BRNO UNIVERSITY OF TECHNOLOGY
VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

FACULTY OF BUSINESS AND MANAGEMENT
FAKULTA PODNIKATELSKÁ

INSTITUTE OF ECONOMICS
ÚSTAV EKONOMIKY

THE USE OF METHODS OF THE PROJECT MANAGEMENT IN COMPANY
VYUŽITÍ NÁSTROJŮ PROJEKTOVÉHO MANAGEMENTU V PRAXI

BACHELOR'S THESIS
BAKALÁŘSKÁ PRÁCE

AUTHOR — Tereza Leichmannová
AUTOR PRÁCE

SUPERVISOR — Ing. Lenka Smolíková, Ph.D.
VEDOUCÍ PRÁCE

BRNO 2020

BRNO UNIVERSITY OF TECHNOLOGY
FACULTY OF BUSINESS AND MANAGEMENT

Specification Bachelor's Thesis

Department:	Institute of Economics
Student:	**Tereza Leichmannová**
Study programme:	Economics and Management
Study branch:	Business Economics
Supervisor:	**Ing. Lenka Smolíková, Ph.D.**
Academic year:	2019/20

Pursuant to Act no. 111/1998 Coll. concerning universities as amended and pursuant to the BUT Study Rules, by the Director of the Institute, you have been assigned a Bachelor's Thesis entitled:

The Use of Methods of the Project Management in Company

Objectives which should be achieve:

The goal of bachelor thesis is to use theoretical knowledge, tools and methods of project management, and their appliction in real market situations.

Basic sources of information:

CARROLL, John. Project management: in easy steps. Southam: Easy steps limited, 2009. 192 s. ISBN 978-1-84078-370-4.

DOLEŽAL, Jan, Pavel MÁCHAL a Branislav LACKO. Projektový management podle IPMA. Praha: Grada, 2009. Expert (Grada). ISBN 978-80-247-2848-3.

SVOZILOVÁ, Alena. Projektový management. Praha: Grada, 2006. 353 s. ISBN 80-247-1501-5.

ŠTEFÁNEK, Radoslav. Projektové řízení pro začátečníky. Brno: Computer Press, 2011. ISBN 978-8--251-2835-0.

WYSOCKI, Robert K. Executive's Guide to Project Management. John Wiley & Sons, 2011. ISBN 1118004078.

Deadline for submission Bachelor's Thesis is given by the Schedule of the Academic year 2019/20

In Brno dated 29.2.2020

L. S.

doc. Ing. Tomáš Meluzín, Ph.D. Director of the Institute	doc. Ing. et Ing. Stanislav Škapa, Ph.D. Dean

ABSTRACT

The topic of this bachelor thesis is to use methods of the project management in a real company. At the first-place theoretical context of project management as phases of the project, SMART goals and further techniques and methods of project management will be discussed. In the next section the company of interest – AUTONOVA BRNO s.r.o. – will be introduced with further description of current company status using SWOT analysis. In following chapter, the previously described theoretical knowledge of project management will be applied on real solution of the specific project regarding problematics of electric cars at AUTONOVA BRNO, s.r.o. company. During the event, two workshops will be held, during which the Škoda Superb iV and CityGo iV models will be introduced.

ABSTRAKT

Předmětem bakalářské práce je téma využití projektového managementu na reálném trhu. Nejdříve budou popsány teoretické souvislosti projektového management jako například fáze projektu, SMART cíl a další techniky a metody projektového managementu. V následující části bude uvedena charakteristiku společnosti AUTONOVA BRNO, s.r.o., a také analýza současného stavu společnosti pomocí SWOT analýzy. Dále budou využity teoretické znalosti projektového management, které budou následně aplikovány při řešení konkrétního projektu, a to konání marketingové akce pro společnost AUTONOVA BRNO, s.r.o. za účelem přiblížit problematiku a výhody elektromobilů návštěvníkům, a tedy i potenciálním zákazníkům. Během akce se díky dvěma workshopům představí modely Škoda Superb iV a Škoda CityGo iV.

KEY WORDS

Project management, project, goal, risks, analysis

KLÍČOVÁ SLOVA

Projektový management, projekt, cíl, rizika, analýza

LEICHMANNOVÁ, Tereza. *Využití nástrojů projektového managementu v praxi* [online]. Brno, 2020 [cit. 2020-05-31]. Dostupné z: https://www.vutbr.cz/studenti/zav-prace/detail/126193. Bakalářská práce. Vysoké učení technické v Brně, Fakulta podnikatelská, Ústav ekonomiky. Vedoucí práce Lenka Smolíková.

Statutory declaration I declare that the submitted Bachelor thesis is original, and I processed it independently. The quote of bibliography is complete, and I did not violate any copyrights (in term of Act no. 121/2000 Coll., about Copyright and right related to Copyright).

In Brno, 31th May 2020 ……

Tereza Leichmannová

ROZŠÍŘENÝ ABSTRAKT

Úvod

Projektový management se s průběhem let stává čím dál tím více oblíbeným odvětvím k řešení projektů. Používá se jak při řešení malých, středních, tak i velkých projektů. Pomáhá efektivně kontrolovat konkrétní úkoly a pomáhat při realizaci. Díky jednotlivým nástrojům projektového managementu lze jednoduše zachytit jednotlivé plánované činnosti, jejich průběh a kontrolovat jejich řešení.

Tato bakalářská práce se zabývá návrhem projektu pro společnost AUTONOVA BRNO s.r.o., dealera automobilů značky Škoda. V poslední době se celá země zaměřuje na zlepšení životního prostředí a s tím souvisí i redukce emisí, které produkují automobily na spalovací motory. Proto byly a stále se vyvíjí elektromobily na elektrický pohon. Ten pomáhá zmírnit změnu klimatu způsobené vlivem člověka, protože neprodukuje uhlíkové emise. Proto se projekt samotný zabývá přiblížením problematiky elektro mobilů a přípravě marketingové akce. V rámci akce, kterou projekt plánuje, jsou zahrnuté workshopy na aktuální modely elektro mobilů od Škoda Auto. Workshopy se budou zabývat modely Škoda Superb iV a Škoda CityGo iV. K těmto workshopům budou představeny i prezentace pro každý model. V průběhu akce bude probíhat i doprovodný program, jak pro návštěvníky, tak pro jejich děti.

První část se zabývá teoretickými východisky projektového managementu. Jsou zde přiblíženy hlavní nástroje projektového managementu, které jsou následně použity dále v práci. Projekt má tři hlavní etapy, které se nazývají předprojektová, projektová a poprojektová fáze. Práce samotná se pak zabývá především projektovou fází. Dále jsou přiblíženy metody, které jsou použity při návrhu projektu. Tyto metody jsou například: WBS, RACI matice, RIPRAN analýza, Gantovy diagramy a další.

Další část této bakalářské práce se zabývá analýzou současného stavu společnosti, kde je projekt realizován, tedy AUTONOVA BRNO s.r.o. Nejdříve je popsána hlavní organizační struktura, společnost samotná a její historie. Dále budou provedeny analýzy pro přiblížení současného stavu společnosti. Pro přiblížení vnějšího prostředí je použita SLEPT analýza. Díky McKinsey 7S analýze bude přiblíženo vnitřní prostředí společnosti.

Všechny data, které budou získány díky těmto dvěma analýzám budou shrnuty ve SWOT analýze.

Třetí část bakalářské práce se zabývá návrhem projektu marketingové akce pro společnost AUTONOVA BRNO s.r.o. Akce je zaměřena na prezentaci dvou modelů elektromobilů od Škoda Auto, a to Škoda Superb iV a Škoda CityGo iV. Tato akce zahrnuje také workshopy na tyto modely a prezentace k nim. V rámci akce je také doprovodný program pro návštěvníky, jako potenciální zákazníky a jejich děti. V návrhové části projektu jsou použity metody jako identifikační listina, logický rámec, WBS, RACI matice, Gantovy diagramy a další. Na konci čtvrté kapitoly je pak zhodnocení celkového projektu a přínosy návrhu řešení.

Popis řešení

Projekt je řešen pomocí projektového týmu, který je sestaven ze čtyř osob: projektového manažera, vedoucího prodeje, finančního manažera a marketingového manažera. Na začátku návrhu projektu je sestavena identifikační listina a jsou předloženy hlavní milníky projektu, které mají za úkol stručně informovat o hlavních krocích v projektu. Pomocí metody logického rámce jsou představeny hlavní záměry projektu, cíle, výstupy a konkrétní aktivity, kterými bude dosaženo výsledků. Dále je zobrazen WBS diagram, který nám předkládá celou hierarchickou strukturu výstupů, které musí být provedeny pro splnění cíle projektu. Jednotlivé dílčí úkoly jsou rozestaveny mezi projektový tým pomocí RACI matice. Ta zobrazuje, pomocí písmenových zkratek, kdo je za jednotlivé úkoly odpovědný, kdo na nich pracuje, kdo s nimi může pomoct pomocí konzultace a kdo je o aktivitě pouze informován. Pro analýzu rizika je použita RIPRAN metoda. Nejdříve jsou identifikovány jednotlivá rizika, poté se ke každému riziku přiřadí scénář, který se naplní, když se riziko stane skutečností. Dále se zvolí míra rizika, tedy jak moc jednotlivá rizika ohrožují projekt. Nakonec se rizika sníží pomocí kroků, které vedou k předejití rizik. Časová analýza projektu je provedena pomocí Gantových diagramů, které nám zobrazují návaznost jednotlivých úkolů v rámci projektu. Nakonec je sestaven plánovaný rozpočet projektu, podle odhadovaných částek jednotlivých částí rozpočtu.

Shrnutí a zhodnocení výsledků

Cíl práce byl realizace návrhu projektu pomocí metod a nástrojů projektového managmentu, který je zaměřen na marketingovou událost ve společnosti AUTONOVA BRNO s.r.o. Práce byla rozdělena na tři hlavní části, a to teoretická východiska práce, analýza současného stavu společnosti a návrh řešení. První část se zabývala teoretickým pozadím projektového managementu, který byl následně aplikován v dalších částech práce. V druhé části proběhla analýza současného stavu, kde pomocí interní McKinsey 7S analýzy a externí SLEPT analýzy byly zjištěny hlavní nedostatky a také v čem společnost vyniká. Díky SWOT analýze byly tyto dvě předešlé analýzy shrnuty a představeny hlavní silné a slabé stránky, příležitosti a hrozby.

V poslední části se zabývala návrhem řešení projektu. Byla vytvořena identifikační listina, která obsahuje všechny důležité informace o projektu. Díky milníkům v projektu byly následně zobrazeny všechna důležitá data během plnění projektu. V logickém rámci se vyobrazily všechny klíčové aktivity, které bude potřeba splnit, pro naplnění cíle projektu. Díky použití WBS se nám ukázala hierarchická struktura všech výstupů projektu. RACI matice odpovědnosti zajišťuje, že každý bude dělat úkoly, které mu byly přiděleny. Rizika v projektu byla odhalena pomocí metody RIPRAN. Bylo nalezeno deset možných hrozeb, u kterých jsme pomocí scénářů dokázali zmenšit hodnotu rizika. Pro provedení časové analýzy byl vytvořen Ganttův diagram. Celá doba trvání projektu je naplánována od 1.7.2020 do 29.8. 2020. Jako poslední byl vypočítán plánovaný rozpočet, který obsahuje celkové náklady projektu ve výšce 71 900 Kč.

Díky vybudování projektového týmu z řad zaměstnanců společnosti, mají příležitost k tomu, aby se naučili lépe komunikovat mezi s sebou. Poznají, jak vypadá organizace projektu pomocí metod projektového managementu. Díky této zkušenosti budou moci lépe řídit budoucí projekty. Vytvořený návrh projektu může také posloužit jako šablona pro projekty budoucí.

Cílem práce byl splněn pomocí splnění dílčích úkolů. Do společnosti byly pomocí projektu implementovány metody projektového řízení. Byl vytvořen kompletní návrh projektu.

ACKNOWLEDGEMENT

I would like to thank my supervisor, Ing. Lenka Smolíková, PhD. for her help and advices while I was writing my bachelor thesis. Furthermore, I would like to thank my family for their support during my whole studies and my partner Ing. Matěj Horáček, PhD. for his assistance and time during writing my thesis. My last thanks belongs to my friend MSc. Rachel Armstrong, PhD. for her valuable advices and comments.

CONTENT

INTRODUCTION

The beginning of the project management as a field can be traced back to the 1950s. Over the years, project management has become very popular in solving and executing projects. Proper application of project management methods can give any company a certain competitive advantage on the market. Project management can be used for every project size, from small to extensive and complex projects.

The tools of the project management help us with projects solution. The project team is composed, which is responsible for the partial tasks. Then we analyse individual steps of the project. This analysis gives a great insight into the problematique of the given project. Analysis identifies possible risks threatening the successful accomplishment of the goals and enables to minimize the risks. Such a project has always its focus which we further discuss in next paragraphs.

Recently, the whole world has started to focus on improving the environment we all live in. In automotive market improving the environment is associated with a reduction of carbon-based emissions produced by internal combustion engines. That is why electric cars have been and are still being developed. Use of electric engines in cars results in no direct emissions which definitely sounds appealing for many people. It helps to mitigate the climate change made by the human influence. Moreover, such electric cars no longer need constant refiling with gasoline or diesel as they are charged at home or workplace. This makes electric cars attractive for broad audience as costs are effectively reduced. Therefore, also the project executed here deals with the issue of electric cars and zooming into this issue.

1. GOALS OF THE THESIS, PROCESSING METHODS AND PROCEDURES

The aim of this work is to use theoretical knowledge, tools and methods of project management in a specific real company. The company this bachelor thesis deals with is called AUTONOVA BRNO s.r.o.,a dealer of Škoda cars, located in Brno, Czech Republic. The project proposal is planning a marketing event for public audience where a problematique of electric Škoda cars will be approached. As a part of the event workshops on current models of electric cars from Škoda will be held. The models which will be presented are Škoda Superb iV and Škoda CityGo iV. Moderated presentations for each model will also be performed during the workshops. During the event, there will be an accompanying entertaining program for visitors including a program for kids.

In this thesis we thoroughly examine the proposed project regarding the social event to popularize Škoda electric cars. We carefully evaluate the project as a whole, prepare a complex analysis of the project, and make realistic project planning. In following text of this thesis, we describe a way to meet the set goal starting with theory behind project management.

Chapter 2 of this thesis is focused on theoretical background of project management and its history. Every stage of the project is described; pre-project stage, project stage and post-project stage. Tools that are be used when designing the project are also described. They are for example: Work Breakdown Structure, Responsibility Matrix, RIPRAN analysis Gantt diagram and others.

In Chapter 3 a description of the company AUTONOVA BRNO s.r.o. is given. The main organizational structure and basic description of the company are described in detail. Then further analysis of the current state of the company is performed. SLEPT analysis is further chosen for the analysis of the external environment. We also use the McKinsey 7S framework to analyse the internal environment. In the end of the chapter, all obtained data are summarized using a SWOT analysis.

Chapter 4 deals with the project design of social event for AUTONOVA BRNO s.r.o. The event focuses on the Škoda Superb iV and Škoda CityGo iV as two current models

of Škoda electric cars. The event includes workshops in order to bring visitors and therefore potential customers closer to the benefits of electric cars. The following tools are used in the project design: project identification document, milestones diagram, logical framework, Work Breakdown Structure, Responsibility Matrix, RIPRAN analysis, Gantt chart etc… The chapter is concluded with an evaluation of the entire project and the benefits of the proposal.

2. THEORETICAL BASIS OF THE THESIS

This chapter clarifies the basics of project management and the most common methods used in this field. Further we focus the project itself and individual stages, and necessary techniques for project. Then theoretical knowledge will be used in problem analysis and in the suggestion of solution.

2.1 Project management

According to Harold Kerzner, "Project management is summary of activities consist in planning, organizing and controlling sources of corporation with relative short-term goal which was determine for realization specific goals and intentions" (1) There are many standards of project management which are more as a recommendation from the best project managers. Since every project is different there is no possibility to have strict norms for managing a project. On the other hand, all standards have something in common. This could be a method, essential philosophy or terminology.

- One of the most common standards is PMBoK. (Project Management Body of Knowledge) This standard is created by Project Management Institute. (PMI) PMI uses approach of processes. They define five main groups of processes and the ties between them.
- PRINCE 2 (Projects IN Controlled Environments) is British standard that is also used on processes made for national contracts. It was developed especially for IT but nowadays it is generally used across different fields.
- ISO 10 006 is not a complex standard but rather a guideline of quality in project management. It has a lot in common with PMBoK regarding process concepts and content.
- IPMA Competence Baseline (ICB) is unlike other standards competence conception. IPMA aims for the best skills and abilities of project managers and their teams (2).

2.1.1 History

Actions showing project managing and planning character can be traced communities in ancient times. We are indeed referring to building temples and pyramids in old Egypt, where there was a need to develop methods, which could be used in "large-scale," organizationally demanding events. Back then projects weren't limited in time because time flowed slowly; it took days to weeks to deliver a message, and a crypt for Pharaoh was being built practically his whole life. Nevertheless, project management as a defined skill or field is known for approximately seventy years. First written thoughts about the project management itself were after The Second World War. In the sixties came first attempts and effort to make international standards in project management. These attempts arose from an urgent need for an effective and swift communication and cooperation between international teams. The efforts resulted in establishment of international standards in project management (2).

2.1.2 Present

Nowadays time goes much faster and it is one of the most important factors in project management. Over last years many enterprises have begun using project management tools and rules. Processes and activities where it is necessary to use project management are becoming significantly more popular. Project management differs from the basic form of operative management its temporality and in that it allocates resources by the needs of the project (1) .

2.2 Stakeholders

A stakeholder is everyone who is actively or passively involved in the project of interest. In principle, it could be both an organization or an individual. It is very important that individual stakeholders communicate effectively with each other and work as a team to solve the project's problems. Reporting the project to the project manager is also very important. Based on their role in the project we can define following important stakeholders:

- *Project organization* – Employees who are directly involved in tasks of the project.
- *Director of project* – Person accountable for planning and realization of every project in the organization on a strategic management level.
- *Project manager* – Person responsible for planning and realization of project at a tactical and operative level of management. Project manager must have key features and skills.
- *Project team* – People directly executing individual project-related tasks as a team supervised by the project manager
- *Customer* – An organization or a person for whom the project is realized.
- *Investor* – An individual or an organization which provide financial sources for the project.
- *Others* – remaining entities *i.e.* government institutions, media, citizens etc (3).

2.3 Project

Speaking of a project, let us start with a proper definition. Word "project" comes from Latin verb "*proicere*", which means to throw something forward. According to the Oxford dictionary, the word means "what comes before something else happens". (4) We can summarize these definition for "project" as a set of activities which aim to achieve a unique goal in the future. Project team accomplishes project with conditions of huge uncertainty. Project is limited by time, financial, human and material resources.

2.3.1 Definition based on five attributes

Another way to analyse a project is to split it into five independent attributes uniquely contributing to the project as a whole. Further we elaborate about the individual attributes (Figure 1):

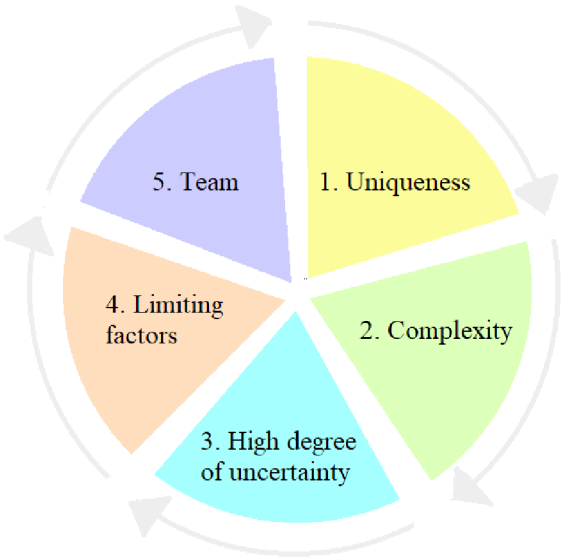

Figure 1: Graphical schematics of a method of the five attributes.

1) **Uniqueness** is meant especially for the goal of project. The goal is showing us how extraordinary or original the problem is and how unique the result will be at the end of the project.
2) **Complexity** is represented by diversity of methods which are used in the project timeline.
3) Every project is an original on its own and, until the end, there is no assurance that project will be successful. **The high degree of uncertainty** occurs mostly at the beginning of project and the project team does not know if risks or opportunities follow.
4) The project is defined by **limited factors** setting clear boundaries for a workflow. Limited factors are time, finance, human and material sources.
5) The project **team** is established when the project arises, and operates until the project is finished (4).

2.3.2 The Iron Triangle

Every project incorporating on project management should be defined by using three linked terms which are *cost, time* and *project scope*. All these terms are connected and indeed influence each other. If project lasts longer than it is supposed to, it will have a logical impact on costs and scope. At the same time, when there is some reduction in budget, it will reduce the scope or increase the time to complete the project (5).

The purpose of having these three variables is to balance them. Figure 2 schematically shows the dependence of the variables in the so-called Iron Triangle. The goal of the project is in the middle of the triangle and if we change one of the variables, the goal will move, and it will also have an impact on the other two. Mostly in every project the goal needs to be achieved with minimum of time and minimum use of financial and human resources. The variables are not only intertwined at the scale of the whole project, but also at every step of the project (2).

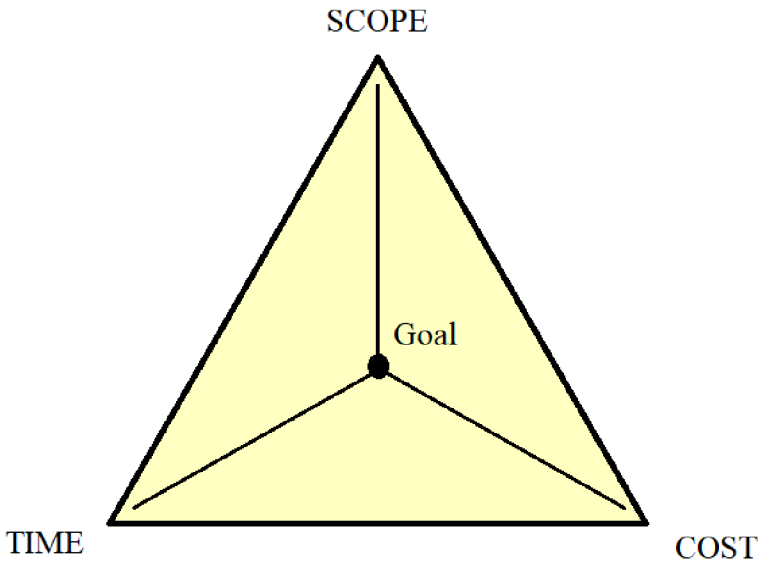

Figure 2: The method of Iron triangle sets the project goal right in the middle of time, scope and cost.

2.3.3 SMART goal

One of the key factors of success is to have the project defined correctly. Making the correct definition of the project goal can be difficult, as it should not necessarily be a technical description of the goal. The need for the parties to be able to understand each other has to be met. What must be completed at the end of the realization should be clearly defined, as should the purpose of the project and under what conditions should the goal be achieved. To accomplish the correct goal definition, the SMART technique can be used. The abbreviation SMART stands for adjectives which describe what the goal should look like (2).

- S – specific,
- M – measurable,

- A – agreed,
- R – realistic,
- T – timed.

2.3.4 Logical framework

The method of logical framework is a tool for setting the goal of a project. The main idea of this tool is to unify the individual points of view of all interested parties. A main principal of logical framework is that all basic parameters are connected. Further contributing principals are teamwork, a system approach to think in context, and a need of measurable results. Logical framework is always displayed as a table (2), see our implementation in Table 1.

Table 1: Logical framework visualized in a form of a table, (2).

Purpose	Objectively verified indicators	Sources of information to verify (method of verification)	*not filled*
Goal	Objectively verified indicators	Sources of information to verify (method of verification)	Assumptions and risks
Outputs (Specific output)	Objectively verified indicators	Sources of information to verify (method of verification)	Assumptions and risks
Activities (key operations)	Resources (finance, humans)	Time frame of activities	Assumptions and risks
not filled	*not filled*	*not filled*	Preliminarily conditions

Explanation of single cells in the table:

1) *Purpose* declares the reason why the project is realized and advocates for the changes one would like to be reached.
2) *Goal* of a project describes exactly what the project team wants to achieve. What exact change will happen after is project finished? The project must have only one goal.
3) *Specific outputs* specify in which way the goal is to be achieved, and what exactly the project team must realize.
4) *Objectively verified indicators* prove that the project team achieved change and reached the goal.
5) *Method of verification* shows who is responsible for verification, what cost and time are necessary, when indicators will be verified, and how it will be documented.
6) In the *assumption and risks* cell, the facts that can endanger the project are shown (2).

There are many benefits which are obtained by working on the basis of the logical framework. During realization, a project could be easily followed at every step and changes can be made on-call if needed. Moreover, the method of logical framework proves itself as a great communication tool. By using the logical framework each task can be simply explained to stakeholders. This clearly shows that the logical framework should be prepared by all interested parties because it promotes stakeholder agreement on every task and on the way in which it will be realized (2).

2.4 Project life cycle

According to PMBoK: *"Project life cycle is set generally following phases of project whose stage names and quantity are destined by needs of organization control, which is engaged into the project."* (1)

In general, the project is a process with many stages, which together comprise the project life cycle. The goal of distributing the project into individual stages is to improve

conditions for easier control of every task. All projects differ in number and designation of the stages because the stages depend on project range and the needs of controlling (1).

The simplest approach to defining the project life cycle is the Linear PMLC model. It consists of a number of sequential, dependent phases. Until the final phase is complete the complete solution is not realized (6). An example of Linear PLMC model can be found in Figure 3.

Phases of controlling a project can be divided in most simply into pre – project phase, project phase and post-project phase. Most common mistake happens when pre-project phase and post-project phase are not finished properly. The project phase is the most important because it is during that time that realizations are made. Now each individual phase will be explained (2).

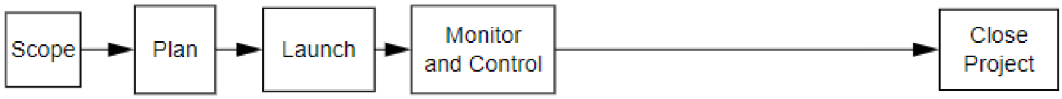

Figure 3: An example of the linear PLMC model (6).

2.4.1 Pre-project phase

Pre-project phase can be done months or years before the project phase starts. The purpose of this project phase is to explore opportunities for the project and assess feasibility of the project purpose. In this phase, two main documents are usually made – opportunity and feasibility studies. Sometimes only one document is made called the pre-project reasoning which combines the opportunity study and feasibility study documents. The pre-project reasoning document is made in case of simple projects. In this phase all the main strategic questions should be determined and answered. It should also be determined if the project is worth realizing and, if so, the direction for the meeting the determined goals should be chosen.

Opportunity Study

This study should tell the project manager and project team if it is the right correct to realize the project. When deciding this, one should consider market situation, market development and situation of the organization. Result of the opportunity study should be recommendation of realization or non-recommendation of realization. In the case of recommendation, there should be a detailed script with characteristics of the project. Ideally, the study should have three to ten pages of text.

Feasibility Study

In the case that the opportunity study states a recommendation to realize the project, the feasibility study is executed. This study should show the best ways to realize the project, state the start and the end of the project, and estimate total costs and resources needed. Depending on the type of project, this study should ideally be seven to twenty-five pages.

2.4.2 Project phase

The main part of the project phase is to assemble a project team, make a schedule, and carry out the plan to the pre-determined end while fulfilling the individual project goals. When the plan meets all goals, it is the end of this stage. We can divide the project phase into four subparts:

1) *Start – up*

The goal and the purpose of the project must be specified here. A great tool for specifying a goal and ascribing each task to a person is a document called the identification list. It is the essential document of a project which defines the project parameters.

2) *Planning*

At this point the project team already exists and is familiar with the main assignments. The project team must now create the project plan which, after its revision and approval, is called “the baseline”.

3) *Realization itself*

First step in the project realization is to have a kick-off meeting and include the main interested parties. The goal of the meeting is to get to know every stakeholder and announce the start of the project realization. This meeting is sometimes held as a social event and might take place a little bit later then the realization actually begun. While making the project it is very important to keep checking if the flow of the project aligns with the project plan. When they differ, it is necessary to reschedule the plan or to make a new updated, more realistic project plan.

4) *Close-out*

At this stage all outputs are submitted, and the project is officially concluded.

2.4.3 Post – project phase

Surprisingly, the conclusion of the project is not necessary to the overall end of all project-related activities. This is because performance of the post-project phase identifies any mistakes that were made. The entire progress of the project should be analysed, and deficiencies and errors should be discovered. The post-project phase should give lessons-learned for future projects (2).

2.5 Techniques and methods of project management

According to Doskočil there are nine major sectors of project management, we name all of them in following list (3):

1) range control
2) time control
3) cost control
4) quality management
5) human resources management
6) control of communication
7) risk management
8) procurement management

9) integrated control

For each of these areas there are great tools which can be used. In following section, tools for some sectors will be introduced.

2.5.1 Range control

With range control, we imagine a control for each task in the project. One of the best tools for range control is the Work Breakdown Structure (WBS). WBS creates a hierarchical decomposition of the project in the form of outputs and sup-outputs. It starts with the main component, which is project in this case. The project is divided into small tasks until each task is possible to plan and manage. The goal of WBS is to identify and link all tasks. WBS is made at the beginning of the project and it can be upgraded during the duration of the project. Figure 4 shows a scheme of what WBS should look like (3).

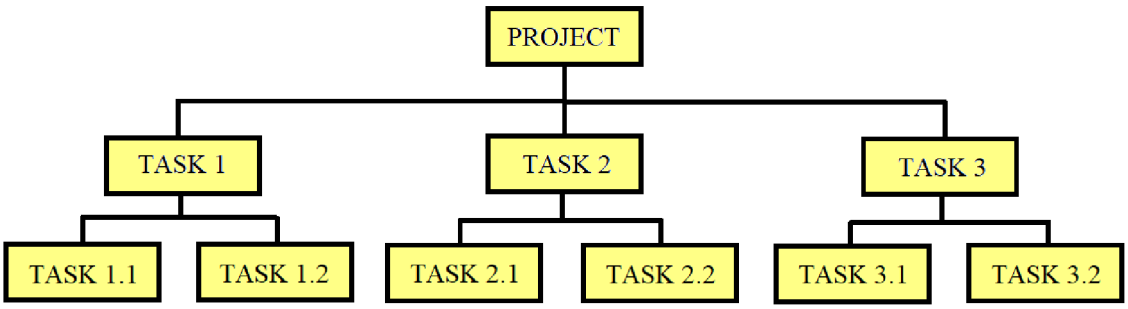

Figure 4: An example of a visual representation of the WBS method.

2.5.2 Time management

Time management during the project essential. To be able complete the project on time we are using the following control methods:

2.5.2.1 Milestone diagram

Milestone diagrams are considered a simpler variant of a Gantt chart. Its weakness against the Gantt chart is that it does not show us a task duration. As it is possible to see below (Table 2) the milestone diagram is a simple and clear tool, mostly organized in the

form of a table. Everyone, including even a person who is not involved in the project, can get clear picture how the project works and flows.

Table 2. Milestone diagram with concrete dates for a random project from reference, (1).

Milestone	Date
Start of the project	1. 9. 2015
Project team meeting	1. 12. 2015
End of the first stage	28. 2. 2015
End of the second stage	30. 4. 2015
Handover for testing	15. 5. 2015
End of the project	31. 5. 2015

2.5.2.2 Network analysis methods

Network analysis methods are special methods which are used for analysing and/or optimizing a network of related elements (3). Thanks to these tools it is possible to determine the shortest timeline for a project. The critical path is the sequence of tasks which determines the final date of completing the project. Fundamental methods of network analysis are:

1) CPM – Critical Path Method
2) MPM – Metra Potential Method
3) PERT – Program Evaluation and Review Technique
4) GERT – Graphical Evaluation and Review Technique
5) CCM – Critical Chain Method

PERT method

One reason for development of the CPM method was to eliminate the weaknesses of Gant charts, which are limited flexibility and efficiency in cost management (1). A very similar method is called PERT, which means Program Evaluation and Review Technique,

developed for the US Navy. Both methods are similar and allow flexible changes in the time schedule according to actual needs.

In Figure 5 a schematic of the PERT method is shown. It is mostly used for projects where it is difficult to know in advance how long will the task take. PERT uses the probability and calculation of risks (1).

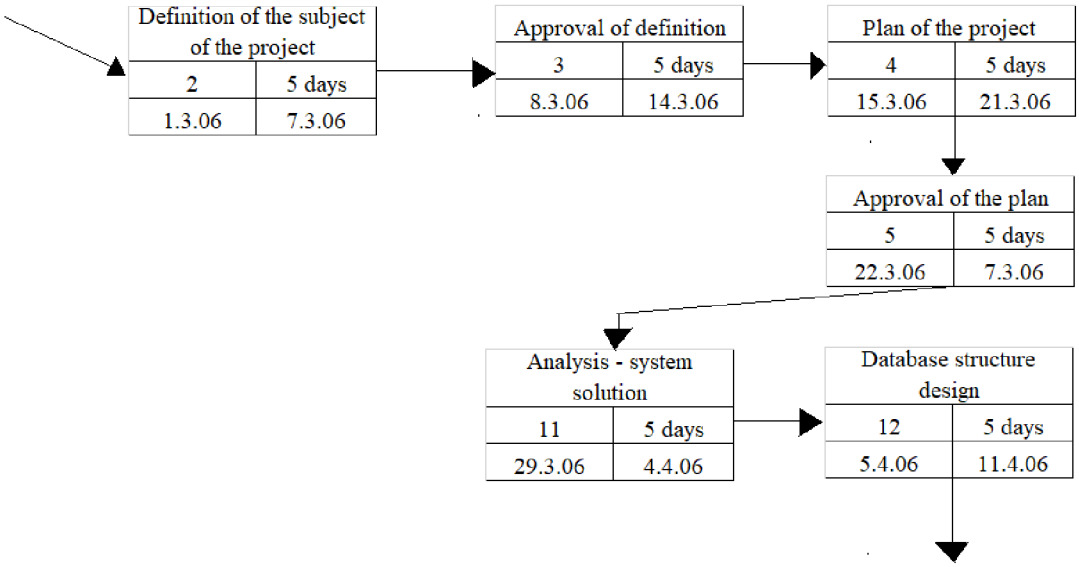

Figure 5: PERT method with a concrete values for a random project from reference (1).

2.5.2.3 Gantt chart

A chart is a graphic technique for illustrating the relationship between time and operations. The best way to display a Gantt chart is a horizontal line chart (4). In Gannt charts, time periods in which the project is made are shown in columns, and all tasks which must be made during the project are shown in lines (7).

2.5.3 Cost management

In order to make a profit, a company's revenue must exceed costs. Proper cost management is very important to achieve this goal. Subsequently, cost management tools will be described.

2.5.3.1 Net Present Value (NPV)

It is worth completing a task or project when the costs are more than justified by the benefits of completion. This principle works basically for any project business case. It is possible to find out in advance how attractive the project is by forecasting the financial value of project's benefits and comparing it to the project costs. The NPV method can help us test the attractiveness of the project (8).

It is possible to apply the NPV method by calculating the present value of cash flow for each annual period of the extended project life cycle. We can calculate the cash flow for each period by deducting the cost forecast for that period from the cash value of the forecast benefits. After calculating the net cash flow for each period, we can calculate the NPV by summation as follows (8):

$$NPV = \sum_{t=0}^{n} C_t /(1+D)^n$$

Equation 1: Net Present Value (8).

2.5.3.2 Return on Investment (ROI)

Thanks to the Return on Investment (ROI) it is possible to measure the gain or loss of the money which has been invested (9). Usually ROI is expressed as a percentage and it helps with personal and financial decisions to make the company more profitable. We can calculate the ROI by following equation (9):

$$ROI = (Net\ profit\ /Cost\ of\ Investment) * 100$$

Equation 2: Return on Investment (9).

2.5.4 Quality management

Thanks to quality management tools, we can monitor procedures and quality in the performance of individual tasks.

2.5.4.1 Checklists

Checklists are controlling lists which review the work which should be executed. We can imagine a checklist as a guide from initial place A to final place B. Between A and B are small steps that must be done one by one. When we do one of the small steps, we mark this step as done and we continue to the next one. By repeating this principle, we get to the final B spot. Checklists are helpful to keep productivity and effectivity stable.

2.5.4.2 Pareto principal

Pareto principle is also known as "80-20 rule" and it tells us that about 80 % of the consequences are produced by 20 % of the causes (10). Thanks to this principle we can focus on the critical 20 %, which causes the 80 % of effects. It is very helpful rule, especially when applied to planning and decision making.

2.5.5 Human resources management

Human resources management is very important because it maintains order of the tasks during the project creation. It helps keep track of who is working on what task. To do so we however need some graphical visualization:

Responsibility Matrix

It is practical to use a tool of the responsibility matrix for assigning each task to specific person. Mostly the responsibility matrix is displayed as a table where the tool clearly defines the competencies of the designated persons in relation to all elements of the WBS (Work Breakdown Structure) (2). An example of the responsibility matrix is shown in Table 3.

Table 3: Responsibility matrix, meaning of individual used letters is explained later in the text.

Elements of WBS	Manager	Organizer	Coordinator	Subcontractor	Consulting expert	…	
A…							
B…							
C…							
D purchase a software	I	A	R		C		
E…							

In table above, an example of how the responsibility matrix could look like is shown. For each task there should be one person who is accountable for it. This is represented by a single letter in the matrix – which defines how the person in the column is accountable for the task. Each letter stands for a meaning:

R as *responsible* – It is a person, who is working on a task.

A as *accountable* – It is a person, who is responsible for the task.

C as *consulted* – It is a person, who can support the task by consultation.

I as *informed* – It is a person, who is informed about the result or performance procedure.

2.5.6 Risk management

Thanks to risk management tools, we can prevent threats that may arise during the project.

RIPRAN analysis

RIPRAN is a method for analysing the risks of the project. The analysis is mainly suitable for medium and large projects. We can name five different stages contained in this method (11), we further elaborate all of them below:

1) Preparation for the analysis of risks

The goal of first phase is a preparation for making the risk analysis according to RIPRAN method. The outcome of this phase should be to schedule risk analysis implementations, to build a team for the risk analysis, and to decide on checklists to be used.

2) Identification of the risks

The goal of this phase should be finding all of the threats and scripts. As a result of this phase we should have a list of "threat" – "script" pairs, also with comments. It could be also accompanied with a list of risks factors. The list should be presented as a following Table 4:

Table 4: A blank table ready to fill the identified risks (11).

Number	Threat	Script	Comment

3) Quantification of risks

The main goal of this phase is to evaluate the probability of each script and to set the level of risk. The outcomes should be written in a table as following Table 5:

Table 5: A blank table ready to fill with the quantifications of risks (11).

Number	Threat	Script	Probability	Impact on the project	Risk value	Comment

4) Risk reducing

Based on the threat awareness developed previously, measures that would downsize the risk to an acceptable level should be prepared. The result of this phase should be drafts of downsizing risks, a plan of measures to downsize the risks and a new value of risks after measures are applied. The drafts are displayed in following Table 6:

Table 6: Risk reducing blank table ready to fill in the identified issues (11).

Number	Drafts of measure	New value of risk	Costs of measure	Reinsurance responsibility	Comment

5) Overall risk assessment

The goal of the final phase is to evaluate the analysed project risks. The outcomes of this phase are the overall evaluation of project risk levels and the final report on the progress of the analysis.

2.5.7 Integrated control

SWOT analysis

SWOT analysis is a tool which can be used for strategic management and planning in organizations. It can be used to build a competitive strategy for the organization. SWOT divides factors that affect the project into two categories: internal and external. Those two factors, then, are sub-categorized. Internal factors are labelled as “strengths” or “weaknesses,” while external factors are identified as “opportunities or “threats.” The SWOT analysis is displayed as four frames, as shown in Figure 6. Strengths characterize the advantage over others in the industry. Weaknesses shows the disadvantage relative to others. Opportunities are elements in the environment that give benefits for the organization. Threats are elements in the environment that could cause trouble for the organization (12).

SWOT	POSITIVE	NEGATIVE
INTERNAL FACTORS	STRENGHTS	WEAKNESSES
EXTERNAL FACTORS	OPPORTUNITIES	THREATS

Figure 6: Visual representation of the SWOT analysis (12).

3. CURRENT STATE ANALYSIS

The subject of this bachelor thesis is A Czech company called AUTONOVA BRNO, s.r.o. In following section, we will elaborate on basic information about the company, the current status of the company and its history. Moreover, external and internal environmental analysis will be performed and discussed in detail.

3.1 Information about the company

Company name:	AUTONOVA BRNO s.r.o.
Date of registration:	15. 7. 1992
Residence:	Brno – Trnitá, Masná 418/20, Postal Code: 602 00
Legal form:	limited liability company
Statutory authority:	Ing. Eduard Fic Ing. Vladimír Kulíšek Ing. Marek Leichmann Jan Tuma
Scope of business:	- Autobody repair and plumbing work - Production, sales, services not listed in annexes 1 to 3 of the Czech trade licensing act - Car repair

The company is nowadays a motor show of Škoda Auto cars. The company further provides car repairs not limited to Škoda branded cars. Moreover, the company directly sells spare parts for Škoda, Volkswagen and Seat cars. Not only four-wheeled vehicles are within scope of AUTONOVA BRNO,but the company also sells and repairs KTM motorbikes. In general, AUTONOVA BRNO sells brand new and also used cars. Overall, the entire company has about seventy employees, and it is owned by four managers who founded it together back in 1992.

3.2 History of the company

The company has originated as a repair store owned by city of Brno. In late 1960 there was a great need for a repair store, which led into a decision by local government to build such facility. The construction begun in 1968 and just few years later, in 1970, the enterprise was opened. Initially, the store functioned as a repair service for rental cars and taxis. This was followed by repair services for the public; specially for Lada, Volha and Polski Fiat car brands. In 1976 with the onset of Škoda, brand guarantee repairs of Skoda 105 and 120 started. The company was a complex centre equipped with a paint workshop, a workshop for car body work and their own storage.

In 1990, an independent state enterprise called AUTONOVA originated by division of the company (see logo of new company in Figure 7). The next year business and service contracts were signed with Škoda company which resulted into direct official sales of the legendary Škoda Favorit. In 1995 the company was privatized and renamed as AUTONOVA BRNO s.r.o. This name was also registered as a trademark. From that point a gradual growth and a modernization began. In 2001 new sales spaces were built including offices for company executives. By that time the total sales area was about 600m^2. One of the direct results of the facility reconstruction is that the company started to meet standards of Skoda corporation for Škoda Auto sales and services. The sales area grew with time as neighbouring land was purchased. This process ended in 2011 with final sales area with dimension of $11\,000\text{m}^2$.

Figure 7 Logo of the company AUTONOVA BRNO s.r.o. (14).

From 2011 AUTONOVA BRNO s.r.o. is also selling KTM motorbikes. In 2012 the company suffered great fire which caused damages of about 6 mil. Czech crowns. In 2014 Skoda corporation started to require the same look of every Skoda workshop. Implementation of this requirement took the company a lot of effort and money to meet the specifications. A lot of other car dealers had to end their businesses because they couldn't afford this new look of their auto salons. In 2016 the company made a separate store for KTM motorbikes right next to the auto salon (13). We show the main company building in Figure 8.

Figure 8 Main company building (showroom and offices), (15).

In the following paragraphs, an analysis of the internal and the external current state of the company will be performed. For external environment SLEPT analysis will be used. The McKinsey's 7S framework will be executed for internal analysis. A summary of the analysis will be made using SWOT analysis.

3.3 SLEPT analysis

This analysis is used for revealing the development of the company's external environment. Also it helps to understand the economic environment that affects the company. The name SLEPT is an abbreviation where individual letters stand for five different factors:

3.3.1 S - Social factors

The company strives to make every customer exceptional and gives him/her the best services. The company always offers the right service for what customer needs and doesn't force customers into overpriced services. Because of this human approach the company became more popular than many competitors. The company has regular customers who return, and some become friends.

3.3.2 L - Legal factors

The company has the legal form of doing business as a limited liability company, therefore governed by Act No. 90/2012 Coll. – Business Corporations Act. Its subject of business is the repair of road vehicles, tinsmithing and body repair and production, trade and services not listed in annexes 1 to 3 of the Trade Licensing Act No. 455/1991 Coll.

3.3.3 E - Economic factors

For the economic factor, we will focus here on macroeconomic indicators. The inflation rate in Czech Republic at the beginning of the year was 2,9 % and grew over time. Nowadays the inflation rate is 3,1 % (14). Gross domestic product fell in the first quarter by 2,2 % (15). Although we have to note here, that current crisis connected to the pandemic of COVID – 19 will influence economic indicators and the economy itself significantly. The true scale of this crisis remains unknown by the time of submitting this thesis.

3.3.4 P - Political factors

Due to the current situation regarding Covid – 19, the political situation is greatly affected. The state of emergency was ordered by the government and the company had to be closed. After cancelling the emergency, the company still has to operate under strict conditions. For example, only 30 employees can be in the company at the same time and they have to wear face masks.

Not considering the current situation, there are directives from the European Union that regulate car emissions. Due to this, the company is starting to focus on hybrid and electric cars.

3.3.5 T - Technological factors

The company lags slightly in the technological world when it comes to online sales and marketing. An example is a dated company website from 2010 and the total absence of social media. On the other hand, the company has a well-equipped business facility. There are computers and tablets for sales staff and state-of-the-art tools in the workshop for mechanics.

3.4 The McKinsey 7-S Framework

This framework was developed in 1970's at McKinsey and Company, and issued as an analysis tool of the internal environment. The analysis can help to improve the performance of an organization or to determine the best way to implement a proposed strategy. The model categorizes seven elements which are divided into "soft" and "hard" elements. Soft elements are shared values, skills, style and staff. Hard elements are strategy, structure and systems. Hard elements can be influenced by management directly and they are easy to identify. Soft elements can by influenced by company culture and could be a little bit harder to identify and describe.

3.4.1 Strategy

The strategy of the company is based on providing quality products that have a good price-quality ratio. Every employee chooses a personal approach to each individual customer. The company has been in operation on the market for over 25 years and overall has a great reputation.

3.4.2 Structure

The structure of the company will be discussed in following paragraph. The company structure is displayed in Figure 9. Nowadays the company has about seventy employees and has three main departments. There are four owners, and each has 25 % share. The manager of the economic department is Mr. Tuma, one of the owners of the company. He is responsible for the cash desk and invoices. In the case of accounting the company hires external services. Company director Ing. Kulíšek is responsible for all departments and leads the HR department. The manager of repair services department is Ing. Dvořák. He takes care of the warehouse, workshop and admission technicians. Last but not least, the car sales department is managed by Ing. Leichmann. He is responsible for selling new and used cars and for communication with distributors.

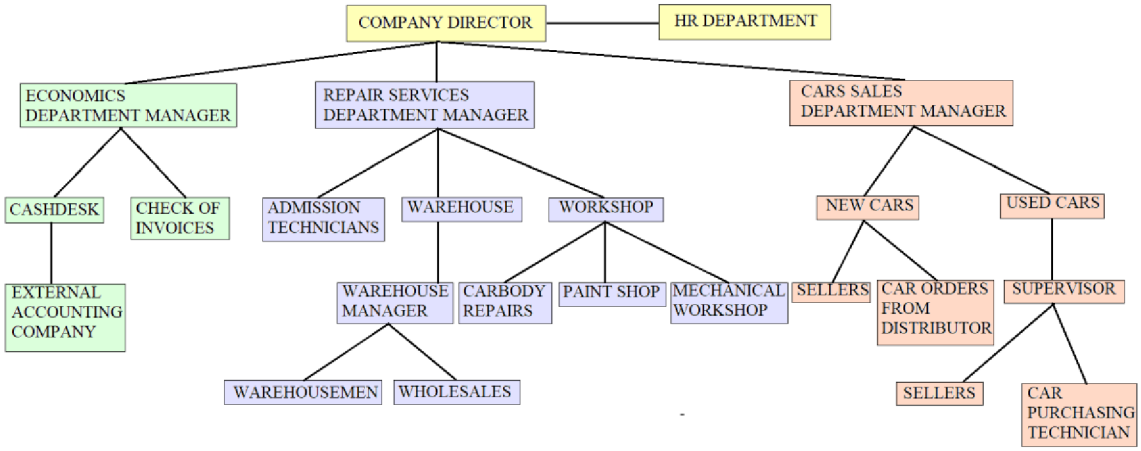

Figure 9: Structure of the company AUTONOVA BRNO s.r.o.

3.4.3 Systems

The company uses an internal system called the “Dealer management system”. All sellers have state-of-art tablets on which they can show customers what car variants and options they can buy. By using the internal system called “Ovex”, new cars are ordered from suppliers. The company has its own system for car servicing called “Elza,” which enables technical information for each car to be found according to the chassis number.

3.4.4 Shared values

Most employees have been working in the company since its inception in year 1992. This fact helps the company to share the same values with its employees regarding the company culture and attitude towards customers.

3.4.5 Style

Having a look from a broader perspective, we could call this company a family business. The company was founded by four friends when they finished school and, although not married, they are still managers as at the beginning. Each manager is responsible for their departments, while enabling other employees to make partial decisions.

3.4.6 Staff

The whole company has about seventy-five employees. Ten of them are in the administration department. Six employees are in the sales department. The service department has the largest number of employees, at thirty-eight. Four employees work in the paint shop and the car body repairs are performed by three mechanics. Auxiliary work and the car wash are performed by 6 employees. Around seven workers work in the warehouse.

3.4.7 Skills

According to Škoda corporation regulations, all employees must have at least two trainings or workshops a year. All dealers of both new and used cars must have great communication and sales skills.

3.5 SWOT analysis

This analysis can be used for strategic management and planning in organizations. Again, SWOT is an abbreviation and it is a summary of all strategic analysis. We used SWOT analysis and our results for the company are shown in Table 7. Detailed description of individual points of the SWOT analysis are discussed in following paragraphs.

Table 7: Applied SWOT analysis on the company AUTONOVA BRNO s.r.o.

STRENGHTS	WEAKNESSES
location in the city reputation individual approchach to each customer car repair shop	lack of social sites obsolete website bad online marketing
OPPORTUNITIES	**THREATS**
awareness about company in online world new electro and hybrid cars competition mistakes	only one supplier retirement of main managers adverse legislative changes

3.5.1 Strength

As one of the strengths we have to definitely mention the company location in the city of Brno. The company is in the city centre with excellent access for cars. Another strength is a great reputation of the company. The company is on the market more than twenty years, so the company has managed to reach many customers. With every customer the company tries to catch the customer's "story behind", to understand each customer correctly and to recommend what she/he needs contrary to always advising the most expensive possibilities. The final strength is the car repair shop, whose services are provided with every new Škoda car. Moreover, the repair services are also provided to anyone with a car of brand of Škoda, Volkswagen and Seat.

3.5.2 Weaknesses

One of the biggest weaknesses of the company is the lack of social networking on Facebook, Instagram, or recently TikTok. The company used to work with an agency, which took care of Facebook for the company. Due to a low performance of the agency the contract was terminated by the company. Nowadays one of the managers is responsible for Facebook activity but the profile honestly looks like *a Facebook profile of a fifty years old man who's really into Škoda*, nothing like a reader of this thesis would like to see. There is nothing on the Facebook page that could actively attract new customers. The company doesn't have Instagram at all, and new social networks are not even in the scope of the company. The company's website was made in 2009 and it hasn't changed since.

The considerations above clearly show absolute ignorance of online marketing, nor personally targeted online marketing. This is one of the main drawbacks and weaknesses of the company. A person taking care of online marketing and social media should be immediately hired. His/her first task should be setting a clear strategy for how to approach online marketing of the company, as it is a very important part of the selling process today.

3.5.3 Opportunities

The biggest opportunity is to raise awareness about the company in the online world. Via new websites, new social media or online advertising, the company could reach new potential customers. The supplier, Škoda cars, has kept up with modern trends by developing new electro cars, which could attract new potential customers. The car market in Brno is saturated and each mistake from competition counts, so every mistake from a competitor is an opportunity for this company to have new customers.

3.5.4 Threats

One of the biggest threats for the company economy is having just one supplier. The company has a contract only with Škoda and this creates two dangerous situations. First, Škoda could go bankrupt, then Škoda car dealers, including AUTONOVA BRNO, will immediately go bankrupt as well. Second, the terms of the Škoda contract can be damaging. As an example, we could mention year 2014, when Škoda Auto required the same look of each car dealer who had a contract with them. A lot of car dealers in the market had to end their business because they could not afford to fulfil this request. Another threat could be handing over the company to successors in the future. The four main managers who own the company are getting closer to retirement, with a maximum horizon of ten years. The company founder should start to think about what will happen in the future with the company when they retire. These days the virus Covid-19 has spread everywhere. Because of legislative changes, which followed detection of the virus, the company had to be closed. As a result, they made no profit.

3.6 Reasons for the project

As already defined in the SWOT analysis, the company should improve their marketing and make themselves more visible to a broader audience. The project of this thesis is to organize an event to organize an event that advertises the trend and importance of buying electric and hybrid cars. Specially, Škoda electro cars that AUTONOVA BRNO s.r.o. sells will be marketed. Electric cars became popular in recent years., but many potential customers can not foresee the advantage of electric cars. That is why we

will organize workshops and presentations about electric automotives also with accompanying programs for kids. Including a program for kids is intentional, as it places a focus on potential buyers (parents, in general). The event is intended to help the company with its awareness, and to bring new potential customers.

4. SUGGESTED SOLUTION AND BENEFITS FROM THIS SOLUTION

In previous chapter we performed analysis of current state of the company AUTONOVA BRNO s.r.o. In this chapter based on the analysis we will focus on opportunity, which this company has, and it is the electro cars. Because it feels like the company ages alongside with the managers, we would like to give a fresh view, and organize a popularizing event dealing with the electro cars. We would like to give the managers of the company an outline, how such an event which they will host could look like. We will combine these two matters together and we will focus on achieving the goal of this bachelor thesis – to organize the marketing event focused on electro cars with the use of methods of the project management - from a practical point of view.

4.1 Project identification document

Name of the project:	Autonova Brno – ELECTROMOBILITY: workshop with accompanying program
Benefits of the project:	growing awareness of the company, specification of the concept of electric cars, gaining new potential customers
Goal of the project:	Organize a marketing event focused on Škoda electric cars with workshops and accompanying program.
Planned start date:	1.7.2020
Planned end date:	29.8.2020
Venue of the event:	Autonova Brno, s.r.o.
Planned total costs:	71 900 CZK
Project manager:	Tereza Leichmannová
Project team:	Project manager, Sales manager, Finance manager and Marketing manager

Project milestones

Project milestones are important terms of the project serving as simple and brief overview of all terms (Table 8). An entire project team including also those who are not directly involved in the project can better orientate in the project thanks to the milestones.

Table 8: Summarized project milestones with their corresponding dates.

Project milestones	Date
Start date	1.7.2020
Assembling a project team	6.7.2020
Creating a budget	9.7.2020
Workshops	24.7.2020
Program	3.8.2020
Catering	10.8.2020
End date - execution of the event	29.8.2020

4.2 Logical framework

In Table 9 the logical framework for the project is displayed. The logical framework contains purposes, goal, outputs and key activities which must be executed to achieve the desired goal. Logical framework tells us why we actually realize the project, what we have to do to achieve the project and what is the plan to achieve that.

Table 9: Summarizing the Logical Framework of the project. Note that this table extends to another page.

	Description	Objectively verifiable indicators	Method of verification	Assumptions
PURPOSE	1. sales increase of electric cars 2. increase the number of customers 3. raising company awareness 4. unification of the documentation format for other projects	1. 10 % sales increase, three months after the event 2. 5 % increase the number of customers, three months after the event 3. increase website traffic 4. 15 % reduction in project time	1. annual report 2. annual report 3. google analytics 4. time spent on business management	X
GOAL	1. Organize a marketing event focused on Škoda electric cars with workshops and accompanying program.	1.1 manage to organize the event on time 1.2 compliance with the established budget	1.1 project documentation 1.2 annual report	- the budget does not exceed a specified amount - increase in demand - raising awareness
OUTPUTS	1. assemble a project team 2. financial security of the event 3.marketing 4. workshops 5. program 6. catering 7. organization on the day of the event	1. selected four members 2. budget, compliance with the set costs of 80 000 CZK 3. poster on Facebook page and leaflets in the store 4.two workshops at least 5. two activities for kids and entertainment fur visitors 6. catering company 7. space preparation	1. project contract check 2. budget control 3. control of the Facebook page 4. workshops preparation control 5. contract 6. contract 7. control during the event	- meeting the deadlines - timely completion of preparations - nice weather - interest in electric cars - tasks control during project - seamlessly printed leaflets

KEY ACTIVITIES	1.1 selection of suitable members 1.2 project team meeting 2.1 creating a budget 3.1 creating a poster and leaflets 3.2 printing leaflets 4.1 creating a workshop about Superb iV 4.2 creating a workshop about CityGo iV 4.3 creating presentation for the workshops 5.1 selection 5.2 negotiation 5.3 contract 6.1 choice of partner 6.2 negotiation 6.3 contract 7.1 assemble a schedule of the event 7.2 preparation of the venue and event 7.3 launch of the event	1.1 3 days 1.2 1 day 2.1 2 days 3.1 2 days 3.2 1 day 4.1 4 days 4.2 4 days 4.3 2 days 5.1 2 days 5.2 1 day 5.3 0,5 day 6.1 1 day 6.2 0,5 day 6.3 0,5 day 7.1 1 day 7.2 0,5 day 7.3 1 day	1.1 3 man-days 1.2 1 man-day 2.1 2 man-days 3.1 2 man-days 3.2 1 man-day 4.1 4 man-days 4.2 4 man-days 4.3 2 man-days 5.1 2 man-days 5.2 1 man-day 5.3 0,5 man-day 6.1 1 man-day 6.2 0,5 man-day 6.3 0,5 man-day 7.1 1 may-day 7.2 0,5 man-day 7.3 1 man-day	- selecting reliable team members - no human error occurs - compliance with contracts - catering availability - availability of the accompanying program

4.3 Work Breakdown Structure

Work Breakdown Structure (WBS)is visually displayed hierarchical structure of all project outputs, which must be executed to meet the goal. WBS is based on logical framework and its outputs and key activities. Diagram summarizing the WBS of the planned project is shown in Figure 10.

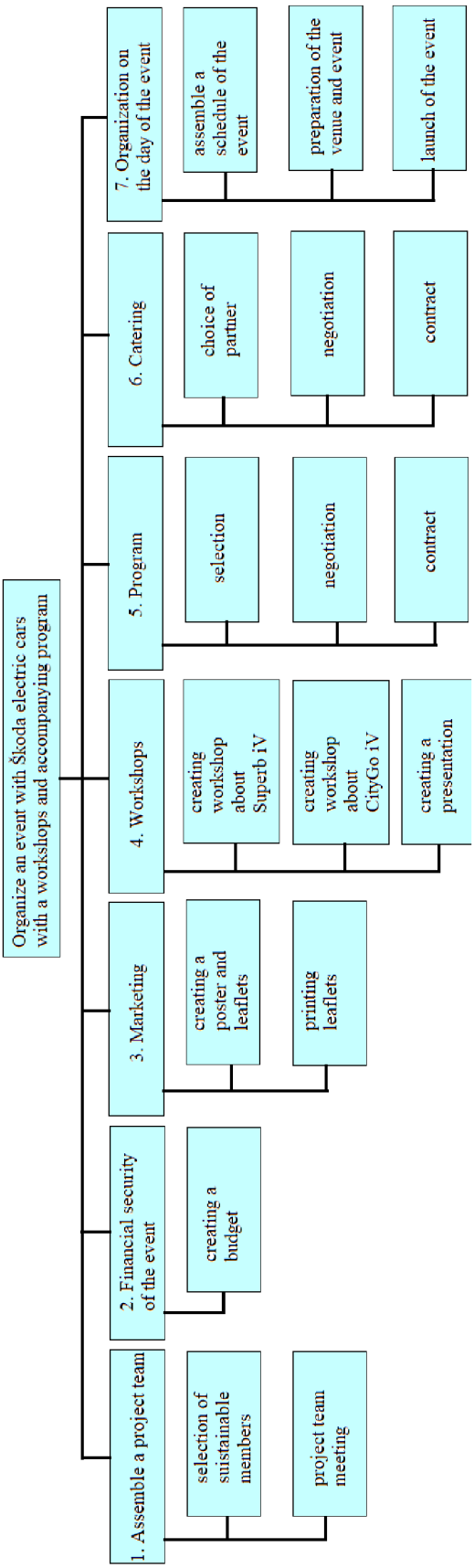

Figure 10: Work breakdown structure of the project of the event. Figure is plotted vertically due to its size.

4.4 Responsibility Matrix

Responsibility Matrix is a tool used for dividing responsibilities for each task between the individuals in the project team. Theory behind the responsibility matrix was already described earlier in the text, in section 2.5.5. In following Table 10 relationships between each tasks and people who are working on them are shown. A project team contents project manager (PM), sales manager who can be understood as head of the project after project manager and then finance and marketing manager who are involved in the running of the project.

Table 10: Responsibility matrix of the project. Letter I says who is informed about the project, letter C says, who is possible to communicate with about the task, letter R says who is working on a task and letter A says who is responsible for the task. Note that this table extends on another page.

Elements of WBS	PM	Sales manager	Finance manager	Marketing manager
Project start	A,R	I	I	I
Selection of sustainable team members	R	A,R	I	I
Project team meeting	A,R	I	I	I
Creating a budget	I	C	A,R	I
Creating a poster		A	I	R
Creating leaflets		A	I	R
Printing leaflets		I	A,R	C
Set poster on social site	I	I	I	A,R
Create workshop Superb iV		A,R	C	
Create workshop CityGo iV		A,R	C	
Presentation for workshops		A,R	I	I
Program selection		A,C	I	R
Agreement with partners		A,C	R	
Contract with partners	I	A	R	I

Catering selection		A,C	I	R
Agreement with partners		A	R	
Contract with partners	I	A,C	R	I
Schedule on the day of event	A,R	C	I	I
Preparation of the venue and event		A,R	C	I
Launching the event	I	A,R	I	I

4.5 Risks analysis

Further we evaluate the risk analysis of the project using RIPRAN method. As we already stated in chapter 2.5.6. this method has stages which will be processed in following paragraphs.

4.5.1 Identification of risks

In the first phase we identify all possible risks and give brief descriptions of the identified issues. All the following risks are summarized in Table 11.

1) Selection of inappropriate team members

In general, it can easily happen that project manager choose inappropriate team members. They could be unreliable, do work poorly, which would result into repairs and extension of activities. On the other hand, overqualified persons could be chosen as well. Such people is already busy with daily work in the company and they would not have a time for the project. It may lead to late submitted tasks although well performed. Consequently, there would be a risk of a total delay of the project.

2) Failure to meet deadlines

If team members couldn't meet deadlines it might lead to a delay the project which is not affordable. Because it the event is planned for public and it has to be promoted well in advance.

3) Organizational changes of the company

A lot of managers in the company are going to retire in future years and it might easily happen that they will retire sooner. What might also happen is that the partners do not agree with each other or have fights and the company falls apart.

4) Absence of a team member

In this project a clear deadline is set – it is the end day, when the event is launched. In this limited amount of time the project team has to do everything in its power to meet the goal. So, in case of long-term absence of a team member he/she must be replaced with new member. This would logically require an extra time to integrate such new member into the project resulting in unnecessary delays.

5) Non – compliance with the contract from program provider

Program providers are all parties interested in program of the event, in general they provide contracted entertainment services for public visitors. Non-compliance with the contract from program provider could manifest itself as i.e. a moderator cannot come because he gets ill, or the sound system services arrive late, or they do not arrive at all. These possibilities have a direct impact on the event and its course and therefore are highly undesirable.

6) Unfavourable weather on the day of the event

Because the project has a fixed date of the event with which we cannot manipulate there is now way how to rule out the weather factor. As the event is planned to partially happen outside there is a high possibility that it might be a bad or rainy weather in the day of the event.

7) Competitive event on the day of the event

As the car selling market is a highly competitive environment, some competitors like to spoil the joy of a different company. It might happen that such competitor organizes an event with the very same elements on the very same day. This would lead to lower attendance from public.

8) Change of legislation

Recently everyone has experienced what can a virus do and what changes of legislation are necessary. Thanks to that it can easily happen that every event for public must be cancelled.

9) Power failure in a car showroom

On the day of the event could be a power failure which might lead to early termination of the event. Although very unlikely unpredictable events resulting in power shut down might happen.

10) Catering failure

During the event food and drinks will be served for visitors by a catering company supplier. There could be a catering failure as they might not come at all, or the food will not be good. In that case there would be no refreshment for our visitors.

Table 11: Identification of the risks. Note that this table expands to another page.

	Threat	Scenario
1	Selection of inappropriate team members	Unreliability, badly executed work, necessary repairs and extension of activities
2	Failure to meet deadlines	Delay of the final day of the project
3	Organizational changes of the company	Cancelation of the event, business breakdown
4	Absence of a team member	Project extension or an extra workload
5	Non-compliance with the contract from program provider	Shorter program or an absence of a moderator
6	Unfavourable weather on the day of the event	Low attendance during the event
7	A competitive event on the day of the event	Low attendance during the event
8	Change of legislation	Cancelation of the event, end of the project

9	Power failure in a car showroom	Outflow of customers, premature termination or suspension of the event
10	Catering failure	Unsatisfied visitors, lack of refreshments

4.5.2 Quantification of project risks

All risks described in previous paragraphs has to be quantified to be able to minimize the risks. Table 12 contains all risks, its probabilities, which were determined on the basis of an estimate. Other columns show possible impact on the project and risk values.

Table 12: Quantification of project risks. A risk probability are quantified as follows: low probability < 33 %, medium probability 34 – 66 %, high probability > 67 %.

Number	Probability	Impact on the project	Risk value
1	low probability	medium impact	low risk value
2	medium probability	high impact	high risk value
3	low probability	high impact	medium risk value
4	high probability	medium impact	high risk value
5	medium probability	high impact	high risk value
6	medium probability	high impact	high risk value
7	high probability	low impact	medium risk value
8	medium probability	high impact	high risk value
9	low probability	medium impact	low risk value
10	medium probability	medium impact	medium risk value

4.5.3 General assessment of risk

The goal of risk analysis is to identify possible threats which could negatively affect the course of the project. In total was found ten risks, which could shake with the project. During the project new risk can appear, therefore it is important to track all risks and in case of appearance a new one update the table. Thanks to applied measures risks can be effectively reduced to minimum. It is important to follow risks with medium value, because they are now the most dangerous.

4.5.4 Risk reducing

To reduce each risk, it is necessary to assign measures for every individual risk. Following Table 13 contains measures to each risk and new value of the risks which are now reduced due to the applied measures.

Table 13: Measures of risks and newly evaluated risk values.

Number	Measure	New risk value
1	Objective and quality selection of members based on previous experience (not based on feelings and influence of nepotism)	low risk value
2	Constant monitoring of milestones, communication while solving problems; problems will be solved faster	medium risk value
3	Finding out the company's future plans, adapting both the project and the plans	low risk value
4	Choose an alternative for a missing member in advance	medium risk value
5	Sign a contract with permanent and reliable partners	medium risk value
6	Backup plan; the whole event placed inside the car show building	medium risk value
7	Interesting accompanying program; marketing visibility	low risk value
8	Backup date of the event, reduction of the event attendance up to allowed visitors limit	medium risk value
9	Backup power (diesel aggregates); training what to do	low risk value
10	Selection of a stable partner with reliable references	low risk value

4.6 Time analysis

This chapter deals with time analysis of the project. In Table 14 individual tasks together with their duration and continuity are summarized. To display the sequence in tasks a Gantt chart was chosen, and the chart is shown in Figure 11.

Table 14: List of project tasks together with their durations, initial and final dates, and their sequence.

Task	Task name	Duration / Man-day	Start	End	Predecessors
1	Project start	1 man-day	1.7.2020	1.7.2020	
2	Selection of sustainable team members	3 man-days	6.7.2020	8.7.2020	1
3	Project team meeting	1 man-day	8.7.2020	8.7.2020	2
4	Creating a budget	2 man-days	9.7.2020	10.7.2020	2
5	Creating a poster	1 man-day	13.7.2020	13.7.2020	3
6	Creating leaflets	1 man-day	14.7.2020	14.7.2020	3
7	Printing leaflets	1 man-day	15.7.2020	15.7.2020	4,6
8	Set poster on social site	0,5 man-day	16.7.2020	16.7.2020	4,5
9	Create workshop Superb iV	4 man-days	24.7.2020	29.7.2020	3
10	Create workshop CityGo iV	4 man-days	29.7.2020	3.8.2020	3
11	Presentation for workshops	2 man-days	4.8.2020	5.8.2020	9,10
12	Program selection	2 man-days	3.8.2020	4.8.2020	4
13	Agreement with partners	1 man-day	6.8.2020	6.8.2020	12
14	Contract with partners	0,5 man-day	7.8.2020	7.8.2020	12,13
15	Catering selection	1 man-day	10.8.2020	10.8.2020	4
16	Agreement with partners	0,5 man-day	11.8.2020	11.8.2020	15
17	Contract with partners	0,5 man-day	12.8.2020	12.8.2020	15,16
18	Schedule of the day of event	1 man-day	17.8.2020	17.8.2020	9,10,12,15
19	Preparation of the venue and event	0,5 man-day	28.8.2020	28.8.2020	18
20	Launching the event	1 man-day	29.8.2020	29.8.2020	19

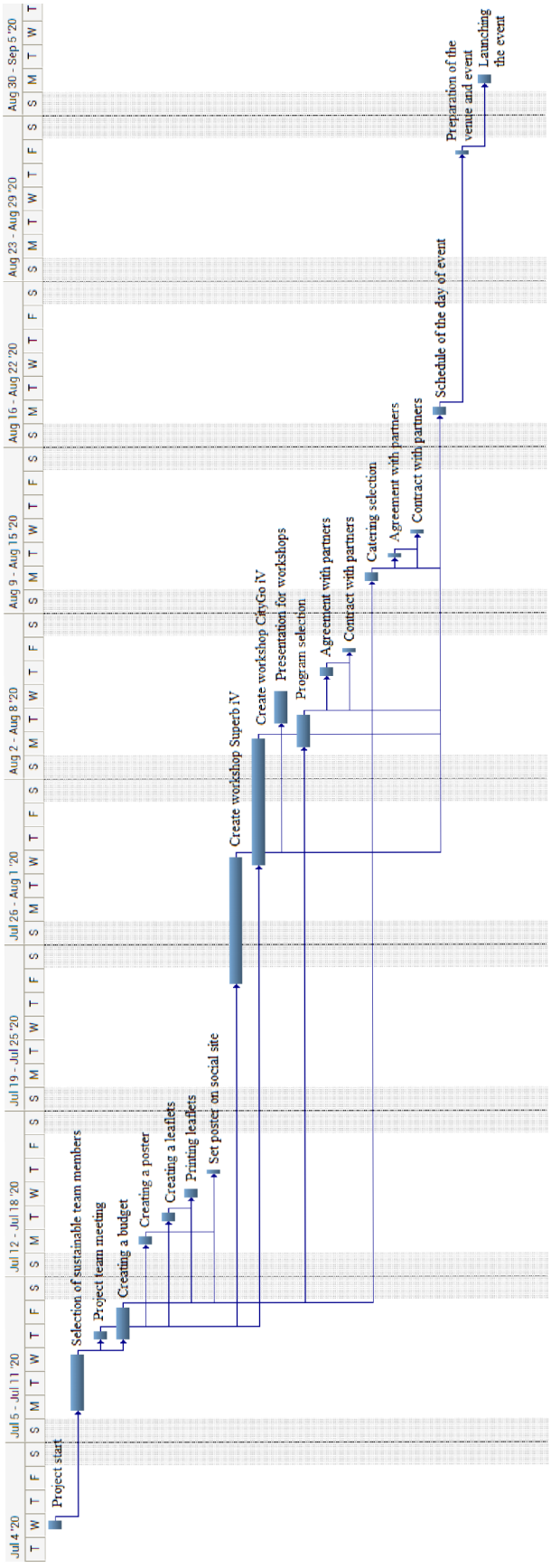

Figure 11: Gantt chart showing a linked timeline of the project of the planned event.

4.7 Planned budget

A budget of this project is based on an educated estimation. Individual parts of the project as accompanying program and catering will be chosen during realization of the project. We can have a look at these partner companies in advance and thanks to that we can make estimated average of total costs.

4.7.1 Project team costs

In the project team there are four people. Costs for the project manager are 6 000 CZK. Each person of the project team will get 5 000 CZK as a premium to the classic payout because they are employees of the company. Overall, the total project team costs are 21 000 CZK.

4.7.2 Advertising costs

As an advertising for the event leaflets will be used. Every customer who visits the company will get a leaflet with information about the event. Leaflets will also be sent in a mail to everyone in the company's database. Estimated total costs for printing such leaflets are 700 CZK in case there will be 2000 pieces of leaflets printed. We will be also using poster on social media and sponsored advert services on Facebook. There are reasonable costs of 100 CZK per day, we will start the advert campaign at least one month before the event therefore the total costs of online advertising will be approximately 3 000 CZK.

4.7.3 Accompanying program for visitors

Accompanying program includes a moderator, a stage and a sound system with an operator. Company is going to use the moderator, who moderates every public event for this company. The moderator is using his own sound system and the rental price is 5 000 CZK. This moderator also does not require another person as the sound system operator reducing the overall costs. Rental price of the stage is 10 000 CZK including transport. The stage will be used for workshops as well.

4.7.4 Accompanying program for kids

Because one of the Škoda Auto target groups are families with children, we are assuming that there will be also many kids joining the event. We have planned two main activities for kids. They are a bouncy castle in shape of Škoda Auto car and nowadays very popular face painting for kids. The costs of bouncy castle include rental costs and transport costs giving estimated total of 7 000 CZK. Average price for face painting is 700 CZK per hour. Estimated total costs are 4 200 CZK in case of renting for 6 hours. Last cost in case of the program for children are balloons with the company logo. Costs of such balloons will be 1 000 CZK.

4.7.5 Catering costs

The company will use catering services which they again standardly use for all their events. This service is made by students from high school where they study to become professional chefs and waiters. This supplier is cheaper than a normal catering service. In total, the catering service costs are 7 000 CZK.

Figure 12: Photo of the latest Škoda electric car Superb iV (16).

4.7.6 Costs associated with electric cars

Škoda's latest electric car models – Superb iV (Figure 12) and CityGo iV (Figure 13) – will be installed to be shown and used during the event. The cars in total amount of must be prepared before the event. They are test pieces which means that during the week they are normally used. Therefore, interior cleaning must be done in both cars and car wash must be used. We must also include in the costs the recharging of the car and the wear of the car. Total costs of the preparations of the cars are 3000 CZK.

Figure 13: Photo of the first Škoda's electric car – CityGo iV (17).

4.7.7 Total costs

In Table 15 there is a summary of all estimated total costs of the project, as discussed in previous paragraphs. Further, a financial reserve has been created in the amount of 10 000 CZK. This gives the overall amount that will be needed to implement the project of 71 900 CZK.

Table 15: Summary of all costs of the project. The individual items are discussed in detail in paragraphs 4.7.1 - 4.7.7. Importantly, the final row of the table gives the total costs of the project.

COSTS	**AMOUNT**
Project manager	6 000 CZK
Sales manager	5 000 CZK
Finance manager	5 000 CZK
Marketing manager	5 000 CZK
Printing leaflets	700 CZK
Sponsored advert	3 000 CZK
Moderator and sound equipment	5 000 CZK
Stage	10 000 CZK
Bouncy castle for kids	7 000 CZK
Face painting for kids	4 200 CZK
Balloons	1 000 CZK
Catering services	7 000 CZK
Cars preparation	3 000 CZK
COSTS	**61 900 CZK**
RESERVE	**10 000 CZK**
TOTAL COSTS	**71 900 CZK**

4.8 Project evaluation

The project will be evaluated after the event. The evaluation will take place during the post-project phase. Project evaluation is very important for identifying mistakes, which were made, that leads to lessons learned for following projects. The evaluation of the project should be resolved no later than one month after the end of the project. So that all members of the project team still have the project freshly in mind. Each of the team member should also receive a personal feedback.

4.9 Benefits of the proposal

In this chapter the main benefits of designing a project solution for the company AUTONOVA BRNO s.r.o. will be summarized. The project solution contains project identification document, project milestones, logical framework, work breakdown structure, responsibility matrix, risk analysis using the RIPRAN method, time analysis using the Gantt chart and planned budget. The main benefit of the project is to bring near the issue of the electric cars to potential customers, and to attract them to the company in future. The project proposal to organize the event which may provide the company many benefits as *i.e.* building the brand loyalty, increasing the brand awareness and increase of a revenue.

Thanks to building a project team from employees of the company they can easily learn to better communicate with each other. They will experience what it is like to approach an event with the tools of the project management. Thanks to this experience, they will be able to better manage future events. The created project proposal can also serve as a template for future projects in the company.

Thanks to the approach of the environmental problem within the automotive market and bringing near the benefits of the electric cars the company could start selling significantly more electric cars than nowadays.

CONCLUSION

The goal of this thesis was to carry out a project proposal of marketing event in a real company AUTONOVA BRNO s.r.o. using project management tools. The thesis was divided into three main parts: theoretical basis of the project management (Chapter 2), current state analysis (Chapter 3) and suggested solution (Chapter 4).

The main goal of the work was achieved by fulfilling partial tasks of the project proposal. Methods of the project management was implemented into the project proposal in the company. The goal was to organize a marketing event focused on Škoda electric cars with workshops and accompanying program.

The first part was dedicated to theoretical background about project management. The theoretical background was subsequently applied in the following chapters. In the second part called current state analysis was analysed the company AUTONOVA BRNO s.r.o. Analysis of external environment was carried out using the SLEPT analysis, while McKinsey 7S framework provided the analysis of the internal environment. Both of these two analyses were summarized in SWOT analysis which showed us the biggest drawbacks of the company, and also in which fields the company excels.

The third part of the thesis gave the suggestion of the solution. The solution was to make a project proposal, which is aimed at promoting two models of Škoda electric cars. The project planned a marketing event where will be two workshops about Škoda Superb iV and Škoda CityGo iV. The event will take place in front of the store location and there will be also accompanying program for visitors. By this event the company gain more potential customers, brand awareness and possibly also a revenue.

First, an identification document that says all the basic information about the project was created. Subsequently, by using a tool of the project milestones all important dates of the project were displayed. In the logical framework key activities, which must be done to finish the project were introduced. Then Work Breakdown Structure was made giving us a hierarchical structure of all project outputs. To ensure that all interested project members have tasks assigned the Responsibility matrix was carried out. We used RIPRAN analysis to focus on possible risks in the project. Ten possible threats were identified and resolved with a scenario which leads to downsizing the risk values.

To make a time analysis and the project timeline, Gantt chart was created. In such chart all the tasks of the project and their time of duration and continuity are logically summarized and visualized. The duration of the project is planned from 1.7.2020 until 29.8.2020. The final date also marks the launching day of the hosted social event. Last, the budget planning was performed. The total costs of the project are 71 900 CZK with a 10 000 CZK reserve.

REFERENCES

1. **Svozilová, Alena.** *Projektový management.* Praha : Grada Publishing, a.s., 2006. ISBN 80-247-1501-5.

2. **Jan Doležal, Pavel Máchal. Branislav Lacko a kolektiv.** *Projektový management podle IPMA.* Praha : Grada Publishing, a.s., 2009. ISBN 978-80-247-2848-3.

3. **Doskočil, Radek.** *Metody, techniky a nástroje řízení projektů.* Brno : AKADEMICKÉ NAKLADATELSTVÍ CERM, s.r.o., 2013. ISBN 978-80-7204-863-2.

4. **Radoslav Štefánek, Kateřína Hrazdilové Bočková, Klára Bendová, Petra Holáková, Ivan Masár.** *Projektové řízení pro začátečníky.* Brno : Computer Press, a.s., 2011. ISBN 978-80-251-2835-0.

5. **Carroll, John.** *Project mamagement for effective business change.* Southam Warwickshire : In Easy Steps Limited, 2009. ISBN -10 1-84078-370-2.

6. **Wysocki, Robert K.** *Executive's Guide to Project Management: Organizational Processes and Practices for Supporting Complex Projects.* New York : John Wiley & Sons, 2011. ISBN: 978-1-118-08924-8.

7. **ManagementMania.** Ganttovy diagramy . *ManagementMania.* [Online] 30. 7 2015. https://managementmania.com/cs/ganttuv-diagram.

8. **Hopkinson, Martin.** The Case for Project Net Present Value. *PMWORLD Journal.* [Online] June 2016. http://www.rmcapability.com/resources/Hopkinson-project-net-present-value-Series-Article.pdf.

9. **Patricia Pulliam Phillips, Jack J. Phillips.** *Return on Investment (ROI) Basics.* s.l. : American Society for Training and Development, 2006. ISBN: 978-1-60728-476-5.

10. **Dunford, R., Su, Q., Tamang, E.** The Pareto Principle. *The Plymouth Student Scientist.* The Plymouth Student Scientist - Volume 7, No. 1 - 2014, 2014.

11. **Lacko, B.** Metoda pro analýzu prjektovách rizik . *RIPRAN.* [Online] https://ripran.cz/popis.html.

12. **Emet Gürel, Merba Tat.** SWOT analysis: A theoretical review. *The Journal of International* . 2017.

13. **Leichmann, Marek.** Brno, March 2020.

14. **Inflace - druhy, definice, tabulky .** *Český statistický úřad.* [Online] 2020. https://www.czso.cz/csu/czso/mira_inflace.

15. **Český statistický úřad.** *HDP, národní účty.* [Online] 2020. https://www.czso.cz/csu/czso/hdp_narodni_ucty.

16. **Nový Superb iV.** *ŠKODA.* [Online] 2020. https://www.skoda-auto.cz/modely/novy-superb/novy-superb-iv.

17. **CITY GO iV.** *ŠKODA.* [Online] 2020. https://www.skoda-auto.cz/modely/nove-citigo/nove-citigoe-iv.

LIST OF FIGURES

LIST OF TABLES