

Czech University of Life Sciences Prague

Faculty of Economics and Management

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Bachelor Thesis

Starting a business in old-timer market in Europe

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Artem Alekseev

Business Administration

Thesis title

Starting a business in old-timer market in Europe

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Evaluate old-timer market in Europe and the United States. Determine key characteristics of this market. Allocate opportunities for arbitrage in the market.

Methodology

Theoretical part used various methods of literature survey. In the practical part, methods of data collecting and data analysis such as regression analysis or methods of financial analysis are used.

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Porter, L. (1994). Classic car restoration guide. Sparkford, Nr Yeovil, Somerset, Englandl: Haynes.

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Declaration

I declare that I have worked on my bachelor thesis titled “Starting a business in old-timer market in Europe” by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on

Artem Alekseev

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At first, I am very grateful to my parents who gave me an opportunity to study abroad. Second, I want to thank my supervisor Ing. Petr Procházka, MSc, Ph., who worked with me on the thesis and gave me valuable comments, advices and support

Starting a business in old-timer market in Europe

Zahájení podnikání na trhu veteránů v Evropě

Souhrn

Tato práce se zabývá zahájením podnikové autodílny směřované k renovaci a prodeji klasických vozů (veteránů). Každým rokem stoupá počet zájemců o klasické vozy a proto se více autodílen začíná zaměřovat na jejich renovaci a prodej. A to zejména v Evropě, protože většina vozů, o které lidé mají zájem, pochází z Evropy. Na začátku práce jsou uvedené informace o úvodu a cíl. Dále se tato práce dělí na dvě části. Jako první je teoretická část. Zde jsou obecné informace o trhu, typu renovace, možnosti investic a historii aut. Druhá část je analytická část, týká se zřízení uvedeného podnikání v České republice a jeho rozvoje. K dispozici je podrobný popis umístění, potřebného vybavení, a z finančního hlediska: výpočty a předpověď zisku.

Klíčová slova: podnikání, trh, renovace, klasické vozy, analýza

Summary

This thesis deals with opening a garage providing restoration and selling of classic cars. Every year the amount of people interested in buying a classic car increases, that is why a lot of car repair shops starting to provide their restoration and selling services. Especially in Europe, because most of the cars people are interested in, were made in Europe. At the beginning of the thesis there is information about its introduction and goal. Later this thesis is divided into two parts. The first part is represented by a theoretical background. There is a general information about market, types of restoration, cars' history and investment possibilities are described. Second is an analytical part, which is about setting up a business in Czech Republic and its development. There is a detailed description of the location, equipment needed and from the financial point of view: costs calculations, forecast of a profit.

Key words: business, market, restoration, classic cars, analysis

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List of acronyms

CZK	Czech Koruna
S&P	Standard and Poor's

1. Introduction

A modern car is a self-powered motor vehicle normally used for transportation of goods and people. Since the 20th century the role of such vehicles has become very important. It is used all over the world and is the most popular sort of transport in developed countries. In developing countries, the effects of cars on society are not so visible, but they are significant. The development of the car has introduced huge changes in employment patterns, social interactions, infrastructure and the distribution of goods. It goes without saying, that the introduction of the mass-produced car led to a revolution in mobility and convenience. Of course, there are many negative consequences of heavy automotive use, such as the use of non-renewable fuels, an increase in the rate of accidental deaths as a result of road traffic accidents, the rise of obesity, air and noise pollution, ect.

Still, nowadays people cannot imagine their lives without cars. They represent a large economic industry - production and selling of cars, spare parts, consumables, toys, car magazines and books, then goes servicing, renting, motorsports funding and even incorporating into artworks including music and movies. For many people cars represent their way of life. As for today, there are a lot of various types and models of cars produced, they have different value and specifications.

This thesis will provide a study about so-called classic cars or old-timers. A common description for them is as follows - "an older car with enough historical interest to be collectable and worth preserving or restoring rather than scrapping". More and more people become involved in classic cars servicing, restoration and collecting. It requires a great knowledge to work in this field, so generally these people are very enthusiastic about what they are doing.

The first part of the thesis is literature review, in which there is a necessary information about types of classic cars restoration, restoration process, market overview and how cars are getting their value. The next, analytical part includes a business plan, market analysis, marketing strategies, business expenses at every stage, risks analysis, calculation of break-even point and profit and loss statement.

2. Thesis objectives and methodology

2.1. Objectives

There are main goals of this thesis, which should be done in real situation in order to start a classic cars restoration business.

At first, a business plan for the garage should be done. Second thing is choosing a certain car models to buy at the beginning, considering their condition and a limited amount of investments, to have maximum profit. Third, allocating a place for the garage. Then, determining all necessary tools to purchase. Next step will be searching for the options of companies to cooperate with, as it is not possible to provide entire work in-house. Later is going to be an evaluation of market and profits, providing financial analysis and marketing planning. There should be calculations and predictions of how quick a business will start to generate profit.

2.2. Methodology

Methods used in this thesis are: method of financial analysis to make calculations (profits, losses, ect.). Second are qualitative and quantitative research, as well as consumer research through published sources in order to identify preferences, motivations and buying behavior of targeted customers. The qualitative research is represented by SWOT analysis. Then there going to be correlation experiments, comparative method and specific statistical observations. Of course, making a marketing plan to develop an advertising strategy. The last but not least is the effective methods will be used to make a forecast of future business, its expenses and revenues.

3. Theoretical part

3.1. Classic cars concept

There is no consistent definition of what a classic car is. But there is a countless amount of entities which have their own definition, so it varies. Here in Czech Republic, government define a classic car or "veteran" as any car over a certain age of 30 years. Rather than defining by age limits, some enthusiasts consider a classic any car that holds its value, for others, it is all about rarity or historical significance: a car which defined an era, such as Ford Mustang, or was a limited edition of just a couple of hundreds examples. At the same time, a department of the UK Government HM Revenue and Customs define a classic car for company tax purposes as being over 15 years old and being valued at over £15000. In this thesis, a slightly different specification of a classic car will be used to determine what vehicles are more expedient to purchase: a car that is desirable by collectors, is over 20 years old, had a positive historical impact on automotive industry or motorsport, holds or gains its value. (Wiseman, 2017)

The world of classic cars is always divided into three main markets. Those are North American market, European market and Japanese market. North American market includes all car making companies situated in the United States, such as Ford, Chevrolet, Dodge, Buick, Plymouth, ect. On the other hand, European market includes car making companies situated all over European Union, from Italy to Sweden. This market shows the highest growth in value over the last ten years. It includes a large amount of car making companies, such as Ferrari (Italy), Aston Martin (Great Britain), Porsche (Germany), Renault (France), Volvo (Sweden), ect. Many companies of this market had been producing the most expensive cars in the world. The last, Japanese market includes companies situated in Japan, for example Toyota, Honda, Mazda and Nissan (formerly Datsun). (Eisenstein, 2010)

3.1.1. Categories

The world of old-timer cars includes a great number of makes and models, thousands of upgrades and options. Normally all classic cars are divided into three categories: original, restored or resto-mod. Usually they have a different value and separate purpose, but there are some exceptions. (Pratt, 2014)

Original cars

Classic cars of this category are mostly very rare. The original car is a vehicle that has been either maintained aesthetically and mechanically without replacement of any parts or was preserved in its original state until now and does not need any repairs. In the first option the repairs that have been provided are few and whenever possible, parts needing maintenance have been fixed rather than replaced. (Pratt, 2014)

One way to determine if a classic car is original is to look for "matching numbers". That term simply refers to the serial numbers that were stamped on some major components of the vehicle during production. Those numbers match the other components on the car or may refer to the assigned numbers of the production facility, date or the series of the vehicle. Depending on the make and model of the classic car, such parts as the engine, transmission, rear axle, alternator, generator, carburetor, distributor, heads and water pump may be numbered. The vehicle with "matching numbers" is original and is considerably more valuable than those without. The original vehicle should also have a complete history with all the documentation available from the moment when it was produced and the repairs that were done officially recorded. (Pratt, 2014)

Restored cars

Classic cars that have been reconditioned to their factory specifications using original or similar quality reproduced parts are called "restored". Almost every part can be located, but sometimes the cost and availability of some parts and services makes a restoration process time-consuming and frightening. It may be complicated even to find a professional restoration garage to provide a high quality of work. The goal for a "restored" car is to repair and refurbish the vehicle so it looks and functions the same as the day it was produced or even better. (Pratt, 2014)

Resto-mod

A resto-mod is a classic car which has been not only restored, but modified with modern parts and technology. Usually those modifications are made to comply with emissions standards, supplement safety features such as airbags, brakes, body stiffness improving or improve performance by upgrading suspension, engine, electrics and aerodynamics. Regardless of what was changed or added, the final goal is to modify the car without

significantly altering its appearance. The risk that modified classic car could depreciate in value is high, but sometimes the proper upgrades only increase the price of a vehicle. There are many companies which are focusing on modifying classic cars in order to make it more comfortable to drive and enhance performance, but saving a classic appearance. Good example is "Singer Vehicle Design" company, which specializes on classic Porsche 911 vehicles. (Pratt, 2014)

Classic cars are also divided into groups by condition. Usually there are four definitions – “fair”, “good”, “excellent” and “concours” condition. “Fair” vehicles are daily drivers, with flaws visible to the naked eye. The chrome might have pitting or scratches, the windshield might be chipped. Paintwork is imperfect, and perhaps the body has a minor dent. Split seams or a cracked dash, where applicable, might be present. No major parts are missing, but the wheels could differ from the originals, or other non-stock additions might be present. A “fair” vehicle can also be a deteriorated restoration. Vehicles in “good” condition could possess some, but not all of the issues of a “fair” vehicle, but they will be balanced by other factors such as a fresh paint job or a new, correct interior where applicable. “Good” vehicles drive and run well, but might have some incorrect parts. These vehicles are not used for daily transportation but are ready for a long tour without excuses, and the casual passerby will not find any visual flaws. “Excellent” vehicles could win a local or regional show. They can be former “concours” vehicles that have been driven or have aged. Seasoned observers will have to look closely for flaws, but will be able to find some not seen by the general public. The paint, chrome, glass and finishes will all appear as excellent. No excessive smoke will be seen on startup, no unusual noises will emanate from the engine. The vehicle will drive as a new vehicle of its era. Finally, “concours” vehicles are the best in the world and are the most valuable ones. The visual image is of the best vehicle, in the right colors, driving onto the lawn at the finest auctions. Perfectly clean, the vehicle has been groomed down to the tire treads. Painted and chromed surfaces are mirror-like. Dust and dirt are banned, and materials used are correct and superbly fitted. (Hagerty.com, 2017)

3.1.2. Buying and selling

The objective of this thesis is to create a profitable business by mainly buying, restoring and selling classic cars. So, knowing of how to purchase an appropriate vehicle to work on is very important. There are a lot of factors to be considered when buying a classic car for

profit. In the main, the condition of the chosen car and how complicated will be its maintenance, does it have some historical value and what are the predictions of its cost in a certain time interval. Then the process of purchasing should be as follows:

- Choosing a specific car model which is affordable, desirable in the old-timer's market and gaining value.
- Determining its fair market value using special internet valuation tools such as Hagerty's "Value Your Vehicle" tool on their website.
- Determining a finished car worth.
- Looking up for availability of the parts for this car.
- Searching for available offers of that vehicle on the internet, classic car magazines, specialized dealerships, auctions and choosing the best options considering a better condition for a lower price.
- Getting a professional inspection of several car options to estimate the condition of every unit of the car.
- Determining a cost of repairs of each option including 20% risk.
- Calculation of an expected return of every option and choosing the most profitable one.
- Buying a vehicle.

Later, when all the necessary repairs of the car were carried out, it is time to sell the car at a profit. Marketing a classic car is crucial to getting the best sale price for it. Selling classic cars is very different from a standard used car marketing. As the price of the car is identified, it should be advertised properly. The methods of advertising should reach as wide a range of consumers as possible. There are several possibilities where to sell classic cars. At first, plenty of internet classified advertisers are available for free or for a small fee such as "Classic Cars" and "Hemmings". Second option are online auctions such as "eBay", which make it possible to show off the classic car while gaining the largest audience. Also local car magazines are the great option for placing an advertisement. And the last but not least, one of the popular ways to sell classic cars is to exhibit them at auto shows. Throughout the spring and summer months, many car shows in Europe present different types of cars, including classic cars for sale. Auto sellers, buyers and enthusiasts from all over the world take part in such shows. There is a big advantage in this way of selling a vehicle, as a lot of potential consumers can see the car in person, inspect it, get all the information needed and make a decision at once. (Jones, 2013)

3.1.3. Acquirement of the value

Cars become classic over time and are gaining value in some time as well. At first, cost of the car leaving the production line depends on materials and technology that were used during manufacturing, its design, the car makers' reputation in the market and on an exclusivity of the particular model (number of pieces produced). Basically, the more exclusive is the car, the higher its cost will be. After the production of the particular model is ended the number of cars is decreasing due to some of them getting damaged or destroyed, so the supply is going down. In case of valuable classic cars, the demand is mostly increasing or remains unchanged. So the price rises due to relative scarcity. This market is in some way a question of generation – many elder people today want to own a car that was their dream when they were children, so nostalgia plays a big role in valuation too. Cinema films also have a huge impact on value and interest increase of particular models. The best example is Aston Martin DB5, which is a James Bonds' favorite car in every "Agent 007" film. The Aston Martin DB6 is functionally equivalent of DB5 model, but is now selling for half a price of its predecessor. Another important reason for a classic car to gain value is its historical participation in some well-known racing events, such as "24 Hours of Le Mans", "12 Hours of Sebring" or "Spa 24 Hours", how the car was performing during these races and which famous drivers used to drive it, when talking about a specific car. (Leno, 2017)

3.2. Classic car as a long-term investment

Classic cars are gaining attention due to their up to 458 percent returns over the past decade and 8 percent for the year 2016, which is the lowest annual growth for the previous 6 years, as reported by the Knight Frank Luxury Investment Index (KFLII). So people are interested in acquiring of high quality examples and the interest is expanding. In 2005, classic cars were looked at as collectibles, but now are recognized as an asset class, so they can be compared with the other investments, such as art, real estate, stocks and bonds. (Shirley, 2016)

As for today, classic cars have the highest one-year increase and 10-year increase in price among all investment types. The second position holds art with its 181 percent increase in last ten years, but had an 11 percent drop in 2016. Mostly, people are buying such assets because of their passion, those collectibles are a things of beauty to them and they have enough money to own it not thinking about its profitability. But sometimes they are bought

for a secondary reason – they can be an investment to make profit, or at least they can act as a barrier against money depreciation. Classic cars and art have something in common, it can be enjoyable to drive it or to look at, so when people purchase them they get two-for-one. It goes without saying, that buying such collectibles as an investment is very risky and requires a great knowledge of this field not to waste money. When acquiring an art object person should take costs of transportation and storage into consideration, but when it comes to a classic car there are more expenses, such as insurance, transportation, storage, cost of repairs and parts if needed, maintenance cost (fuel, oils, detergents and cleaning). Another expense for both assets is an advertising cost when it comes to selling. Of course, there is always a risk of not finding a buyer who is ready to pay a required amount for it. (Pike, 2015)

Another option of a profitable investment is real estate. In Czech Republic housing has gone up in value steadily from the year 2011 after the economic crisis and this growth is predicted to continue for some years. From the year 1975 the average annual return from real estate is 4.8 percent, so the first type of earning from housing is appreciation in time which is a long-term perspective. Then the second type of return is added if the house or a flat is rented to increase annual returns in a short-term perspective. Good investment strategy and a right choice of real estate and tenants could provide interesting returns of up to 9 percent annually. Even getting a mortgage from the bank to finance a real estate can make a profit of 5 percent per year, as the interest rates nowadays are at their lowest level in Czech Republic. The risk of owning a real estate as an investment is relatively lower, than owning collectible items. Nevertheless, the proper research should be made in order to get stable income. For example, the most profitable real estate in Prague today are flats of 2+kk and 2+1 types, but their location plays a huge role as well. Real estate has very low liquidity, same as collectibles. (Burda, 2013)

Many people consider buying stocks as a good investment. There is a countless amount of funds and companies a person can buy stocks from. This type of investment provides high potential returns, but has low liquidity and is unstable - stocks fluctuate in value constantly and are accompanied with high risk of losing a part or the investment entirely. Some stocks pay dividends, but many of them don't, so in that case a person can only rely on the stock's increase in value, which might not happen at all. One of the best options in this area for today is investing in S&P 500 index, which pays dividends and shows an outstanding performance. The S&P 500 captures about 80 percent of the available U.S. market capitalization. It is

possible to purchase shares of an exchange-traded fund which owns a portfolio of the equity securities that comprise the S&P 500 index or just replicate an index by investing in all the stocks of the S&P 500 directly. (Cameron, 2016)

Compared to stocks, bonds provide relatively low potential returns, but are representing a fixed-income security which is almost risk-free, when bought from a stable company or government. Purchasing a bond means lending out money to a company or government which pays back the interest in return. In case of a long-term investment, we will consider purchasing a 10-year treasury bonds from the government of Czech Republic. (Sorted, 2016)

To compare the profitability of these different investments it is necessary to calculate the net present value of individual investments taking a limited amount of \$150,000 or 3,825,000 CZK (exchange rate of 25.5 CZK per \$1 applied) available as an example. In Czech Republic, capital gains are taxed as usual income at 15 percent rate for individuals, with exception for real estate, as its capital gain is tax exempt, if held for more than 5 years. Classic cars and art are not recognized as assets and are also tax-free. To have certain numbers in this calculation, a specific example of classic car, art painting and real estate must be determined in this price category. (Worldwide-tax.com, 2014)

For a classic car in this price category the best choice for today is Ferrari Testarossa from the years 1984 to 1991, as it's price is exactly \$150,000 in the best possible condition. The interest for this this car will eventually rise because it was the last (in exception of some newer limited production models) mid-engine, 12-cylinder Ferrari built. The best art painting option can be original post-war paintings of famous artists in this price range, which can be bought at auction online, as they generate one of the highest returns at a long run and are very popular nowadays. The calculation can be found in a section "4.1. Investment comparison". The returns of individual investments can be seen in table 1. (Hagerty.com, 2017)

Table 1. Return of individual investments

Time/Asset	Ferrari Testarossa	Post-war art	2+KK type flat	S&P 500	10Y Bond
1 year	11,1%	10,2%	1,09%	17,45%	0,24%
10 years	214%	308%	11,5%	58,45%	2,5%
Long-term average	10%	10,85%	2%	11,49%	0,687%

Source: (Hagerty.com, 2017; Moine, 2016; Burda, 2013; Ycharts.com, 2017; Kurzy.cz, 2017)

3.3. Restoration

Automobile restoration is the process of repairing or reconditioning the specific parts or elements of the car, which are defective, or the car entirely to return it to an overall "authentic" condition. Mostly restorations are done historically accurate as an original example of the production model. Classic cars can be refurbished using either original or reproduction parts and techniques. Sometimes it may not be possible to have original restoration done for some antique and rare vehicles because parts may not be available to replace or to imitate exactly, but if the proper research was made, they can be brought back to an authentic condition. The goal is to preserve the historical aspects of the car. Properly restored classic car can have a great value. Usually, old cars that were restored to their original factory condition are those most valuable ones. But some owners make changes and upgrades during restoration, so the car becomes "restomodded", not restored. This may reduce or enhance the value of the vehicle. There are a lot of facilities specializing on classic cars or their components restoration all over the world. They offer a broad range and quality of services. Some companies are focused on restoring and modifying only specific components as engines, gearboxes or chromed parts. Others provide a complete restoration including bodywork, electrical work, ect. (En.wikipedia.org, 2017)

Another process is the re-creation. This is a process of modifying a vehicle to make it appear like another car entirely, or like a more desirable version of the same vehicle. Some businesses are able to remanufacture almost any car completely and any of its components in-house, as sometimes as little as a single front fender of the car remains and nothing else.

In addition, high demand for some special automobiles has led to sophisticated fake replicas production, which are usually made from ground up. (En.wikipedia.org, 2017)

3.3.1. Preparation

Before the restoration process begins, a certain preparation should be made to increase productivity. At first, the workshop should have concrete floors, enough space for tools and mechanic's movement, must be equipped with a proper storage for car parts as a completely disassembled vehicle requires a lot of space, good lighting conditions and should be well ventilated. All this must be considered to minimize the risk of injury during the work process. Second, the right tools and equipment should be available at the workshop which makes a technician's work easier and could save a considerable amount of time spent on the restoration. The necessary list of tools should include a roll cabinet and tool box to properly store the tools, benches, Allen wrenches of different sizes and types, sockets and drives with adapters, torque wrenches, screwdrivers, pliers, hammers of different size and material, punches, chisels, files of various forms, hacksaws, tubing tools, cleaning tools like wire brushes and hand-held scrapers, threading tools, drills, reamers, measuring tools like feeler gauges and micrometers, power tools like bench grinder and electric drills, hydraulic jacks, a twin-post hoist, a portable crane, an engine stand, ect. (Thiessen and Dales, 1980)

3.3.2. Process

A process of vehicle restoration includes not only repair of the visible parts – the body paint, chrome, wheels, trim, glass and the passenger compartment - but also the components which are not seen, including the engine and engine compartment, body frame, trunk, suspension, gearbox, differential gear, and such auxiliary machinery as the engine cooling system, brakes, electrical system, accessories, ect. Repairs are made to fix obvious defects to be sure, that all units are working correctly and are durable, as well as for cosmetic reasons. (En.wikipedia.org, 2017)

3.3.3. Disassembly

Very often, when the complete car restoration is providing, every component of the car should be removed from the body – engine, driveline, interior and even those small emblems - in order to test, clean and repair each major part and its components. This process is called disassembly. Sometimes, damaged, broken or worn parts should be replaced using the

correct and quality parts. Each part must be thoroughly examined, cleaned and repaired as necessary to return the vehicle to the original condition. (En.wikipedia.org, 2017)

The level of disassembling is dependent on a condition of the classic car and how thoroughly the renovation should be done. Usually after removal of one part, some problems with another occurs, which were not visible before. The process of disassembling should be provided carefully not to damage any unit when removing. In a complete restoration, disassembling is considered finished, when the engine, suspension parts, interior, electrics and other parts are separated from the body and each other. The process should normally begin with the interior removal – seats, door and roof upholstery, weather-stripping, dashboard and accessories. After that, the interior electrics should be examined, signed properly and removed. The next stage is removal of doors, front and rear fenders, bumpers, windshield and other glass, hood and trunk. Special care should be provided, when removing any chromed parts as it takes a lot of time and skills to repair even a light deformation. Then goes the engine, gearbox and every under-hood unit removal. All hazardous liquids like motor oil, brake and clutch fluid, and coolant must be deleted carefully and properly stored or utilized. The suspension, brakes and fuel lines removal is usually the last stage of disassembling. After all these manipulations are finished, the condition of the body is visible and the decision of what further procedure to provide can be made. This part of restoration could take up to several hundred working hours to complete, but a professional restoration garages are able do it in a couple of days. (Nestrojil, 2002)

3.3.4. Interior

The interior of the vehicle should be examined and repaired, broken components must be replaced with those original or quality duplicated ones to match those that were available from the factory. The seat frames must be checked for rust appearance, seat mechanisms and the coil springs repaired, replaced or retied before the seats will be re-upholstered if it is necessary. Finding a number of gauges on the instrument panel or dashboard not operating is also a common problem. These gauges should be inspected, cleaned, repaired or replaced as well as the under-dashboard electrics – it's condition could be the reason for gauges not to work properly. Carpets and upholstery should be controlled, repaired or replaced if necessary, also removed carefully to examine the rubber and insulation material underneath for wear, which should be replaced as well in case of damage. Steering wheel is another

important component of the interior which must be repaired to the original condition. Developments in technology have made it possible to salvage the original vehicle's interior by various restoration processes. (En.wikipedia.org, 2017)

3.3.5. Body and exterior

Classic cars that were used to operate in countries with humid climate, or got into a car accident, or have been staying unmaintained for a long time are most likely having a body and frame problems, such as rust and corrosion. But sometimes it happens because of the low quality metal and anti-corrosion treatment used during the production. The body and frame must go through the careful inspection, following repair and recoating as necessary to bring the car to an authentic condition. (En.wikipedia.org, 2017)

As part of the vehicle's restoration process, repair of the frame is highly important since it serves as the basis for the entire car. At first, the frame should be inspected for rust damage straightness, alignment, twisting, stress fractures, collision damage and condition of the mounting points for the body, suspension, and other components. Before the bodywork begins, all the existing layers of paint and primer should be purged out by sandblasting or other cleaning method. Then, all problem areas must be repaired, which is usually an expensive process. For some classic cars, replacement frames can be purchased from parts suppliers who specializes in producing such frames for classic cars or in that make of vehicle. This is often a better and cheaper option than repairing a heavily damaged frame. Depending on a frame construction, mud and water can get inside the frame and cause rusting from the inside out, so it can be weakened with little or no external sign. This, and the fact that replacement frames are normally galvanized, gives the good reasons to consider those replacement parts. (En.wikipedia.org, 2017)

If there is rust on a body panels, it was damaged by a collision or other damage is present, there are several options for repair: fixing the damaged panel, if it has a minor damage and it is still possible, cutting out and replacing a section of the panel – for many makes of classic cars small partial panels are available to purchase and are designed to be welded into place after cutting out the damaged section, or replacement of the entire panel when it is seriously damaged and cannot be repaired. Welding panels by sections may seem simple in theory, but it is a hard process which requires knowledge and great experience to perform. One of the most difficult operations in restoration is the use of the English Wheel or Wheeling

Machine to fabricate complete curved panels from sheet metal. It may be a problem to fit some panels together, especially if they are taken from different suppliers, so they need reshaping in order to fit properly. Variation in size and shape of a panel and correction by highly skilled metalworkers on the factory production line was a common practice to make panels fit perfectly, especially when it comes to Italian and British sports cars. Even now, original New Old Stock factory panels, if they are available, require panel beating to fit. (En.wikipedia.org, 2017)

The re-installation of the repaired or renewed panels requires that the panels be trial fitted and aligned, to check their fit, that their shape follows the contour of the body and the gaps between panels are correct. Equal gaps are very important to a quality finish. Gapping gauges are available to measure the gaps. The doors, hood, and trunk should open and close properly, and there should be no interference or rubbing. Steel or aluminum door skins and fender edges can generally be adjusted with a hammer and dolly tool. The panels have to look appropriate to each other. This is a process of repeated adjustment, because the adjustment of one panel often affects the apparent fit of another. If there are multiple styling lines on the side of a car, it is generally best to align doors on the most prominent one. When the panels on the car are set, they should be primed and painted a correct original colors of the vehicle if the restoration is providing for historical accuracy. The correct approach is normally made by individual painting of the panels, as this will result in all parts of the panel being painted as opposed to partially re-assembling and then painting, which may leave parts of the assembly that are touching or "blind" unpainted. It is important not to damage a fresh painted parts when reassembling the car. To take extra care with them, taping with masking tape could be applied. This is also important when using ultra fine wet flattening paper before polishing for the best mirror-like finish. (En.wikipedia.org, 2017)

Colors and treatments applied to the panels from the factory should be considered. Although more original looking, period enamel or cellulose paint will not be as capable of protecting the car bodywork as modern paints. A car's owner may wish to have a panel or portion of the car entirely painted when in fact it may have come from the factory with undercoating or other coating applied to one side, which may be less attractive than a smoothly finished and painted panel. In other cases, the owner might paint or plate a collection of small parts to look similar for a better appearance, when the factory might have installed these as many different colors, since the factory's prime concern was a balance between function and cost

and not the appearance of unseen areas. Given the cost of restoration it makes sense to many owners to upgrade the corrosion protection of paints, underseals and anti-rust waxes to far above the original factory standard to provide a high level of protection to the vehicle. (En.wikipedia.org, 2017)

3.3.6. Mechanicals and reassembly

All mechanisms of the vehicle must be controlled and examined. If something is not working properly, it must be repaired or replaced with a similar or higher quality parts. Engine and its components should be checked for leaks and reassembled, such parts like engine gaskets must be replaced completely. The same process is applied to suspension parts, break system, clutch system, fuel rails and tank. Dirty or damaged electric parts and wires must be replaced and well isolated. For the best quality of restoration, metal parts should be cleaned from damaged original paint and polished. After that, a new paint job must be done with matching original colors. (Nestrojil, 2002)

When all the necessary repairs and refurbishment are finished, the reassembling process begins. At first, the differential gear, gear box, fuel system, engine and its components must be connected back to the vehicle's body. Then goes suspension with brakes, electrics, interior and windows. After the car is reassembled, a testing start of an engine should be made in order to understand that everything is working correctly. The last step is tuning the aggregates and making a test run. (Nestrojil, 2002)

4. Analytical part

This part of the thesis deals with practical information about foundation of the “Revival Machinery” company. It includes financing, management and marketing strategy, SWOT analysis of the company, necessary calculations of fixed costs, variable costs, cost of labor and financial forecast with break-even point and profit and loss statement calculation. Also at the beginning there are investment comparison calculations, which are made as a continuation of a section “3.1.4. Classic car as a long-term investment”.

4.1. Investment comparison

At first, using the long-term average percentage from the table 1, the appreciation in value must be computed for each type of investment. Second step is calculating of cash flow. The last steps include calculating of present value (PV) and net present value (NPV). Formula of calculating cash flow is represented as follows:

$$\text{Cash Flow} = \text{Operating Cash Flow} + \text{Appreciation} = FV$$

Formula of calculating present value is represented as follows:

$$PV = \frac{FV}{(1 + i)^n}$$

For the simplicity of calculations, the same discount rate (i) of 7.5 percent will be used for all types of investments, which represents a real discount rate of S&P 500 in the year 2016.

Formula of calculating net present value is represented as follows:

$$NPV = PV \times T, \text{ where } T \text{ is the time of keeping the investment.}$$

First type of investment is Ferrari Testarossa with 10 percent appreciation per year. This investment has operating expenses every year, which are 10,000 CZK for insurance, 5,000 CZK for cleaning, 30,000 CZK for storage rent. As the vehicle was bought in perfect condition, there are no additional costs for repairs or parts. Calculation is as follows:

$$3825000 \times 0,1 = 382500 \text{ CZK} - \text{appreciation per year};$$

$$\text{Cash Flow} = -10000 - 5000 - 30000 + 382500 = 337500 \text{ CZK};$$

$$PV = 337500 / (1 + 0,075)^1 = 313953,5 \text{ CZK};$$

$$NPV = 313953,5 \times 10 = 3139535 \text{ CZK};$$

3139535 CZK – real profit from the investment.

Second type is post-war art with 10.85 percent appreciation per year. This investment also has operating expenses every year, which is 10,000 CZK for storage rent. At the moment of selling the original art, the art gallery takes a 30 percent commission from selling price for their services. Calculation is as follows:

$$3825000 \times 0,1085 = 415012,5 \text{ CZK} – \text{appreciation per year};$$

$$\text{Cash Flow} = -10000 + 415012,5 = 405012,5 \text{ CZK};$$

$$PV = 405012,5 / (1 + 0,075)^1 = 376755,8 \text{ CZK};$$

$$NPV = 376755,8 \times 10 = 3767558 \text{ CZK};$$

$$3825000 + 3767558 = 7592558 \text{ CZK} – \text{selling price};$$

$$7592558 \times 0,3 = 2277767,4 \text{ CZK} – \text{art gallery commission of 30 percent};$$

$$3767558 – 2277767,4 = 1489790,6 \text{ CZK} – \text{real profit from the investment.}$$

A 2+KK type flat in a new building in Prague has appreciation of 2 percent per year. It also produces a real monthly income of 17,000 CZK from rent, which makes 204,000 CZK profit per year. At the moment of selling a flat, a real estate agent takes 2 percent commission from selling price for agency services. Calculation is as follows:

$$3825000 \times 0,02 = 76500 \text{ CZK} – \text{appreciation per year};$$

$$\text{Cash Flow} = 204000 + 76500 = 280500 \text{ CZK};$$

$$PV = 280500 / (1 + 0,075)^1 = 260930,2 \text{ CZK};$$

$$NPV = 260930,2 \times 10 = 2609302 \text{ CZK};$$

$$3825000 + 2609302 = 6434302 \text{ CZK} – \text{selling price};$$

$$6434302 \times 0,02 = 128686 \text{ CZK} – \text{agent's commission of 2 percent};$$

$$2609302 – 128686 = 2480616 \text{ CZK} – \text{real profit from the investment.}$$

Stocks of S&P 500 have appreciation of 11.49 percent per year. This investment does not have any operating expenses or additional income, but includes capital gain tax payment of 15 percent. Calculation is as follows:

$$3825000 \times 0,1149 = 439492,5 \text{ CZK} - \text{appreciation per year};$$

$$\text{Cash Flow} = 439492,5 \text{ CZK};$$

$$PV = 439492,5 / (1 + 0,075)^1 = 408830,2 \text{ CZK};$$

$$NPV = 408830,2 \times 10 = 4088302 \text{ CZK};$$

$$4088302 \times 0,15 = 613245,3 \text{ CZK} - \text{capital gain tax};$$

$$4088302 - 613245,3 = 3475056,7 \text{ CZK} - \text{real profit from the investment.}$$

10-year government bond of Czech Republic shows a 0.687 percent long-term average appreciation per year, but it only goes down through a long period, so to make the calculation more realistic, a 1-year appreciation percentage will be taken, which is 0.24 percent per year. This investment does not have any operating expenses or additional income, but includes capital gain tax payment of 15 percent. Calculation is as follows:

$$3825000 \times 0,0024 = 9180 \text{ CZK} - \text{appreciation per year};$$

$$\text{Cash Flow} = 9180 \text{ CZK};$$

$$PV = 9180 / (1 + 0,075)^1 = 8539,5 \text{ CZK};$$

$$NPV = 8539,5 \times 10 = 85395 \text{ CZK};$$

$$85395 \times 0,15 = 12809,25 \text{ CZK} - \text{capital gain tax};$$

$$85395 - 12809,25 = 72585,75 \text{ CZK} - \text{real profit from the investment.}$$

As it can be seen from foregoing calculations, the S&P 500 stocks provide the best profitability and a classic Ferrari is ranked second, but very important is the fact, that even the best economists cannot predict the behavior of stock market and there is always a possibility of a major loss due to factors affecting the overall performance of financial markets and this systematic risk cannot be eliminated. But when it comes to a classic car, it is not possible to lose it all, as even if the market falls, this type of asset holds some value anyway and it represents a piece of joy, as it can always be driven. So, in conclusion, it can

be said, that investing in a high quality classic car of a famous make like Ferrari, is the best option nowadays, but investor should have some level of knowledge in this area and be enthusiastic to make this type of investment profitable.

4.2. Starting a business in old-timer market

The “Revival Machinery” company is focusing on buying, restoring and selling classic cars of own choice, but is providing a list of services to the consumers such as search and arranging a transportation of a classic car of consumers’ choice from all over the world, repair, modification or complete restoration of a consumers’ classic car. The company’s visual statement is to expand the classic cars community by reviving pieces of history and enjoyment, providing the highest quality of service to customers and sharing our passion and enthusiasm with the rest of the world.

A rental space for a company will be 200 square meters big with a parking lot for 4 cars in front of the building and 5 main areas inside. Space distribution is shown in a table 2.

Table 2. Space distribution at the "Revival Machinery"

Space	Size, m²
Disassembling and mechanical work	90
Bodywork	40
Parts storage	20
Waiting room	20
Office	30
Total	200

Source: own data and research

The space will be located in the industrial area of Prague 10, only one kilometer away from “Strašnická“ subway station. This is a perfect location, because it is not a busy area, so the rental cost is lower, and on the other hand, it is not far from the other Prague areas, so it will not be difficult for consumers to get there. The renting price of a space is 30,000 CZK per month including the utilities payment.

The owner will partly finance the company by private funds of 1,000,000 CZK, another 2,500,000 CZK will be financed by the loan from bank for 3 years with 7% interest rate.

4.2.1. SWOT analysis

This part of the thesis deals with SWOT analysis, where the strengths, weaknesses, opportunities and threats of a new company are described. Strengths and weaknesses are internal factors of the company – the first one represent company’s advantages and benefits, when the second one includes disadvantages, limitations and things, which can be improved. Opportunities and threats are external factors of the environment – the first one represent chances to improve company’s performance and good opportunities to evolve in the future. Threats represent any external troubles for the company, obstacles it could face and competitors’ advantages.

Figure 1. SWOT analysis of the “Revival Machinery”

Strengths Independence; Highly enthusiastic approach; Regular car enthusiasts’ meetings.	Weaknesses Inability of providing some repairs in-house; Low consumer flow at the beginning; Lack of practical knowledge.
Opportunities Unlimited growth potential; Participation in classic car shows and races.	Threats Dependent on supply and demand of certain classic cars; Parts’ supply disruption.

Source: own data and research

The potential strengths, weaknesses, opportunities and threats of the “Revival Machinery” company are described in the figure 1. In each quarter of the figure several major descriptions can be found. One of the strengths of the company is its independence, because it does not fully rely on consumer flow, as the main source of income is represented by the own assets of the company – purchased classic cars. Another advantage of the company is its enthusiastic approach, as the owner and workers are passionate about classic cars and enjoy being part of this industry. There is also a possibility of organizing or participating in regular

meetings of classic cars enthusiasts to share our company's passion, find some useful contacts and potential customers.

The second quarter of SWOT analysis are weaknesses of the "Revival Machinery". These are major disadvantages, which can be and must be eliminated in consequence of company's growth and development. At first, the company will not be able to provide all necessary work in-house, such as painting, sandblasting and upholstery repairs, because of limited amount of space and equipment at the beginning. Therefore, it will be necessary to find three companies who provide this type of work for a reasonable price and make a contract with them. Low consumer flow could be another weakness at the beginning, which can be eliminated through time by creating a competitive pricing strategy and good advertising. But the main weakness, which must be eliminated, is the lack of knowledge about specific cars and repair processes. This lack can be reduced only through working experience and providing education to mechanics.

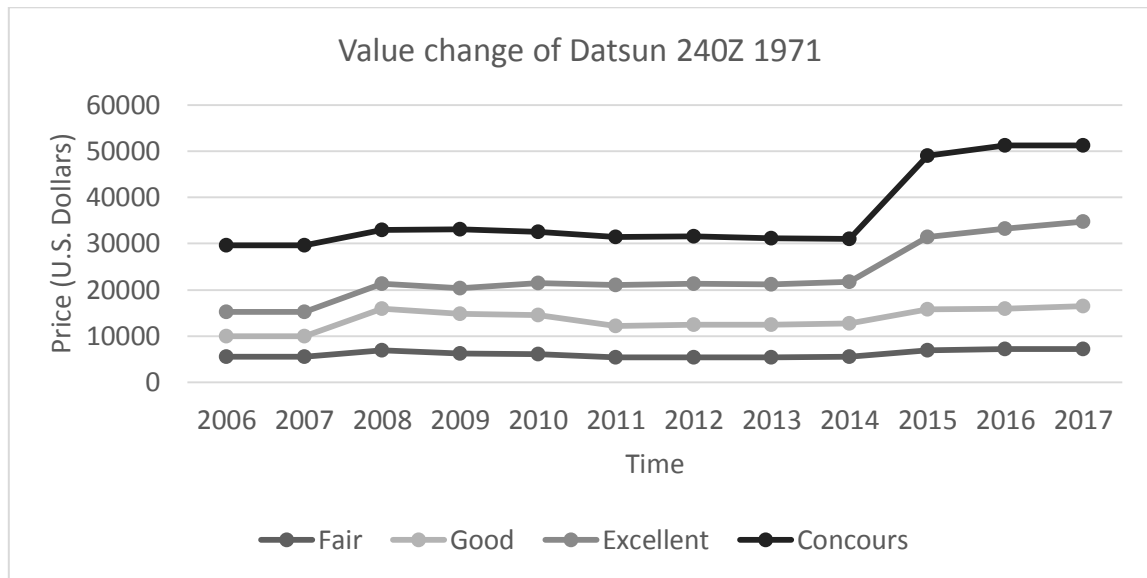
The third quarter shows the opportunities and possibilities of further development of the company. The industry of classic cars is huge and provides unlimited growth potential from vehicles priced at 10,000 dollars to unique vintage race cars priced more than 10,000,000 dollars. So, the more expensive classic cars "Revival Machinery" will buy, the more profit it will produce. Another great opportunity for the company is to advertise its projects and services at classic car shows across Europe, which could make the company well-known all over the world. Also, participating in historical races, which are very popular in classic car society nowadays, will be a great team building instrument and will increase company recognition in a world of classic cars.

The last quarter shows threats of the company. They are represented by company's dependency on supply and demand for certain classic cars, which are planned to purchase, and parts supply disruption. Unavailability of particular vehicles in a proper condition to purchase can cause time wasting and, as a result, decrease of income, as well as unavailability of necessary parts or shipping delays. There is always a possibility to find a car in another country, but the company could not influence parts supply, as usually parts suppliers are situated outside Czech Republic and it takes time to produce some parts and deliver them.

4.2.2. Goals and objectives of the company

The main goal of “Revival Machinery” is to restore fair-conditioned classic cars to a perfect condition with or without improvements and sell them to people, who are interested in acquiring a high quality classic vehicle and will enjoy their purchase, and make a profit. The quality of work provided is the highest priority in this type of business, so the consumers can rely on our services and knowledge. Therefore, the company will hire professionals to do a first-class job and will try to provide an additional education options for them. It goes without saying, that “Revival Machinery” will use only modern and high quality equipment. At the beginning, the company plans to purchase only Datsun 240Z cars from years 1970 to 1971, as they are quite rare in Europe, because of their Japanese origin, they continuously gain value, but are affordable for the company and desirable for collectors. Value change over time of Datsun 240Z is shown in a figure 2. To make a process of searching and purchasing proper vehicles easier, the best websites, auctions and resellers of classic cars should be found on the internet to work with. At the same time the suppliers of classic cars’ parts should be located the same way. To produce higher income, the company should acquire bigger amount of vehicles or more expensive vehicles and attract as much potential consumers (classic car owners or enthusiasts) as possible by creating a competitive pricing strategy and advertising. The company will provide to its customers such services like searching, purchasing and arranging a delivery of a classic car or car parts from all over the world, transportation of the vehicle within Czech Republic, complete or partial systematic disassembling, any mechanical and electrical repairs, parts refinish, complete bodywork and assembling of a classic car. Company’s staff will do their best to provide excellent customer service and will give important advices and information to customers about maintenance and keeping their classic cars in a best shape, thereby improving customers’ loyalty. Also a waiting room will be available for customers, when waiting a small repair to be fixed, with plasma TV inside showing the variety of car shows and videos, car magazines and a possibility to have a cup of tea, coffee or other beverages.

Figure 2. Datsun 240Z value change of different conditions



Source: (Hagerty.com, 2017)

It is important for “Revival Machinery” to evolve and expand. After the company will start to generate stable income, it will be necessary to expand a list of services by adding a painting and upholstery works. It only could be done by renting another space nearby or transferring a whole company to a bigger building of 300 square meters. For the company to be able to provide the highest quality of work and to improve workers’ knowledge, the considerable amount of technical literature should be acquiring constantly, such as different repair manuals of every classic car and its components the company is working on.

4.2.3. Management and marketing strategy

Management and marketing strategy are those key factors of successful business. The “Revival Machinery” will have working hours scheduled from Monday to Friday between 9:00 in the morning and 18:00 in the evening even through holidays. So, the shifts are planned to be 9 hours a day in exception of an accountant, who will be working 8 hours a day from 9:00 to 17:00. Every worker will be a full-time employee. The “Revival Machinery” will pay higher than average wages to its personnel to provide better motivation. The wages will be at least 10 percent higher than average. Moreover, the company will increase the wages of permanent workers by up to 5 percent every year depending on their output. The established wages and required amount of working hours per week is shown in a table 3.

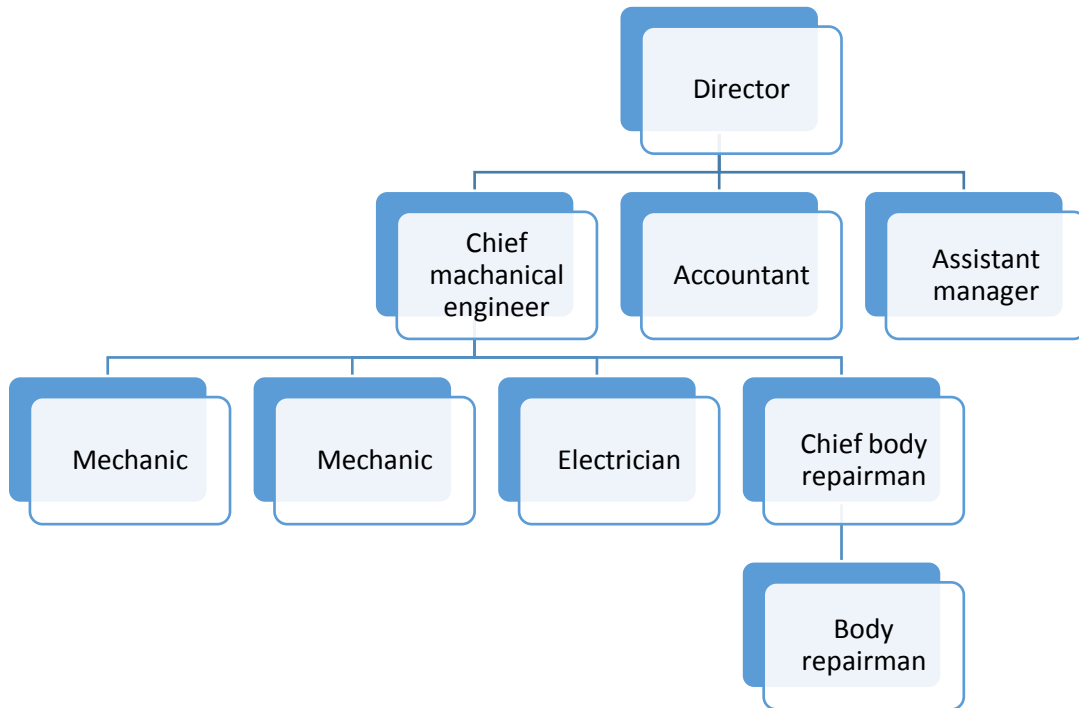
Table 3. Cost of labor and required amount of working hours at the “Revival Machinery”

Position	Working hours per week	Salary per month, CZK
Chief manager	45	104,400
Assistant manager	45	51,000
Accountant	40	56,500
Chief mechanical engineer	45	49,300
Chief body repairman	45	41,000
Body repairman	45	34,000
Mechanic #1	45	33,500
Mechanic #2	45	33,500
Electrician	45	36,800
Total:	400	440,000

Source: own data and research , (Platy.cz, 2017)

Company’s personnel will consist of a chief manager (owner of the company), assistant manager, an accountant, mechanical engineer, two mechanics, an electrician, chief body repairman and body repairman. The director will control all working processes of the “Revival Machinery” and will be responsible for personnel recruiting and marketing plan development. An assistant manager will provide a communication between company and suppliers, internet search for parts and materials needed, and customer service by answering the phone calls. Chief mechanical engineer will superintend the work of an electrician, chief body repairman, body repairman and two mechanics, while doing his own tasks of repairing vehicles and research of how to improve the quality of mechanical work. Finally, body repairman will provide assistance to chief body repairman, who will control his work. The organizational structure of the company is shown in a figure 2.

Figure 3. Organizational structure of the “Revival Machinery”



Source: own data and research

The chief manager will be responsible for development of a strong marketing strategy to help the company overwhelm its competitors. That is why the company will invest a considerable amount of money into marketing every month. There are a lot of companies which provide similar services to consumers as “Revival Machinery”. Most of them are situated outside of Prague city, but the main competitors, who are already well-known and provide an exceptional quality of work, are situated in Prague. The “Revival Machinery” will be able to set a considerably lower price of work per hour than most of its competitors. The price of work per hour will be stated at 400 CZK. A list of competitors of the company and the price range for their services per hour is shown in a table 3.

The main goals of the “Revival Machinery” marketing strategy are to make a company more recognizable in Czech Republic and the rest of the world, to make selling of project classic cars an easier task and to attract more potential customers. To implement these tasks, at first, it is necessary to take part in all local classic car shows and meetings, then in the biggest shows all over Europe and, in a long-term perspective, in the biggest shows outside Europe. At these exhibitions the “Revival Machinery” will introduce its finished projects, services and knowledge, meet new suppliers and will have a better chance to sell vehicles for a higher

price. Second, the participation in a historical races and rallies is very important as well. This will work as a team building instrument for the company and will increase company's recognition between classic car professionals.

Table 4. Competitors of the "Revival Machinery"

Company name	Location	Price of work per hour, CZK
Engine automobile culture	Prague	600
Classic Cars Bohemia	Prague	500
Renovace veteranu	Prague	350-550
United-C	Prague	550
Fosum cars	Vodnany	500
Revovet	Vysoke Myto	500
M.I.D.S. Auto	Prague	450
Autocentrum hm	Breclav	620

Source: personal interview

To all other, the "Revival Machinery" will have to create a professional website where all the information about the company will be listed and to evolve advertising through social media. Especially through such social networks like Facebook, Instagram and YouTube. The last one can be used to create a live streams of work process and some educational videos about restoration procedures and classic cars. Also, in one year, after the "Revival Machinery" will get some level of recognition, the company will route some amount of its income on creating a promotional customized vehicle, which will be designed to compete in amateur and professional races, but not for sale. If the designed vehicle will have an exceptional performance and look, there is a high possibility for it to be published either in popular magazines like Fast Car, Top Gear, Motor Trend or Super Street, or on such websites like www.speedhunters.com and www.classicdriver.com.

4.2.4. Time frame and risks of a project

The expected period of the implementation of this project is 3 years – from June 2017 to July 2020. The time frame of a project is shown in a table 5.

The project has some level of external and internal risks, which are estimated at 3 percent and 4.5 percent respectively. So, it is 7.5 percent in total, which will be insured at the expense of company profits.

Table 5. Calendar implementation of a project

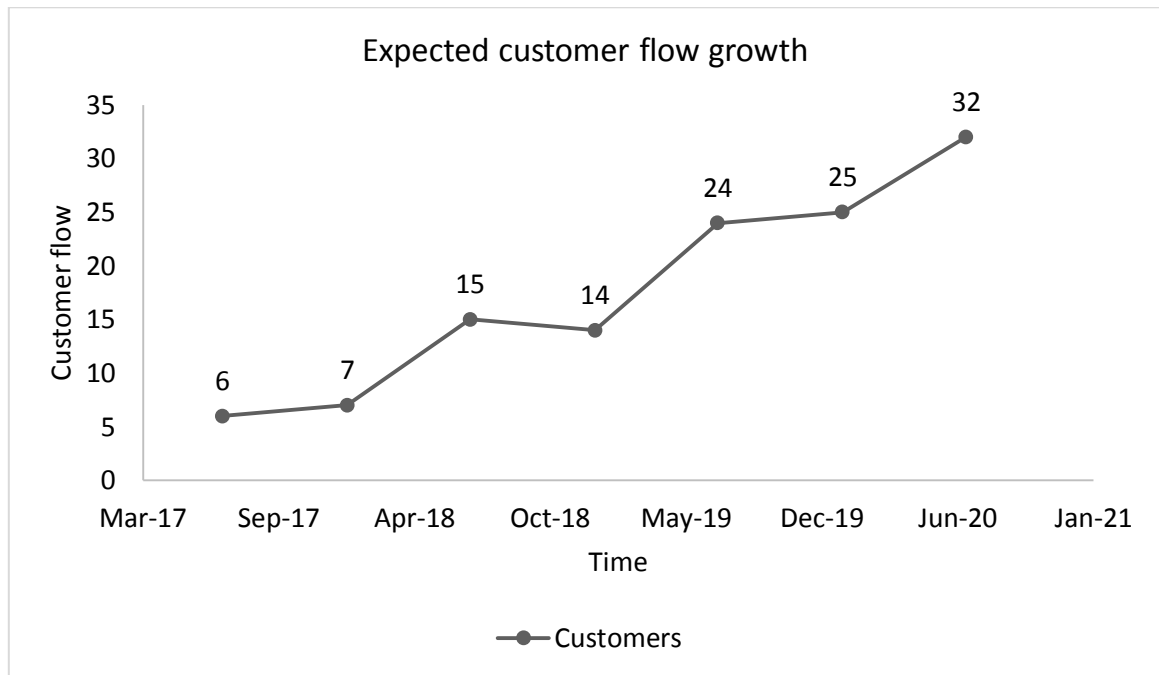
Step/Month	2017				2018	2019	2020
	6	7	8	9-12	1-12	1-12	1-6
Registration of the company							
Borrowing a loan							
Advance payment for the first vehicles							
Website development							
Setting connections with suppliers							
Advance payment for equipment							
Space renting							
Equipment delivery and installation							
Personnel employment							
Social media marketing plan application							
First vehicles' customs and delivery							
Companys' and customers' vehicles restoration							

Source: own data and research

4.2.5. Expected customer flow growth

The “Revival Machinery” will also provide a repairs of customers’ classic cars. Managers of the company do not expect any customer flow in June, 2017, which is the first month of operation, as the marketing plan will not be applied yet. Beginning with the second month of operation, the customer flow is predicted to grow constantly. Figure 4 shows the expected customer flow growth half-yearly beginning from July 1, 2017. The data on a figure 4 shows the average monthly quantity of customers’ vehicles repairs, which are expected to have, in average, repair time of 12 working hours for one mechanic and an average check of 6,200 CZK for repairs and parts. Also, a seasonal dependency can be seen, as the customer flow is expected to be higher in spring and summer.

Figure 4. Expected customer flow of the "Revival Machinery"



Source: own data and research

4.2.6. Fixed and variable costs

Fixed costs are independent from the quantity of production. Whether the company is producing a lot or does not produce any products, fixed costs will remain the same. The “Revival Machinery” will have two categories of fixed costs, which are operational costs – those are monthly expenses, and costs of equipment, that will be paid only once at the beginning. Estimation of the operational costs per month are shown in a table 6.

Table 6. Operational costs of the "Revival Machinery" per month

Article	Price, CZK
Rent	25,000
Electricity	1,500
Water consumption	2,500
Garbage removal	1,000
Internet	800
Phone	2,000
Technical literature	1,200
Advertising	40,000
Total	74,000

Source: own data and research

Costs of equipment is shown in a table 7.

Table 7. Costs of equipment of the "Revival Machinery"

Name	Brand	Quantity	Price, CZK
Air compressor	Schneider	1	54,104
Floor jack	Draper	2	14,990
Hydraulic lift	Magnus	1	45,800
Tire changer	Magnus	1	33,800
Balancer	Magnus	1	33,800
Engine stand	Unicraft	1	2,383
Impact wrench	Aircraft	1	2,300
Engine hoist	Unicraft	1	10,050
Jack stands set	Unicraft	2	1,700
Working bench	Beta	2	30,722
Bench grinder	Optimum	1	6,097
Bench vise	Optimum	2	4,540
Drill-milling machine	BOW	1	137,747
Table lathe	Optimum	1	92,226
Taps and whorls set	Beta	1	18,016
Twist drills set	Beta	1	1,821
Pneumatic drill	Aircraft	1	2,311
Plumbing tools set	Stubai	1	39,945
Tool set with carriage	Tona Expert	1	48,924
Angle grinder	Bosch	1	3,090
Eccentric sander	Bosch	1	3,220
Electrical tools set	Knipex	1	16,822
Oil pan	Automotive	1	1,276
Barrel for liquids	Node Morava	1	1,361
Welding machine	GYS	1	44,514
Metal rack	Jungheinrich	1	21,011
Laptop	Lenovo	3	15,000
Plasma TV	Samsung	1	9,990
Office table	Ikea	2	10,138
Chair	Ikea	2	1,348
Company car	Volkswagen	1	175,000
Total		37	967,494

Source: (Naradi-pro.cz, 2017)

Variable costs are directly dependent on a volume of production. At the “Revival Machinery” variable costs will depend on amount of vehicles under restoration and volume of customers’ cars repairs. The expected amount of cars produced per month is 2. So the variable costs per month are based on this expectation. In order to calculate the variable costs for 1 vehicle, total variable costs should be divided by 2. Estimation of the total variable costs of the company per month are shown in a table 8.

Table 8. Variable costs of the "Revival Machinery" per month

Article	Price, CZK
Vehicles	663,000
Parts	769,000
Delivery cost	76,500
Painting service	200,000
Materials	8,000
Stationery	500
Total	1,717,000

Source: own data and research

The managers are expecting net sales of the company per month to be 2,448,000 CZK. Knowing this, it is possible to calculate net income or, in other words, net profit. Formula of calculating net income is as follows:

$$\text{Net Income} = \text{Net Sales} - \text{Total Expenses}$$

Total expenses are the sum of total cost of labor (can be seen in a table 3), fixed costs and variable costs. Then the calculation of net income is as follows:

$$\text{Total Expenses} = 440000 + 74000 + 1717000 = 2231000 \text{ CZK}$$

$$\text{Net Income} = 2448000 - 2231000 = 217000 \text{ CZK}$$

The expected profit of the "Revival Machinery" per month is 217,000 CZK, which is 8.86 percent.

4.2.7. Break-even point

Calculation of break-even point is a necessary part of the financial analysis, which helps the company to understand what minimal volume of production must be reached in order to start generating profit. Total fixed costs in this calculation are represented as a sum of total cost of labor and fixed costs per month, which is 514,000 CZK. Then the price of one vehicle should be used for the calculation, which is expected to be 1,224,000 CZK. And, finally, the variable costs for one restored vehicle should be used, which is expected to be 858,500 CZK. The formula and calculation of break-even point (Q) for the company is as follows:

$$Q = FC / (P - VC), \text{ where:}$$

Q = Break-even point, or Units of production,

FC = Total fixed costs,

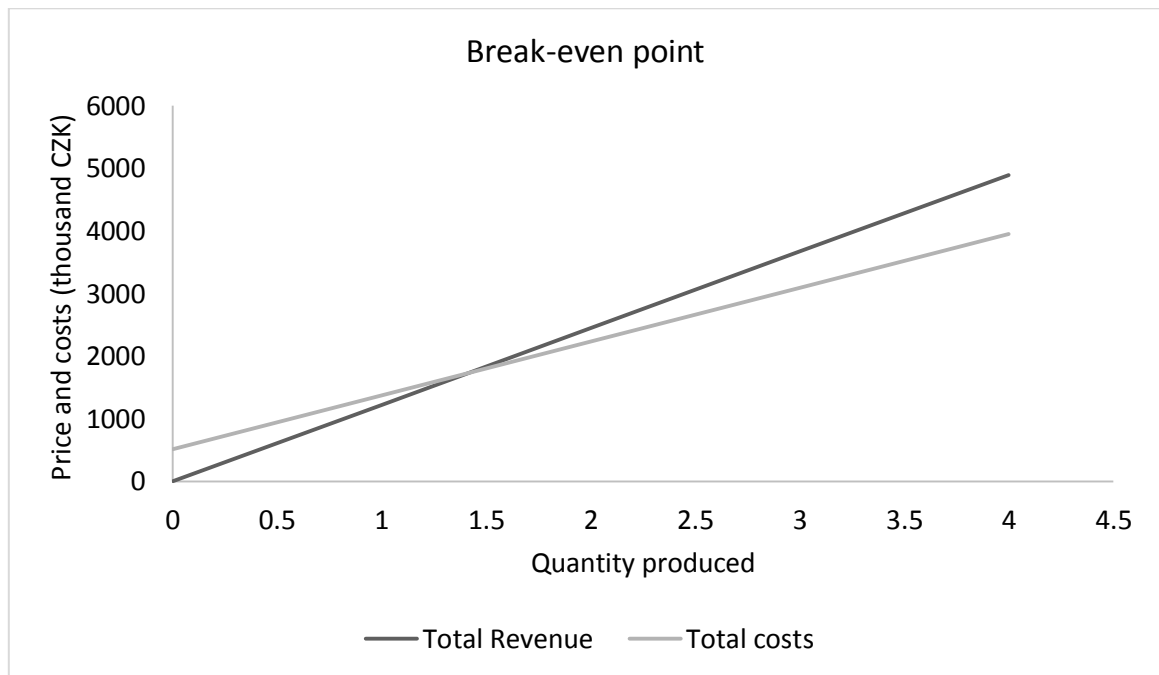
P = Price of one unit,

VC = Variable costs of one unit,

$$Q = 514000 / (1224000 - 858500) = 1,406$$

According to this data, the break-even point of the “Revival Machinery” can be visualized. Figure 5 shows the estimated break-even point of the company.

Figure 5. Break-even point of the "Revival Machinery".



Source: own data and research

The resulted Q represents the amount of vehicles, which must be produced per month to reach the break-even point. But the amount of vehicles cannot be displayed by 1.406, so it is necessary to round this number off to 2. It means, that the minimal amount of vehicles produced must be equal to 2 in order to reach the break-even point and to start generating profit.

4.2.8. Preliminary profit and loss statement

This part of thesis is showing a profit and loss statement of the “Revival Machinery” for the first month. Expected net sales are 2,448,000 CZK. The variable costs are represented as cost of sales. Net Gross margin is the difference between net sales and cost of sales divided by net sales, which is represented as a percentage. Cost of labor is shown as a payroll. And interest expense is the loan payment per month.

Table 9. Estimated profit and loss statement of the "Revival Machinery" for the first month

Net Sales	2,448,000
Cost of Sales	1,717,000
Net Gross Margin	29.86%
Expenses	
Payroll including Taxes	440,000
Rent	25,000
Electricity	1,500
Water consumption	2,500
Garbage removal	1,000
Internet	800
Phone	2,000
Technical literature	1,200
Advertising	40,000
Total	514,000
Profit before Interest and Taxes	217,000
Net Profit before Interest and Taxes	8.86%
Interest Expense	77,193
Taxes Incurred	41,230
Retained Earnings	98,577
Retained Earnings %	4.03%

Source: own data and research

After the calculation of profit and loss statement, the expected amount of retained earnings of 98,577 CZK is forecasted.

5. Conclusion

This thesis has evaluated a potential of starting a classic cars restoration business in Czech Republic. The most important steps and severities connected with a real life situation were revealed. The research was made to prove that the company involved in this particular industry can provide stable profits.

Theoretical part of the thesis has provided a general information about classic car concept and its price potential, has described old-timer market and its significance for a modern society. Analytical part has shown necessary research and calculations to predict the new company's profitability, its strong and weak sides. Calculations has included operational and fixed costs, break-even point and profit and loss estimation. Also the marketing strategy of the company has been described, as it is one of the primary elements of the profitable business. Especially when it comes to an old-timer restoration, multiple marketing methods should be used.

Analytical part has shown, that the company is able to provide a stable income from the first month of operation. After necessary calculations retained earnings of 98,577 CZK are estimated for the first month, which is 4.03%.

A vision statement is an explanation of what a company wants to become, which direction it wants to turn and how it wants to be perceived by others. Everyone must think about it when establishing a company. The vision statement of the "Revival Machinery" is to expand the classic cars community by reviving pieces of history and enjoyment, providing the highest quality of service to customers and sharing our passion and enthusiasm with the rest of the world. To achieve such global goals, the company must use all the resources, get experience and improve customer loyalty.

Classic cars industry is now expanding and attracts more people every day. It provides an unlimited growth potential. This fact was taken into consideration when thinking about the creation of the "Revival Machinery". But this business is made for enthusiasts, who has enough motivation and knowledge about this field, as it is important for one to be aware of what to expect from the market of classic cars.

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