INNOVATIVE ECO-ENTREPRENEURSHIP IN THE JEWELRY INDUSTRY

by

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Abstract

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In this thesis, a comprehensive business plan is presented for the launch of a sustainable jewelry brand that turns recycled 3D-printed plastic waste into fashionable accessories. The proposed solution addresses the growing environmental problems and meets consumers' demand for ethical and eco-friendly products among Millennials and Generation Z. Market analysis determines the clear trends of growth in global and Ukrainian sustainable jewelry markets. The competitive analysis suggests an opportunity to occupy a unique market niche, since no other local competitors use 3D printing waste as the main material.

The project has strong financial potential. While initial losses are expected, profit is forecasted from the fourth quarter of 2025, with projected annual revenue exceeding UAH 2 million and IRR above 40%. The project's economic viability is supported by cost-benefit and sensitivity analysis that identify price and volume as key factors in project success.

The company will complement local sourcing, small-scale production, and direct sales via Instagram and TikTok with further expansion through B2B partnerships and an online store to diversify revenue streams. The legal and regulatory structure provides flexibility and compliance with Ukrainian legislation, while intellectual property and data protection strategies will ensure long-term competitiveness.

In conclusion, this business plan is not only a financially viable opportunity but also a socially responsible endeavor. The company's goal is to become a leader in environmentally friendly production, personalized design, and customer-oriented jewelry sales strategy in the Ukrainian jewelry market, as well as to contribute to global efforts to shape more responsible consumer behavior.

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List of Abbreviations

3D Three-Dimensional

PLA Polylactic Acid

ABS Acrylonitrile Butadiene Styrene

PETG Polyethylene Terephthalate Glycol

HDPE High-Density Polyethylene

CAGR Compound Annual Growth Rate

FDM Fused Deposition Modeling

B2B Business To Business

B2C Business To Customer

KPIs Key Performance Indicators

CAPEX Capital Expenditures

OPEX Operating Expenses

Chapter 1

Introduction

The current technology enables people to transform their concepts into reality, together with novel solutions, while ensuring active usage. 3D printing is one of such phenomena that provides wide production capabilities, as well as design and creative potential. Numerous people today are conducting exploratory research in this printing space to make distinctive products using the technology. The decomposing time for waste material generated from multiple failed three-dimensional prints can extend up to several years according to natural environmental standards. The processing requirements for 3D printing through special conditions include elevated temperatures and controlled environmental elements for using PLA, ABS, and PETG plastic materials. Due to its growing popularity, 3D printing technology creates disposal challenges that affect the environment, demanding urgent solutions. Some waste sorting and recycling activities already operate in Ukraine, especially in cities that demonstrate increasing environmental concerns among their residents. Traditional waste, such as plastic bottles and household plastic materials, is typically used to produce products, while information about turning 3D printing waste into usable items and accessories is lacking at sorting centers where these materials go.

Business idea and solution to the problem

Our solution confronts this environmental issue through an innovative approach where 3D printing waste plastic gets reused as distinctive jewelry made by melting down the waste. Our project builds its central concept on using recycled plastic materials to produce environmentally friendly accessories. Our company implements cleaning, grinding, along molding operations to extend the life of materials before they become waste. Through our recycling process, our product

combines fashion appeal with support for conscious consumption and the circular economic principles.

The product and its uniqueness

Environmental friendliness forms the primary competitive advantage of the company because plastic waste and pollution levels decrease through its products. The product design will separate itself from others through an exclusive approach. Every item will show its distinctive appearance as it adheres to individual customer specifications. Consumers will obtain two main benefits from our jewelry products, since they present lightweight comfort as well as budget-friendly pricing relative to standard jewelry items. Our jewelry possesses powerful benefits that position it strongly within the market segment targeting customers who emphasize sustainability, together with fashion sense.

Initial Audience Definition

Nowadays, people seek to express themselves through their style and vision. We are creating a unique solution, which is the product of style and meaningful elements, but whose audience is conscious consumers concerned about environmental sustainability. We at our company are firmly committed to environmental sustainability, and we provide jewelry entirely made of 100 percent recycled plastic.

According to recent studies, environmental awareness in Ukraine is rising. Based on Ilko Kucheriv's Democratic Initiatives Foundation and Kyiv International Institute of Sociology, 88% of Ukrainians consider waste management an important problem; 49% consider it extremely important (Democratic Initiatives Foundation). Additionally, the 2021 survey also pointed towards climate change being the first among the dangers for the country, as it was mentioned by 26% of the respondents. Moreover, 64 percent of respondents have explained that it has gotten worse for environmental conditions in the area they are located in, whereas only 5 percent stated that there have been some improvements (Kushneryk). These findings make the potential impact of our sustainable jewelry propositions particularly relevant and significant concerning the Ukrainian population's environmental issues.

Thus, we can determine our preliminary target audience. We assume that our product will be designed for the following categories of consumers:

- Individuals who support environmental initiatives, care about the environment, and prefer sustainable production.
- Active users of trendy accessories who appreciate innovative and non-standard design solutions.
- Fans of unique jewelry and personalized design.

- Individuals working in the field of design, fashion, and art, for whom non-standard approaches are interesting and important.
- Brands that are looking for partnerships in the field of sustainable production.

By buying our jewelry, customers support responsible production and promote the reuse of resources, which is essentially an extension of future supplies while realizing sustainable development on a global level. With our unique designs, customers can wear jewelry that represents their identity in a meaningful and sustainable way. That is why our jewelry is both a statement about the dressed self and something we can wear to contribute to a greener and more responsible future.

Mission, Vision, and Goals

Environmental awareness is growing rapidly, and more and more people are interested in and starting to seek innovative solutions to decrease waste and promote sustainable development. The plastic waste problem, on the other hand, has begun to bear its potential solution, where it is not solved by 3D printing waste. The concept behind this project is that waste is not an end byproduct but a source of transformation.

Mission

The mission of adopting 3D printing waste in combination with fashion to create stylish accessories that use what could have otherwise been waste is our raison d'être. We are also looking to blend fashion and environmental stewardship, creating a worthwhile alternative to traditional jewelry where environmental stewardship is a supportive part of the circular economy.

Vision

We see ourselves sitting among sustainable jewelry brands, becoming the leading brand with creative ways of recycling and the leading brand for reducing plastic pollution. That's why we support the creation of materials for a better planet by promoting awareness and the use of recycled materials, along with planting the seeds for the future use of plastic in beautiful objects for the realization of our environment's well-being.

Goals

Using the SMART framework, the following project goals have been formulated in order to ensure that they are Specific, Measurable, Achievable, Relevant, and Time-bound. These objectives represent the business's core priority and strategic directions and operational, marketing, and financial targets that must be aligned with each other to guarantee sustainable and responsible growth.

- Establish partnerships with 3 local 3D printing labs and workshops in Kyiv to recycle at least 5 kilograms of 3D printing plastic waste in Year 1 of operations.
- Reach at least 200 monthly sales of jewelry items with UAH 2,091,769.50 in revenues by the end of December 2025.

- By the end of the first 6 months, gain 5000 followers on Instagram and TikTok combined, and get at least a 30% engagement rate with educational, engaging, and interactive content about eco-jewelry and sustainability.
- In the first quarter of 2026, establish at least 3 B2B partnerships with companies where they are interested in sustainable corporate gifting.

Chapter 2

Market Research and Analysis

Market Overview

There are extremely impressive transformations occurring in the jewelry industry. The behavior of consumers in the jewelry sector is increasingly influenced by an increasing number of ethical concerns. Accordingly, many of the buyers today are keen to purchase those pieces that are transparent and green. Thus, the demand for eco-friendly and sustainable jewelry is increasing at a rapid pace. With a market value of roughly USD 58.5 billion in 2023 and projected growth of 8.80% CAGR from 2023 to 2032 (see Fig. 1), it is stated that the market for Sustainable Jewelry was around USD 97.8 billion in 2032 ("Sustainable Jewelry Market").

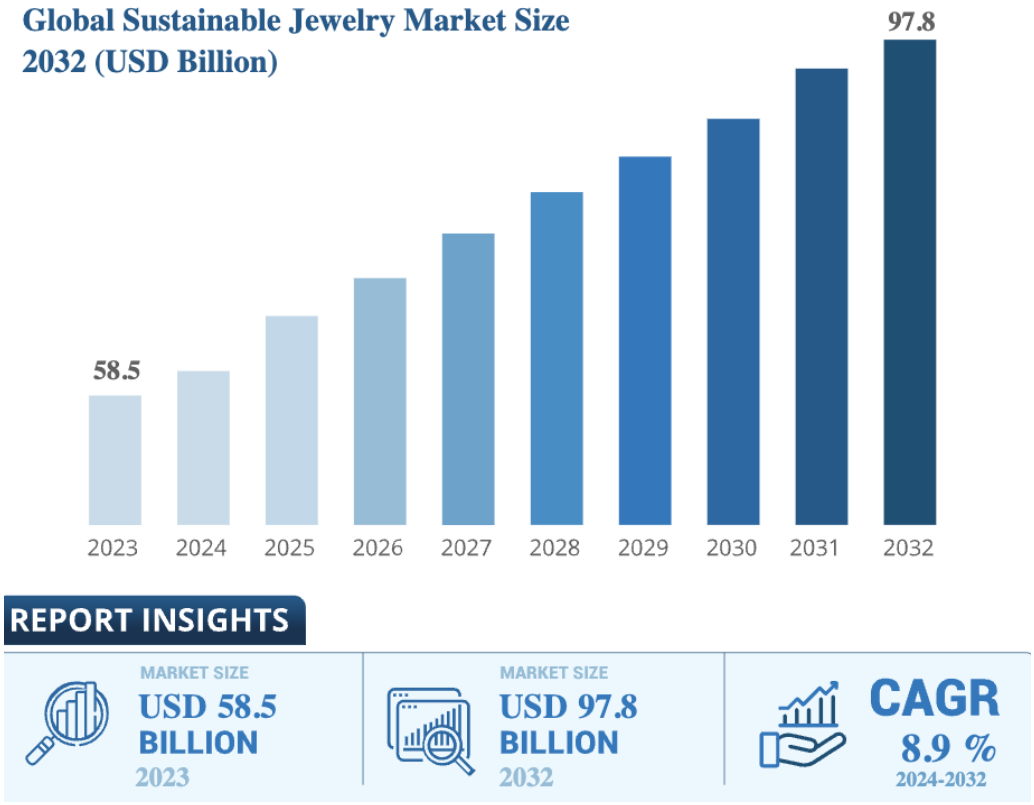

Fig. 1. Global sustainable jewelry market size from 2023 to 2032, showing growth from USD 58.5 billion to USD 97.8 billion at a CAGR of 8.9%. Source: *Sustainable Jewelry Market Size, Share, Growth, and Analysis by 2032*, Business Research Insights, www.businessresearchinsights.com/market-reports/sustainable-jewelry-market-11749.

The purchasing power wielded by Millennials and Generation-Z consumers drives the market for sustainable jewelry as consumers. The current consumer generations strongly prefer brands that prove both their environmentally responsible conduct and moral commitments. The active use of social media by consumers enables their far-reaching impact, which shapes wider trends in the market. Sustainability continues to play an essential part in maintaining competition among businesses ("Why Ethical Sourcing Is Essential").

The technological advancements act as a principal force that drives sustainable jewelry production forward. Also, to minimize the impact on the environment, blockchain is implemented together with recycled or synthetic materials using modern solutions. The market preference shift is towards companies that emphasize responsible production combined with recycled methods because consumers care about sustainable practices("Sustainable Jewelry Market").

Market niche identification

The chosen niche is focused on transforming 3D-printed plastic waste into unique jewelry pieces. Our accomplished approach to meeting environmental needs and consumer desires for new and eco-friendly products is achieved by repurposing materials that would otherwise end up in landfills.

It is known that 3D printing, or additive manufacturing, can use only the materials needed and creates parts layer by layer, therefore reducing waste and energy, and potentially reducing carbon emissions. The industry is projected to hold USD 105.99 billion by the end of 2030, registering a CAGR of 24.9 % by 2030 (Fortune Business Insights). Although the extent of national statistics in Ukraine is still sparse, recent developments suggest the increasing importance of this technology in Ukraine. For example, from the early stages of the full-scale invasion, Ukrainian volunteer initiatives printed more than 3,019 parts in only 16 days of the war to support the defense effort (Mykhailyshyn). Being very heavily used, this led to an increase in 3D printing waste, which consisted mostly of failed prints and filament residue, that currently can not be recycled through the average municipal system. The reason why is simply because these materials, that include PLA, ABS, and PETG, which are the most popular types of materials used in FDM 3D printing, normally belongs to the resin identification code “Type 7,” meaning they don’t belong to standard recycling programs (“PETG/PLA Recycling”). Processing plastic 3D printing waste as jewelry, our company is solving this problem by making dangerous sustainable fashion. This approach is relatively unique

in the market, allowing us to experiment with colors, shapes, and designs of our products. The initiative involves taking advantage of the strategic optimization of an underutilized supply chain with advanced technological capabilities and responsible production methods.

According to the abovementioned market overview, our products strongly resonate with Millennials and Gen Z, who prioritize environmental stability and are drawn to products that prove their uniqueness and reflect personal values. Furthermore, we are offering affordable jewelry that is ethically produced from recycled plastic into uniquely beautiful jewelry, giving waste a second, glamorous life. Each piece possesses its own story, engaging customers in the process of learning about sustainable development.

The first and most relevant aspect of this project is the Ukrainian market. By entering the Ukrainian market, we should benefit from our knowledge of local culture, consumer attitudes, and the socio-economic structure. If we can test our concept with an audience we understand, focusing on the domestic market first, we can refine our business model before exploring international opportunities. Furthermore, since Ukraine is still in the process of developing recycling initiatives, there is a vast gap for innovative eco-friendly accessories based on unprocessed 3D printing waste.

Therefore, to obtain a more complete understanding of the strategic position of our niche, it is necessary to look at the Porter's Five Forces framework (see Fig.2). To determine the level of competition in the market of jewelry made of environmentally friendly recycled plastic, we proceed to analyze the level of competition, identify potential opportunities and threats in the market of jewelry made of environmentally friendly recycled plastic.

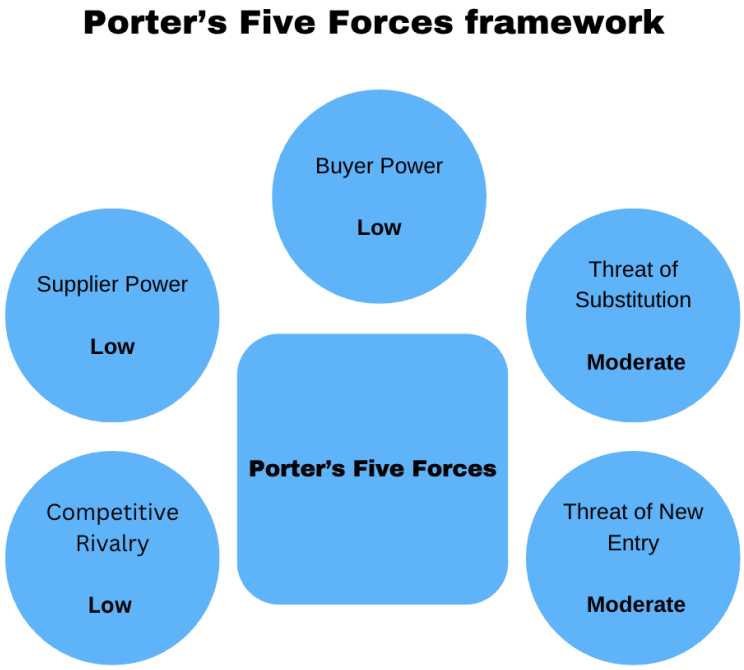

Fig. 2. Visual summary of Porter's Five Forces analysis for the Ukrainian market of jewelry made from 3D-printed plastic waste.

1. Competitive Rivalry

Our product in the competitive field can be viewed from different angles. From a broad point of view, all jewelry manufacturers operating in Ukraine can be considered our competitors. There is a group of manufacturers that work with recycled raw materials, and a smaller group that works with recycled plastic. But if you go deeper into our niche, where jewelry is made from recycled 3D printing waste, the competitive environment becomes extremely narrow. As already mentioned, there are brands on the Ukrainian market that make jewelry from recycled plastic, for example, using bottle caps or plastic bottles, but no one uses post-manufacturing 3D printing waste as the main material. On a global scale, this niche remains largely unfilled, where companies could offer designer jewelry collections made from this type of material. Therefore, considering the lack of direct rivals working with post-manufacturing 3D printing waste and the novelty of this approach

in both the local and global markets, the competitive rivalry in our niche is currently low. This opens up a potential opportunity to gain early brand recognition and secure a leading position before potential competitors emerge.

2. Supplier Power

Currently, there are no dedicated suppliers focused solely on 3D printing plastic waste. However, raw materials can be sourced from various local workshops in Kyiv. By collaborating with multiple partners, we reduce dependency on any single source. This decentralized approach ensures stable access to materials and keeps supplier power low.

3. Buyer Power

In Ukraine's current economic environment, price sensitivity among consumers remains a relevant issue, especially in light of the war and general financial uncertainty. Since the niche is relatively new and alternatives are limited, switching costs for customers who value our eco-design approach can be considered moderate. Once they get to know our products and our brand values, they are likely to develop loyalty, owing to the growing eco-consciousness among consumers. The segment that would serve as the initial focus is B2C sales that will allow us to build customer relationships and refine our offering based on market response. Later, expanding into B2B partnerships with companies interested in eco-friendly corporate gifting will further reduce the power of individual consumers over our pricing and product strategies.

Overall, in our segment, buyer power is relatively low. Customers are limited in their ability to influence pricing or easily switch to direct substitutes, which creates favorable conditions for brand development and sustainable price positioning.

4. Threat of Substitution

Consumers may select other locally manufactured accessories made from alternative eco-friendly materials, such as ceramics or other recycled plastic, due to their familiarity and recognition. Furthermore, brands utilizing recycled metals or sea plastic may appeal to customers who have traditional or "classic" aesthetics. Consequently, marketing and educational initiatives are essential to emphasize the distinguishing characteristics of 3D-printed plastic jewelry. This driver keeps the threat of substitution at a moderate level, emphasizing the need to spread more information about the innovativeness that 3D-printed waste can deliver.

5. Threat of New Entry

Creating jewelry from 3D printing waste is a fairly interesting and simple idea, but this niche is not very well explored in Ukraine, and perhaps, beginners may be scared off because of the specialized know-how of processing 3D printed plastic, such as sorting, melting, and recycling, adding to the complexity. In the future, possibly as sustainability requirements become more rigorous, new regulations on waste management and jewelry consumer safety may increase the cost and complicate operations for potential entrants. There may also be fluctuations in exchange rates and tariffs, such as for equipment, which could slow the emergence of new entrants. Given these factors, the threat of new entry can be considered moderate.

To conclude, the analysis of Porter’s Five Forces shows that our market position is strengthened through low competition and supplier power, which allows us to develop a unique niche position and achieve flexible, stable supply chains. Buyer power is also low, enabling us to set sustainable pricing and build loyal customer relationships. The moderate threat of substitution requires active marketing combined with customer education that highlights the unique

characteristics of our 3D-printed jewelry. Additionally, new entrants represent a moderate threat, necessitating rapid market presence and brand recognition before potential competitors launch their operations. Therefore, through our strategic placement, we can concentrate on brand development, customer loyalty, and product distinction, which strengthens our prospects for enduring market growth in the eco-friendly jewelry space.

Competitive Analysis

Competition is a great driving force in any industry, stimulating innovation and encouraging businesses to act more efficiently. Today, eco-jewelry is a novelty in Ukraine. Nevertheless, several companies have already entered this niche market, offering products made from recycled material. Competition, pricing, and product perception differ from company to company, each with its own concept and value proposition. A key competitor analysis was conducted to understand our market position and identify opportunities for growth in the eco-friendly jewelry market.

The research highlighted four brands most relevant and related to the recycled plastic jewelry niche among Ukrainian manufacturers: Anumo Plastic, Amyend.studio, Spogad, and Rebeau.These competitors were chosen because they work with recycled plastic and actively support the principles of sustainable development, circular economy, and environmental responsibility. They demonstrate how waste can create high-quality, unique, and modern products that resonate with eco-conscious consumers. Their values and approach to production are in line with ours, making them the most relevant competitors for our eco-jewelry business. Although Rebeau's last competitor is currently inactive, they were pioneers in this field and may resume operations in the future, as there have been no statements that they have closed the project permanently, so we cannot state that they will no longer be active.

Therefore, the analysis of competitors shows that Anumo Plastic stands out with a creative and diverse product range, combining functional and decorative items, while also promoting

women-led entrepreneurship. Amyend.studio offers artistic and affordable jewelry made with recycled plastic mixed with acrylic, although this raises questions about the purity of its eco-claims. Spogad focuses on premium, handmade products and circular production, producing items on demand while highlighting transparency and storytelling. Rebeau, a pioneer in the market, introduced innovative designs made from mixed recycled materials, though it is currently inactive.

The price positioning of each brand varies. Amyend.studio offers affordable options, appealing to price-sensitive consumers interested in fashionable and eco-friendly accessories. Anumo Plastic offers a range of products at medium prices, striking a balance between affordability and design originality, while emphasizing diversity. Spogad's pricing strategy is focused on the premium segment, and the brand justifies this strategy with a focus on handmade, detailed storytelling about their jewelry and a brand aesthetic. Rebeau's initial positioning was in the mid-range price category, with designs incorporating a blend of materials.

Finally, product quality, delivery times, and assortment reflect the brands' strategic differences. While Anumo Plastic offers fast shipping and a mix of products, Amyend.studio focuses on artistic yet lightweight accessories. Spogad delivers more complex and customizable items with longer lead times, while Rebeau, during its active period, combined recycled materials with wood and metal to create unique pieces.

To synthesize this data and highlight competitive dynamics more visually, we created a radar chart (see Fig. 3). This chart reflects how each brand performs across key dimensions: price, product range, quality, and market positioning (see Appendix 1 for the full, detailed comparative table).

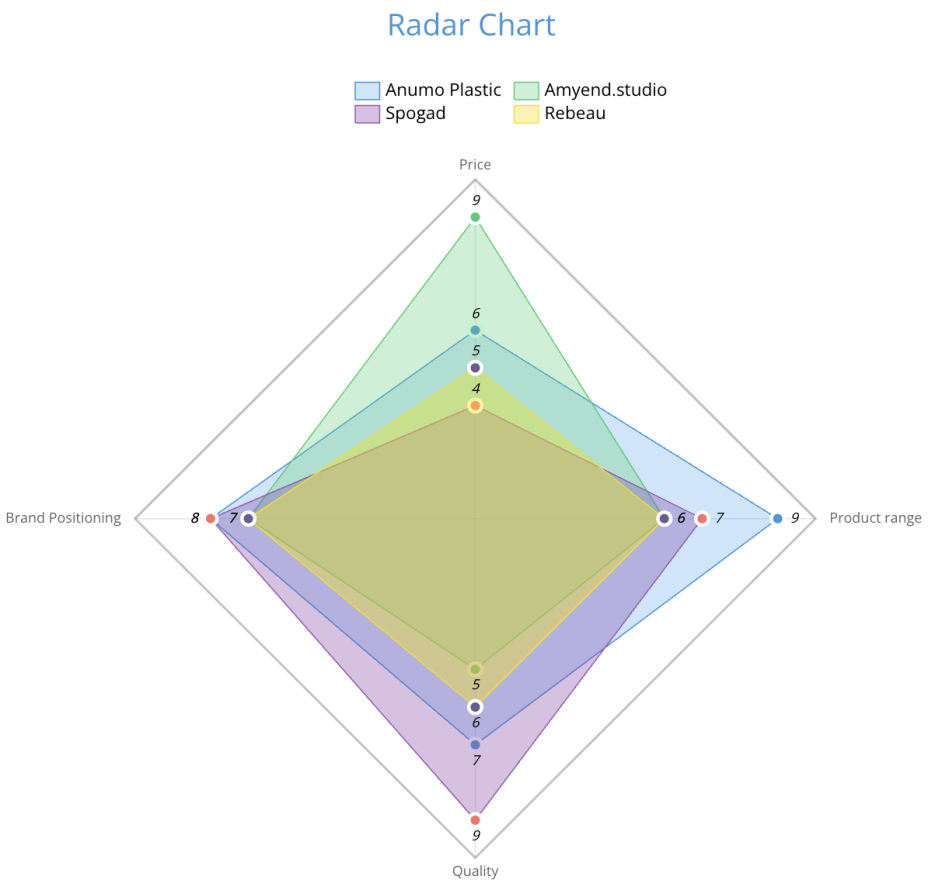

Fig. 3. Radar chart showing comparative positioning of competitors based on price, product range, quality, and brand positioning.

On the whole, the comparative analysis provided useful insights into the recycled plastic jewelry market. While all of them value and prioritize upcycling, they differ in material choices, production methods, and target audiences. Some focus on affordability and accessibility, while others concentrate on premium segments and exclusive designs. Among all the analyzed competitors, Anumo Plastic appears to be the closest example of a role model for our brand. Their business philosophy and operations align with our aspirations in many ways. They offer a diverse range of products beyond jewelry, introduce unique and visually appealing designs, and actively communicate the stories behind their production process in an engaging and non-intrusive manner. In terms of our radar chart, we considered their brand positioning at 8 out of 10 and product range at 9 out of 10. In addition, Spogad deserves special mention as well. The brand openly discusses the finely made and durable aspects of its jewelry with its customers. All pieces are checked before

sale, and numerous designs use time-consuming handwork. The strict quality control process assigns Spogad a quality rating of 9 on the radar chart.

However, none of the existing brands fully combine all the elements that we plan to integrate into our offering, including high flexibility, personalization options, a transparent and traceable supply chain, and emotionally resonant eco-storytelling. This creates an opportunity to occupy an unmet market niche. Consequently, based on the conducted analysis, our strategy will be focused on combining the advantages of existing players while eliminating their weaknesses. We aim to offer a balanced pricing strategy, neither low-cost nor ultra-premium, a flexible and diverse product assortment adapted to customer preferences and trends, transparent and educational communication about production and materials, and emotionally driven brand storytelling that promotes conscious consumption. By building upon these principles, the brand will be well-positioned to attract a loyal eco-conscious audience, ensure competitiveness, and pursue sustainable business development both in the domestic and, in the long run, international markets.

Target Audience Analysis

Today's customers recognize environmental consequences from their buying choices while facing obstacles when looking for both sustainable and fashionable accessories of high quality. Most jewelry brands keep working with metals and precious stones for their products, although mining these materials has left severe ecological destruction in its wake. This project intends to transform discarded 3D printing waste into remarkable jewelry accessories through complete material recycling. The goal of this analysis is to identify the significant determinants of our target group's character, motivations, and needs so we can effectively develop both new products and marketing strategies.

Fast fashion trends generate huge waste volumes because mass-produced accessories lose their value, and these products end up in industrial waste streams. The environmental footprint of fast fashion observed a major rise in online user queries by 203% over five years, spanning from 2018 to 2023. Searches about fast fashion have increased by 284 percent since 2012, yet this growth reveals the growing public understanding of the harmful effects of fast fashion, as "slow fashion" searches increased at the same rate during the past five years (Reid). The upward trend demonstrates that consumers are more interested in buying sustainable, ethical fashion products (see Figure 4).

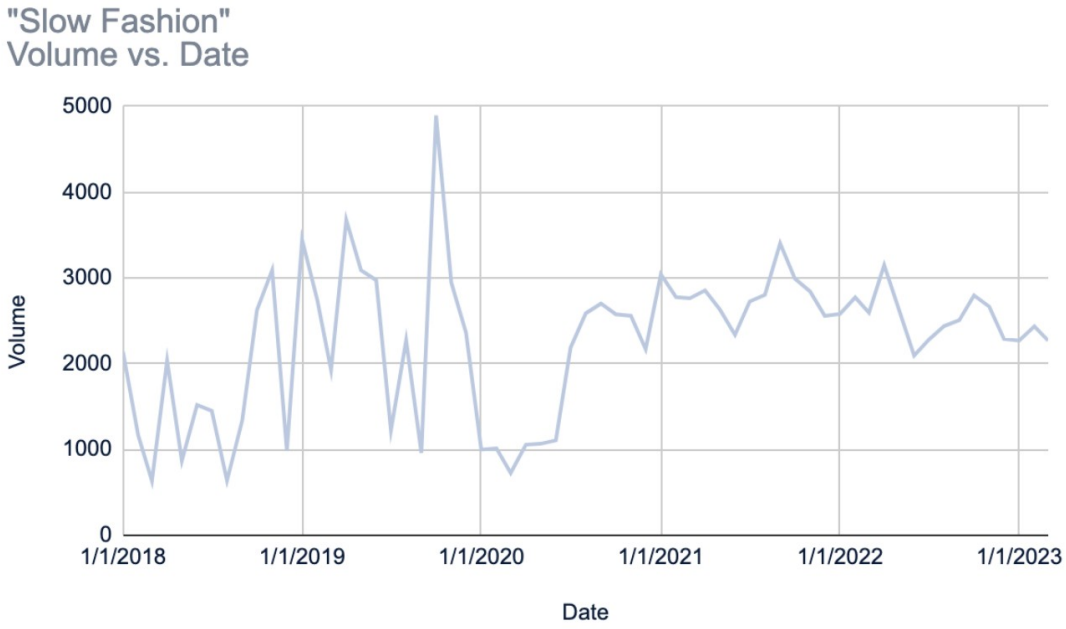

Fig. 4. Google Trends data showing search interest for "slow fashion" from 2018 to early 2023, with visible growth peaking around 2019–2020 and stabilizing afterward. Source: Ethical Jewellery Trends 2024: How Consumers are Finding a Diamond in the Rough, Larsen Jewellery, www.larsenjewellery.com.au/blog/ethical-jewellery-trends.

Following the identification of the primary audience and market analysis, the product has a targeted orientation toward environmentally conscious consumers who have a preference for distinguished goods. Generally, these are women aged between 20 and 44 years old, with middle or

above average incomes, residing in large Ukrainian cities where the sustainable fashion trend is more familiar. This group takes a cue from authenticity, originality, and environmental responsibility, they share their wish of following the slow fashion principle. For them, sustainability is a key factor in their buying consideration.

Using the User Persona framework, we have further attempted to understand this target segment. This is based on creating a fictional but data-grounded profile of the ideal customer, including their motivations, frustrations, and preferences. We gather real market data from actual customers purchasing eco-friendly jewelry to understand who buys it, their motivations, preferences, and demographics. This knowledge helps us develop meaningful product insights, features, and user experiences.

The following example shows one of these images that was developed to represent the values and characteristics of those who look for stylish, meaningful accessories made from recycled material (see Fig.5).

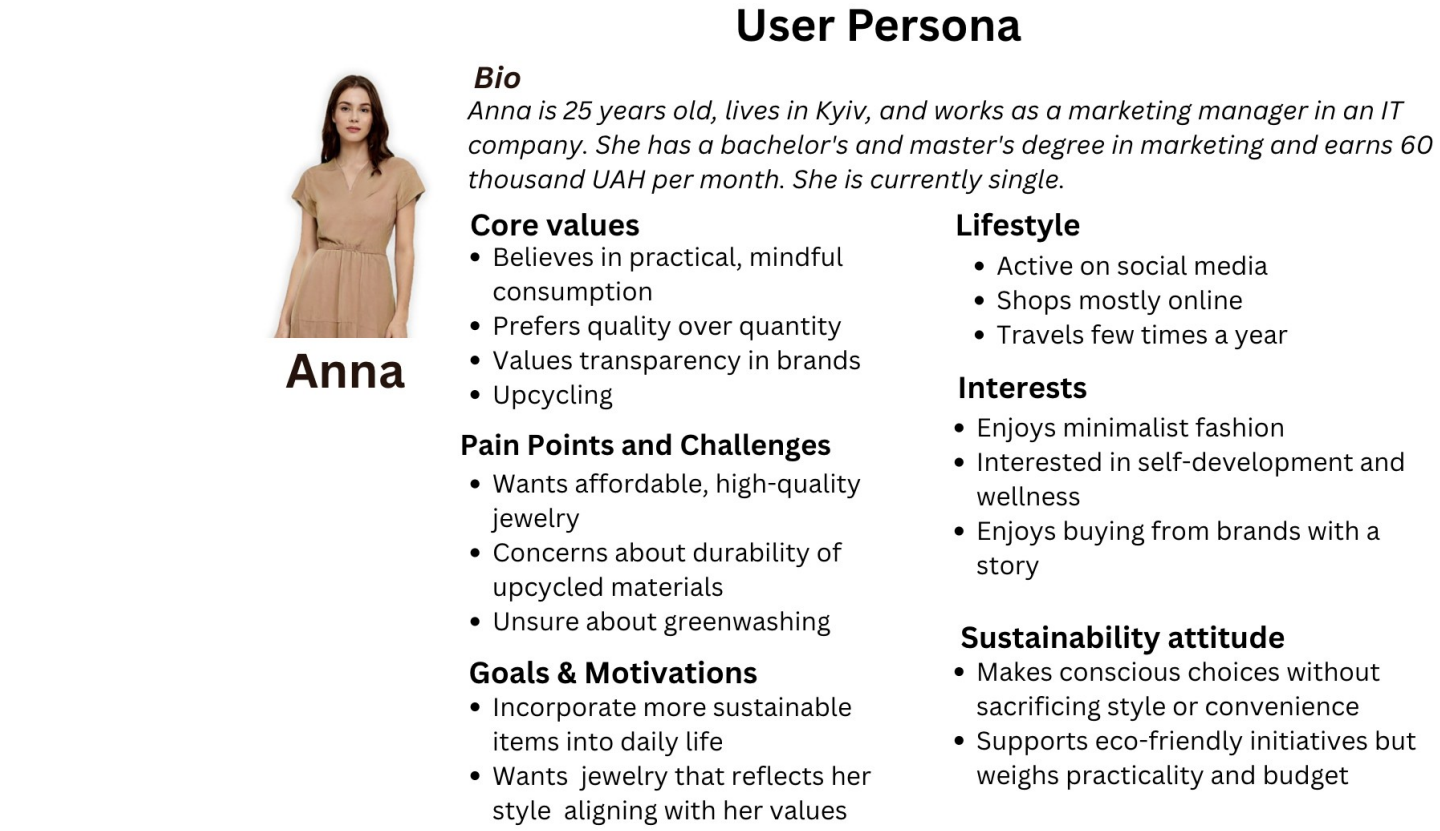

Fig. 5. User persona of “Anna,” a 25-year-old marketing manager from Kyiv who reflects the key values and behaviors of the target audience for sustainable jewelry. The profile includes values, lifestyle, motivations, and pain points.

Marketing manager Anna from Kyiv, at the age of 25, chooses to consume sustainably with a practical style and respect for environmental standards. She supports eco-friendly brands, but chooses products that combine good quality with reasonable prices and clear information about current market trends. She uses online shopping and finds brands by browsing social media in search of minimalist fashion with compelling brand stories. Anna embodies modern, environmentally conscious shoppers who let their moral principles guide their purchasing activities through sustainability considerations, along with ethical practices and full transparency of business operations. This segment of consumers needs clear information about the durability of products, as

well as ethical sourcing and attractive design. Sustainability should be easy to understand for consumers while maintaining its authentic nature.

Our product line offers significant potential in the B2B market, allowing companies to demonstrate their environmental responsibility through branded eco-friendly gift accessories. Our planned services involve offering a selection of ready-made combinations of accessories or the choice to create corporate jewelry. Examples of such items are simple and refined pendants, bracelets, or brooches with the firm's logo for women within the office setting. Each item will leave a lasting impression of the company's values. Through this, we aim to open up new business opportunities and expand our market reach. Not only does such cooperation further strengthen customer relationships and corporate image, but it also contributes to shared commitment to sustainable development, and as such, our eco-friendly jewelry serves as a significant part of the modern business gift strategy.

Hence, the analysis focuses on the growing consumer demand for sustainable jewelry, which is based on the rise of environmental awareness in fashion. The target group consists of environmentally conscious urban women between the ages of 20 and 44 who care about authenticity, quality, and ethical sourcing while balancing style and practicality. Anna embodies the nature of this consumer segment - the desire for clear communication, durable materials, and a compelling brand story. Our brand must position itself as a trusted, ethical, and sustainable alternative in the jewelry industry, and we must succeed in attracting this market to thrive.

Anticipated Sales and Revenue Evaluation

At the initial stage of operations, the company will not engage in serial production of standardized jewelry pieces. Instead, production will focus on a diverse and flexible range of eco-friendly accessories such as rings, earrings, bracelets, and pendants, designed to showcase the creative potential of recycled 3D printing plastic waste. This approach will allow the brand to offer

limited edition collections and respond to custom orders, tailoring products to customer preferences and market trends.

Given the variety of product types and the individual nature of many orders, it is difficult to predict uniform material consumption. To estimate production requirements, a preliminary calculation was made based on the expected distribution of product categories (see Table 1). However, to ensure greater accuracy, we also referred to existing cases from similar businesses. For instance, one of our competitors, Anumo Plastic, reported in one of their Instagram posts that approximately 37 grams of recycled plastic bottles are required to produce a single choker (Anumo Plastic). Based on this reference and the expected product assortment, we categorized our items by size and complexity and calculated the projected material needs accordingly.

Table 1. Projected distribution of product categories and material requirements.

Product Category	Description	Expected Share of Orders	Average Weight per Item (g)	Estimated Quantity per Month	Total Monthly Weight (g)
Small (rings, small earrings, mini pendants)	Lightweight, simple accessories	~60%	6 g	120	720
Medium (standard earrings, pendants, medium-sized items)	Moderate size and design complexity	~30%	12 g	60	720
Large (bracelets, layered earrings, complex individual designs)	Larger and more complex pieces	~10%	22 g	20	440
Total				**200**	**1880**

The total calculated monthly weight of raw material required to produce the planned assortment of 200 items amounts to approximately 1,88 kg. However, to account for inevitable production losses, we include a safety margin of 30% surplus in the planning process. This adjustment increases the estimated monthly raw material requirement to approximately 2,5 kg.

Therefore, it ensures smooth production without interruptions and allows for flexibility in custom orders and limited collections.

To define a reasonable and sustainable selling price, we analyzed competitors' prices and our calculated production costs. According to market analysis, competitors offer products in a wide range, for example, rings are priced from UAH 50 to UAH 950, and pendants range from UAH 120 to UAH 1,500. Informal interviews with potential customers also confirmed that a price of UAH 600–700 per item would be considered acceptable and attractive for eco-friendly and designer jewelry. Furthermore, market research supports this pricing strategy. Consumer Voice 2024 study in Ukraine shows that Ukrainian consumers are willing to pay an average of 9.41% more for environmentally friendly products that help prevent climate change (PwC). Taking into account our calculated production costs and market research, and feedback, we set the following selling prices (see Table 2).

Table 2. Planned pricing based on product category.

Product Category	Planned Production Volume per Month (units)	Estimated Production Cost per Unit (UAH)	Total Estimated Production Cost per Month (UAH)	Planned Selling Price per Unit (UAH)
Small	120	22,19	2 663,30	680
Medium	60	44,39	2 663,30	850
Large	20	81,38	1 627,57	1300
Total (UAH)	-	-	**6 954,17**	-

a. Note: Production costs include raw materials, packaging, coatings, and operational overhead.

Analysis showed that each product category can have a healthy margin of at least 35 to 40 percent. Since the project depends on costly equipment, we make sure to cover those costs plus some extra for anything unexpected, and that is why each piece of jewelry includes raw materials, packing, coating, as well as operating and insurance reserves, so we can work without losses and continue to improve our products.

A scale-up model over the first six months was developed to forecast sales dynamics and revenue growth, with predicted sales volume steadily increasing alongside brand recognition and growing customer loyalty. In the launch month of July 2025, initial sales are expected to be equal to 45% of the planned monthly sales, or about 90 units per month, yielding UAH 53,370 in revenue.

Furthermore, sales volumes are expected to increase each month according to the planned schedule and reach a total target of 200 units per month by December 2025, with anticipated

revenue of UAH 158,600 (see Appendix 3). The growth will result not only from higher sales volumes but also from increased revenue due to gradually rising selling prices, reflecting the growing perceived value of the brand and products.

Additionally, seasonal fluctuations and peak periods will play a significant role in improving revenue performance. Stronger demands are expected to stimulate sales during key gift-giving seasons like public holidays, Christmas, and New Year, and other special occasions. Overall, sales forecasts are based on a reasonable combination of realistic market assumptions, production capacity, and consumer behavior trends.

Chapter 3

Marketing and Sales Strategy

According to our client's analysis, our target audience is women who live in big cities in Ukraine and want to wear eco-friendly clothes and unique accessories. To resonate with their needs, our digital strategy, as well as our marketing and sales strategy, must effectively market to them through storytelling and transparent communication. We strive to develop our brand as a leader in eco-conscious fashion through endless interactive content and by opening doors for our customers.

Branding and Positioning

We are committed to a sustainable approach, using recycled 3D printing waste to create high-quality and trendy jewelry pieces, which retain their meaningful character. Our brand is built on a foundation of environmental responsibility, ethical manufacturing practices, and authenticity. Our objective is to prioritize environmental protection by minimizing impacts while maintaining the capability to fulfill consumer needs for superior, distinctive accessories. The business strategy incorporates these principles because they connect to customer values that support purpose-driven brands. Our research has enabled us to refine the key messages that represent our brand. However, it remains essential to understand that eco-jewelry does not mean low-cost products or factory-produced items. Every jewelry item comes with an exclusive narrative. To us, jewelry represents a statement that combines personal character with ethical practices and artistic, creative methods.

The way to transform 3D printing waste into jewelry differentiates us from other sustainable jewelry brands in the market and also expresses our commitment to sustainability through innovative material recycling. Additionally, a unique selling point of our brand is the detailed product and production information, which we will showcase through storytelling. Furthermore, our

fashion-forward approach with following modern fashion trends, will be able to reach and interest an even larger audience in eco-conscious jewelry. As well, our customers can request personalized designs for their accessories, thus making their purchasing experience more engaging with the brand.

Sales Strategies

Our brand sales strategy relies on digital platforms combined with a personalized and interactive customer shopping journey. The primary platform through which we plan to sell products is Instagram. This method seems to be the most convenient for a startup as it is easier to present the products, set prices, and people can directly engage with the company through direct messages. Additionally, it allows tracking consumer trends and preferences, which will help in producing collections that are in line with contemporary styles and sustainability values. As the brand scales, we will develop an e-commerce website that will make the shopping experience more structured and professional, as well as allow us to have improved analytics.

To drive sales, we will implement several conversion strategies, such as a limited edition, to create a sense of exclusivity and urgency that would make the customers buy as their stocks are running out. The second option is a pre-order whereby a person can order a product before it is manufactured, creating anticipation and ensuring demand. To encourage larger purchases, we will introduce package discounts, such as a 10% discount when buying two items. Besides, a strong loyalty program will be developed, where returning customers will be able to receive discounts, rewards for referring new customers, contributing to growth and brand awareness, and early access to new collections.

Our brand sales strategy is built around the combination of flexible digital channels and individual engagement with each client. Sales will begin through Instagram to have our online store

website. We will use tools such as limited collections, pre-orders, package discounts, and a loyalty program to not only drive sales but also to build a community of loyal customers.

Digital Marketing Techniques

To effectively engage our target audience and build a strong brand presence, we will implement a digital marketing strategy that leverages social media and paid advertising. Our promotion of the brand will center around Instagram and TikTok as they demonstrate high power for brand creation and promotion while enabling us to establish a fast-growing audience base of potential customers. We will create short video content that will show the production of jewelry from plastic waste, as well as demonstrations of finished products and how our products can be integrated into everyday life stylishly and simply. We will use trendy music and relevant hashtags as an accompaniment to get to the people's recommendations page. This is considered an effective way of promotion, because according to a Wyzowl study, 73% of consumers consider short videos to be the most effective way to learn about a product or service (“5 Reasons to Use Video”). Also, according to the survey, 66% of marketers consider short videos to be the most effective content format for engaging audiences (Baumgartner). As for the images, we will post them on the two aforementioned platforms so that people can see the product range with the option to indicate in direct messages on Instagram which product they would like to purchase. Our plan also includes hosting Q&A livestream events with audience members who reach 2,500, after which we will engage in direct communication to respond to questions while sharing our brand values and production practices. Thus, we demonstrate a completely open recycling and disposal procedure to generate trust and support of sustainability-focused brands among customers.

Alongside organic social media marketing, we will also implement paid advertising strategies to maximize our reach and increase conversions. Therefore, in this case, we will use advertising on Instagram and TikTok, which will allow us to target urban eco-conscious consumers.

These platforms will serve as key tools for brand storytelling, community building, and sales promotion.

At the stage of business growth, we will create our shopping site and also add Google search ads to optimize reaching users searching for terms such as "eco-friendly jewelry," thus directing them to our website. The development of the website is planned to start at the beginning of the second year of business operations. This timeline allows us to first build a stable customer base, define our visual identity, and better understand both customer expectations and our brand direction. After a year of observation and interaction with our audience, we will be more prepared to design a website that truly reflects our style and meets user needs. According to preliminary searches, since we want to create a website for an online store, it will cost us about UAH 30,000, and the development itself will take two to six weeks (Dzudzylo). Regarding the monthly marketing costs, we opt for paid advertising on social media, particularly Instagram, because it is more important for us to promote our products this way, as it makes it easier to reach the page and increases the likelihood of an order. After analyzing that the cost-per-click averages $0.20 per day, the cost-per-impression averages $2 per day (Kaur). We plan to advertise for 14 days for the first three months, so monthly expenses will amount to $30,8 or about UAH 1263, and then everything totals UAH 1300.

Key performance indicators (KPIs) will determine the effectiveness of marketing and sales performance so that the company can track momentum and refine methods. The primary Key Performance Indicator (KPI) is conversion because it identifies how many social media users and advertising consumers convert to customer status. The activity level of Instagram and TikTok audiences will be measured through audience interactions such as likes, comments, and order requests, as well as reposts. Sales growth will be tracked through two measurements: one tracks new customer purchases, while the other measures customers who make repeat purchases,

indicating loyal customer behavior. The short-term goals include increasing Instagram engagement by 15% in the first six months and reaching 5,000 interactions per month during the first year on all digital platforms.

Chapter 4

Operation Plan

This section presents an Operation plan that takes into account the complex legal, regulatory, and technical issues that must ensure the smooth and efficient implementation and management of the project. Besides, it will include a SWOT analysis to deepen the project's features and identify possible strategies and actions for the successful realization of the project.

SWOT analysis

Starting with a SWOT analysis, as it will serve as the foundation for the rest of the plan. It represents the overall internal and external environments, identifying the strengths, weaknesses, opportunities, and threats for the business.

Strengths

Our project takes a conscious approach to production by rethinking and giving a second life to waste 3D plastic, turning it into beautiful accessories. Unlike other eco-brands, we specialize in recycling this particular type of plastic, positioning ourselves as an innovative entity in this niche. We also strive to work for environmentally conscious customers and attract new ones, those who may not have realized that stylish accessories made from recycled materials are possible.

Weaknesses

Our weaknesses are that we have limited brand awareness in the Ukrainian market due to our early stage of development and the need for a stronger marketing presence. In addition, we are dependent on the availability of 3D printing waste, and potential fluctuations in the supply of raw materials may affect the stability of production. Furthermore, our financial resources are limited, which limits our ability to invest in large-scale marketing initiatives and expansion.

Opportunities

We recognize that our weaknesses can be turned into opportunities. Firstly, there is a growing demand for sustainable products on a global scale, as well as in Ukraine, and this means that more consumers are seeking ethical, environmentally friendly goods, thus creating favorable conditions for the development of eco-businesses. Secondly, to mitigate the dependency on the availability of 3D printing waste, we will diversify our waste sources by partnering with various 3D printing labs. Thirdly, despite limited financial resources, digital marketing platforms such as Instagram and TikTok allow us to promote our brand cost-effectively.

Threats

Potential challenges we could face include the possibility that people may not accept or support our initiative, it may not be profitable, and the war factor may have a negative economic impact because people would be focused on spending money only on necessities. There could also be skepticism and potential distrust of recycled materials in accessories.

SWOT Matrix

To visualize how internal strengths and weaknesses interact with external opportunities and threats, the strategic responses are summarized in the SWOT matrix (see Table 3). This table helps outline key directions for action based on our market position and development potential.

Table 3. SWOT Matrix: Strategic alignment of internal and external factors.

	Strength	***Weaknesses***
	SO Strategies	*WO Strategies*
Opportunities	1. Use the uniqueness of 3D plastic recycling to promote the upcycling culture and differentiate the brand. 2. Highlight product originality and sustainable values through engaging brand storytelling and participation in eco-friendly events and communities.	1. Utilize free and cost-effective digital marketing platforms like Instagram, TikTok to overcome budget constraints and increase brand awareness. 2. Establish partnerships with several 3D printing labs to secure stable raw material supplies.
	ST Strategies	*WT Strategies*
Threats	1. Communicate openly about the unique material to reduce skepticism and build credibility; 2. Emphasize an innovative approach in eco-jewelry production to withstand uncertain economic conditions.	1. Start with small production batches to manage risks and reduce potential losses. 2. Implement flexible pricing policies to lower barriers to purchase and encourage sales.

We have developed a strategic matrix based on the determined factors. The company aims to increase brand recognition through emotional storytelling, open communication, and unique 3D plastic processing. To reduce resource constraints, we will utilize free and cost-effective promotion methods on Instagram and TikTok, and form partnerships with several local workshops to provide reliable access to raw materials. Responding to consumer skepticism, we will emphasize the

transparency of production and the environmental benefits of the materials used. Additionally, we will reduce risks by producing small batches initially, maintaining flexible pricing, and gradually increasing output. This will help us adjust to changing market conditions, reinforce trust with our audience, and create a reliable foundation for sustainable growth. Implementing these strategies will help increase brand visibility and attention towards the products and, most importantly, sustain the business in the Ukrainian eco-jewelry market with future possibilities of expansion internationally.

Business Registration and Licensing

Given the Ukrainian legislation, to launch the brand, we plan to register an individual entrepreneur in the 3rd group of the simplified taxation system. This allows the company to officially conduct direct online sales and cooperate with partners. The chosen model is optimal for a startup due to its flexibility, ease of administration, and income limit of UAH 9,336,000 per year (Diia).

The process of registering a sole proprietorship is accessible, free of charge, and can be done online through the state portal “Diia”(Diia). Each entrepreneur is assigned standard Industrial Classification codes, which indicate what types of activities the entrepreneur is engaged in(Adbokatske byuro Yakhovskyi i partnery). The following codes are suitable for our business (see Table 4).

Table 4. Standard Industrial Classification codes relevant to the business activities.

Category	Code	Purpose
Main activities	**32.13** - Production of jewelry and similar products	Jewelry manufacturing from upcycled 3D-printed plastic
Additional Activities	**47.91** – Retail trade in goods carried out by mail or via the Internet (except for online auctions)	Online sales through Instagram
	74.10 – Specialized work with design	Branding, unique jewelry design, and artistic collaborations

Tax conditions in 2025 ("Byudzhet 2025"):

- Single tax rate: 5% of income (excluding VAT);
- Military duty: 1% of income;
- Unified Social Contribution: 22% of the minimum wage, which is UAH 1,760 per month;
- Reporting: Starting January 1, 2025, monthly reporting on employees, including personal income tax, military duty, and unified social contribution, will be introduced.

Intellectual Property Issues

In the first years of operation, the business will use the brand name "ReViva", where "Re" stands for rethinking and "Viva" means alive (Britannica Dictionary). This name suits our values as we don’t see discarded materials as waste but as potential that can be brought back to life, therefore they’re not past items.

For the first stage, we will not be registering a trademark as it takes 16 months and it's very resource demanding ("Reyestratsiya torhovelnoyi marky"). Since we are focused on launching the startup quickly, our initial goal will be to test product prototypes and to start sales. We understand that without trademark registration, our brand name will not be legally protected and could potentially be used by others. On the other hand, as our business grows and gets wider market recognition, we will then apply to register our trademark to secure legal protection.

Employment Law

The business will operate as a sole proprietorship under the 3rd group of the simplified taxation system. The legal form allows engagement of an unlimited number of both full-time and part-time employees under formal employment contracts. Short-term contractors may be engaged through civil-law contracts only for irregular, project-based work, ensuring full compliance with labor law.

At the initial stage, given the startup's operational model and financial constraints, the company plans to primarily employ part-time workers on a flexible basis to match real business needs and workload fluctuations. We guarantee full compliance with Ukrainian labor laws, safe working conditions, labor contracts, official salaries, and proper tax and social security payments. The founder, as well as the person in whose name the sole proprietorship will be registered, will act as the official employer responsible for signing contracts and fulfilling all tax, social, and legal obligations.

In terms of payroll taxation for 2025, the following rates apply ("Byudzhet 2025"):

- Personal Income Tax – 18% (withheld from the employee's gross salary) ;
- Military Tax – 5% (withheld from the employee's gross salary) ;
- Unified Social Contribution (USC) – 22% of the gross salary (paid by the employer).

For instance, if a full-time employee's net salary is UAH 20,000, the gross salary must be calculated with all taxes included, meaning that the total cost of employing one individual would be approximately 31688,32 UAH per month. The employer is responsible for transferring the deducted taxes and USC to the respective state authorities, while the employee receives the net salary directly into their personal bank account.

Although hiring private contractors might seem financially beneficial due to their self-management of taxes and risks, Ukrainian legislation strictly prohibits disguising regular employment under service contracts to avoid fulfilling employer obligations. Therefore, the company will officially employ all workers performing systematic tasks, thus mitigating legal and financial risks.

Data Protection and Privacy

As a business operating in Ukraine, we are committed to ensuring the security and confidentiality of all personal data we collect and process. We may collect and store data regarding customer information, including names, contact details, delivery address, and payment details, strictly to carry out order fulfillment, communication, and provide customer service as part of the operational processes, but in a limited way.

We fully comply with Ukrainian legislation on personal data protection, under which personal data are collected, stored, and used. Finally, we do not sell any information to third parties unless it is required by law or needed to deliver the order. In the future, our shopping website will interpret a more transparent privacy policy and secure payments, with policy statements on customers' rights, data collection, and management.

Environmental Regulations

Our business model is to recycle plastic waste from 3D printing, usually safe materials such as PLA, ABS, or PETG, into stylish, environmentally friendly jewelry. According to current

Ukrainian legislation, most small-scale operations for the processing and disposal of safe waste do not require a special license. In our case, we fall within this definition as it is planned to focus on 3D waste collection, processing, and melting, which means no large industrial processes with significant emissions or hazardous chemicals.

However, we will follow the general principles set out in the Law of Ukraine “On Waste Management” and related regulations, which pay attention to responsible waste storage and recycling to minimize environmental impact (Zakon Ukrainy). We will keep a record of purchased plastic leftovers for 3D printing and remaining production stock. In case of non-recyclable residues, we will arrange for proper disposal or cooperate with certified third parties authorized to handle plastic waste. As we scale up the business, the amount of 3D plastic leftovers will increase significantly, and this may result in us having to register in the official registry of the entities processing waste or obtain further permissions. Our commitment to responsible waste management practices strengthens the circular economy and ensures environmentally friendly operations with both regulatory compliance and consumer confidence remaining intact.

Chapter 5

Technical Aspects

Technical, Equipment, and Infrastructure Requirements (CapEx base)

To launch the production of eco-friendly accessories from upcycled 3D-printed plastic waste, basic equipment for plastic processing, space for production, and essential tools for designing and post-processing manufactured products. With this notion, this section outlines core equipment and infrastructure needed to begin operating and estimates approximate capital expenditures (CapEx), which can be seen in Appendix 2.

The manufacture of eco-friendly jewelry will be carried out in a rented 30 m2 space, planned to start operating in Vyshhorod, Kyiv region. It combines affordable rental costs with effective supply chain management and operational flexibility. At the initial stage, no major renovations are required except for minor modifications to install ventilation systems, as its capacity in the rented space is insufficient for safe and efficient plastic processing, and it is already included in the capital expenditure. The facility will also be equipped with a standard power supply of 220V, workbenches, shelving, and LED lighting. Internet access and basic IT equipment like laptops, a printer, router will ensure smooth operational and sales activities.

Manufacturing will rely on compact, specialized equipment listed in Appendix 2, which includes a crusher-shredder, laser cutter, oven, molds, and polishing tools. The total capital investment for machinery and workspace preparation amounts to UAH 182,968. This equipment will be amortized starting from the first year of operation, with an estimated useful life of between three and five years, depending on the type of equipment. As demand grows, production can be scaled by expanding the equipment base or relocating to a larger facility to accommodate higher order volumes.

Product Development and Description

Our product is a line of many stylish, eco-friendly accessories in the form of rings, bracelets, earrings, and pendants made of recycled 3D plastic waste. Materials that will be used in production are PLA, ABS, or other plastics that have turned up in the trash due to not being applicable for the intended use. The development process focuses on the product being sustainable with the combination of modern design and responsible use of materials. Hence, our products can be characterized by the following:

- The material consists entirely of recycled 3D plastic waste that becomes harmless after finishing processing.
- The style of accessories will have trendy, bright color combinations due to the variety of filament wastes supplied.
- Jewelry can be custom-made or come from limited collections.
- It can be worn daily because it is lightweight and hypoallergenic.

The jewelry production process will consist of several stages that will allow us to turn waste into beautiful accessories. After the material comes to us, we sort, clean, and shred the plastic using a shredder, turning it into smaller pellets. The grains are then melted in a furnace on a tray, and after solidification, they are cut out with a laser cutter with specific settings to obtain the planned product. After the products are molded, they are polished, coated with varnish, and, if necessary, hand-painted to give the product a finished look. If the products are pendants, bracelets, or earrings, they will also include jewelry findings to make them complete accessories. The company performs manual quality checks on every product to confirm that it possesses the necessary durability and clean surface, and safety features for wearability.

Suppliers and Supply Chain Management

To ensure a stable supply of raw materials, our project will rely on local sourcing and flexible cooperation with 3D printing studios. The primary materials will include failed prints,

leftover filament, and plastic scraps generated during the printing process. At this stage, we have identified five potential suppliers in Kyiv. According to a 2021 HSSMI survey, organizations using filament-based 3D printing produce between 5 and 40 kg of plastic waste per month, depending on scale and practices ("How Much Plastic Waste Does 3D Printing Really Generate?").

Our production requires approximately 2.5 kg of material monthly. Assuming that each supplier can provide at least 1 kg of waste per month, cooperation with at least three studios will fully meet our initial needs. As production scales up, we plan to gradually expand our supplier network to ensure continued material availability.

All raw materials will be collected directly by our team. Since we are based in the Kyiv region and use an electric vehicle charged by solar panels for transportation, logistics costs will be minimal or even absent. This eco-friendly approach will contribute to maintaining low operational expenses. To ensure production scalability and reliability, we plan to enter into direct supply agreements with studios. These partnerships will provide flexibility and help mitigate risks associated with supply fluctuations.

During the early stages, we will accept various types of 3D printing plastics to determine which are most suitable for jewelry production. After this testing period, we will refine our procurement criteria and limit sourcing to optimal materials, improving production efficiency and reducing defect rates.

In conclusion, our supply chain strategy focuses on flexible procurement from multiple local studios, cost-effective and sustainable transportation, and adaptive sourcing practices. This approach will secure resource availability, mitigate risks, and support smooth business growth while meeting market demand.

Logistics and Distribution of Finished Products

At the very first stage, the distribution of finished products and their sales will be organized through direct messages on Instagram, where customers will be able to view photos, prices, and availability of products on our available jewelry page, learn about the details, and place an order. Finished products will be stored in labeled containers in shelving units, and packaging of items will be done using eco-friendly materials such as recyclable paper boxes, eco-twine, and wrapping film that aligns with our brand's sustainability values.

When a customer orders from our Instagram page through direct messaging, we will verify their order and delivery information, while requesting a prepayment to maintain their interest in our products. If the jewelry is already available, we will proceed with packing and shipping it immediately. If the item is not in stock or the customer prefers a custom design, we will clarify all the necessary details and begin production after receiving a prepayment.

After preparing the product, customers will receive tracking information, and orders will be shipped within 1–3 business days. We will primarily use Nova Post for most deliveries because this courier service maintains strong recognition and reliable delivery services in Ukraine. For the future, our company plans to develop new courier service partnerships.

Maintenance and Support

To avoid unexpected downtime and ensure continuous quality control, we will implement maintenance procedures that will extend the life of all production equipment. Based on the analysis of market prices for basic technical services and repair parts, we have estimated the initial monthly maintenance budget at approximately UAH 2,000. The budget can be used to cover cleaning supplies, small replacement tools, and minor electrical repairs like wires or switches. Internal scheduled equipment inspections will be performed bi-weekly to guarantee a minimum procedure of cleaning and safety checks, together with equipment tooling calibration. More complex

maintenance activities involving ventilation systems and electrical work will require the use of professionals.

In addition to maintenance, we will keep a record of machinery usage along with maintenance activities and technological issues to properly predict when preventive work needs to be done on equipment and avoid breakdowns. The maintenance procedures and budget will be regularly reviewed and adjusted for effective equipment maintenance that minimizes production risks.

Technical Infrastructure

To support the day-to-day operations of our business, given that it will work with online environments and the possibility of remote coordination, we will create a simple but reliable technical infrastructure. To properly show our technical infrastructure needs, the following list will serve as guidance:

- Two laptops are required for team members involved in design and sales management.
- The organization requires a reliable and fast internet connection to efficiently handle daily communications and orders.
- Using Blender as jewelry prototype design software represents an essential requirement to build and view these models.
- The laser cutting production relies on software such as Adobe Illustrator, which will manage both design file uploads and process control operations.
- Cloud-based document storage solutions of Google Drive, along with Microsoft Teams, will be used to store documents with the possibility of real-time shared editing.

We will use Google Sheets to track sales, expenses, and inventory. These tools are free, easy to use, and helpful in managing the operations of businesses during their early stages. Looking forward, as the business evolves, we plan to acquire advanced CRM software to enhance customer relationship management, integrate cross-company communication, and analyze customer

interactions and sales data utilizing business intelligence tools. Data will be stored in the cloud for secure file storage and easy collaboration. This eliminates the need for expensive physical servers and complicated IT systems. Such infrastructure will allow us the flexibility to monitor production and sales remotely, and gradually expand our technical capabilities.

Quality Assurance

To achieve the proper level of customer satisfaction and product viability, each product will undergo a multi-stage quality control process. All jewelry will be visually inspected to detect defects, check readiness for daily wear. At the preliminary design stages, we test the products to assess their comfort, durability, and attractiveness before selling them. This self-testing method ensures that we only offer products that we would wear ourselves. In addition to visual and functional testing, we will prioritize product safety by applying hypoallergenic coatings to all jewelry. It will prevent skin irritation and make every accessory safe to wear. We will also have a flexible return and exchange policy. Our company provides a full refund option and enables customers to exchange purchased products against any other merchandise they prefer. Customer feedback, with prior consent, will be shared through our social media channels to enhance brand engagement and product improvement, since transparent communication is important for continuous product development.

Cost Planning

To maintain financial sustainability and effectively manage budgets, we created a detailed operational cost structure. The structure includes fixed and variable expenses calculated on the basis of the expected production volumes and operational requirements.

Fixed Operating Expenses

Fixed expenses are costs that are not influenced by the volume of production and remain relatively stable from month to month. These include rent, utilities, marketing, salaries, and maintenance. The calculation for the first month of operation is shown below (see Table 5).

Table 5. Fixed Operating Expenses (per 1st month of business operations).

Category	**Estimated Monthly Cost (UAH)**	**Notes**
Rent (30 m² in Vyshgorod, Kyiv region)	4 500,00	Fixed rent cost for production space
Utilities (electricity, internet, heating, water)	2 500,00	Estimated for 30 m2 workspace
Marketing & Advertising	1 300,00	Instagram paid advertising
Salary (production manager)	19 012,99	Fixed salary including all taxes
Maintenance & Repairs	2 000,00	Regular technical maintenance
Total Fixed Costs	**29 312,99**	

In particular, rent and utilities correspond to the market prices for production space in the Kyiv region, Vyshhorod. Initial promotional activities, such as targeted advertising, are critical during the launch stage and are considered part of marketing expenses. The mandatory taxes and fees are included in the salary component. Accordingly, an average production manager is expected to work 8 hours per day with a salary of UAH 75 per hour, resulting in a net salary of UAH 12,000 per month. The total salary, inclusive of taxes, amounts to UAH 19,012.99. The salary of the CEO is not calculated separately, as the sole proprietorship will be registered in the CEO's name, and the

net profit of the business will be considered their income. Lastly, maintenance and repair costs include minor technical support to prevent production from stopping.

Additionally, accounting services are not part of the initial fixed associated monthly expenses, but they are expected to be engaged at specific reporting periods. From October 2025, when tax declarations and comprehensive reconciliations of financial accounting are required, the company plans to use external bookkeeping services. For more detailed information on the fixed costs for the first year of operation, see Appendix 3.1.

Variable Operating Expenses

Variable expenses increase proportionally with production volumes and fluctuate according to the number of units produced. The basic components can be seen in Table 6.

Table 6. Variable Operating Expenses (per 1st month of business operations).

Category	**Estimated Monthly Cost (UAH)**	**Notes**
Packaging Materials	2 742,52	Based on the production of 200 units
Raw Materials (3D plastic waste)	25,00	Based on 2.5 kg x 10 UAH to produce 200 units
Hypoallergenic Coatings	315,00	Calculated for 200 units
Overhead	6 165,04	Includes electricity, equipment depreciation, and processing-related overhead costs
Total Variable Costs	**9 247,56**	

The calculated cost of packaging is based on the production of 200 pieces of jewelry. Based on market research, the cost of raw materials was estimated at UAH 10 per kg, which is based on the recycling of 3D printing waste. About 2.5 kg of plastic will be needed to produce about 200 units. The cost of the hypoallergenic coating includes the price of one spray bottle suitable for the planned production volume. The overhead component, which is the largest part of the variable costs, takes into account all indirect costs associated with production, resulting in a 200% markup to cover the unnegotiable costs associated with this necessary production effort.

The production costs for the planned monthly sales volume were calculated according to the assumptions stated in Table 2. About UAM 6,954.16 is estimated production cost at full capacity, that is, at 200 units per month, which corresponds to 100% of the planned monthly production volume. This figure reflects the baseline production costs, so for more accurate financial planning, inflation was also considered in the production cost calculations. The annual inflation rate for 2025 is projected at approximately 8,7% (NBU). Thus, we assumed a monthly inflation rate of 0.7%.To ensure additional prudence and financial flexibility, this rate was rounded up to 1% monthly inflation, which was included in the production cost projections for the first operating year (see Table 7).

Table 7. Inflation-adjusted production costs (2025–2026).

Month	Inflation (%)	Production Costs (UAH)
July 2025	0%	3 129,37
August 2025	1%	3 863,04
September 2025	1%	5 267,78
October 2025	1%	5 970,15
November 2025	1%	6 672,52
December 2025	1%	7 023,71
Q1 2026 (total)	1% monthly	23 178,23
Q2 2026 (total)	1% monthly	26 338,90

Using these projections, we are able to estimate how our production costs would increase, but still be able to set prices and maintain profit margins. Including inflation when calculating cost helps to make financial planning realistic and flexible to economic fluctuations.

Chapter 6

Financial Planning and Economic Justification of the Project

Sources and Terms of Financing

We recognize the importance of having access to various funding opportunities and maintaining flexibility when evaluating potential sources of capital. Grant programs, startup accelerators, business angel investments, and bank loans each offer valuable advantages, such as non-repayable support, mentorship, access to networks, or quick capital availability. Nevertheless, they also involve limitations, including competitive selection processes, equity requirements, and complex reporting.

At this stage, however, we plan to rely primarily on our financial resources to ensure independence and maintain full control over the business. Our available funds of UAH 250,000 will cover the initial investment needs. Therefore, while we are aware of and open to alternative financing opportunities for future scaling and development, the initial launch and operational phase of the project will be self-funded. This approach will allow us to avoid external obligations and focus on building a stable foundation for the business. For financial modelling purposes, we will use a market borrowing rate of 16% per annum (Monobank) to reflect the potential cost of capital and ensure realistic investment evaluations.

Cost of Capital and Anticipated Financial Results of The Project

A financial projection of the project has been developed to determine the profitability and sustainability of the project. It includes detailed preparation of an Income Statement (see Appendix 3.2) and a Cost-Benefit Analysis, which leads to a comprehensive evaluation of the expected revenues, expenses, and economic viability.

A graph was created to visually represent the dynamics described in the Income Statement. This graph illustrates the monthly dynamics of revenue, production costs, taxes, and net profit during the first year of business activities (see Figure 6). In particular, the study shows how net profit gradually enters the positive range as sales volumes increase and operational efficiency gradually improves to avoid stopping production.

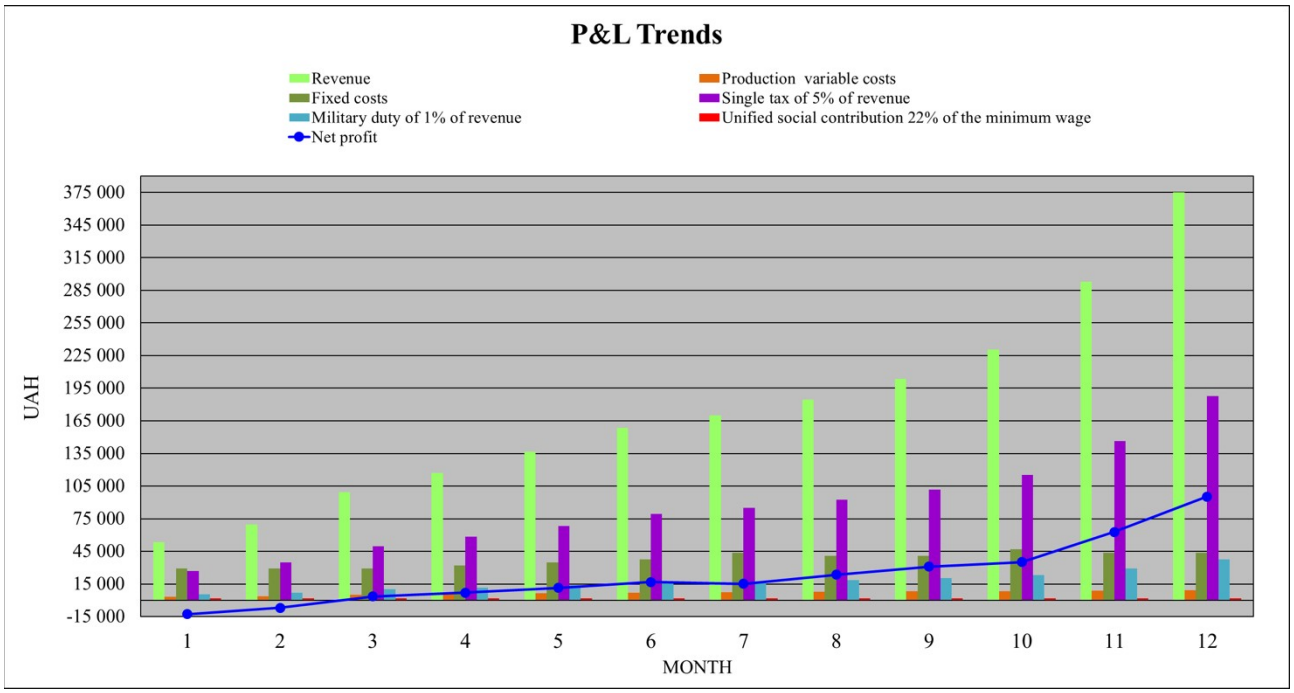

Fig.6. Income statement trends during the first operating year.

The data graph demonstrates that the project generates losses throughout its first three months from July and September of 2025. Start-up firms frequently experience this situation due to their high initial fixed costs combined with substantial marketing expenses and limited sales, which cause unfavorable financial outcomes. At this point, revenue amounts are insufficient to cover all operating costs, which leads to net losses. However, beginning from September 2025, financial outcomes will start to show better performance. The company achieves this positive performance through stable fixed costs and efficiently managed variable costs combined with growing sales volumes and improved brand recognition. The growth rate of mandatory contributions and taxes matches revenue growth but moves at a slower pace than rising gross income, which boosts margin

efficiency. Profitability for the project begins after 2025 when positive net profit becomes attainable starting in month six. Therefore, the financial model predicts future profitability throughout 2026 based on growing product sales, together with seasonal market highs, along with modest price adjustments representing the brand's increasing market value.

Cost-Benefit Analysis

A Cost-Benefit Analysis was performed to assess the financial viability of the project as presented in Table 8. The analysis tracks projected benefits against total costs throughout 2026 operational months, combined with the early operational phase and future scaling period.

Analysis shows the company achieves stable profitability at the end of 2025 while net profits expand significantly during the first six months of 2026. The overall project-generated net benefits reached UAH 282,148 during the analysis period, which corresponds to a Cost-Benefit Ratio (CBR) of 1.2. Every hryvnia of operational costs generates 1.2 hryvnias in revenue, demonstrating strong financial performance and project viability.

Table 8. Cost-Benefit Analysis of the Project (2025–2026).

Period	**Month**	**Benefits (Revenue), UAH**	**Costs (Total Expenses), UAH**	**Net Benefit (Net Profit), UAH**
July 2025	1	53 370,00	66 224,36	-12 854,36
August 2025	2	69 850,00	76 846,03	-6 996,03
September 2025	3	99 600,00	96 100,77	3 499,23
October 2025	4	116 960,00	109 719,14	7 240,86
November 2025	5	136 610,00	125 164,75	11 445,25
December 2025	6	158 600,00	141 709,94	16 890,06
Q1 2026	(Jan–Mar)	558 460,00	488 936,87	69 523,13
Q2 2026	(Apr–Jun)	898 319,50	704 919,76	193 399,74
Total		**2 091 769,50**	**1 809 621,62**	**282 147,88**
Cost-Benefit Ratio (CBR)		**1,2**		

Investment Analysis

This section provides a detailed evaluation regarding the project's investment attractiveness in terms of cash flow projections, profitability indicators, and analysis of the project's key assumptions' sensitivity. The analysis attempts to find out if the business can earn sufficient returns from the capital invested and determine how changes in market conditions would affect financial profits. A Cash Flow forecast (see Appendix 3.3.) completes the Income Statement, giving a clear picture of the company's ability to remain liquid and fulfill its financing requirements. This model also has a schedule of cash inflows and outflows that is important to continue the business and meet financial obligations. The cash flows were discounted with a rate that captures the discounted potential cost of capital to better assess the investment efficiency. According to the section Sources

and Terms of Financing, the discount rate of 16% per annum was used for the market borrowing rate.

The dynamics of cumulative and discounted cash flows are illustrated in Fig. 7. The graph visually indicates that the project will initially regain its initial investment and generate positive cash flow later. In particular, during the first months, the project records negative cash flows as a result of upfront investments (CapEx) and limited revenue generation. The business performance improves substantially after operational profitability develops while scaling up operations. The business reaches break-even at the end of its first complete year, thus transforming into a sustainable financial operation.

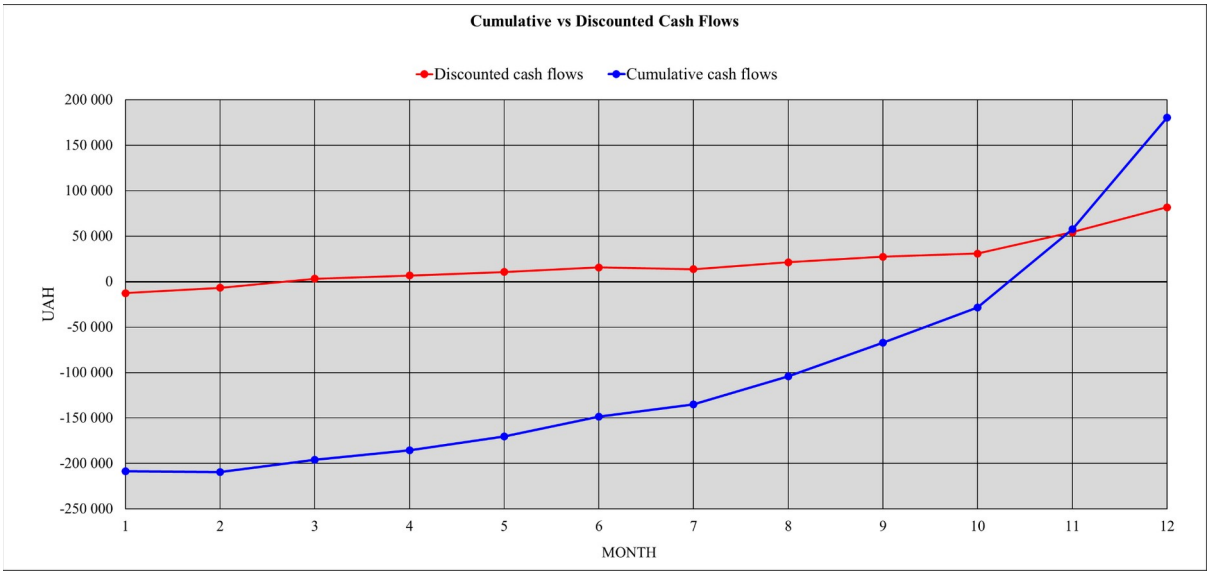

Fig. 7. Cumulative vs. Discounted Cash Flows.

Calculations based on a discounted cash flow analysis were used to determine key investment indicators to support decision-making, with the results shown in Table 9.

Table 9. Investment evaluation indicators.

Indicator	Value	Notes
Payback Period (PBP)	Q2 2026 (approx. 11th month of operations)	Expected point when cumulative discounted cash flow turns positive
Internal Rate of Return (IRR)	41.12%	Annualized
Net Present Value (NPV)	UAH 63,574.40	Based on a 16% discount rate

The project is expected to reach payback in the second quarter of 2026, which is approximately the 11th month after the start of operations in July 2025. This is the point at which the cumulative discounted cash flows turn positive and indicate that further cash flows will directly contribute to profitability. The percentage of internal rate of return is 41.12% and is higher than the discount rate, which indicates profitability, and the positive Net Present Value indicates the project's ability to create value over the amount invested.

Sensitivity Analysis

The sensitivity analysis examines how changes in price, sales volume, and fixed costs can affect the project's investment attractiveness and financial sustainability. Because of this, these parameters were modelled and calculated monthly with both negative (-10%) and positive (+10%) adjustments. To review the full initial calculations, refer to Appendix 4. Each scenario is described separately in separate subappendices (Appendices 4.1–4.6) for easy reference.

In the baseline scenario (see Table 9), the Net Present Value (NPV) is positive, which means the project should have the ability to generate value above the cost of capital. However, NPV proves highly sensitive to price and sales volume reductions. In scenarios where the price or sales volume falls by 10% (Appendix 4.1 and Appendix 4.3, respectively), NPV turns negative, indicating a large loss to the project's profitability in less favorable market conditions. In contrast, improvements in pricing or volume of +10% (Appendix 4.2 and Appendix 4.4) cause NPV to rise dramatically, as shown in Fig. 8, thus highlighting the central influence of maintaining high sales performance and pricing flexibility. Changes in fixed costs have a comparatively moderate effect, though a 10% increase (Appendix 4.6) results in a noticeable reduction in NPV.

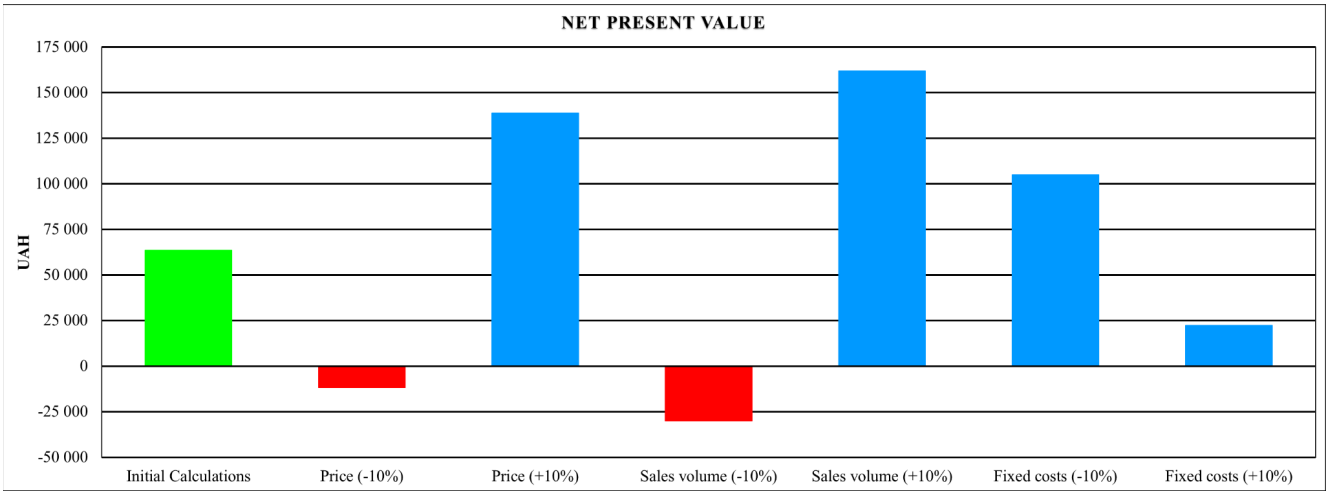

Fig. 8. Sensitivity of Net Present Value (NPV) to Price, Sales Volume, and Fixed Costs variations.

These findings are further reinforced by the Payback Period (PBP) and Internal Rate of Return (IRR) metrics. By assuming the baseline, the investment is set to repay after about 11 months of operation, timing in Q2 2026 (see Fig. 9). In scenarios with higher prices and sales volumes, payback occurs sooner, and the timeframe improves. Conversely, on the one hand, fixed costs experience a slight delay in payback, but not to such an extent that it becomes critical. This calculation excludes scenarios with negative NPV in which no payback can occur.

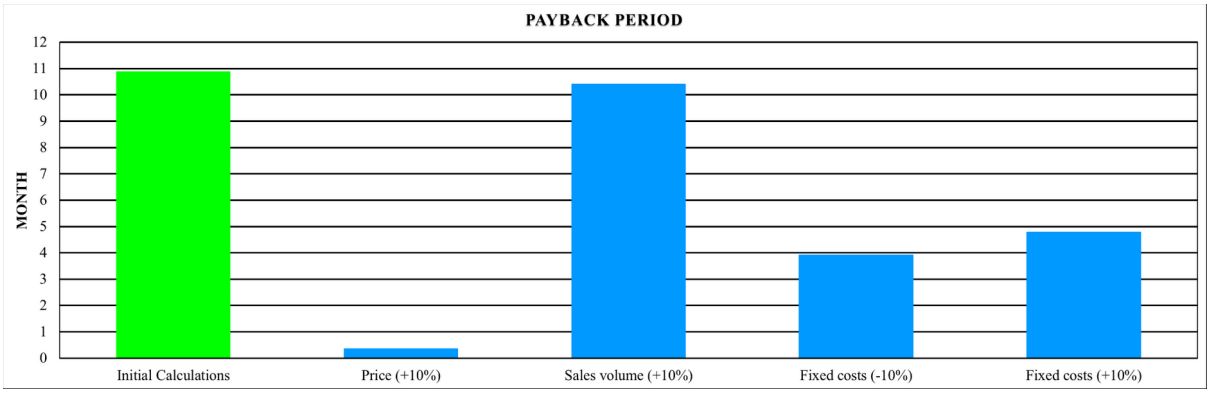

Fig.9. Sensitivity of Payback Period (PBP) to Price, Sales Volume, and Fixed Costs variations.

A similar dynamic is reflected in the IRR trends. Based on Table 9, the assumed cost of capital, the project appears to have strong potential returns to the baseline IRR of 41%. More favorable market conditions for price and volume increases bring the IRR above 100% (Appendices 4.2 and 4.4), thus making the project highly attractive under these conditions. However, raising fixed costs by 10% (Appendix 4.6) reduces the IRR to around 13% at the same time, indicating lower investment efficiency. This distribution of IRR values across scenarios is visually presented in Fig. 10, which highlights how price, sales volume, and fixed costs affect the project's return potential. The IRR is not calculated in terms of negative NPV scenarios, as it is with the payback period.

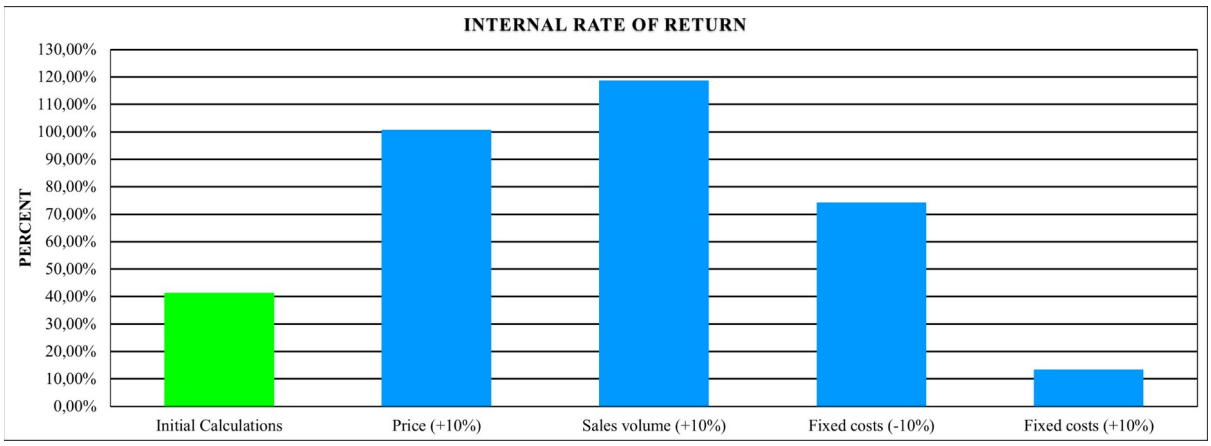

Fig. 10. Sensitivity of Internal Rate of Return (IRR) to Price, Sales Volume, and Fixed Costs variations.

Considering these results, the sensitivity analysis shows that, in most of the modeled scenarios, the project is relatively sensitive, despite being overall robust and still profitable, to price and sales volume reductions. This highlights the importance of demand management and pricing strategy for overall financial success. In contrast, modest improvements in market conditions translate into significantly better financial outcomes, making the project's risk-return profile more attractive.

Risk Assessment

Based on a startup that makes eco-friendly jewelry from recycled 3D printing plastic, there are several types of risks that can happen. Consequently, they must be determined and analyzed for the project's stability and profitability. A dedicated risk matrix has been developed (see Table 10) to visualize risk exposure and prioritize response strategies. This matrix categorizes risks based on the level of probability, potential impact, and the degree of priority for the mitigation efforts.

Table 10. Project Risk Matrix.

Risk Type	Probability	Impact	Priority
Market Risk	Medium	High	High
Supply Chain Risk	Medium	High	High
Financial Risk	High	High	High
Operational Risk	Medium	Medium	Medium
Regulatory Risk	Low	High	Medium
Reputational Risk	Medium	High	High

Market Risk

Eco-friendly jewelry demand might showcase unexpected results because market prices remain sensitive during times of economic instability. The company plans to minimize this risk through educational videos that showcase both product uniqueness and the significance of recycling. The company also plans to build B2B partnerships, which will lead to a more diverse customer base that includes professional businesses apart from individual buyers.

Supply Chain Risk

The inconsistent supply of 3D printing waste creates challenges for the company due to its role as the primary raw material source. The company will establish enduring partnerships with multiple suppliers whose base is Kyiv. Through contracts and agreement documents, we will maintain steady deliveries. Product quality maintenance becomes necessary through pre-qualification protocols for all new supplier candidates.

Financial Risk

The early operational phase may encounter challenges in meeting regular financial obligations due to limited cash inflows, as this phase does not generate enough revenue. Therefore, the company will adjust production and marketing activities in line with actual sales to minimize overproduction and overspending. We will gradually scale expenses using a phased approach,

assuming that any increase in fixed and variable costs will be supported by corresponding growth in sales. Additionally, suppliers and service providers will be offered either flexible or specific payment arrangements where possible, aiming to mitigate cash outflows and prevent liquidity shortages.

Operational Risk

Production and order fulfillment can be affected by disruptions, such as equipment malfunctions or short-term staff absences in a small team. The company will address this issue by implementing regular maintenance schedules, developing clear operating procedures, and simple contingency plans so that production does not stop if someone is unexpectedly absent.

Regulatory Risk

Depending on changes in legal or environmental regulations, there might be additional costs or operational adjustments. To maintain regulatory compliance, the company will also monitor regulatory updates and keep a clear record of its own. When required, we will seek legal consultations.

Reputational Risk

For a new brand that sells products made of recycled materials, skepticism from consumers could lead them to be less trusting and purchase less. In order to avoid this, prioritization will be given to transparent communication over the materials and manufacturing process. Environmental certifications, wherever possible, will be obtained. Product value and reliability will be reinforced by multiple aspects of high-quality branding and sustainable packaging.

Chapter 7

Implementation Section

The implementation plan is structured into four key phases, which reflect the gradual transition of the project from setup to stable operations and scaling. Each phase is closely connected to a series of project activities outlined in the Work Breakdown Structure (see Table 11) and visualized in the Gantt Chart (see Appendix 5).

At the start of the project (phase 0), we will carry out the essential preparatory work required to launch our project. Some of these include the preparation of the production space, the setup of the ventilation, as well as the purchase and installation of equipment (CapEx). Supplier agreements will also be completed to guarantee a source of recycled raw materials. These activities will set the foundation for the technical and organizational aspects of the next stages of the project.

In the first phase of the project, once supplier agreements are finalized, the project will begin with material sourcing. We will start with pilot production of some jewelry pieces to check out the machinery, and Instagram and TikTok accounts will be created, and content will be added to these accounts to increase brand awareness. Progress and operational efficiency will be monitored through regular reviews of financial matters and production.

The second phase will involve entering the market and growing sales. During this period, B2C sales are going to continue to expand. Targeted campaigns and content promotion will be the key to customer acquisition with the help of social media marketing. It will continue with ongoing production in order to meet demand. In December, production scale-up will begin to ensure capacity for higher order volumes. Additionally, marketing efforts will be strengthened and diversified to reinforce the brand's position along the line. Financial and production reviews throughout the phase will assist in refining these strategies and keeping costs under control.

Finally, the third phase will be about growing and stabilizing the business. Going forward, we will produce at full scale and begin B2B partnerships to build partners to further grow sales

channels and customer reach. The marketing activities will stabilize to become regular campaigns and customer engagement programs, aiming to maintain and expand market share. Financial and production performance reviews will continue to be performed regularly to maintain flexibility and the capacity to quickly adapt production to market changes. This phase is aimed at ending up with the business achieving sustainable operations and strong brand positioning by the end of this phase.

The detailed Work Breakdown Structure (see Table 11) captures all major project activities in line with these implementation phases, providing a clear roadmap for the project's launch and growth. Additionally, a visual representation in the form of a Gantt Chart of these phases can be found in Appendix 5.

Table 11. Work Breakdown Structure of the project launch activities

Category	Activities
Project Preparation (Phase 0)	- Finalize legal documents (business registration); - Purchase and install equipment (CapEx); - Prepare production space;
Supplier and Product Development (Phase 0-1)	- Secure supplier agreements for raw materials; - Organize and start material sourcing; - Develop and test prototypes for pilot production; - Conduct regular financial and production reviews;
Marketing and Sales Launch (Phase 1–2)	- Create brand visual identity; - Launch Instagram and TikTok accounts; - Develop and implement marketing campaigns; - Start B2C online sales; - Conduct regular financial and production reviews;
Production and Partnerships (Phase 2)	- Continue production for B2C sales; - Scale up production capacity; - Conduct regular financial and production reviews;
Stabilization and Growth (Phase 3)	- Expand B2C; - Establish initial B2B partnerships; - Continue marketing and brand strengthening;

	- Conduct regular financial and production reviews;

Organizational Breakdown Structure (OBS)

In a team structure, flexibility and accountability will be achieved through clearly defined roles and responsibilities, adjusted to the specific project at hand. Table 12 provides a summary of who is responsible for key tasks across the team. Legal, financial, and strategic matters, as well as marketing and sales channels such as social media management, paid advertising, and communicating with customers and suppliers, will be overseen by the CEO. The production manager will have to organize daily production processes, develop new product collections to keep the brand offering fresh and innovative, and set up and maintain equipment.

Table 12. Organizational breakdown structure and key responsibilities.

Role	Key Responsibilities
Founder/CEO	- Legal documentation and compliance; - Financial management; - Strategic planning and overall management; - Instagram and Tiktok management (content posting, engagement); - Running and optimizing paid advertisements; - Creation of visual brand content; - Managing orders and fulfillment processes; - Communication with suppliers and customers;
Production Manager	- Equipment setup and maintenance; - Organizing and overseeing production workflow; - Product design and jewelry collection manufacturing;

Taking into consideration this optimized team structure and clearly defined task assignments, adaptability and response to change become the critical components of day-to-day operations. Therefore, change management will naturally become part of the organizational structure. The CEO will coordinate the necessary changes in marketing, supplier relations, and production processes, while the Production Manager works through the making of a collection,

handling each stage from an initial sketch through to finishing the final item by making necessary alterations to production along the way. For this purpose, changes will be addressed as part of regular operational reviews and short action plans, and direct communication will be used to ensure that the whole team is aligned. At this stage, formal procedures will be limited and flexible in all respects, facilitating quick and flexible decision-making to keep pace with the needs of the market and the production environment.

Conclusions

This thesis represents a comprehensive business plan for launching a sustainable jewelry brand based on recycled 3D-printed plastic waste. The proposed solution converts unused post-industrial waste into fashionable accessories through recycling while addressing the increasing market demand for sustainable fashion products from environmentally conscious consumers.

The analysis of the market environment shows that both global and Ukrainian markets exhibit clear growth trends in the sustainable jewelry sector. The market environment analysis confirms that the global and Ukrainian markets show a pronounced growth trend in sustainable jewelry. An increasing number of consumers, particularly Millennials and Generation Z, are opting for ethical, transparent, and environmentally conscious brands. This business initiative is socially relevant, as awareness of how ecological challenges impact Ukraine's ecology is rapidly increasing. Additionally, from the competitive analysis, it was noted that recycled plastic jewelry remains a niche, and no one utilizes 3D printing waste as a primary material. This creates favorable conditions to occupy and strengthen a unique market position.

The financial model for the project shows an extremely high potential for profitability. Although initial losses are typical of startups, forecasts indicate stable profitability starting from Q4 2025. Leveraging flexible production, cost control, and scaling sales through digital platforms, the company is planning to receive UAH 2 million in revenue in the first year, and the IRR will be over 41%. The economic viability of the project is further supported by cost-benefit analysis and sensitivity analysis, which identify price and volume as key factors in project success.

Through local sourcing, small-scale production, and direct sales via Instagram and TikTok, the company aims to achieve low initial costs and align with modern consumer habits. By expanding into B2B partnerships and establishing an online store, the brand will mitigate its market segment risks through diversified sales channels.

From a legal and regulatory perspective, the business is structured for the Ukrainian environment. Registration under the simplified taxation system guarantees operational flexibility, while intellectual property and data protection measures will preserve long-term competitiveness. At the same time, operational processes include all necessary standards for safe waste handling and product quality assurance to meet environmental regulations and foster consumer trust.

In summary, the project has good market potential, social impact, and financial sustainability. Thanks to environmentally friendly production, customized design, sales, and optimized operations, the brand can take advantage of the Ukrainian green jewelry market. In the future, the company will continue to grow steadily, increasing its domestic market share, establishing B2B relationships, and potentially expanding into foreign markets. In addition to being a profitable enterprise, it is also an attempt to make business a driver of sustainable development by encouraging sustainable consumer behavior and reducing the environmental impact of the fashion industry.

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APPENDIX 1

Parameter	Anumo Plastic	Amyend.studio	Spogad	Rebeau
Key Advantages	● Focus on upcycling, which strengthens the ecological positioning of the brand; ● Visually distinctive product design aimed at creative consumers; ● Big variety of products; ● Women-led tech startup.	● Art design of jewelry; ● Use of recycled plastic; ● Non-standard approaches to unique jewelry.	● Circular business model; ● Production on demand; ● Women-led tech startup.	● Focus on plastic upcycling; ● Drawing attention to the problem of pollution. ● One of the first brands that did "plastic jewelry upcycling" in a modern format.
Strengths	● Unique designs; ● Fully ecological approach; ● Brand's eco-consciousness; ● Local production.	● A variety of forms and colors of jewelry; ● Direct communication channels via social media; ● Local production.	● Fully ecological approach; ● Premium handmade quality; ● Transparent communication of the production process; ● Deep story and concept; ● Production in Ukraine, design in France, showing the international background.	● Collections of jewelry made of transparent, colored plastic; ● Received positive reviews in the media; ● Collaborations with designers and famous people.

Weaknesses	● Limited scale of production; ● Small assortment of jewelry accessories.	● Limited sales channels (only Instagram); ● The environmental friendliness of 100% is questionable due to the unknown percentage of recycled plastic with a combination of acrylic; ● Details about the origin of the raw materials have not been disclosed.	● Long manufacturing time; ● Possible imperfections in the material due to secondary raw materials.	● Currently, the business does not show activity; ● Limited scalability; ● Difficulties with the constant supply of raw materials.
Price	Medium	Low	High	Medium
Quality and Materials	● Materials: recycled plastic bottles. ● Durability depended on the type of plastic and the thickness of the product.	● Materials: mainly acrylic, with the addition of recycled plastic; ● Durability depends on product care.	● Materials: recycled plastic (HDPE or other types), pressed or recycled in the form of thread/beads; ● Allowed micro-defects due to specifics of secondary material.	● Materials: from bottles to industrial waste with the combination of metal fittings, wood, or other materials; ● Durability depended on the type of plastic and the thickness of the product.

Execution Time and Delivery	● Ready-made products: delivery takes 1-3 working days; ● An individual order: execution and delivery take 1-2 weeks. Delivery is usually by NovaPost or other services (specified individually).	● Ready-made products: delivery takes1-3 working days through NovaPost, Ukrposhta, or Meest delivery services; ● An individual order: the production time may increase.	● Production: up to 3 weeks for bags and up to 2 weeks for jewelry; ● Delivery: possible in Ukraine (2-4 working days by NovaPost), free delivery when ordering from 5000 UAH. International deliveries are also possible; service takes 1.5-4 weeks to deliver by NovaPost Global.	● At the time of business activity, delivery of the finished product was 2-7 working days.
Product Range	● Merch (carabiners, key chains); ● Custom items; ● Furniture; ● Own products (carabiners, book and vinyl shelves, chokers, soap dishes, plates and tables).	● Pendants; ● Earrings of various designs; ● Rings in several geometric or decorative variations.	● Bags (of different models); ● Jewelry (necklaces, bracelets, "beaded" accessories); ● Other experimental products (hats made of plastic beads, etc.) are possible.	● Earrings; ● Brooches; ● It was also planned to add pendants and necklaces.
Link	www.instagram.com/anumoplastic/	www.instagram.com/p/C6i6sTIq9-C/?img_index=1	www.instagram.com/spogad.brand/	www.facebook.com/rebeau1/?locale=uk_UA

APPENDIX 2

Item	Quantity	Estimated Cost (UAH)	Link
Crusher shredder	1	40000,00	prom.ua/ua/p2188593531-drobilka-izmelchitel-100mm150.html?utm_source=google_product&utm_medium=cpc&utm_content=pla&utm_campaign=KT_cpc_1_5297199152&gad_source=1&gclid=CjwKCAjw-qi_BhBxEiwAkxvbkMeokIB4UUp7cO5MzhYSdFEag2JWR5r-4-HN36JPF_FRTihmLXdpNBoC100QAvD_BwE
Laser cutter with software	1	40000,00	bot-ua.com/shop/co2/laserbot-tyro-40/?v=d41d8cd98f00
Ventilation kit	1	8000,00	vent-market.com.ua/ua/catalog/kanalnye-ventilyatory
Room modification for ventilation		2400,00	kabanchik.ua/ua/kyiv/category/ustanovka-vytiazhky
Technical oven	1	15000,00	gastropartner.com.ua/ru/zharochna-shafa-shzh-1m-s-kyi-v-tsilisnyi-korpus/21955/?gad_source=1&gclid=CjwKCAjw-qi_BhBxEiwAkxvbkMRhzODOCNU00YnsGHVudoS--GwlDPTxbvChL_DHbmoWMLm4XLCbLBoCDa8Q

			AvD_BwE
Silicone molds	2	324,00	prom.ua/ua/p2356515588-silikonovaya-forma-dlya.html?utm_source=google_pmax&utm_medium=cpc&utm_content=pmax&utm_campaign=Pmax_cpa_1_50_podarki_i_suveniry_5297199152&gad_source=1&gbraid=0AAAAADBxJSV3KkBitVheMiuqph9V_g7FN&gclid=CjwKCAjwwqfABhBcEiwAZJjC3us2VknStua4nEXzFu1oGYnu-c_Ns6IWt0Vx6oHK0PG3oF_CJwjdzBoCUVgQAvD_BwE
Set of silicone baking trays	2	1798,00	bt.rozetka.com.ua/ua/wetair-wfda-k3sils/p403308435/?gad_source=1&gbraid=0AAAADluAk3wLawhLhLrDvihRY9MhhcH4&gclid=CjwKCAjwwqfABhBcEiwAZJjC3jKdJWPPXrr1nQHhIEJmp6hMHBXciCjOot95nsDiDytD64WKW2xtNRoCuNcQAvD_BwE
Stainless steel baking tray	4	196,00	vilkaopt.com/deko-dlia-vypikannia-z-nerzhaviiuchoi-stali-priamokutne-forma-deko-dlia-zapikannia-v-dukhovtsi-hlyboka-3121cm-h-4cm/16625/?gad_source=1&gbraid=0AAAAA-FocqPvBCX821JgobGlM5llOdYJn&gclid=CjwKCAjwwqfABhBcEiwAZJjC3ptaOi1zgfHd4vMhOhToRVSGwka5TtyO9xv2yEodx8ElqZ6QXxT8GxoCorMQAvD_BwE
Silicone paddles	10	490,00	best-home-goods.com.ua/ua/p2028355137-lopatka-

			silikonovaya-dlya.html? source=merchant_center&gad_source=1&gbraid=0AAAAACkjk4Ejnd0Ly_Zw1SIWHKWk26MDm&gclid=CjwKCAjwwqfABhBcEiwAZJjC3v2N8tQ6B_n_DM7wdjvvZj2Flv74FsIVUlrGdFz8aOHrzLZhAUpkiBoCZGEQAvD_BwE
Polishing tools	1	5000,00	rozetka.com.ua/ua/dremel_f0134250jd/p311371908/? gad_source=1&gclid=Cj0KCQjwna6_BhCbARIsALId2Z1SfEaFQZOgLTo-rI_ymz_-dTfeBRNjpS_bqFmwFJrWNntMPuB4HIsaAjzOEALw_wcB
Set of scalpel incisors for modeling	2	260,00	rozetka.com.ua/ua/458965034/p458965034/? gad_source=1&gbraid=0AAAAADlXhI4cNIKmtvnZV9FmyEnMr0whE&gclid=CjwKCAjwwqfABhBcEiwAZJjC3kZK-ZMg3fN-ArN4VbmPWJUSIFESxVCMCjKTzI7CZob5fqxX0-bcfRoCiZYQAvD_BwE
Workbenches	2	12000	m-r.kiev.ua/production/workbenches/workbench-w12.php? gad_source=1&gclid=Cj0KCQjwna6_BhCbARIsALId2Z2FHgCOhwsVOpZezPTewRw9CdTO1vkC5iqLCp8jrmTcfQ6Bd9sx2k4aArGAEALw_wcB
Lightning	5	2500	ledroom.com.ua/liniinyi-profilnyi-led-svitylnyk-oledim-dk-1270b-36w-4000k/677/
Shelving	2	2800	bks.in.ua/stelazh-metalevyj-1500x750x300mm-5-polyc-mdf-175kg-na-polycyu-farbovanyj-ral-7024-na-

			zachepah
Laptops	2	44000	comfy.ua/ua/noutbuk-lenovo-ideapad-3-15iau7-82rk018bra-arctic-grey.html
Printer	1	5000	rozetka.com.ua/ua/canon_0515c107aa/p81322905/?gad_source=1&gclid=Cj0KCQjwna6_BhCbARIsALId2Z15e5cvbSVTYbFOHMgSJfkYRgbcqhaKULUc7GneGrHGWU-rRw5qF6EaAqpAEALw_wcB
Wi-Fi router	1	3000	rozetka.com.ua/ua/362384526/p362384526/?gad_source=1&gclid=Cj0KCQjwna6_BhCbARIsALId2Z0A9n5uOC9m1aSC9uVV-ZHx6t3yFLf77SfzWEVAkRvUcZqjjDxWfgcaAsoIEALw_wcB
Software license	1	200	prom.ua/ua/p2360098248-litsenziya-adobe-illustrator.html?utm_source=google_pmax&utm_medium=cpc&utm_content=pmax&utm_campaign=Pmax_cpa_video_igry_5297199152&gad_source=1&gad_campaignid=20986538575&gbraid=0AAAADBxJSUhMn_1sZL0Cq7F5KTco_eAn&gclid=Cj0KCQjw2tHABhCiARIsANZzDWon96eMpO_birVBnh4aL_NGS1pvQ4vYE1Qm68Kw1rVqml3i8-fy8ygaAlD0EALw_wcB
Total		182968,00	

APPENDIX 3

Sales Plan and Revenue Projection

Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	1	2	3	4	5	6	Q1	Q2
Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
Price of small jewelry	550	580	570	580	590	680	2130	2570
Price of medium jewelry	580	630	700	750	800	850	2790	4600
Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5

APPENDIX 3.1.

Fixed and Variable Costs

Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	1	2	3	4	5	6	Q1	Q2
Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
Production costs	3129,37	3863,04	5267,78	5970,15	6672,52	7023,71	23178,23	26338,90

Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	1	2	3	4	5	6	Q1	Q2
Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
Accounting services	0	0	0	2500	0	2500	3000	3000
Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100

APPENDIX 3.2.

Income Statement

Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	1	2	3	4	5	6	Q1	Q2
Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125158,44	134064,96
Single tax of 5% of revenue	26685	34925	49800	58480	68305	79300	279230	449159,75
Military duty of 1% of revenue	5337	6985	9960	11696	13661	15860	55846	89831,95
Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
Net profit	-12854,3643	-6996,028724	3499,229922	7040,859244	11445,24857	16890,06323	69523,12766	193399,7396

APPENDIX 3.3.

Cash Flow Statement

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-12854,3643	-6996,028724	3499,229922	7040,859244	11445,24857	16890,06323	69523,12766	193399,7396
Discounted cash flows	-182968	-12689,40208	-6817,618467	3366,232768	6686,331135	10729,46339	15630,56235	62517,77275	167119,0793
Cumulative cash flows	-182968	-195822,3643	-202818,393	-199319,1631	-192278,3039	-180833,0553	-163942,9921	-368552,3502	43309,45666

APPENDIX 4

Full Initial Calculations

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
	Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
	Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
	Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
	Price of small jewelry	550	580	570	580	590	680	2130	2570
	Price of medium jewelry	580	630	700	750	800	850	2790	4600
	Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3129,37	3863,04	5267,78	5970,15	6672,52	7023,71	23178,23	26338,90

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
	Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125138,44	134064,96
	Single tax of 5% of revenue	26685	34925	49800	58480	68305	79300	279230	449159,75
	Military duty of 1% of revenue	5337	6985	9960	11696	13661	15860	55846	89831,95
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-12854,3643	-6996,028724	3499,229922	7040,859244	11445,24857	16890,06323	69523,12766	193399,7396

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-12854,3643	-6996,028724	3499,229922	7040,859244	11445,24857	16890,06323	69523,12766	193399,7396
Discounted cash flows	-182968	-12689,40208	-6817,618467	3366,232768	6686,331135	10729,46339	15630,56235	62517,77275	167119,0793
Cumulative cash flows	-182968	-195822,3643	-202818,393	-199319,1631	-192278,3039	-180833,0553	-163942,9921	-368552,3502	43309,45666

Investment evaluation indicators	Value
PBP	2,21
IRR	41%
NPV	63 574,42

APPENDIX 4.1.

Price Decrease (-10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
	Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
	Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
	Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
	Price of small jewelry	495	522	513	522	531	612	1917	2313
	Price of medium jewelry	522	567	630	675	720	765	2511	4140
	Price of large jewelry	801	882	1008	1035	1125	1170	3780	4185
	Revenue	48033	62865	89640	105264	122949	142740	502614	808487,55
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	48033	62865	89640	105264	122949	142740	502614	808487,55
	Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125158,44	134064,96
	Single tax of 5% of revenue	24016,5	31432,5	44820	52632	61474,5	71370	251307	404243,775
	Military duty of 1% of revenue	4803,3	6286,5	8964	10526,4	12294,9	14274	50261,4	80848,755
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-14989,1643	-9790,028724	-484,7700784	2362,459244	5980,848567	10546,06323	47184,72766	157466,9596
Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-14989,1643	-9790,028724	-484,7700784	2362,459244	5980,848567	10546,06323	47184,72766	157466,9596
Discounted cash flows	-182968	-14796,80583	-9540,366864	-466,3451558	2243,302427	5606,806648	9759,63776	42386,91257	136008,6474
Cumulative cash flows	-182968	-197957,1643	-207747,193	-208231,9631	-205869,5039	-199888,6553	-189342,5921	-488080,7502	-165976,8233

Investment evaluation indicators	Value
PBP	—
IRR	—
NPV	-11 766,01

APPENDIX 4.2.

Price Increase (+10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
	Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
	Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
	Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
	Price of small jewelry	605	638	627	638	649	748	2343	2827
	Price of medium jewelry	638	693	770	825	880	935	3069	5060
	Price of large jewelry	979	1078	1232	1265	1375	1430	4620	5115
	Revenue	58707	76835	109560	128656	150271	174460	614306	988151,45

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	58707	76835	109560	128656	150271	174460	614306	988151,45
	Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125158,44	134064,96
	Single tax of 5% of revenue	29353,5	38417,5	54780	64328	75135,5	87230	307153	494075,725
	Military duty of 1% of revenue	5870,7	7683,5	10956	12865,6	15027,1	17446	61430,6	98815,145
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-10719,5643	-4202,028724	7483,229922	11719,25924	16909,64857	23234,06323	91861,52766	229332,5196

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-10719,5643	-4202,028724	7483,229922	11719,25924	16909,64857	23234,06323	91861,52766	229332,5196
Discounted cash flows	-182968	-10581,99833	-4094,870069	7198,810692	11129,15984	15852,12013	21501,48694	82648,63292	198229,5111
Cumulative cash flows	-182968	-193687,5643	-197889,593	-190406,3631	-178687,1039	-161777,4553	-138543,3921	-249023,9502	252595,7367

Investment evaluation indicators	Value
PBP	0,04
IRR	101%
NPV	138 914,85

APPENDIX 4.3.

Sales Volume Decrease (-10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	35%	45%	65%	75%	85%	90%	105%	120%
	Number of small jewelry pieces	42	54	78	90	102	108	360	393,9
	Number of medium jewelry pieces	21	27	39	45	51	54	180	196,95
	Number of large jewelry pieces	7	9	13	15	17	18	60	65,65
	Price of small jewelry	550	580	570	580	590	680	2130	2570
	Price of medium jewelry	580	630	700	750	800	850	2790	4600
	Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
	Revenue	41510	57150	86320	103200	122230	142740	507760	748587,5

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	2433,957792	3160,668047	4565,409401	5267,780078	5970,150756	6321,336094	23178,23234	26338,90039

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	41510	57150	86320	103200	122230	142740	507760	748587,5
	Production variable costs	2433,957792	3160,668047	4565,409401	5267,780078	5970,150756	6321,336094	21071,12031	24231,78836
	Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125158,44	134064,96
	Single tax of 5% of revenue	20755	28575	43160	51600	61115	71370	253880	374293,75
	Military duty of 1% of revenue	4151	5715	8632	10320	12223	14274	50776	74858,75
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-16902,94779	-11373,65805	-1110,399401	2239,229922	6395,619244	11248,43391	51350,23969	135614,0516

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-16902,94779	-11373,65805	-1110,399401	2239,229922	6395,619244	11248,43391	51350,23969	135614,0516
Discounted cash flows	-182968	-16686,02941	-11083,61103	-1068,195841	2126,478065	5995,637591	10409,63229	46135,09361	117073,9
Cumulative cash flows	-182968	-199870,9478	-211244,6058	-212355,0052	-210115,7753	-203720,1561	-192471,7222	-489876,3165	-204353,9735

Investment evaluation indicators	Value
PBP	—
IRR	—
NPV	-30 065,09

APPENDIX 4.4.

Sales Volume Increase (+10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	55%	65%	85%	95%	105%	110%	125%	140%
	Number of small jewelry pieces	66	78	102	114	126	132	432	559,5
	Number of medium jewelry pieces	33	39	51	57	63	66	216	279,75
	Number of large jewelry pieces	11	13	17	19	21	22	72	93,25
	Price of small jewelry	550	580	570	580	590	680	2130	2570
	Price of medium jewelry	580	630	700	750	800	850	2790	4600
	Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
	Revenue	65230	82550	112880	130720	150990	174460	609160	1061599,5

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3824,790816	4565,409401	5970,150756	6672,521433	7374,89211	7726,077448	23178,23234	26338,90039

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	65230	82550	112880	130720	150990	174460	609160	1061599,5
	Production variable costs	3824,790816	4565,409401	5970,150756	6672,521433	7374,89211	7726,077448	25285,34438	28446,01242
	Fixed costs	29312,99	29312,99	29312,99	32012,99	34766,23	37766,23	125158,44	134064,96
	Single tax of 5% of revenue	32615	41275	56440	65360	75495	87230	304580	530799,75
	Military duty of 1% of revenue	6523	8255	11288	13072	15099	17446	60916	106159,95
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-8805,780816	-2618,399401	8108,859244	11842,48857	16494,87789	22531,69255	87696,01562	256604,6276

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-8805,780816	-2618,399401	8108,859244	11842,48857	16494,87789	22531,69255	87696,01562	256604,6276
Discounted cash flows	-182968	-8692,774744	-2551,625903	7800,661377	11246,18421	15463,28919	20851,49242	78900,45188	221859,6546
Cumulative cash flows	-182968	-191773,7808	-194392,1802	-186283,321	-174440,8324	-157945,9545	-135414,262	-247228,384	301248,0868

Investment evaluation indicators	Value
PBP	1,04
IRR	119%
NPV	161 909,33

APPENDIX 4.5.

Fixed Costs Decrease (-10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
	Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
	Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
	Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
	Price of small jewelry	550	580	570	580	590	680	2130	2570
	Price of medium jewelry	580	630	700	750	800	850	2790	4600
	Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
	Month name	**July 2025**	**August 2025**	**September 2025**	**October 2025**	**November 2025**	**December 2025**	**Q1 2026**	**Q2 2026**
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Month name	**July 2025**	**August 2025**	**September 2025**	**October 2025**	**November 2025**	**December 2025**	**Q1 2026**	**Q2 2026**
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100
	Month name	**July 2025**	**August 2025**	**September 2025**	**October 2025**	**November 2025**	**December 2025**	**Q1 2026**	**Q2 2026**
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
	Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Fixed costs	26381,691	26381,691	26381,691	28811,691	31289,607	33989,607	112642,596	120658,464
	Single tax of 5% of revenue	26685	34925	49800	58480	68305	79300	279230	449159,75
	Military duty of 1% of revenue	5337	6985	9960	11696	13661	15860	55846	89831,95
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-9923,065304	-4064,729724	6430,528922	10242,15824	14921,87157	20666,68623	82038,97166	206806,2356
Month name	**June 2025**	**July 2025**	**August 2025**	**September 2025**	**October 2025**	**November 2025**	**December 2025**	**Q1 2026**	**Q2 2026**
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-9923,065304	-4064,729724	6430,528922	10242,15824	14921,87157	20666,68623	82038,97166	206806,2356
Discounted cash flows	-182968	-9795,720932	-3961,07242	6186,120277	9726,435252	13988,65859	19125,56059	73809,05984	178753,9431
Cumulative cash flows	-182968	-192891,0653	-196955,795	-190525,2661	-180283,1079	-165361,2363	-144694,5501	-285475,3362	165715,3067
Investment evaluation indicators	Value								
PBP	0,39								
IRR	74%								
NPV	104864,98								

APPENDIX 4.6.

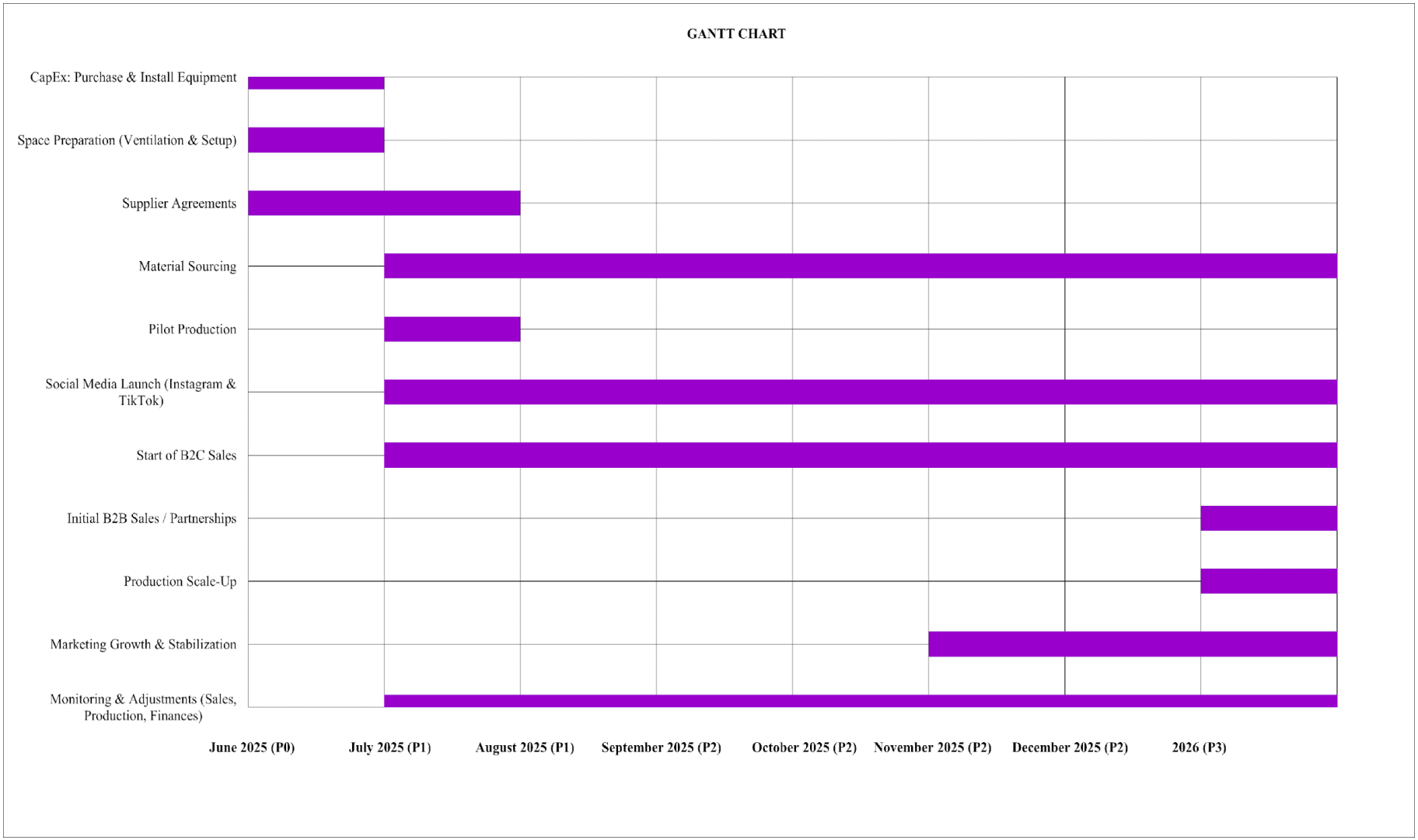
Fixed Costs Increase (+10%) Scenario

	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Planned sales volume in % of intended volume	45%	55%	75%	85%	95%	100%	115%	130%
	Number of small jewelry pieces	54	66	90	102	114	120	396	473,1
	Number of medium jewelry pieces	27	33	45	51	57	60	198	236,55
	Number of large jewelry pieces	9	11	15	17	19	20	66	78,85
	Price of small jewelry	550	580	570	580	590	680	2130	2570
	Price of medium jewelry	580	630	700	750	800	850	2790	4600
	Price of large jewelry	890	980	1120	1150	1250	1300	4200	4650
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Inflation %	0%	1%	1%	1%	1%	1%	1%	1%
	Production costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Rent+Utilities	7000	7000	7000	7000	7500	7500	24000	22500
	Marketing advertisments	1300	1300	1300	1500	1500	1500	4500	5400
	Payroll fund	19012,99	19012,99	19012,99	19012,99	23766,23	23766,23	85558,44	95064,96
	Accounting services	0	0	0	2500	0	2500	3000	3000
	Maintance and repaire	2000	2000	2000	2000	2000	2500	8100	8100
	Month name	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
	Month number	1	2	3	4	5	6	Q1	Q2
	Revenue	53370	69850	99600	116960	136610	158600	558460	898319,5
	Production variable costs	3129,374304	3863,038724	5267,780078	5970,150756	6672,521433	7023,706771	23178,23234	26338,90039
	Fixed costs	32244,289	32244,289	32244,289	35214,289	38242,853	41542,853	137674,284	147471,456
	Single tax of 5% of revenue	26685	34925	49800	58480	68305	79300	279230	449159,75
	Military duty of 1% of revenue	5337	6985	9960	11696	13661	15860	55846	89831,95
	Unified social contribution 22% of the minimum wage	1760	1760	1760	1760	1760	1760	5524,2	5524,2
	Net profit	-15785,6633	-9927,327724	567,9309216	3839,560244	7968,625567	13113,44023	57007,28366	179993,2436

Month name	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	Q1 2026	Q2 2026
Month number	0	1	2	3	4	5	6	Q1	Q2
CapEx	-182968								
Net profit		-15785,6633	-9927,327724	567,9309216	3839,560244	7968,625567	13113,44023	57007,28366	179993,2436
Discounted cash flows	-182968	-15583,08322	-9674,164513	546,3452591	3646,227018	7470,26819	12135,56411	51226,48565	155484,2154
Cumulative cash flows	-182968	-198753,6633	-208680,991	-208113,0601	-204273,4999	-196304,8743	-183191,4341	-451629,3642	-79096,39334

Investment evaluation indicators	Value
PBP	0,48
IRR	13%
NPV	22 283,86

APPENDIX 5


GANTT CHART
CapEx: Purchase & Install Equipment
Space Preparation (Ventilation & Setup)
Supplier Agreements
Material Sourcing
Pilot Production
Social Media Launch (Instagram & TikTok)
Start of B2C Sales
Initial B2B Sales / Partnerships
Production Scale-Up
Marketing Growth & Stabilization
Monitoring & Adjustments (Sales, Production, Finances)
June 2025 (P0)
July 2025 (P1)
August 2025 (P1)
September 2025 (P2)
October 2025 (P2)
November 2025 (P2)
December 2025 (P2)
2026 (P3)