

FINANCIAL ANALYSIS OF THE PROJECT CYCLING CLUB “SOKOŁY Z JAGATOWA”¹

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Abstract:

Research objective: To develop an economic and financial concept for the business project “Sokoły z Jagatowa”.

Research hypothesis: Self-employment is a good alternative for an athlete at the end of his sports career.

Methodology: The research material is based on the economic categories constituting the income statement and the cash flow statement, the literature and other sources (The author, by analysing the economic categories in the pro forma income statement, tried to answer the question of whether it would be profitable for her to start a business in the cycling industry after the end of her professional career. The research used, among others, the economic matrix method of information linkages (EMPI) and β -business mathematical tables for designing and analysing the cost of sales structure and determining its critical points.

Research results: The conducted economic-financial analysis of the

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- 1 The role of research promoter Zygmunt Mietlewski and scientific supervisor Beata Browarczyk in the research of the author Karolina Perekitko: Indicating the topic, developing the concept, scope and schedule for research, including: formulating the problem in the form of a research question, assumption, hypothesis and goal. Indication of methods, research techniques, sources of information and participation in their analysis. Participation in the review of the definition of efficiency and management of Polish and foreign authors from selected literature on the subject. Choose the one that was used to solve the problem under study. Participation in the analysis of empirical material, research results and formulation of conclusions and conclusions, as well as in the development of a new concept of a management efficiency model for the examined company. Editing the text of the article.

profitability of the project “Sokoły z Jagatowa” showed that the project is a profitable project and can be an alternative for the author, who will face the choice of becoming self-employed or taking up a job with an employer after her sporting career ends.

Keywords: business project, cycling industry.

Introduction

The author of the research is a professional cyclist and is considering starting a self-employed business after her sporting career. Hence the author's choice of the topic of her thesis, which has a practical value. There is no bicycle shop in the author's home village of Jagatowo and the surrounding area, yet many people in these regions cycle and the sport of cycling is becoming increasingly popular. The nearest bicycle shop is in Pruszcz Gdański, 10 km away. Sometimes that is a lot, not everybody has a car and the possibility to get there, especially older people, who also often use bicycle transport. There is also no cycling school near Jagatowo, the nearest one is in Gdansk, about 25km away, and the daily commute to trainings for young children is tiring, so this would be a very big improvement. The children would have the opportunity to spend their free time in an active way, go on a cycling trip or have a cycling competition, if any of the younger participants were very committed. In the area around Jagatowo - Świncz, Wojanowo, Mierzeszyn a lot of younger and older people cycle and there would certainly be people willing to spend their free time actively, it is a very big alternative to spending time in front of a computer or a phone. Many older people are also lonely, and this is also a way to make new friends. The described market gap is the motivation for the author's research, the aim of which is to identify the viability of a cycling business venture under the name (company), “The Falcons of Jagatow”, with a view to creating a job for herself after her career as a professional cyclist.

History of cycling and cycling races

The bicycle is one of the most popular means of transport. People ride it to school, to work, train on it professionally and ride it recreationally. The history of the bicycle dates back 200 years and begins in Germany. Of course, the bicycle from that time is in no way similar to the one of today. The year 1817 is considered to be the date of the creation of the bicycle by Karl von Drais.



Photo 1. Picture of the first bike.²

In Poland the first bicycle was built in 1868 by Edmund Perl. This bicycle was made of wood and had three wheels, it is worth noting that in the same year a bicycle race was held in France (Paris) and it was 1.2km long. Because the history of the bicycle goes back so far, (the bicycle is older than the car) it is very relevant today. What is cycling? Cycling, is a very broad term, referring to many disciplines, but always related to the use of a bicycle³. The name derives from the word "wheel" as the bicycle was originally called in Poland. Cycling races are sports competitions of amateur and professional character. The best known

A variant of cycling is road racing, which takes place on public roads in open traffic. The riders ride in a peloton, one next to the other. They are characterised by high speeds, with riders averaging around 50 per hour on flat terrain. This type of race attracts the largest crowds. Not only professional races are organised, but also amateur races for people for whom cycling is an additional passion, a way of life, because apart from that they have jobs, families. For riders who compete in professional races it is a job. Just as people get paid for their jobs, racers get paid for cycling. However, such a job does not just involve competing in a race, because for athletes to show up at the highest level is linked to many factors. There has to be proper diet, sleep, training on the bike, training in the gym, recovery, working on the psychology aspects, promoting the team on social media, so as you can see, it is a lifelong commitment and not just the time spent at the race, which lasts about 4-5 hours. Some women participate in racing and also take up a full-time job in the process, which is very difficult and hard to reconcile. However, the UCI is trying to make the situation better. Since 2020, there has been a top women's cycling league, the 'World Tour Team' where there is a minimum salary that each rider receives. In 2020, such a minimum salary

2 <https://www.bikester.pl/info/historia-roweru/>.

3 All the text about cycling comes from the website- Kolarstwo – Wikipedia, wolna encyklopedia

was €15,000 per year, but it is increasing every year, last year it was €27,500 and in the current 2023 it is €32,000. At the beginning (2020) there were eight World Tour teams, and in the current year (2023) the number has grown to fifteen. In a „World Tour” team, a woman can also take maternity leave - for the duration of the pregnancy the contract still applies, and after the pregnancy period she can return to racing.

Cycling is also a very efficient method of travel - living in a city many people use a bike to get to e.g. work, school, shopping - this way they avoid traffic jams and save on fuel or a bus ticket, but it is not only about savings, but also that it is healthy for the environment, because cycling does not release any harmful pollutants. Cycling and riding a bike also helps to maintain good health. Scientific studies show that this form of activity reduces the risk of chronic diseases such as heart disease, strokes and cancer. Cycling keeps people in good mental health, for many people cycling is a “break from reality” for a while. Meeting new people is another benefit of the sport of cycling. In many towns and cities there are so-called “bike rallies”, where many people meet to train together, get to know each other and in this way friendships for life are often created.

Characteristics of the cycling industry⁴

The cycling (bicycle) industry is increasingly making its presence felt in the market. The bicycle is an environmentally friendly means of transport and the increasing interest in health aspects has contributed to an intensification of cycling activities performed by the public. A turning point was the COVID pandemic, which broke out in 2020. During the spread of the virus people considered cycling as a safe means of transport. It can be said that “thanks” to the pandemic, the public started to have good habits and started to use the bicycle as a means of transport, e.g. to work. Due to the increasing use of the bicycle, the price of bicycles has risen in recent years, i.e. 2020 - 2022, and there are no indications of a change in the direction of the upward trend. The reason for the price increase is the increased demand for bicycles and parts and the increased cost of transporting parts made in Asia and problems with component availability.

In recent years, as technology is moving more forward and everything is becoming more mechanised so too the bicycle industry is not standing still. At the end of 2021, TrybEco acquired Volt Scooters. TrybEco is a Lodz-based start-

4 <https://cmt-advisory.pl/artykuly-eksperckie/branza-rowerowa-w-orbicie-zainteresowan-inwestorow/>

up that produces e-vehicles such as bicycles, scooters and scooters. Volt Scooters, on the other hand, specialises in shared mobility solutions. The transaction was motivated by a desire to expand the business with a sharing system for electric scooters.

With the acquisition of Volt Scooters, TrybEco has become the only company on the Polish market to offer shared mobility solutions in addition to the production and distribution of hybrid bikes”⁵

A well-known Polish brand that bases its strategy on the acquisition of other brands is the company „KROSS”. The company has purchased two foreign brands. Kross decided to acquire the assets of the Dutch company Multicycle in 2017. Kross has plans to take steps that will put the company at the forefront of Europe - Central and Eastern Europe.

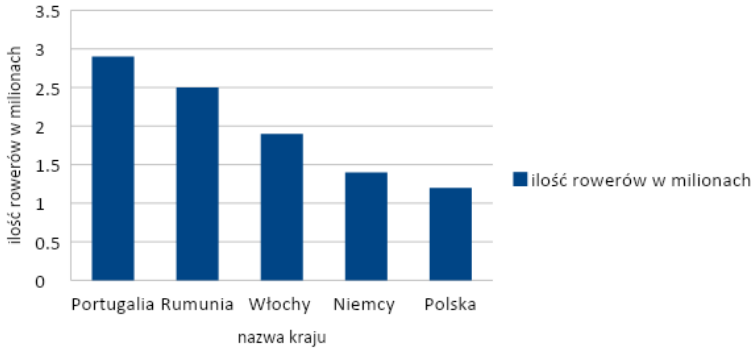
According to Eurostat data we produce over one million bicycles per year in Poland. The trend is upward - last year 1.2 million new bicycles were delivered to the market, which accounts for 8.6% of production in Europe. Poland thus took 5th place on the European market, just after Portugal (2.9 million), Romania (2.5 million), Italy (1.9 million) and Germany (1.4 million). The entire European market is worth more than EUR 18.3 billion. We can therefore speak of a powerful industry that is constantly growing.”⁶

Specialized, Trek, Cannondale, Cervelo and Giant are the five biggest bicycle brands in the world. Trek has been around since 1976 and manufactures every type of bicycle imaginable. The manufacturers produce road bikes, MTB bikes (for forest riding), gravel bikes (for gravel riding), time trial bikes (special frame with aerodynamic design to reach the highest possible speeds), and cross-country bikes (for snow, mud). The leading brand in each type of bike is Specialized, which creates the bikes on which we see riders racing in the world’s biggest race , the Tour de France.

5 <https://cmt-advisory.pl/artykuly-eksperckie/branza-rowerowa-w-orbicie-zainteresowan-inwestorow/> , 01.02.2022r g.20.10

6 <https://markethub.pl/rynek-produkcji-rowerow-w-polsce/>

Figure 1. Bicycle production in the EU, TOP5 countries (in million units).



Source⁷

The bicycle industry in Poland is developing, but at a slower pace compared to other countries. The largest domestic brand is Kross, which was founded in 1990, the factory is located in Przasnysz. In 2018, the Kross brand produced 285,000 bikes. Another brand is Dartmoor, which produces bikes for the „skate-park”. Marla produces whole bikes, bike frames, handlebars, wheels, etc. Romet is the oldest brand that produces bicycles in Poland, its history dating back to 1948, in 1980 Romet produced 1.13 million bicycles of which more than a hundred thousand were shipped to other countries. The most popular model from the “old days” of the People’s Poland period was model „Wigry 3” by ROMET - photo 2. The last brand from Poland is Rondo, established in 2017. The brand has been in existence for a short time, but already has a lot of popularity. In 2019, one of the Rondo models received the distinction of , “Bike of the Year” from one of the larger online services Bikeradar.com. It is worth mentioning that the most popular type of bike is the road bike, with MTBs in second place and gravelovers and hybrids in last place.

In recent years it can be observed, that there is a growing interest in bicycles, people are more and more willing to use such a means of transport., Research carried out by Bisnode Poland (i.e. Dun & Bradstreet, which is a leading global provider of data and analyses) shows, that every third company (manufacturer of bicycles and bicycle parts and components) is in a very good condition and every fifth company is in a good condition. However, there is the other side of the coin. The same study shows that 28 per cent of the surveyed entities describe their financial situation as poor and 17 per cent as bad.”⁸ A study carried out by the

⁷ <https://markethub.pl/rynek-produkcji-rowerow-w-polsce/>.

⁸ <https://franczyzawpolsce.pl/rynek-rowerowy-w-polsce-na-wysokich-obrotach/>

New York City Department of Transportation showed that the number of deaths and injuries caused by cycling decreases as the number of cyclists on city streets increases.⁹

Photo 2. Romet bicycle - Wigry 3



Source: Wikipedia.

Against the background of the global market, Poland is unfortunately still a little behind. Poles are still looking for the best solutions and are thinking how to catch up with European countries, which already have, for example, large urban rentals. Everything is going well, and the changing climate means that a very large proportion of commuters can use the bicycle to going for a work.

In May 2022, three European organisations (ECF, CIE and CONEBI) presented their package of eight demands, which promote the development of cycling use to, among other things, reduce greenhouse gas emissions. The key, according to these organisations, is for European countries to provide adequate infrastructure and introduce incentives (including taxation) to motivate the public to use bicycles more widely. Let us look at some of the postulates, as some of them have not appeared in the Polish public debate so far. Investments in fixed assets are to be the basis. Cycling paths for cyclists are one thing, and freight cycle paths and tracks are another. These are separate lanes, car parks, charging stations for electric bicycles. Freight transport by bicycle could take over some of the logistics, although for shorter rather than longer distances.¹⁰

9 <https://franczyzawpolsce.pl/rynek-rowerowy-w-polsce-na-wysokich-obrotach/>

10 <https://subiektywnieofinansach.pl/odstaw-samochod-moblinosc-da-ci-rowniez-rower-przy-okazji-zarobisz/#comments>

A great many new cycle routes have been created in Poland in recent years¹¹. There are already 17.3 thousand kilometres of cycle routes throughout Poland. The leader among Polish cities is Warsaw with 526 km of cycle routes, followed by Wrocław with 263 km, Poznań with 185 km, Krakow with 165 km and Łódź with 159 km. The network of bicycle paths is still being extended by Lesser Poland and Western Pomerania, joined by Pomerania. Smaller projects such as the Kaszubska Marszruta and Żelazny Szlak Cycling Route have their supporters. Thanks to that cycling journeys around Poland slowly cease to be an entertainment bordering on extreme sports and become more easily accessible for those who value active leisure. The European style of cycling tourism is separated from car traffic by cycle tracks, running in natural environment, safe for people of all ages, also for parents with children and the disabled.

Nowadays there is a great deal of climate change, as evidenced by fewer and fewer cold days in winter, a lack of snow in the mountains, droughts, violent storms, the extinction of many animal species - examples of how today's industry is destroying the planet. The bicycle is a very big alternative to car traffic, which is very damaging to our environment and health. Cars create traffic jams, noise and danger on the road, and it is worth adding that in a city it is very difficult to move a car. With a car you have to find a parking place, pay for it, with a bike the matter is much simpler, you can fasten the two-wheeler to a post, lamp, using a strong bicycle clip and go shopping. A bicycle is an ecological means of transport. Riding a bike people do not emit any pollutants - a bike is not propelled with any fuel, but only with the power of human muscles, which in today's prices of fuel is very important. The production of bicycles is associated with carbon dioxide (CO₂) emissions, but cycling is one of the modes of transport with the lowest CO₂ emissions - it is 21g per kilometre, even ahead of walking. By comparison, driving a car produces as much as 250g of CO₂. An alternative to ordinary cars are electric cars, of which more and more are appearing. It is worth comparing the CO₂ emissions of electric cars and bicycles. Producing an electric car means emitting about 15 tonnes of CO₂ into the atmosphere, and driving an electric car emits 100g of CO₂ per kilometre, but most of the electricity used to charge an electric car comes from coal, so you have to add another 100g of CO₂, which means that driving an electric car emits 200g of CO₂ per kilometre. In an internal combustion car, it is about 400 g of CO₂ per kilometre. With current means of transport, the bicycle is and will continue to be one of the cleanest forms of transport. By using a bicycle also everyone can reduce traffic congestion, reduce air pollution (through very low CO₂ emissions), makes it easier for obese people to lose weight, improves physical fitness. It increases mobility and faster

11 <https://businessinsider.com.pl/lifestyle/sciezki-rowerowe-w-polsce-siec-rosnie-rekordzista-wcale-nie-jest-warszawa/lglnpyc>

movement in large cities, and reduces the need for new paving, which is regularly damaged by car transport. It is worth mentioning that a parking space occupied by a car can accommodate around 20 bicycles.

Cycling project „Sokoły z Jagatowa”

The business venture I am designing is a bicycle shop and the name „Falcons of Jagatow” is the name of the company. The flagship product of the shop is a cycling team under the same name. The company will sell bicycles, cycling clothes, shoes, training monitoring devices from „WAHOO” and „GARMIN”, as well as cycling accessories such as tyres, tubes, cycling lights, etc. The company will also offer services in the workshop, where customers will be able to have their bike repaired in real time, have a coffee and eat cake. During the months, November to March, the company will offer a travel service, selling cycling groupings in warm countries.

The company's products and services will be characterised by their high quality, but also by their high price. Special attention will be paid in the company to the quality of customer service. It will be an added value to the products and services offered by the company according to Mahmet Gandhi expressed his opinion of the customer as follows: *“The customer is the most important guest, he is not dependent on us, but we rely on him, he does not interrupt our work because he is the purpose of it, we certainly do not do him a favour by serving him, he does us a favour by giving us the opportunity to serve ourselves”*. As Z. Mietlewski and St. Smolenski in their book *Trading Effectively: “Quality must be defined from the customer's perspective and not according to your idea of what might satisfy the customer's expectations; use customer interaction here and conduct regular observations”¹²*. The product offerings for customers of the company ‘Falcons of Jagatow’ will come from the company's purchases directly from their manufacturers at home and abroad. The company will employ the author of this study, who will deal with direct sales, and three people. One will be in charge of internet sales, one will be in charge of marketing and advertising and one will be in charge of bookkeeping.

The company “Sokoły z Jagatowa” addresses its offer to the middle class coming mainly from the village of Jagatowo (about 1000 inhabitants), the neighbouring communes: Pruszcz Gdański Cieplewo, Rusocin, Łęgowo, Warcz, Mierzeszyn and the city of Pruszcz Gdański (about 30 thousand inhabitants), from the city

12 Mietlewski, Z., Smoleński, S. *Handlować skutecznie, Poradnik dla podejmujących działalność handlową*, Olsztyńska Szkoła Biznesu, Uniszewo 2001, s.10.

of Gdańsk (582 205 inhabitants) and the neighbouring villages, from which people commute to work on bicycles to the above mentioned towns and cities, where they work mainly in services. The company will reach its customers by advertising in the press, radio, TV and by organising and participating in various sporting events. Also by advertising on Facebook, on Instagram, on the shop's profile on Instagram, website, profile on tik toku, leaflets in markets, YouTube channel, promotional stands at sports events. To purchase its offer, products and services, the company will encourage customers with the quality of the product and service as well as the price, e.g. by offering discounts when buying a larger quantity, similarly for special occasions such as Easter, Christmas, Black Friday. The company will sell its products and services in its own stationary shop and its own online shop. In the latter case, the product will be delivered by courier, either to the shop or to a parcel machine indicated by the customer. The cost of delivery will be covered by the buyer, who will be able to pay for it in cash on delivery or by bank transfer. Payment by instalments will also be possible. The products and services purchased by the customer will be covered by a two-year guarantee. In the event of difficulties in assembling the purchased products, which have been delivered to the customer in parts, the company will provide an on lenne assembly service free of charge, in special cases a paid service at the customer's premises.

The analysis of the profitability of the business project "Falcons of Jagatow" was carried out using the EMPI method - economic information linkage matrix¹³ and β -business tables¹⁴, tools by Z. Mietlewski, and the source of information used in the analysis and assessment of the profitability of the business project was the pro forma income statement (RW) and cash flow statement (CF) developed by the author.

Summary

The analysis of the profitability of the project "Sokoły z Jagatowa" carried out allowed the author to formulate the following seven conclusions:

Conclusion 1. Profitability of the project 58.85%;

13 Mietlewski, Z. *Metodyka, Analizy i oceny danych w budżetach przedsięwzięć gospodarczych podejmowanych przez bezrobotnych*, Instytut Organizacji i Zarządzania w Przemiale ORGMASZ, Warszawa 2003.

14 Mietlewski, Z. (2023), DIGITAL BUDGETING FOR BUSINESS. MATHEMATICAL TABLES β -business. SELLING COST AND ITS CRITICAL POINTS. Wyższa Szkoła Społeczno Ekonomiczna w Gdańsku, Gdańsk 2023.

Conclusion 2. Operational risk 1.41;

Conclusion 3. Profitability threshold in value terms average monthly 23 370,93 PLN, annual 280 451,16 PLN;

Conclusion 4. Break-even point in percentage terms 29.08%;

Conclusion 5. Safety zone of 70.92%;

Conclusion 6. Safety margin of sales 58.86%;

Conclusion 7. Safety margin of variable costs 3.46%.

The profitability of the „Sokoły z Jagatowa” project deviates significantly, in the author’s favour, from the interest rates offered by banks on short, medium and long-term deposits. The operational risk is low. On the one hand, beneficial for the project, on the other hand, not necessarily, if we take into account the mechanism of operational leverage, should the future company wish to use it. To recall this mechanism, the percentage increase in sales (increased/decreased) is accompanied by a more than proportional increase in operating profit (increased/decreased). Operating leverage is the quotient of operating margin (gross margin) divided by operating profit. The greater this quotient, the greater the risk and the premium for it, when sales increase, provided that costs remain at their current level, and vice versa, when sales decrease, the high risk will result in a more than proportional decrease in operating profit, often so significant that the company loses liquidity or even faces the spectre of bankruptcy. In the case of the project (year 1), a 10% increase in sales would result in an increase in operating profit of 14.1% i.e. it would increase by PLN 46,758.40 or decrease by that much. In the first case it would amount to: PLN 380,747.40 per annum (PLN 31,728.95 per month on average) and in the second case PLN 287,230.54 per annum (PLN 23,935.78 per month on average). As can be seen from conclusion 3, this would be a very unfavourable situation for the company, which, although it would cover its fixed costs (the company would get closer to the break-even point), would no longer have anything to pay the loan from.

The project „Sokoły z Jagatowa” is characterised by a large safety zone and large safety margins for both sales and variable costs. In the case of the safety zone, they assume that the company will work 168 hours per month, the company will already start generating an operating profit from the 58th hour. On the other hand, if sales fall by 58.86%, the company returns to break-even with the consequences, including no money to repay the loan. Similarly for variable costs, if the prices of goods ordered by the company from manufacturers and wholesalers are increased by that much.

Based on the findings and the analysis of the profitability of the “Jagatow

Falcons” project, it appears that the project is a profitable project and may be an alternative for the author, who will be faced with the choice of becoming self-employed or working for an employer after her sporting career ends. The results of the calculation and their analysis motivate the author of the research towards considering self-employment after her sporting career. Admittedly, a lot can still change on the market, as well as in the author’s life, but the knowledge and competences acquired in the course of her research on the ‘Jagatow Falcons’ project are a very valuable practical skill - an added value from her studies.

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