



LIGO

TEACHER:
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2021 • 2022



JA Slovensko
Člen skupiny Junior Achievement Worldwide

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Ligo

PRODUCT

Ligo toothpaste in tablets is an ecological replacement for classic toothpaste in non-recyclable plastic tubes, of which 1.5 billion are collected annually. The eco-friendly packaging and solid state of the tablets ensure practical features such as easy storage, easy transport and a constant overview of the balance. They do not contain fluoride, aluminum or microplastics. The main ingredient of tablets - cellulose - helps to effectively polish the surface of teeth.

GOALS

Our goal is to simplify everyday life, facilitate travel and stay in nature, help the environment by bringing an ecological alternative to toothpaste. To support people in leading a healthy lifestyle, towards themselves and nature. By operating on the market, we want to make society realize how much unnecessary plastic it uses and, as a result, to replace classic toothpaste with a harmless variant.



DEVELOPMENT AND PROGRESS

DEVELOPMENT

At the beginning, we focused on a different idea and that was edible ink. Production attempts took us 2 months and drained 15% of the total initial capital. The idea was unfavourable and unfeasible. During this time, Martin had experienced an inconvenience with a toothpaste, due to which he did not pass through airport control. We agreed on its impracticality and decided

to come up with a solution, which is Ligo. To achieve the final product we sell today, it was necessary to make over 50 variants in order to figure out the right ingredients and their quantity.



PRODUCT AND PRODUCTION

PRODUCT

Ligo tablets are a more practical and ecological variant of the classic toothpaste. It does not require a large amount of water, as saliva and a little moisture on the toothbrush are sufficient for cleaning your teeth. The chemical-free formula makes Ligo tablets safe for all age categories. The solid state allows for non-drying ability, a constant overview of the balance and the ability to spend the entire contents of the package. Both packages we offer are small, easily portable, practical and do not produce excess waste. In addition to practical advantages, they also offer the customer 5 different flavours (menthol, strawberry, peach, orange, watermelon) and a menthol variant with black charcoal.



PRODUCTION PROCESS

The production is divided into several stages. First, we prepare the solid and liquid components separately in the required amounts. Then we mix them together in the right proportions and add the essential oil according to the flavour. We press the resulting mass into a special silicone mould and let it solidify. When removing the tablets from the mould, we check whether the tablets have the required size and shape. Unsatisfactory tablets are crushed and reused in the production of new tablets of corresponding flavours. We pack the resulting product in packaging and stick labels.

PROBLEM AND COMPETITION ANALYSIS



COMPETITION ANALYSIS

Our biggest competitor is classic toothpaste. Even the more eco-friendly variants offered by the Ecodenta or Biomed brands come in a non-recyclable tube. We realized the main value offered by the competition, the ability to thoroughly clean the teeth and a pleasant flavour. Ligo also offers these values as well, but it adds value to organic packaging and the benefits associated with the solid state.

ZeoZoe dental tablets are our biggest competitor in the domestic market. In addition to affordability, we have attracted our customers mainly due to the compostable packaging and various flavours that the competition does not offer. We pack our product in glass and fully recyclable paper cups. While competition offers tablets in only one flavour, we offer tablets in 6 flavours.

PROBLEM ANALYSIS

Plastic toothpaste tubes have been an environmental problem for years. Due to the material and the liquid paste, which few people consume without residue, they become non-recyclable. Every year, 1.5 billion tubes end up in landfills, or worse - at sea. According to research, in 2050 there will be more plastic in the sea than fish. Another problem we are solving is the impossibility of usage of the entire content of the toothpaste package. This phenomenon causes a waste of water and the raw materials it contains.

In addition, toothpaste tubes are impractical to carry. They take up a lot of space and there is always the risk of spillage. Our pills are a convenient form of cleaner for people who travel often. Thanks to their easy storage, they are especially suitable for hand luggage on a train or on a plane. They are also suitable for places where there is not enough water, such as camping in nature or children's camps.

FINANCES

● THE PRICE

Based on the analysis of the market and competition, whose average price in Slovakia is ± 0.12 € per tablet, we initially rated our product at 3.50 € per package of 28 pcs (± 0.12 € / pc). Based on actual sales and customer interactions (see marketing), we further adjusted this price to the current 2.90 € per package, which made it a competitive product and immediately increased the willingness of customers to buy it. According to sales data, the average number of packages sold per hour increased from 2 to 5 packages, which represents a 250% increase in sales. We evaluated the smaller paper package, where there are 20 tablets, at a price of 2.50 €, as there are fewer tablets and the packaging costs were lower by 0.63 € per piece.

| | Plan | Reality |
|-------------------|----------|------------|
| No. Packages Sold | 250 | 369 |
| Sales | 875,00 € | 1 339,31 € |
| Net Profit (EBIT) | 175,00 € | 309,09 € |

● COSTS

After the initial increased costs of launching production and sales of products, our expenses have stabilized at 1 € per package and at the same time we are further exploring ways to reduce material costs by working with retailers or purchasing more material at wholesale prices. Due to inflation, production cost prices have risen. We left the original price of 3.50 € because we had stocks of material and, thanks to inflation, we found cheaper packaging, which is also completely degradable.



● FINANCIAL ANALYSIS

The financial statements reflect the specifics of operations of our company. Our Return on Investment (ROI) at 39.41% suggests that the investment in our company pays well comparing to other investment opportunities. For a company that is in business for a short time, the Return on Equity (ROE) at 34.45% seems to be pretty standard. It is relatively low though, when compared to the mature companies in the industry. Our Gross Profit Margin at 27.45% reflects a high proportion of material costs on the Costs of Goods Sold. The proportion will drop with the growth of the company. We will purchase the materials in large quantities, which will decrease

the price of material per unit sold. The Net Profit Margin at 23.08% is relatively high. It is affected by the low level of salaries and free of charge rent of our production room. The policy of our company is to maximize profits. 25% share of the profit is allocated to the members of the company as a special bonus. We understand that it is not a sustainable model. We will have to hire and pay the workforce and the production room as we grow. However, maximizing profit and reinvesting it was the best use of funds to operate the company efficiently and be ready for an increased demand for our products.

| Profit and Loss Account | | |
|-------------------------|---|-----------------|
| A | Sales | 1 339,31 € |
| B | Purchases | 848,39 € |
| C | Production Wages | 123,30 € |
| D | Closing Stock | 0,00 € |
| E | Cost of Sales | 971,69 € |
| | Gross Profit | 367,62 € |
| | | |
| F | Salaries, commissions and Bonuses | 40,00 € |
| G | Stationery | 13,53 € |
| H | Rent & Hire | 0,00 € |
| I | Miscellaneous Expenditure | 0,00 € |
| J | Registration Fee | 5,00 € |
| | Total Expenses | 58,53 € |
| | | |
| K | Gross Profit Less Total Expenses | 309,09 € |
| L | Miscellaneous Income | 0,00 € |
| M | Net Profit | 309,09 € |
| N | Corporation Tax Payable | 46,36 € |
| O | Profit after Tax | 262,73 € |
| | | |
| P | Appropriations of Profit: | 262,73 € |
| Q | Dividends: | 197,04 € |
| R | Donations: | 0,00 € |
| S | Other: | 65,69 € |
| | Balance | 0,00 € |

| Balance Sheet | | |
|---------------|--|-----------------|
| | Current Assets: | |
| | Stock | 0,00 € |
| | Debtors | 0,00 € |
| | Cash at Bank | 0,00 € |
| | Cash in Hand | 809,09 € |
| (A) | TOTAL CURRENT ASSETS | 809,09 € |
| | | |
| | Current Liabilities: | |
| | Bank Overdraft | 0,00 € |
| | Loans | 0,00 € |
| | Creditors | 0,00 € |
| | Corporation Tax Payable | 46,36 € |
| | VAT Due | |
| (B) | TOTAL CURRENT LIABILITIES | 46,36 € |
| (C) | BALANCE | 762,73 € |
| | | |
| (D) | Issued Share Capital: shares at 5 € | 500,00 € |
| (E) | Profit & Less Account (Profit after Tax) | 262,73 € |
| (F) | Shareholders Funds | 762,73 € |

Wolfová

Mgr. Eva Wolfová, PhD.

MARKETING

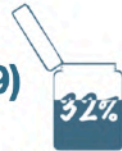
TARGET GROUPS:

GEN-Z (15-25)



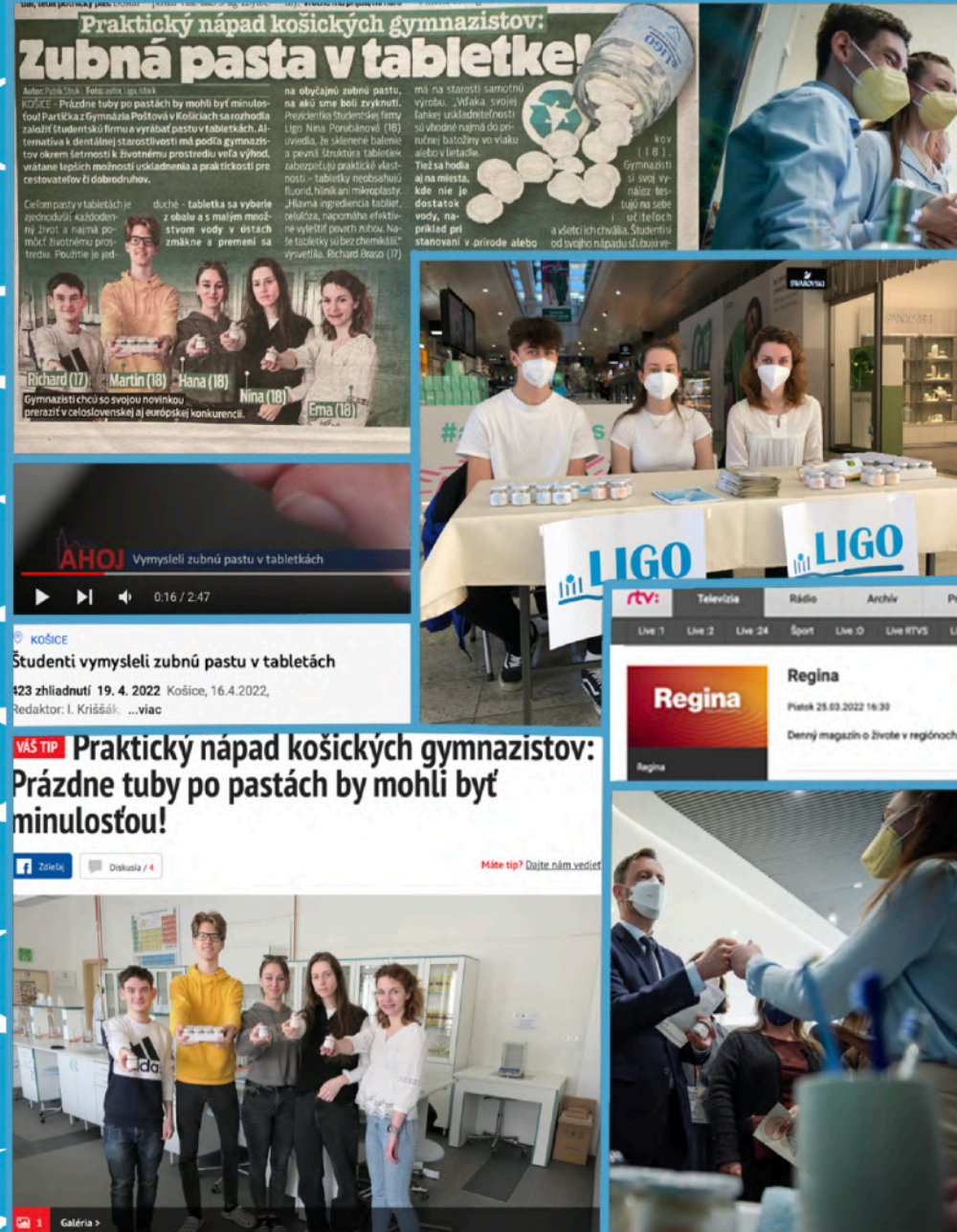
Lately, the trend is to travel lightly. Young people appreciated the practical packaging and easy use of our product. Ligo tablets are a suitable substitute for toothpaste and take up less space in your luggage. They bring the security of non-spillage and are therefore especially suitable for travelers and adventurers.

MILLENNIALS (26-49) & BOOMERS (50+)



These age groups had shown interest mainly due to the ecological packaging and composition. The chemical-free composition is suitable for families with children, but also for the elderly. Again, easy way to use was appreciated.

We chose a practical package and launched several flavours to attract as many people as possible, including our designated target group. Thanks to its easy use, Ligo is suitable for all ages. The fact that we do not use any chemicals in our production helps us to reach our target group. To make our product even more affordable, we have chosen a better price.



Praktický nápad košických gymnazistov: Zubná pasta v tabletke!

na obyčajnú zubnú pastu, má na starosti samotnú výrobu. „Vďaka svojej ľahkej ukladateľnosti sú vhodné najmä do príručnej batôžiny vo vlaku alebo v lietadle. Tiež sa hodia aj na miesta, kde nie je dostatok vody, napríklad pri stanovani v prírode alebo

Richard (17), Martin (18), Hana (18), Nina (18), Ema (18)

Gymnazisti chcu so svojou novinkou prazariť v celoslovenskej aj európskej konkurencii.

AHOJ Vymysleli zubnú pastu v tabletkách

0:16 / 2:47

KOŠICE
Študenti vymysleli zubnú pastu v tabletkách
423 zhladnutí 19. 4. 2022 Košice, 16. 4. 2022,
Redaktor: I. Kriššák... viac

VÁS TIP Praktický nápad košických gymnazistov: Prázdnne tuby po pastách by mohli byť minulosťou!

Máte tip? Dajte nám vedieť

Regina
Piatok 25.03.2022 16:30
Denný magazín o živote v regiónoch

SALE

We made sales through our e-shop, occasional sales days in shopping malls, at school and in 2 walk-in shops.

24% of the total number of packages sold so far was sold through the e-shop. Through other types of sales channels, which took place live, we sold **76%** of the total number and this became the most advantageous way of sales for us.

We attribute this high difference in the percentage of pieces sold to the fact that during face-to-face selling events, the customer had the opportunity to see the package live and this forced him to buy.

ADVERTISING

Since our target group includes all age groups, we decided to use different types of media. We chose social networks such as Instagram and Facebook for GEN-Z. Outside of our website, we addressed influencers. We were shared by blogger **@Radoslav Hoppej (24.4k followers)** and **@this is Slovakia (150k followers)**. For MILLENNIALS (26-49) & BOOMERS (50+) we chose traditional media tactics. We have appeared on local radio (**Radio Košice**) and in various online articles (**TelKE, AhojTV**). We consider an article in the most widely read Slovak newspaper (**Nový čas**) and a report on Slovak television (**RTVS**) to be our greatest successes. After the appearance on television, our sales increased and therefore we will try to use this type of media as much as possible in the future.

FUTURE

Interest in harmless eco-innovations, which also include waste-free tablets, is still growing and that is why we believe the functioning of our company is realistic in the future. To begin with, we want to give customers easier access to us.

We plan to expand our sales channels and expand sales to more walk-in shops such as drugstores or pharmacies. So far, we are cooperating with one drugstore and one pharmacy in Košice. We also plan to establish cooperation with campsites and hotels. This would also help us in marketing. Due to the local prevalence and popularity of camping, we will expand the sale of our product beyond the borders of Slovakia, especially to the Czech Republic and Austria. We already have contacts necessary and began the implementation, the expansion is feasible by September / October.

We will get closer to our customers by availability, so we would like to set up collection points where they will be able to pick up our toothpaste comfortably. In addition to Slovenská pošta (Slovak mail), we also plan to use the Packeta transport company. We would also like to expand our online sales channels to Amazon, for example.

A wide selection of flavours is one of the most important elements that sets us apart from the competition. That is why we plan to bring new flavours to the market all the time. We plan to do seasonally limited editions, such as the summer edition, which will contain various flavours of tropical fruit.



MANAGEMENT

Our company consists of a team of nine ambitious young people divided into four departments. Communication and precise division of tasks are especially important to us. We use the social networks for communication, and we also use the application for the task management named Trello. At the weekly team-building, we evaluate where we have moved in the past week, check the assigned tasks and set new goals. If a problem arises, such as the appearance of the packaging or delays in the delivery of material, everyone is willing to work to resolve it. Together we look for solutions and ways to prevent the problem in the future. We always try to be progressive and establish new collaborations. We are pulling each other up, so we always have enough strength to face new challenges.



EMA
Vice President
for Finance

RICHARD
Vice President
for Production

HANA
Vice President
for Human
Resources

MARTIN
Logistics

NINA
CEO

CHALLENGES

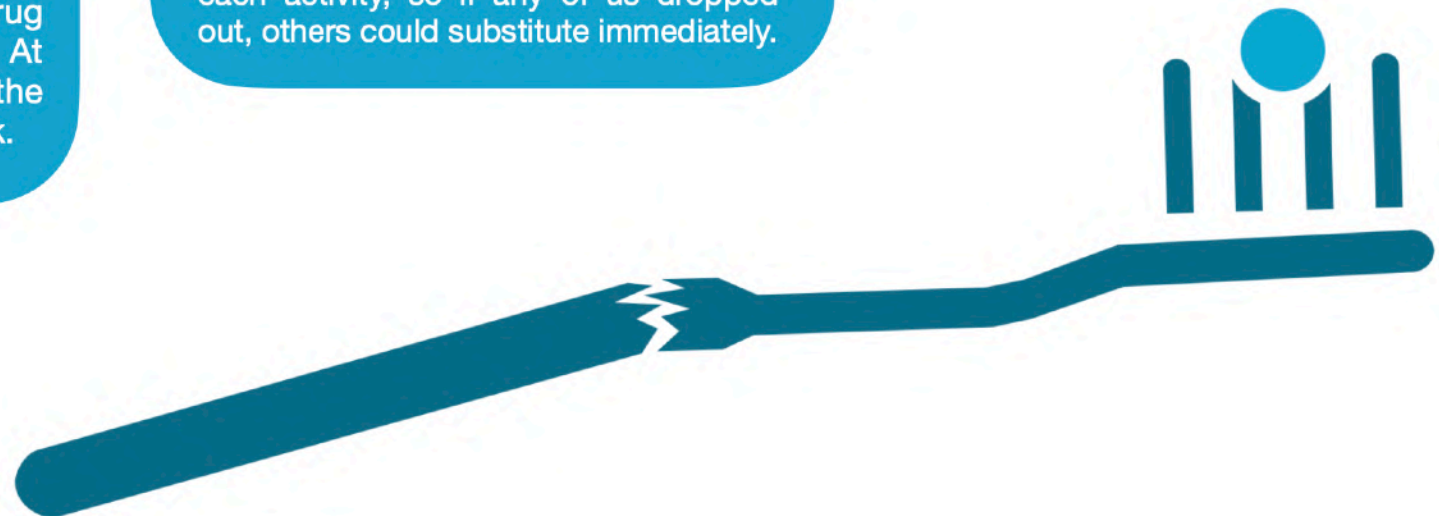
During the first weeks of selling, responses to our tablets were not only positive. The taste was affected by baking soda, which was not well accepted by the customers. To address the issue, we changed the recipe by adding citric acid, which neutralized the soda. After the change, the pills tasted according to their flavour and the number of complaints dropped rapidly.

Before the start of the sale, we aimed at selling more than 250 packs of our toothpaste. The number of orders also grew with growing interest. After establishing cooperation with the a walk-in drug store, our goal became feasible. At the end of April, we reached the goal and sold more than 250 pack.

Finding the right flavours for our tablets seemed to be a big problem. We knew we wanted to have more flavours than the competition. We didn't find anything in the walk-in shops. After a long search together on the Internet and hours of trying, we found what we were looking for.

From the beginning, it was a big challenge to divide the tasks among 9 people. We addressed the issue by assigning more functions to each member of the team. During the Coronavirus Pandemic it turned out as our benefit. We all had information about each activity, so if any of us dropped out, others could substitute immediately.

At the time we started to expand our sales channels, especially to the walk-in shops, another challenge appeared. Due to the fact that our product is closely related to the health of the human body, quality verification was necessary by experts, so we contacted several private laboratories. After weeks of writing, we received a positive response and tested our dental tablets in the Eurofins laboratory. We obtained a certificate of tablet harmless, which allowed us to establish cooperation with several walk-in shops, such as the walk-in pharmacy in Košice.





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