19 crisis). It will provide people with disabilities with work to create designer clothes from environmentally friendly raw materials at an affordable price, ensuring the reuse, repair and upcycling of textile offcuts.

*The minimal startup assessment of the effectiveness.*

Payback period of the startup – 12 months.

Initial investment – 20000 EURO.

Break-even period – 6 months.

Average monthly income – 3300 EURO.

*Marketing & Sales Activities.*

I. Target Market for designer products is already defined: designer clothes and accessories – clients aged 18–35 years, mostly female gender who concern about the environment and ethical products.

II. Customers Lists formation:

- using personal contacts;
- contact existing customers: students, members of healthy life clubs, charitable foundations;
- post contents in social networks (Facebook, Instagram);
- contact visitors of Fashion Shows or Eco events;
- contact visitors of conferences or workshops in Kyiv and abroad (for example Erasmus+ projects);
- contact members of groups (Eco, Recycling, Hand-made) in social media, such as Facebook and Instagram;
- interact with social media followers on Facebook and Instagram increasing their awareness of my products.

III. The survey of potential and existing customers to find out what they would buy.

Name of the survey: "Would you buy designer clothes made from textile waste?"

1. Have you ever bought clothes made from textile waste?
  - Yes.
  - No.
2. How often do you buy designer clothes?
  - 1–2 times a week.
  - Several times a month.
  - Several times a year.
3. Would you buy a designer quality dress made from textile waste at an affordable price?
  - Yes.
  - No.
4. What style of dress do you prefer?
  - Classic.
  - Business.
  - Casual.
  - Folkloric.
  - Formal (evening).
5. What colour of dress do you prefer?
  - Black.
  - White.
  - Light.
  - Dark.

- Combined.
- 6. What would be the best price for the dress?
- 7. Rate the importance of each factor that affects your choice when buying a dress?
  - Price.
  - Quality.
  - Style.
  - Friends Recommendations.
- Scale: from "It does not matter" up to "very important."
- 8. Please indicate your gender:
  - Female.
  - Male.
- 9. Please indicate your age:
  - 18–25.
  - 26–35.
  - 36–45.
  - 46–60.
  - From 60.
- 10. Please, indicate how you would rate your financial situation?
  - Not so good.
  - Good.
  - Very good.
  - Enough money to not deny me anything.

#### IV. Sales of products after they are produced

- sales sites;
- over the phone;
- email;
- in-person.

#### V. Loyalty programs for clients.

The system of discounts, free consultations and preferential service forms is planned. It will allow attracting new customers as well as establishing long-term partnerships with key customers and partners. In each case, an individual approach will be applied to take into account the client's interests.

#### VI. The main principle of sales.

The social goal of the project is to keep the principle "100% Recyclable Products". In brief, it means if a customer returns our product for recycling, he gets a new one with a discount.

#### **Conclusions/**

The following tasks were solved to achieve the goal:

- We defined the essence of textile waste. We analyzed the statistics that textile waste average 7% of all waste in Ukraine. Some local solid waste recycling companies downcycle only 3–5%. 95% of textile waste goes to landfills and remains a source of pollution.
- We identified the problems of our research work and a way of solution. It allows starting a social & eco atelier for upcycling of second-hand clothes & textile offcuts to create new products.

In conclusion, we can note the following:

Our Goal:

- to research the prospects for using textile waste recycling innovative technologies in Ukraine;
- to start an eco-social atelier to create designer clothes from textile waste including reuse, repair and recycling;

- to create a company with the full-cycle technological process from the recycling of textile waste up to the creation of eco-products.

Our Objectives:

- to start sewing products from textile offcuts;
- to promote these products on the market (online, fashion shows, public presentations);
- to study technologies of sewing from textile waste;
- to study textile waste recycling technologies and management;
- to sell the products from textile waste through online channels & retailers.

Our Stakeholders:

- Our key customers (mostly female gender) who support sustainability & inclusiveness and prefer to buy tailor-made clothes & accessories at an affordable price;
- Seamstresses (including those with disabilities) who will sew products from textile offcuts at an eco-social atelier or home using their sewing equipment;
- Members of the Ukraine eco-community who are involved in the collection of second-hand clothes and textile offcuts;
- The Kyiv Union of Public Organizations of Disabled People, which can take an active part in the project and provide employment for people with disabilities.

Our Mission:

- to decrease the amount of textile waste that goes into landfills;
- to offer designer textiles from environmentally friendly raw materials at an affordable price;
- to provide work for people in need of special social protection, including people with disabilities

We are sure 100% recyclable products are the products of the future and conversion of textile waste to the resource can be an important part of the "circular economy" of Ukraine.

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