Analysis of a business field extension and implementation of a business plan along flight case production

Master thesis
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Graz, January 2016

In cooperation with:

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Abstract

This master thesis presents a detailed analysis of a business field extension. Insights from the fields of market research, strategy development, goal definition, portfolio development, pricing and financial planning are provided in a way that enables a practical implementation by the company JO Production. Since JO Production is a service provider in the field of event engineering, theoretical methods and strategies are always supported by recommendations for practical applications for the company.

Major findings during the introduction section were the decision factors which influenced Johannes Otti, the founder of JO Productions, and planted the idea of setting up a flightcase production. These decision factors are used to identify Johannes Otti's attitudes and mindset on which the vision and mission statement are based on.

During the market analysis deep insights into the flightcase market are provided, mainly coming from an online survey, asking 86 event engineers and musicians about their opinion. Outcomes were: Plywood is the most used and favorited flightcase material, 19'' rack cases hold the biggest share within all basic flightcase applications, e-mail followed by an online shop are the two preferred communication channels for ordering and functionality as well as quality are the most important flightcase characteristics. Furthermore, it becomes clear when analyzing the competitors that the Austrian competitors have huge deficits in e-commerce and the size of their service portfolio. The SWOT analysis reveals among others several strengths of JO Production like a young, dynamic and empathic team as well as good connections to several event engineers and musicians.

Advantages, disadvantages and recommendations for different corporate strategies are presented. Here a market penetration for the event engineering and musicians market combined with a differentiation strategy seem to be very promising. Recommendations for alternative strategies are also presented and the USPs of the company are analyzed.

To support a possible realization phase, vision and mission statements are broken down into SMART long-, mid- and short-term goals and a product and service portfolio is developed.

The final sections of this thesis deal with the different pricing methods and present one possible financial plan for the first fiscal year.

Kurzfassung

Diese Masterarbeit befasst sich mit der Entwicklung eines Businessplans zur Geschäftsfelderweiterung. Die bearbeiteten Themen Marktforschung, Unternehmensstrategieentwicklung, Zieldefinition, Portfolioentwicklung, Preisgestaltung und Finanzplanung werden bearbeitet, sodass eine praktische Umsetzung durch das Unternehmen JO Production einfach durchführbar ist. Da JO Production als Serviceanbieter im Bereich Veranstaltungstechnik tätig ist, wird in dieser Arbeit die fachliche Theorie zu Methoden und Strategien stets durch Empfehlungen für die praktische Anwendung und Umsetzung begleitet.

In der Einleitung werden die wichtigsten Kriterien, die Johannes Otti, Eigentümer von JO Production, dazu bewegten, eine Flightcaseproduktion in Erwägung zu ziehen, präsentiert. Diese Faktoren werden genutzt um ein Bewusstsein für Hintergründe und Beweggründe von Johannes Otti zu schaffen, aus denen in weiterer Folge die Vision und Mission des Unternehmens entwickelt werden.

Durch die Marktanalyse werden tiefe Einblicke in die Flightcasebranche gewährt. Die Hauptinformationen stammen aus einer Onlineumfrage, bei der 86 österreichische Veranstaltungstechniker und Musiker befragt wurden. Wichtige Erkenntnisse daraus waren:

1. Sperrholz ist das meist verwendete und beliebteste Flightcasematerial.
2. Unter allen Flightcasearten ist das 19“ rack case das am häufigsten vorkommende.
3. E-Mail und Onlineshop sind die beliebtesten Kommunikationswege.
4. Funktionalität und Qualität sind noch vor Preis und Individualisierbarkeit die wichtigsten Kriterien beim Kauf von Flightcases.

Des Weiteren ist durch die Konkurrenzanalyse klar zu erkennen, dass österreichische Hersteller große Defizite in den Bereichen E-Commerce und Serviceangebot haben.

Die durchgeführte SWOT-Analyse zeigt unter anderem die Stärken des Unternehmens JO Production auf, wie zum Beispiel das junge, dynamische und emphatische Team.

Vorteile, Nachteile und Vorschläge für alle Bereiche der Strategieentwicklung werden ebenfalls erläutert. Dabei wird unter anderem zu einer Marktdurchdringungsstrategie im Bereich Veranstaltungstechnik und Musik in Kombination mit einer Differenzierungsstrategie in den Bereichen Veranstaltungstechnik und Musik geraten. Mögliche Alternativstrategien werden ebenso aufgezeigt wie die besonderen Alleinstellungsmerkmale des Unternehmens.

Um die mögliche Realisierungsphase zu unterstützen, werden aus der Vision und Mission, lang-, mittel- und kurzfristige Ziele generiert und in hierarchischer Form präsentiert.

Nach der Entwicklung eines Service- und Produktportfolios werden im letzten Teil der Masterarbeit die Methoden der Preisfestsetzung erläutert und ein Finanzplan für das erste Geschäftsjahr erstellt.

Content

1 Introduction

This chapter will give an insight into the company's history. Starting from its founding through its economic and technical development up to the actual situation the history will be shown and described in chapter 1.1. After this chapter the backgrounds and motives of the decisions which were made through the history of JO Production will be comprehensible. The understanding of the motives and decision processes will provide a basis for later decisions that will be necessary during this business plan. After that the actual situation and problems will be explained in chapter 1.2. The essence of these two chapters will be extracted in chapter 1.3 where the key decision factors will be summarized and categorized for a later use. The last chapter will give a brief overview of the product itself. A detailed description of the product will be available in chapter 6.

1.1 History of JO Production

Johannes Otti founded JO Production in 2006 in Carinthia, Austria as a single enterprise in the field of event engineering. Already in 2003, he started working on a part time basis for his father's cover band, the John Otti Band, as an audio engineer. He started from scratch and gained knowledge through trial and error over the years. In about 1999 the John Otti Band decided to outsource all of their technical equipment like sound system, light system and the stage due to the increasing complexity and lack of knowledge of the equipment. From that time the technical tasks at the events were supported by an external company located in Carinthia.

After about seven years of this cooperation Johannes Otti quit his job at the Austrian Army and decided to take over the technical support of his father's band by founding his own company. Until now he has invested about 500,000 € in technical equipment to provide a modern and up to date sound, light, and video support for the band. He employs workers on a part time basis to be flexible and keep the fixed costs low. In 2006 he subscribed to the SAE Institute in Vienna[1], which is an internationally recognized school for audio engineering to deepen his knowledge in the field of audio engineering. He finished his studies with an audio engineering diploma in 2009.

Striving for growth of his company, Johannes Otti searched for alternative sources of income. Due to his apprenticeship in wholesale trading he started trading with event equipment. Since he did not invest any money in marketing and attracted new customers only by word of mouth, the growth in this segment was quite low. Simultaneously to his efforts in trading he started to use his knowledge in audio engineering to found a recording studio.

[1] SAE Institute Wien - SAE Gesellschaft für Ausbildung von Tontechnikern Ges.m.b.H, online: <http://www.sae.edu/aut/de?gclid=CjwKEAiAmqayBRDLgsfGiMmkxT0SJADHFUhPEk_Xl6Ysv3Rfe3BTY8aQTJUx5_-0anIc9fwRJHWzChoC6i3w_wcB>

This plan came to a dead end when calculating the needed assets and the payback period. The effort seemed to bear no relation to the risk of investing again a large amount of money.

Continuously increasing the equipment inventory of his core business, the event engineering, JO Production reached a level at which it was able to serve events up to 7,000 people. These mid-level events are very common in Austria and have provided constant income for years. However Johannes Otti did not invest into equipment for bigger events due to unreasonably high costs and competition for events with more than 7,000 spectators.

Since the main customer of JO Production, the John Otti Band, decreased their gigs due to their ageing members, JO Production faced the necessity to act and find new ways to generate income. Johannes Otti found one approach by providing bars made out of trusses for events. This new service needed just little of investment and increased the service portfolio of JO Production. Due to their unique and modern design, these bars became well accepted and were able to be offered directly to the organizers of events. Again no marketing budged was used to advertise this new service and only word of mouth attracted new customers.

1.2 Current Situation

At the moment, Johannes Otti plans to invest in a tent for up to 3,000 people in order to provide a full service package for small and medium sized events excluding the catering. Also organizing own events is on the roadmap for the next two years. As it is shown in the history of JO Production, the extension of the service portfolio rarely led to the desired breakthrough. These circumstances and other factors which will be shown in the following chapter led to the idea of setting foot into the totally new field of manufacturing, more precisely the manufacturing of flightcases. The main problem of this idea is the lack of knowledge of how to set up a production and the advanced planning coming up with a manufacturing process. This problems led to the cooperation with the Graz University of Technology and this master thesis with the aim to prepare a business plan for a business sector extension for JO Production.

1.3 Decision-making process and key decision factors

To make proper decisions it is essential to have precise knowledge of the original problems[2]. To obtain knowledge about these problems the first step is to investigate the origin of the business idea of producing flightcases by a brainstorm session with Johannes Otti[3]. It was investigated by a mind map which shows all influencing decision factors that contributed to the origin and growth of the idea.

[2] Cf. Kosiol (1959), p. 13
[3] Otti (2015b)

The outcome of the brainstorm session was on the one hand a set of factors which had influence on the origin of this idea and on the other hand, it revealed an already running project process. In figure 1 the influencing factors are merged together into groups of personal, economic, and social factors. The factors are described briefly for a later use and to keep a focus on the core ideas and motivations of the project in general.

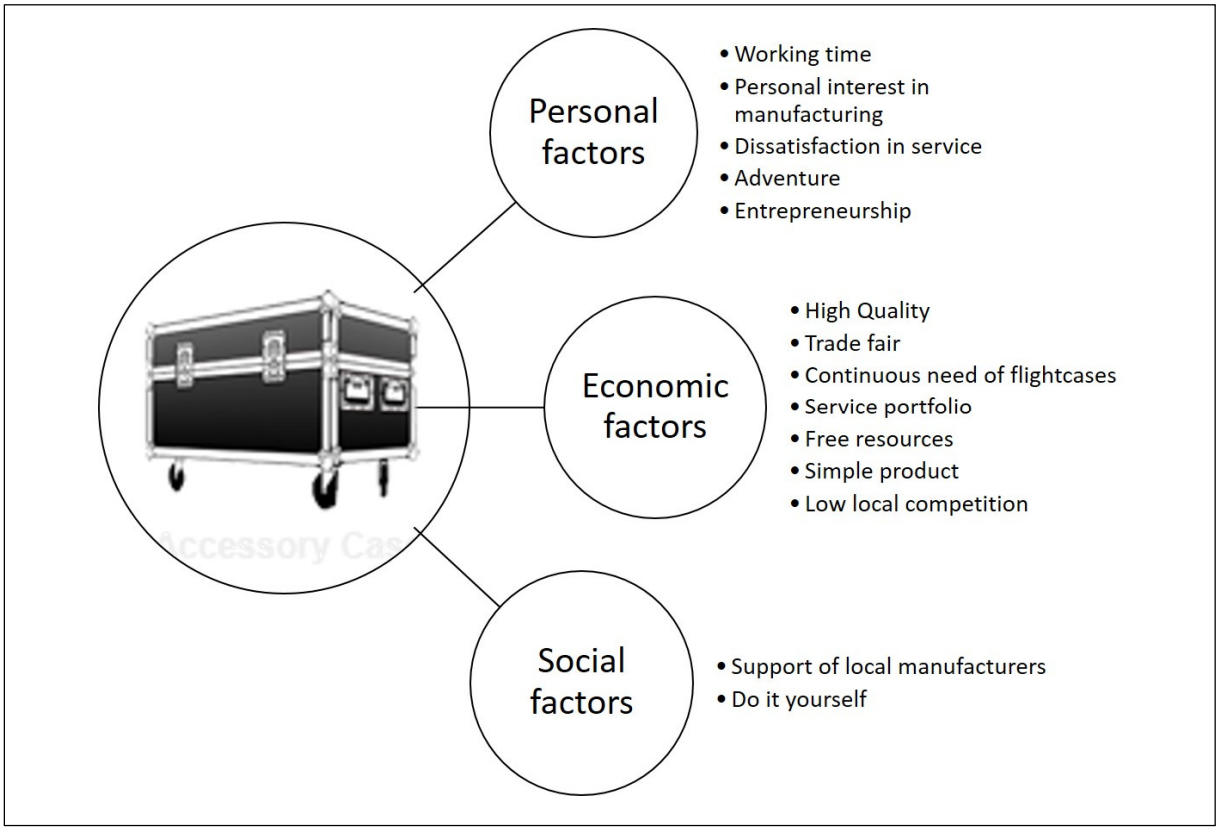

Figure 1: Mind map of the influencing factors which led to the business idea of producing flightcases[4]

1.3.1 Personal factors

Adventure

The wish to start over again in a new unknown business sector with new challenges and opportunities[5]

Entrepreneurship

Prove one's own ability in a new project, push the own company for higher profit[6].

Dissatisfaction in service

Difficult customers with unrealistic demands and changing conditions at every event[7]

[4] Otti (2015b), prepared by the author
[5] Otti (2015b)
[6] Otti (2015b)

Personal interest in manufacturing

After many years as a service provider the wish to create and produce something tangible became very strong. It does not belong to a special product but is more a general attitude.[8]

Working time

Working as an event engineer comes along with irregular working time. Since events generally take place on weekends and holidays, it is a kind of burden for private life.[9]

1.3.2 Economic factors

High Quality

Throughout the years, JO Production bought plenty of flightcases in various sized, shapes and quality levels from different manufacturers. The different experiences made with these cases during events resulted in frustration about low quality and the missing option of individualization. In general, the needs and required standards of JO Production were never fulfilled to 100%.[10]

Trade Fair

The annually visit of the Prolight + Sound[11] trade fair in Frankfurt, Germany inspired Johannes Otti by an enormous amount of innovative new products in the field of event engineering. The ongoing stream of new products in the event-technology sector implies a constant demand of new flightcases and was a confirmation for the arising business idea.[12]

Continuous need of flightcases

Also inside JO Production there is a constant need of new flightcases due to new acquisitions of event-technology. Poor quality also led to an early abrasion of some flightcases.[13]

Service portfolio

As mentioned in chapter 1.2, the service portfolio extension rarely brought a big increase in revenues although it could be also led back to a lack of marketing efforts.[14]

Free resources

Since the work time in event engineering mainly takes place on weekends, JO Production has free capacity in manpower, time and space for an additional business.[15]

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[7] Otti (2015b)
[8] Otti (2015b)
[9] Otti (2015b)
[10] Otti (2015b)
[11] "Prolight + Sound is the leading international trade fair for the event-technology sector and covers all products, trades and services." Messe Frankfurt GmbH (2015), online: <http://pls.messefrankfurt.com/frankfurt/en/aussteller/willkommen.html>
[12] Otti (2015b)
[13] Otti (2015b)
[14] Otti (2015b)

Simple product

The idea to produce flightcases is very attractive because of the simplicity of the product. In the first stage it can be 100% handmade with simple hand tools and for bigger lot sizes CNC-machines are easy to implement.[16]

Low local competition

There are just a few semi-professional flightcase manufacturers in Carinthia. Also the waiting time at these manufacturers are very high because they are used to capacity.[17]

1.3.3 Social factors

Support of local manufacturers

Since the upcoming trend of a lifestyle of health and sustainability (LOHAS[18]) customers start to buy their products at local manufacturers under the main aspect of sustainability.[19]

Do it yourself

Another trend which influenced Johannes Otti is the do it yourself (DIY) movement[20]. Build one's own flightcases according to individual needs with the side effect of self-determination are very attractive factors. [21]

1.3.4 Decision-making process

The brainstorm session with Johannes Otti[22] revealed a running process with the five phases shown in figure 2.

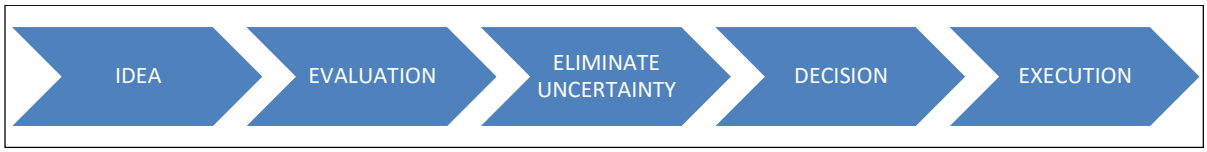


Figure 2: Emerged project process[23]

[15] Otti (2015b)
[16] Otti (2015b)
[17] Otti (2015b)
[18] Lin-Hi (2015), online: <http://wirtschaftslexikon.gabler.de/Archiv/611774895/lohas-v1.html>
[19] Otti (2015b)
[20] Otti (2015b)
[21] Cf. Steinberger (2011), online: <http://www.sueddeutsche.de/leben/die-wiedergeburt-der-do-it-yourself-welle-wir-basteln-uns-ein-leben-1.1096922>
[22] Otti (2015b)
[23] Otti (2015b), prepared by the author

Idea

An unconscious idea generation happened throughout the years with the outcome of the business idea of producing flightcases which was influenced by the personal-, economic- and social factors as shown previously.[24]

Evaluation

A first evaluation of the feasibility of this project also happened unconsciously by factors like "*Low local competition", "Free resources"* and "*Simple product"* (also shown previously).[25]

Eliminate uncertainty

After the first two phases which took several years, the business idea seemed to be feasible and realistic. Since it takes more than a good will to realize such a project, as many uncertainties have to be eliminated as possible. This should be fulfilled by this master thesis.[26]

Decision

Supported by the knowledge gained by this master thesis, decisions about the strategies, product portfolio and investments have to be made.[27]

Execution

If the decision is made to realize the project the final step will be the execution. Plans made during the master thesis will be set into action.[28]

1.4 Product description

Flightcases are sturdy cases used for transporting equipment[29]. They appear in large numbers of sizes, shapes and features. The flightcase business is a custom business because of unique needs of the different customers.[30] The constant development of new sound equipment, light equipment, instruments and video equipment used in event engineering asks for a continuous feed stream of flightcases to protect these sensitive devices during transportation. Some of the basic functional designs are displayed in table 1. These functional designs form the basis and are mostly adopted by the manufacturer according to the specific customer needs.

[24] Otti (2015b)
[25] Otti (2015b)
[26] Otti (2015b)
[27] Otti (2015b)
[28] Otti (2015b)
[29] Cf. Oxford University Press (2015), online: <http://www.oxforddictionaries.com/de/definition/englisch_usa/flight-case>
[30] Cf. Moody & Dexter (2010), p. 210

	***19'' rack cases*** 19 inch racks are specific racks for devices with the standardized width of 19 inches. Such devices are for example outboard gears, compressors, equalizers, gates, power amplifiers and many more.[31] JO Production uses multiple rack cases at the stage and the front of house (FOH). Amplifiers, wireless microphones and drawers for personal belongings are some of the applications.
	***Accessory cases*** These cases have the biggest range of application. Used for transporting and storing cables, light equipment, stage equipment and so on the main characteristic is the short lid on the top of the case. Also JO Productions biggest share in the flightcase inventory are accessory cases. Almost all of the light equipment, cables and stage building equipment is stored in these big cases.
	***Cover cases*** Fields of application for cover cases are for example guitar amplifiers and heavy light equipment which cannot be easily pulled out of accessory cases. The big advantage is that the device can stay on the base of the case while the cover can be easily lifted off. JO Production uses this kind of cases for its line array system which is stacked to towers fixed on the base of a cover case.
	***Small accessory cases*** Similar to the accessory cases these small cases have a wide range of application. The small cases are better suited for personal equipment and small parts. JO Production tries to reduce the amount of these small accessory cases and shift the small parts and tools to drawers inside 19'' racks because of better handling and loading of the truck.
	***Instrument cases*** Instrument cases are used for guitars, keyboards, bass and all other sorts of instruments which need to be transported. A precise interior of the flightcase is needed because of the highly sensitive instruments. JO Production uses these cases for keyboards and some parts of the drum.

[31] Cf. Wikibooks-Bearbeiter (2015), online: <https://de.wikibooks.org/wiki/Tonstudiom%C3%B6bel>

	***Custom cases*** These cases are unique flightcases specialized for individual needs. Custom cases often have additional features e.g. lids, drawers, panels, handles or locks. JO Production has some custom cases for DJ equipment, audio mixers, and additional sound system equipment.

Table 1: Basic types of flightcase designs[32] [33]

[32] Megacase GmbH (2015), online: <http://megacase.com/en/>
[33] Otti (2015b)

2 Target definition

In this chapter an assessment of the future business which helps to give shape and direction to the organization will be taken. This will be carried out in three phases as displayed in figure 3, starting with an idealistic vision, detailed by a mission and finished by specific goals in chapter 5.

When making strategic decisions for the business and even daily operation decisions, the vision and mission statements provide inspiration and the targeted direction[34].

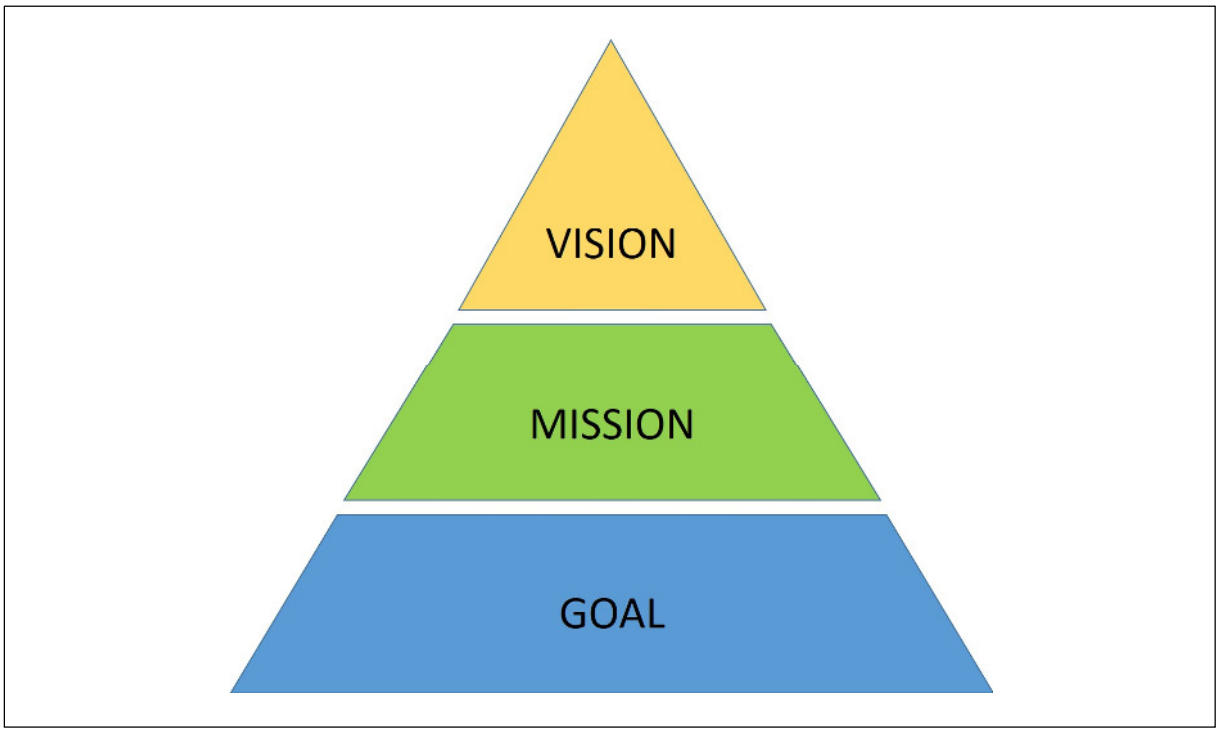


Figure 3: Target definition hierarchy[35]

[34] Cf. O´Donovan (2015), online: <http://www.lifehack.org/articles/work/20-sample-vision-statement-for-the-new-startup.html>

[35] Based on Strategy Planning Institute and StratPlan Software, Inc. (2015), online: <https://books.google.at/books?id=zp95liZND74C&pg=PA9&dq=vision+mission+statement&hl=de&sa=X&ved=0CCoQ6AEwAmoVChMIutTMyZbxxwIVCFQUCh2upwfg#v=onepage&q&f=false>

2.1 Vision statement

The first component and preamble for the mission statement is the vision statement. It is future focused on a 4-5 year timeframe and in general a bit more idealistic in terms of its goals compared to the mission statement. Nowadays it often has different meanings and applications. In this business plan it is used as a way to display how the organization will look like in future in terms of society and the organization itself. It is important to define the vision statement in the early stages of a business plan because it has to be embraced by every further decisions in the entire organization.[36]

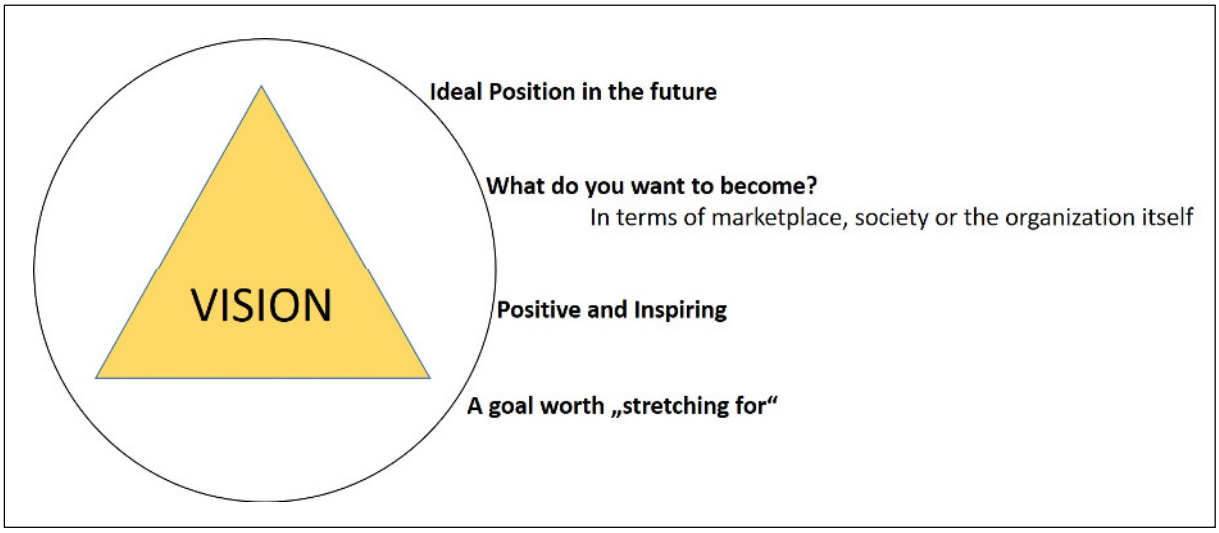


Figure 4: Characteristics of a vision[37]

To be successful in the long run, a company needs to have a vision which is pointing the way and inspiring[38]. Once the own vision is reached it is important to set a new one, especially when having a competitor based vision.[39] To do so figure 4 shows typical characteristics which should be pointed out by the vision statement.

2.1.1 Examples for vision statements

Short vision statements	
Disney	“To make people happy”
Ikea	“To create a better everyday life for the many people.”
Quantitative statements (Based on numbers and quantities)	
Microsoft	“A computer on every desk and in every home; all running Microsoft software.”

[36] Cf. Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 9
[37] Based on Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 9
[38] Cf. Nagl (2014), p. 10
[39] Cf. O´Donovan (2015)

Nike	“To be the number one athletic company in the world.”
Wal-Mart	“Become a $125 billion company by the year 2000.”
Qualitative statements (Based on qualities the company wants to have)	
Ford	“To become the world’s leading Consumer Company for automotive products and services.”
Avon	“To be the company that best understands and satisfies the product, service and self-fulfillment needs of women-globally.”
Competitor based statements (less common)	
Honda (1970)	“We will destroy Yamaha.”
Nike (1960)	“Crush Adidas.”
Role model statements (companies as role models from other business sectors)	
Giro Sport Design	“To become the Nike of the cycling industry.”
Stanford University	“To become the Harvard of the West.”

Table 2: Famous vision statements[40]

2.1.2 Brainstorm, grouping, creation and reflection

The first step to define JO Production’s vision statement was to set up a brainstorm session with Johannes Otti on the topic[41]: “What will the company look like in 2022?”
The outcome was a set of 8 phrases which where categorized into three priority levels. The two remaining phrases in category one (“Austria’s leading flightcase manufacturer”, “from users for users”) form the vision statement. As already mentioned previously, it is important to adapt or renew the vision statement once the actual vision is reached.

JO Production’s vision statement:

“To become Austria’s leading user oriented flightcase manufacturer in 2022.”

[40] Cf. O´Donovan (2015)
[41] Otti (2015c)

2.2 Mission statement

The mission statement is the most powerful component during this target definition framework. It should state the areas listed in figure 5. [42]

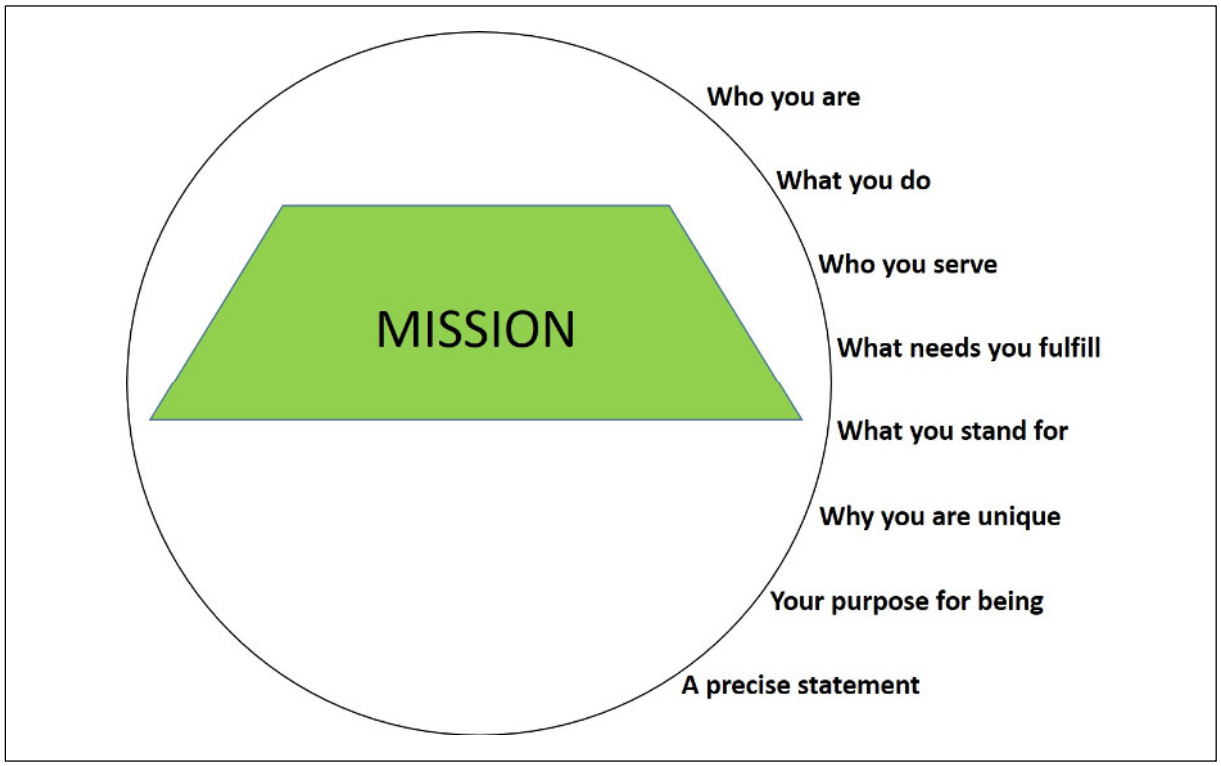


Figure 5: Areas covered in the mission statement[43]

The most important point the mission statement should reflect is the passion why a company is doing what it is doing[44].

Since the vision statement in general has the length of one or two sentences, the mission statement normally reaches from one sentence to one page. There is no right or wrong length of the statement as long it is clear, precise and easily to understand.[45]

[42] Cf. Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 10
[43] Based on Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 10
[44] Cf. Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 10
[45] Cf. Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 12

2.2.1 Examples of mission statements

Company	Mission statement
Google	"Google's mission is to organize the world's information and make it universally accessible and useful[46]."
Chipotle	"Our focus has always been on using higher-quality ingredients and cooking techniques to make great food accessible to all people at reasonable prices. But our vision has evolved. While using a variety of fresh ingredients remains the foundation of our menu, we believe that "fresh is not enough, anymore." Now we want to know the sources for all of our ingredients, so that we can be sure they are as flavorful as possible while we are mindful of the environmental and societal impact of our business. We call this idea, Food With Integrity, and it guides how we run our business."[47]
Apple	"Apple is committed to bringing the best personal computing experience to students, educators, creative professionals and consumers around the world through its innovative hardware, software and Internet offerings."[48]
Facebook	"Facebook's mission is to give people the power to share and make the world more open and connected."[49]
Microsoft	"Microsoft's mission is to enable people and businesses throughout the world to realize their full potential."[50]
IBM	"At IBM, we strive to lead in the creation, development and manufacture of the industry´s most advanced information technologies, including computer systems, software, network systems, storage devices and microelectronics. We translate these advanced technologies into value for our professional solutions and services businesses worldwide."[51]

Table 3: Famous mission statements

2.2.2 Brainstorm, grouping, creation, reflection

Similar to the process in chapter 2.1.2, the brainstorm session produced 5 phrases. After rating them according to their priority, the two phrases with first importance formed the mission statement of JO Production[52]:

[46] Whittemore (2015), online: <http://www.simplemarketingnow.com/blog/flooring-the-consumer/bid/168520/What-Great-Brands-Do-With-Mission-Statements-8-Examples>
[47] Whittemore (2015)
[48] Hamilton (2015), online: <https://drdianehamilton.wordpress.com/2011/01/13/top-10-company-mission-statements-in-2011/>
[49] Hamilton (2015)
[50] Hamilton (2015)
[51] Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 12
[52] Otti (2015c)

“JO Production’s mission is to break the traditional barrier of a customer – supplier relationship regarding two aspects to ensure maximum customer satisfaction. Firstly JO Production sells its products and services directly to the customers without involving wholesalers and retailers to shorten the communication path. On the other hand we use our knowledge gained as lead users to develop products and services for individual transportation and protection problems in close collaboration with our customers.”

The reflection according to figure 5 shows that all defining areas of a mission statement are covered by JO Productions mission statement.

3 Target market and competition

A successful business plan requires a convincing and detailed analysis of the market. A poorly conceived market and sector analysis may lead to disinvestment and unused market potential.[53]

Market research is a fundamental part of marketing. Sufficient knowledge about the target group and the market is essential in order to adapt offers to customer needs as well as influence them.[54] To deliver a high quality market research a special focus has to be set on validity and reliability of the results[55].

At the beginning of this chapter the actual market situation will be presented. It aims at identifying actual and potential customers. The next steps are a competitor analysis to determinate the main competitors in the business sector and a customer survey where the customer needs are identified. The market and competitor analysis is mainly based on internet investigations while the identification of customer needs is based on a quantitative survey.

3.1 Market research process

In this chapter a typical market research process is presented which is used during the following chapters to identify e.g. customers, competitors and customer needs. Figure 6 shows the typical procedure of a market research with seven phases that will be described in detail within this chapter. This simplified scheme represents a basis and will be adapted during the following researches. The process shown in figure 6 implies that there is a strong dependency between each phase. Weaknesses and failures in early phases cannot be fixed by greater care in later phases. With this in mind, a market research is just as good as its weakest component.[56]

[53] Cf. Nagl (2014), p. 13
[54] Cf. Kuß, Wildner & Kreis (2014), p. 1
[55] Cf. Kuß, Wildner & Kreis (2014), p. 10
[56] Cf. Kuß, Wildner & Kreis (2014), pp. 10–11

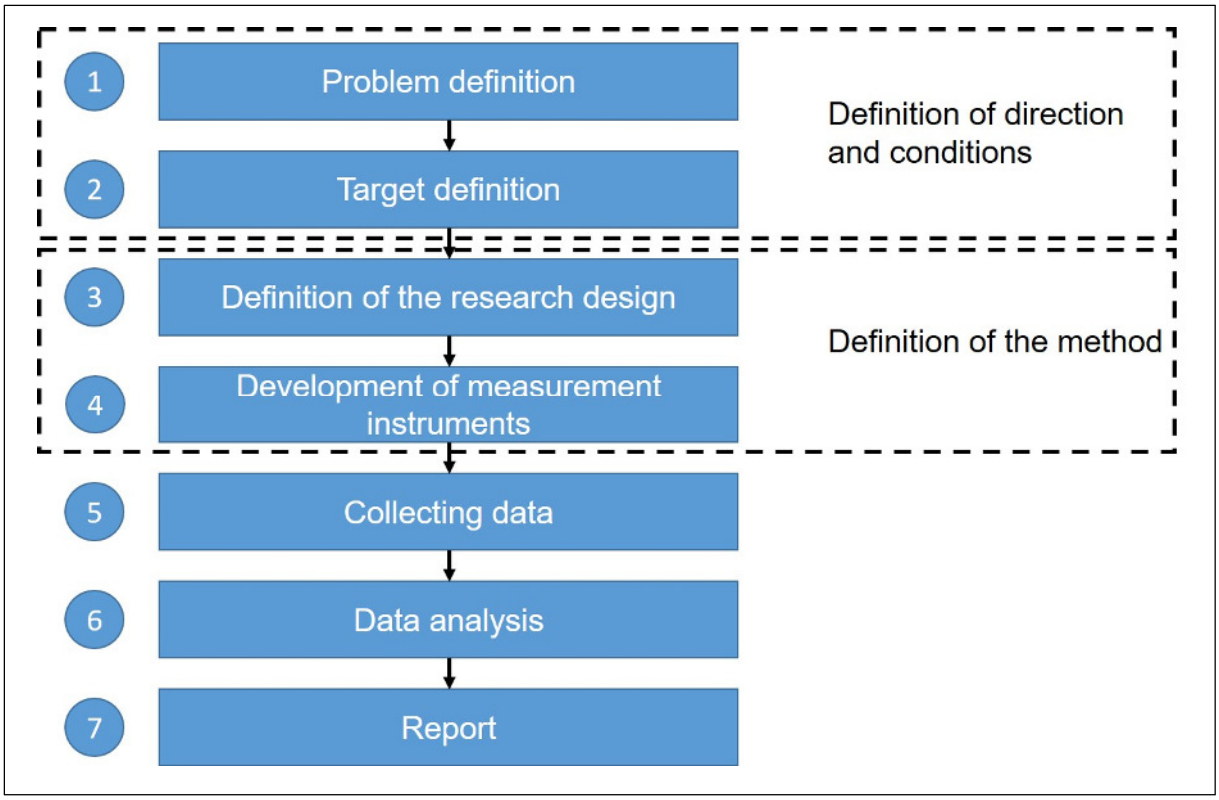


Figure 6: Phases of the market research process[57]

Problem definition

A precise description of the subject of examination is the very first step to set the right direction for the research. A detailed and correct formulation of the initial conditions has to be set in order to point out the root problem. Incorrect descriptions could lead to high research efforts for an unimportant and uninteresting problem.[58]

Target definition

Once the initial situation is known and described, a set of targets has to be defined to ensure that the focus on the problem will not be lost. The targets have to be formulated in a way that enables the fulfillment of these targets to lead automatically to the solution of the problem. The definition of the targets defines the type of research. The following types can be distinguished:[59]

- Explorative research
  Finding root causes and interdependencies between variables is the aim of explorative researches.
- Descriptive research
  The aim of a descriptive research is to analyze a research object according to relevant characteristics.

[57] Based on Kuß, Wildner & Kreis (2014), p. 11
[58] Cf. Kuß, Wildner & Kreis (2014), p. 11
[59] Cf. Kuß, Wildner & Kreis (2014), p. 13

- Causal research
  To find causes and effects for observed phenomena is the aim of this type of research.

Definition of the research design

To define the research design is a complex task where basic decisions about the use of methods are made. Two different methods can be distinguished: The secondary research is the preparation and analysis of existing data while the primary research means acquisition of new data to answer the research question.[60] Which method is used depends on the previously defined problem and targets.

Development of measurement devices

After the research design is set the measurement instruments have to be developed. With these instruments the different characteristics of the research object are determined and measured. Typical measurement devices are single questions or so called multi-item-scales inside questionnaires.[61]

Collecting Data

This phase of the process is the most time-consuming phase[62]. Since the quality of the data collection is highly based on experience and accuracy, the following three major mistakes during data collection have to be avoided[63]:

1. Failures at the selection of research objects (e.g. wrong target group)
2. Missing or incorrect information about these objects
3. Failures at the execution of the survey

Data analysis

The data analysis is mainly characterized by the use of statistical methods to structure the large amount of data collected before. Three different methods are distinguished[64]:

1. The simple descriptive method (statistical indices, frequency tables, figures etc.)
2. Estimations and statistical tests
3. Multivariate methods (simultaneous and coherent analysis of multiple variables)

Report

The report is the final step of the market research process where the main results, conclusions and recommendations for actions are presented. All questions set in the first two phases are answered in the report[65].

[60] Cf. Kuß, Wildner & Kreis (2014), p. 13
[61] Cf. Kuß, Wildner & Kreis (2014), p. 14
[62] Cf. Kuß, Wildner & Kreis (2014), p. 14
[63] Cf. Kuß, Wildner & Kreis (2014), p. 141
[64] Cf. Kuß, Wildner & Kreis (2014), pp. 14–15
[65] Cf. Kuß, Wildner & Kreis (2014), p. 15

3.2 Problem no. 1: Who are the customers?

When showing the actual market situation, it is important to look at the entire market (e.g. market for flightcases in Austria) as well as at the market segments (e.g. flightcase market for Austrian musicians, event engineers etc.).[66]

Problem definition

To know who the potential users of the product are, is a basic requirement to get a business running. In the flightcase sector Johannes Otti knows from experience that event engineering companies and musicians use flightcases in their everyday life[67]. Flightcases are essential parts of their business and these two target groups form the biggest share[68]. But are there other businesses which are using flightcases too or even undiscovered markets and what are their market shares?

Target definition

The main target is to find all actual and potential users of flightcases in Austria.

Definition of research design

A secondary research method will be applied.

Development of measurement devices

An online research with the support of search engines is used to find all actual applications for flightcases. These product applications will be categorized by their user groups.

Collecting data

During the online research following flightcase applications where found:

Target group	Product examples
Average households and stores	Flightcase furniture
	Protection for electronic devices (iPad, Notebook etc.)
	Vanity cases
Craftsman	Toolboxes
	Mobile workshops
Catering	Mobile bars and cafeterias
	Mobile pop up stores

[66] Cf. Nagl (2014), p. 13
[67] Otti (2015a)
[68] Otti (2015a)

Musicians and Actors	Mobile wardrobes
	Equipment cases
Event engineers and DJs	Equipment cases
Photographers	Camera cases
Campers	Mobile kitchens and furniture
Public authorities (Fire brigade, ambulance, police, military)	Tool cases
	Weapon cases
Companies	Merchandise cases

Table 4: Customer target groups

Report

Obviously every movable and sensible object can be protected by a flightcase. This results in an enormous target market. However, the most significant target groups (rated by the amount of available products) at the moment are event engineers, musicians and DJ's.

3.3 Problem no. 2: Who are the competitors?

To be able to rate other flightcase manufacturers, one has to know exactly the special requirements inside this market segment and the environment. Therefore, the toolset of the competitor analysis is used in this chapter.[69] The outcome of the competitor analysis will be a broad collection and rating of information about the main competitors.[70] Data about location, product portfolio, service portfolio, marketing concept as well as strengths and weaknesses will be gathered and analyzed.

Problem definition

In order to create innovative products and services, companies need detailed knowledge about offers, strengths and strategies of their competitors. This is especially valid for markets with high competitiveness and a lack of transparency on the first sight. Observation of competitors could lead to a competitive advantage.[71]

Target definition

The target is to answer following three questions[72]:

1. Who are the competitors?
2. What is their product and service portfolio?
3. What are their strengths and weaknesses?

[69] Cf. Hellerforth (2006), p. 545
[70] Cf. Nagl (2014), p. 15
[71] Cf. Hellerforth (2006), pp. 545–46
[72] Cf. Hellerforth (2006), p. 547

Definition of research design

The research design will be a mixture of a secondary research via an online research and a primary research via an online survey. The online research will be done by using common search engines and company indexes.

Development of measurement devices

The online research will provide a set of competitors with their individual characteristics while the online survey will show the significance of these competitors inside the Austrian market. The questions asked during the survey will be:

1) Where do you buy your flightcases?

   At a dealer
   Directly at a manufacturer
   I produce them on my own
   Other: ……..

2) If you buy your flightcases at dealers/ manufacturers: How is the company called?

   a. Dealer/ manufacturer 1: ……..
   b. Dealer/ manufacturer 2: ……..
   c. Dealer/ manufacturer 3: ……..

Collecting data

Before starting with the collection of data, the analysis has first to be limited according to the kind of competitors which are most threatening for the own position[73]. To do so a focus on direct competitors in Austria and Germany is set. Direct competitors are competitors which offer more or less the same products or services[74].

[73] Cf. Hellerforth (2006), p. 547
[74] Cf. Nagl (2014), p. 16

Company name	Location		Type		Special Focus										Materials			Services					Additional Information	Website
	Country	Province	Individualized Products	Standardized Products	Flightcases for event engineering	Suitcases	Flightcase furniture	Flightcases for industrial equipment	Merchandise flightcases	Flightcases for catering	Flightcases for musical instruments	Flightcases for salesmen	Vehicle Interior	Plywood	Aluminum	Plastic	Flightcase components	Online configuration	Online shop	Wood cutting service	Additional Products and services		
AJM Verpackungen Marin	Austria	Vienna	x											x	x	x						Poor website	http://www.ajm.co.at/unsere_produkte/flightcase.php
Reddog	Austria	Styria	x		x		x		x				x	x								Huge online gallery	http://www.reddog-cases.at/
Lichtenauer	Austria	Upper Austria	x		x								x	x							Special cases for equitation	Sourcing at Adam & Hall and Penn Elcom, poor website, lead user in horse equipment industry and related segments like veterinary medicine	http://www.lichtenauer-case.at/index.html
VSL Mehrwegverpackungssysteme GmbH	Austria	Lower Austria	x					x						x	x	x					Plastic suitcases, bubble wrap, Intermediate Bulk Container, cardboard products,	Main product: foam plastic packages, more than 35 employees	http://www.vsl.at/index.shtml
Transportboxen.at	Austria	Upper Austria	x	x	x					x	x			x	x	x			x		Steel cases, suitcases, tool boxes, weapon cases, enormous amount of products in the field of transportation protection	Also acts as a dealer for products which are not produced in house (cooperation with partners)	http://www.transportboxen.at
Musterkoffer - Hrdlicka	Austria	Vienna	x	x		x			x			x		x	x	x					Focus on small suitcases for small goods (watches, church equipment, jewelry etc.)	Poor website	http://members.aon.at/musterkoffer-hrdlicka/index.html
Hardcon (Grames GmbH)	Austria	Vienna	x	x	x									x		x			x			Lower price segment, Cooperation with Austrian cases	http://s406290824.website-start.de/
Austrian Cases (Grames GmbH)	Austria	Lower Austria	x	x	x		x							x								Two product lines: classic line (3 years warranty) and professional line (5 years warranty)	http://www.austrian-cases.at
Systemcase	Austria	Styria	x				x		x					x							Tool cases		http://www.systemcase.at
Karl Wassertheurer	Austria	Carinthia	x											x								No website, one-man business	http://www.firmenabc.at/karl-wassertheurer_FpKy
Penn Elcom Direct GmbH	Germany	North Rhine-Westphalia	x											x			x	x	x	x	Tools for flightcase manufacturing, create online a BOM --> order the parts --> self assembly, wood cutting service does not include holes for butterflies and handles	Website similar to casebuilder.com	https://www.flightcase-teile.de
Megacase GmbH	Germany	Bavaria	x											x			x	x	x		24h flightcase service	Sourcing at Adam & Hall, modern and intuitive website	http://megacase.com
DE Casebuilder.com GmbH	Germany	Hamburg	x											x			x	x	x	x	Order finished product or as a kit for self assembly	Website similar to Penn Elcom	https://www.casebuilder.com
Roadinger (Steinigcke Showtechnik GmbH)	Germany	Bavaria	x	x	x									x		x	x		x		Special cases for futurelight and eurolight light equipment which are also Steinigcke brands.	Offers a professional flightcase series manufactured in Europe and a cheap series manufactured in Asia	http://eshop.steinigke.de/roadinger/
Procase GmbH	Germany	Bavaria	x	x	x	x	x	x		x	x			x	x	x	x		x			Huge variety of flightcases	http://www.procaseshop.de
NSB cases	Germany	Bavaria	x		x						x			x			x					Poor website	http://www.nsb-cases.de
ALASKA Spezialkoffer GmbH	Germany	Hesse	x											x							Repair service		http://www.alaskacases.de
Unplugged	Germany	Baden-Württemberg	x		x			x	x		x			x	x						For complex products a salesman is visiting the customer to get specifications; powder coating		http://www.flightcases.de
Flightcase Paradise	Germany	Baden-Württemberg	x	x	x		x				x			x					x				http://www.flightcase-paradise.de
Amptown Cases GmbH	Germany	Lower Saxony	x	x	x						x			x		x			x		Flightcases for existing light and sound equipment sorted by company and model (e.g. Flightcase for Robe Color Spot Wash 250 AT/XT or Yamaha M7CL mixer), fridgerator, renting casescases, emergency cases, logo patterns,		http://www.amptown-cases.de
Gäng Case GmbH	Germany	Baden-Württemberg	x	x	x		x				x			x	x	x			x		Emergency cases, loudspeaker housings	Own painters shop	http://gaeng-case.de
Casetec GmbH	Germany	North Rhine-Westphalia	x	x	x				x		x			x		x			x			Cooperation with explorer cases	http://www.casetec.de
L.T. Cases GmbH & CO. KG	Germany	Bavaria	x	x	x	x	x		x	x	x			x		x	x					30 years of experience, 86 employees	http://www.lt-cases.de
Casewerk	Germany	Baden-Württemberg	X		X	X	X	X					X	x			X				Repair service	Founded 2009	http://www.casewerk.de
Casebau Grosse	Germany	Saxony-Anhalt	x	x	x				x		x			x			x		x		Repair service, offers Involight light equipment	Poor website	http://grosse-cases.com

Table 5: Austrian and German primary competitors

The analysis of the website significances was performed by the use of the online tools alexa.com[75] and similarweb.com[76].

Company name	alexa.com Bounce rate (%)	Daily page views/visitor	Daily Time on site (mm:ss)	Sites linking in	Audience Geography	Top search keywords	similarweb.com Bounce rate (%)	Daily page views/visitor	Daily Time on site (mm:ss)	visits in September 2015	Audience Geography
AJM Verpackungen Marin		3		1		ajm, flight case					
Reddog				1		flightcase, flight case					
Lichtenauer				0		flightcase					
VSL Mehrwegverpackungssysteme GmbH		8	00:59	6		vsl gmbh, vsl systeme					
Transportboxen.at	22,7	13	10:31	21		alukisten, transportkoffer					
Musterkoffer - Hrdlicka	no data										
Hardcon (Grames GmbH)	no data										
Austrian Cases (Grames GmbH)				0							
Systemcase				0							
Karl Wassertheurer	no data										
Penn Elcom Direct GmbH		2,8	01:21	6		flightcase, flight radar					
Megacase GmbH	30,8	3,4	03:08	35	75% from Germany	flight case, flightcase	42,26	2,8	03:25	2000	43% Germany
DE Casebuilder.com GmbH	40	9	06:34	17		case builder, flightcase	35,61	7,4	04:56	6000	27% Netherlands
Roadinger (Steinigcke Showtechnik GmbH)	not comparable because this is a dealer too										
Procase GmbH	32	4,9	03:50	12	100% Germany	tool case, procase					
NSB cases		4		2		kofferschloss beschlag					
ALASKA Spezialkoffer GmbH		3		7		flightcase					
Unplugged		1,7		4		flightcases, flightcase					
Flightcase Paradise		1	03:34	3		flightcase, mikro case					
Amptown Cases GmbH		4	02:50	21		cases, transflex	32,17	6,4	02:51	2000	53% Germany
Gäng Case GmbH		6		9		gäng case, eco-line dd					
Casetec GmbH		1,9	01:37	9		flightradar, tool case					

Table 6: Competitor website significance

The survey was answered by 83 event engineering companies and musicians all over Austria and delivered the following data:

Where do you buy your flightcases?		
At a dealer	47	42,34%
Directly at a manufacturer	47	42,37%
I produce them on my own	17	15,32%
Sum	111	

Table 7: Sources of flightcases

[75] Alexa.com, online: <http://www.alexa.com/siteinfo>
[76] Similarweb.com, online: <http://www.similarweb.com/>

If you buy your flightcases at dealers / manufacturers: How is the company called?				
Name	**Votes**	**Percentage**	**Dealer/Manufacturer**	**Nationality**
Thomann	13	21,31%	Dealer	GER
Amptown	8	13,11%	Manufacturer	GER
Pro Case	6	9,84%	Manufacturer	GER
Klangfarbe	5	8,20%	Dealer	AUT
Austrian Cases	5	8,20%	Manufacturer	AUT
Toro Security Case (Bankrupt)	4	6,56%	Manufacturer	AUT
Adam and Hall	3	4,92%	Manufacturer	GER
Steinigke	2	3,28%	Dealer	GER
LT Cases	2	3,28%	Manufacturer	GER
MSV	1	1,64%	Dealer	GER
Musik Hammer	1	1,64%	Dealer	AUT
Prosound	1	1,64%	Dealer	AUT
AJM Marin	1	1,64%	Manufacturer	AUT
Athletic cases	1	1,64%	Manufacturer	POL
Casebuilder	1	1,64%	Manufacturer	GER
Casewerk	1	1,64%	Manufacturer	GER
Grosse Cases	1	1,64%	Manufacturer	GER
Hardcon	1	1,64%	Manufacturer	AUT
Jericho Cases	1	1,64%	Manufacturer	GER
Koppi Cases	1	1,64%	Manufacturer	GER
Mello Cases	1	1,64%	Manufacturer	SVK
Red Dog	1	1,64%	Manufacturer	AUT
Sum	61	100,00%		

Table 8: Most significant flightcase manufacturers

Indirect competitors are competitors which offer different services or products (substitution products) but serve the same needs of the customer[77]. The most threatening indirect competitors are plastic case producers, like the Italian manufacturer Explorer Cases[78], and soft bags mainly used for music instruments.

Potential competitors are competitors which are not yet selling but which already have the know-how and could enter the market any time.[79] These competitor group is mainly formed by musicians and event engineers who are already manufacturing their own flightcases and carpenters who have the general knowledge about woodwork.

[77] Cf. Nagl (2014), p. 16
[78] EXPLORER CASES by GT Line srl (2015), online: <http://www.explorercases.com/>
[79] Cf. Nagl (2014), p. 16

Report

First to mention is the low number of manufacturers in Austria. The highest manufacturer density in Austria is around Vienna. The high amount of professional manufacturers situated in Bavaria causes an increased threat for the local Austrian market due to free handling of goods in the European Customs Union[80].

The product and service portfolio also differs a lot. While the big German manufacturers do not offer solutions for specific target groups and provide different additional services besides the flightcases, Austrian manufacturers take the opposite way by offering solutions for some special target groups. If a German company focuses on solutions for specific target groups they cover many different of these specific target groups.

Compared to the “big players” from Germany, the online presence of most of the Austrian manufacturers is very poor and not intuitive. E-Commerce shows a big potential of growth. A company with high online affinity generates an atmosphere of innovation and progress. Especially for the flightcase industry e-commerce will not replace the traditional offline business but absence in the internet equals to nonexistence of the company. For customers nowadays it is natural to gather information about companies and products via the internet. The internet offers the possibility to get into contact with customer groups and build up trust and long term customer relationships. Besides the company website, social media is also an important channel for the internet presence.[81]

The online survey showed that the leading flightcase manufacturing companies in Austria are Austrian Cases and Hardcon, which are both subsidiaries of the Grames GmbH.

3.4 Problem no. 3: What are the customer needs and requirements?

For about 90% of flightcase users it is important to buy individualized flightcases[82]. This statement shows exemplary the need of individualization according to Austrian cases[83] but what are other important factors? During this chapter customer needs and requirements will be examined and rated.

A customer need is the request of a customer for satisfaction of a subjective sense of demand. Customer needs are generally not related to a product or service. They represent the dissatisfaction with an existing situation or the demand of a changed situation. A customer need can be satisfied in more than one way and therefore has to be separated

[80] Cf. Europäische Union, online: <http://ec.europa.eu/taxation_customs/customs/policy_issues/facts_and_figures/eu_customs_union_unique_de.htm>

[81] Cf. T.montag (2015), online: <http://www.gruenderlexikon.de/magazin/warum-eine-online-praesenz-fuer-unternehmen-fast-unverzichtbar-ist>

[82] Cf. GRAMES GmbH (2015), online: <http://www.austrian-cases.at/>

[83] GRAMES GmbH (2015)

from customer requirements.[84] The need for protection of sensible equipment during transportation is for example met in many ways. There are transport boxes and cases of different sizes, materials, colors and characteristics which all meet the same need.

A customer requirement on the other hand arises out of the customer needs and represent the specifications of a product or service. It determines the product or service requested by the customer and has to be defined in a way that enables an evaluation after the purchase.[85] The delivery time for the flightcase, costs, possibility of individualization etc. are factors that are evaluated by the customer.

Problem definition

To be able to set up a customer oriented product and service portfolio it is essential to be aware of the exact customer needs and requirements. A fulfillment of these criteria will automatically lead to customer satisfaction.

Target definition

The aim of this research is to find a set of main customer needs and requirements and to evaluate them according to their importance.

Definition of research design

A primary research will be carried out by an online survey. Using secondary information from the competitor analysis in chapter 3.3, customer needs and the competitors' ability to meet these needs will be shown. Different questioning methods influence the way the interviewee answers. An example would be: "Do you share the view that…" To avoid such influencing questions a careful and systematically developed questionnaire provides the basis for significant results.[86]

The survey will be restricted to Austrian musicians and event engineering companies listed in the Musikatlas 2014[87]. These are the biggest target groups and the most interesting ones for Johannes Otti.

[84] Cf. Angermeier (2015), online: <https://www.projektmagazin.de/glossarterm/kundenbeduerfnis>
[85] Cf. Angermeier (2015), online: <https://www.projektmagazin.de/glossarterm/kundenanforderung>
[86] Cf. Kuß, Wildner & Kreis (2014), p. 6
[87] Josef Muff Sopper (2014)

Development of measurement devices

The questions asked in the survey are:

1) For which appliances do you use flightcases?

   a. Music industry
   b. Event engineering
   c. Industry
   d. Public authority
   e. Private use
   f. Movie and Video industry
   g. Furniture
   h. Others: ……..

2) Which kinds of flightcase material do you use and how many of these cases do you own?

	0	1 to 5	6 to 10	11 to 20	21 to 50	More than 50
Plywood	O	O	O	O	O	O
Plastic	O	O	O	O	O	O
Aluminum	O	O	O	O	O	O
Bags	O	O	O	O	O	O
Others: …….....	O	O	O	O	O	O

3) Which kinds of flightcases do you use?

   a. Flightcases for musical instruments
   b. Mixer cases
   c. Amplifier cases
   d. PA equipment cases
   e. DJ equipment cases
   f. Light equipment cases
   g. Studio equipment cases
   h. Accessory cases
   i. 19'' racks
   j. 19'' suitcases
   k. AV equipment cases
   l. Merchandising
   m. Toolcases
   n. Others: ……

4) Rate the importance of following communication channels when buying a flightcase:

	Crucial	Very important	Somewhat important	Not very important	Unimportant
Online shop	O	O	O	O	O
Ordering via e-mail	O	O	O	O	O
Showroom and store	O	O	O	O	O
Ordering via telephone	O	O	O	O	O
Ordering via a salesman	O	O	O	O	O
Others: …….....	O	O	O	O	O

5) Rate the following characteristics of flightcases:

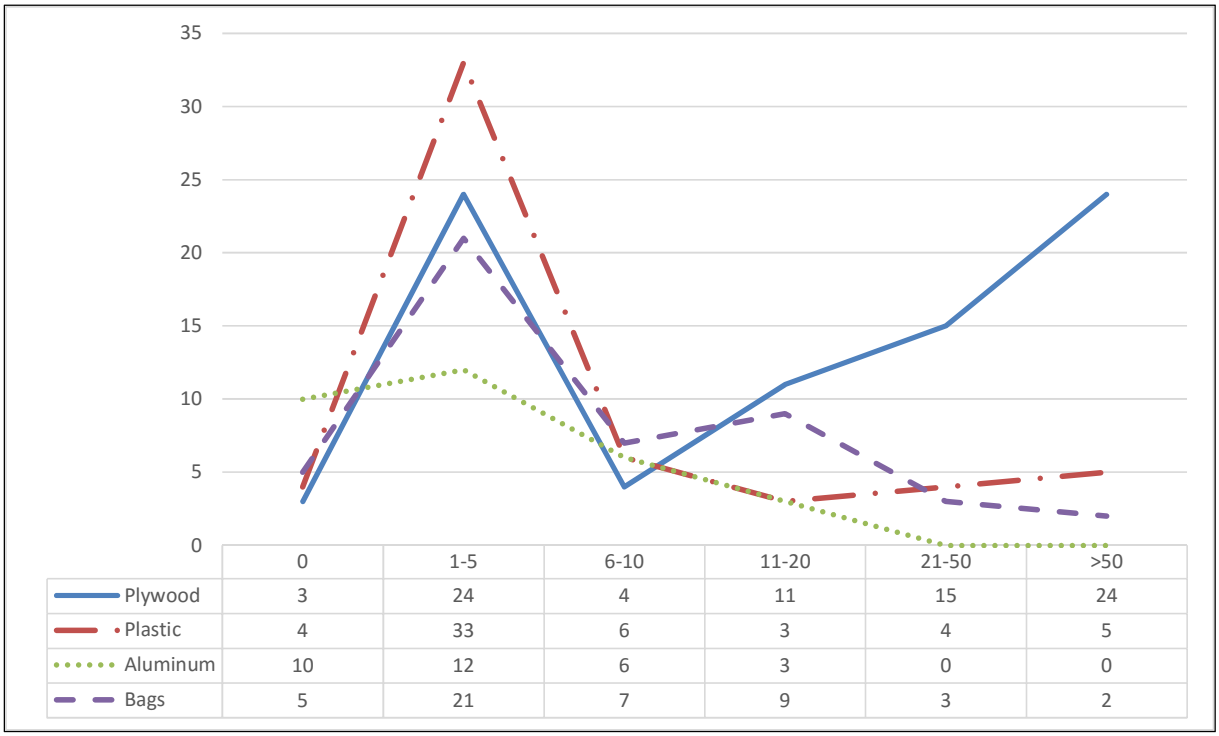
	Crucial	Very important	Somewhat important	Not very important	Unimportant
Price	O	O	O	O	O
Quality of manufacturing	O	O	O	O	O
Possibility of individualization	O	O	O	O	O
Delivery time	O	O	O	O	O
Local producer	O	O	O	O	O
Design of the flightcase	O	O	O	O	O
Functionality	O	O	O	O	O
Others: …….....	O	O	O	O	O

Collected data

Using the previously developed questionnaire following data were collected:

Flightcase Appliances	Answers	Percentage
Event engineering	63	50,81%
Music industry	43	34,68%
Industry	8	6,45%
Private use	5	4,03%
Movie and Video industry	4	3,23%
Furniture	1	0,81%
Public authority	0	0,00%
Sum	124	100,00%

Table 9: Flightcases purposes according to the interviewees

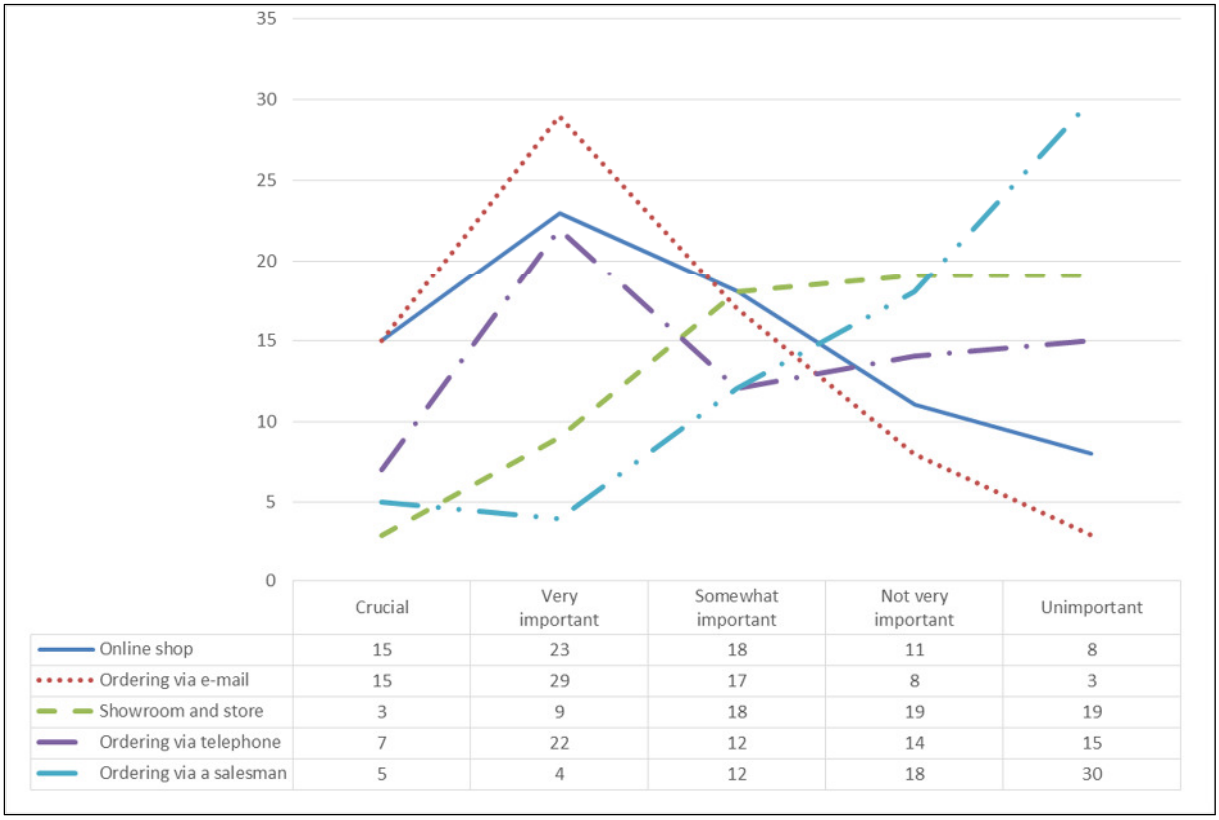


	0	1-5	6-10	11-20	21-50	>50
Plywood	3	24	4	11	15	24
Plastic	4	33	6	3	4	5
Aluminum	10	12	6	3	0	0
Bags	5	21	7	9	3	2

Figure 7: Flightcase materials and their importance for different company sizes

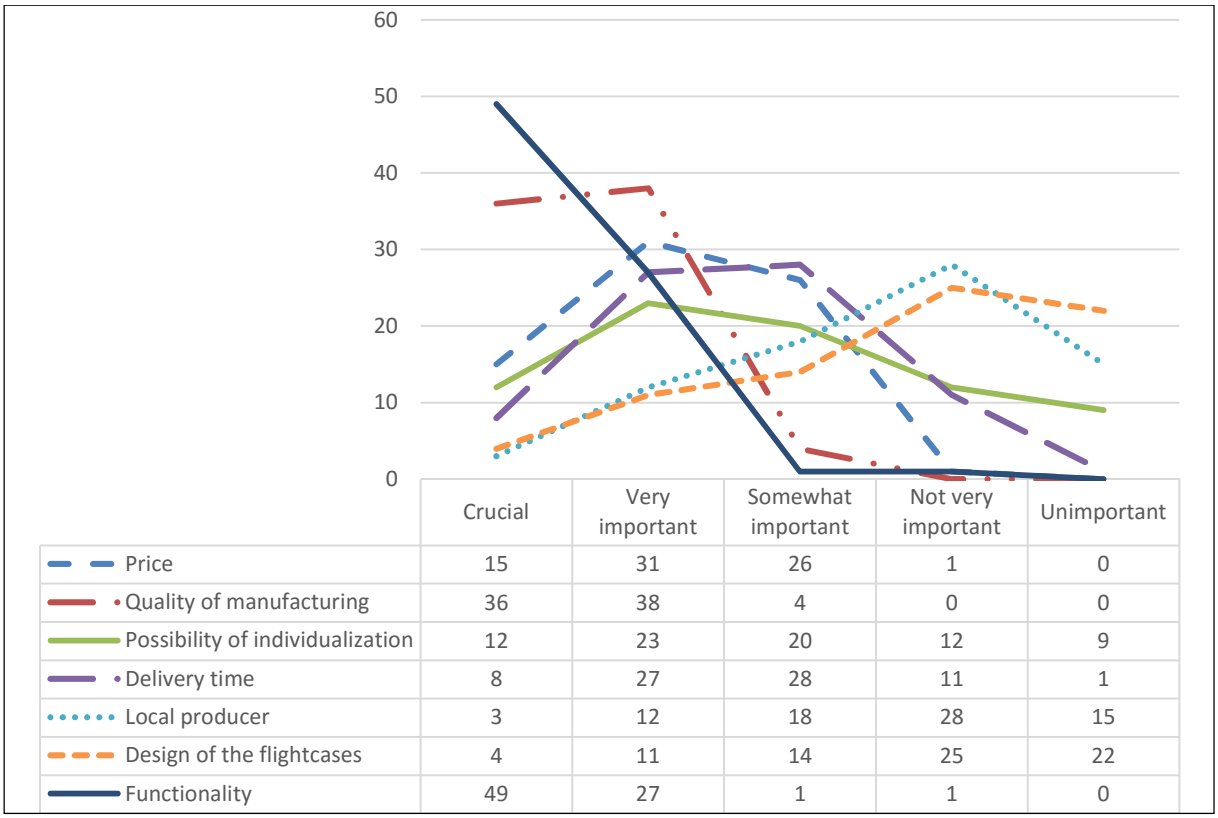
Which kinds of flightcases do you use?	
Flightcases for musical instruments	40
Mixer cases	57
Amplifier cases	53
PA equipment cases	48
DJ equipmentcases	32
Light equipment cases	45
Studio equipment cases	29
Accessory cases	56
19'' racks	61
19'' suitcases	32
AV equipment cases	33
Merchandising	1
Tool cases	1

Table 10: Different kinds of flightcases and their use



	Crucial	Very important	Somewhat important	Not very important	Unimportant
Online shop	15	23	18	11	8
Ordering via e-mail	15	29	17	8	3
Showroom and store	3	9	18	19	19
Ordering via telephone	7	22	12	14	15
Ordering via a salesman	5	4	12	18	30

Figure 8: Importance of communication channels



	Crucial	Very important	Somewhat important	Not very important	Unimportant
Price	15	31	26	1	0
Quality of manufacturing	36	38	4	0	0
Possibility of individualization	12	23	20	12	9
Delivery time	8	27	28	11	1
Local producer	3	12	18	28	15
Design of the flightcases	4	11	14	25	22
Functionality	49	27	1	1	0

Figure 9: Importance of flightcase characteristics

Report

Table 9 shows the customer groups for which certain requirements are valid. The main focus was set to musicians and event engineering companies in Austria but due to multiple competences of these companies, the survey also covered other customer groups.

Figure 7 displays the still high importance of plywood in the flightcase industry. Especially for big companies the plywood cases play a major role. In total the plywood has a market share of 37.85% followed by plastic cases with 25.70%. Aluminum which could also be processed by JO Production only holds 14.49% market share. This demand for plywood and plastic flightcases is also recognized and fulfilled by the competitors as shown in table 5. All of the competitors offer plywood as standard material for flightcases. Just few offer aluminum cases which should be the result of the low demand. Companies who offer plastic cases follow one of two strategies. First cooperate with indirect competitors like Explorer Cases[88] and offer additionally substitution products. Second follow the basic plywood design for flightcases and just replace the plywood with plastic twin-wall sheet.

The different kinds of flightcases shown in table 10 seem to be more or less equally important. The most used one with 61 votes was the 19'' rack case.

[88] EXPLORER CASES by GT Line srl (2015)

According to figure 8 the two most important communication channels are e-mails followed by an online shop. This outcome is one of the most interesting ones since it seems that Austrian flightcase manufacturers do not focus on an intuitive and efficient online platform to promote and sell their products (as already shown in chapter 3.3). For JO Production this is a clear opportunity which will be used in the following chapter.

Figure 9 reveals that the possibility of individualization is not the most important criteria when buying a flightcase as estimated by Johannes Otti[89]. The survey showed very clearly that the functionality is most crucial, followed by the manufacturing quality. At some distance the price, delivery time and individualization follow these criteria. Local producers and the design of the flightcase are quite unimportant characteristics.

3.5 SWOT-Analysis

One method for setting internal and external factors into relation is the so-called SWOT-Analysis[90]. The acronym stands for strengths, weaknesses, opportunities and threads which are explained in figure 10. All aspects of the market, product, price, sales and communication are analyzed and assigned to one of the four quadrants.[91]

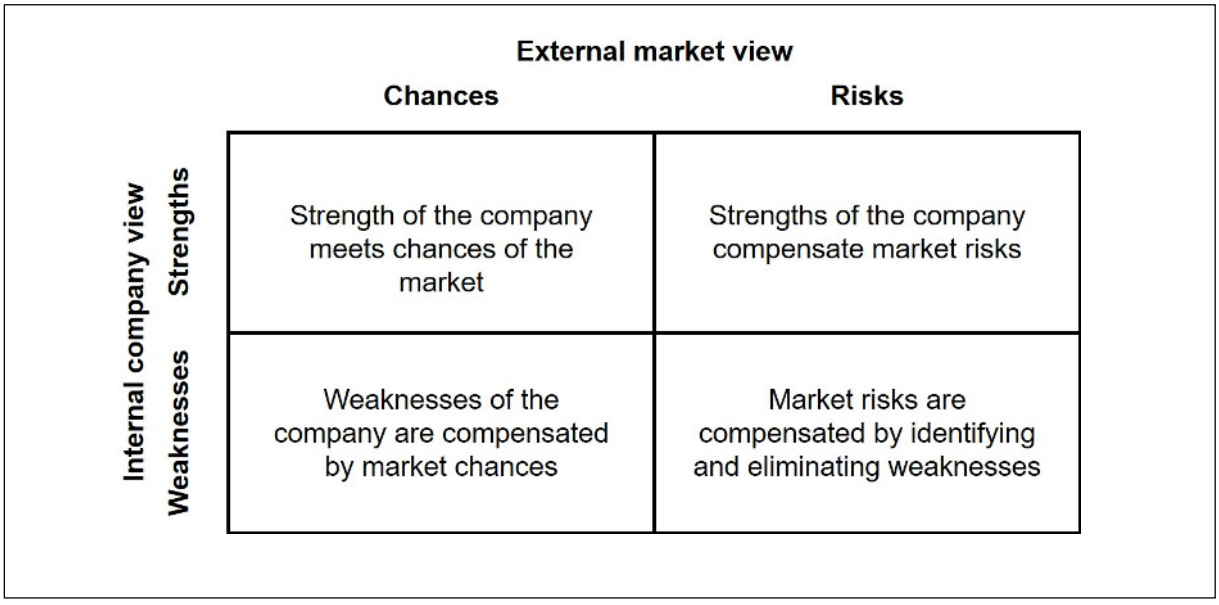


Figure 10: Structure of a SWOT-Analysis[92]

Strengths and weaknesses are located inside the company and are influenced by internal actions while chances and threads cannot be influenced by the company. They rely on external factors.[93]

[89] Otti (2015a)
[90] Cf. Nagl (2014), p. 19
[91] Cf. Grimm (2014), p. 80
[92] Based on Bruhn (2014), p. 44

Applying the SWOT-analysis for JO Production

In order to identify relevant internal and external influencing factors for JO Production Johannes Otti has been interviewed[94]. The following paragraphs show his answers.

Strengths (internal factors)

What are the causes for previous successes of JO Production?[95]

The success of JO Production is based on a very high customer satisfaction. We always try to fulfil every customer need "with a smile". Even if some customer perceptions where unrealistic or demands occurred at a point where the project already was in the final state, we always found a consensus which met the customer needs and kept our additional workload low. This ability is a result of a young and dynamic team with well-trained problem solution skills. Also empathy plays a major role in the business of event engineering and was always an advantage of our team.

Which synergy effects can be used when entering the new business sector of flightcase production?[96]

Existing connections to musicians and event engineering companies can be used to promote the flightcases. The production of own flightcases would also reduce the costs for the JO Production event engineering sector since there is a constant demand of new or improved flightcases. User insights by using the flightcases in the field could help to improve the products continuously.

What other strengths do you see for JO Production?[97]

The existing shop floor can be used immediately with no additional investments needed for machinery.

Since the main team is employed part-time and very flexible, the employment can be adopted to the production volume easily.

Another strength are the good computer aided design (CAD) skills of the team. Products can be designed and send to the customer for a preview before starting the production. This helps to eliminate rework and later on changes.

Carpenters and online marketing specialists inside the family could provide know how to assure a high quality standard and process capability.

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[93] Cf. Grimm (2014), p. 80
[94] Otti (2015b)
[95] Cf. Nagl (2014), p. 19
[96] Cf. Nagl (2014), p. 19
[97] Nagl (2014), p. 19

Weaknesses (internal factors)

Which weaknesses have to be eliminated and avoided in the future?[98]
Since JO Production has always been a service provider the lack of know how in production has to be eliminated.

Which production processes can be optimized to reduce costs?[99]
The entire production process has to be analyzed and optimized to reach high quality and performance at low costs. The 5S[100] method is one possible approach to reach such targets.

Opportunities (external factors)

Which possibilities can be used by JO Production?
The knowledge provided by the previous chapters especially about the customer needs and requirements can be used to set up the right strategy and product/service portfolio. The poor web presence of the competitors in Austria can be used to set JO Production apart.

Which trends should be followed?
The clear trend to e-commerce should be a special focus for JO Production. Also the development of plastic twin-wall sheets should be followed and applied if possible.

Are there unused potentials?
Connections of Johannes Otti to local marketing agents can be used to advertise the products.

Threats (external factors)

Which difficulties do you see in the general market segment?
Cheap products from China beat down the flightcase prices and set local manufacturers under pressure.
A lot of musicians and DJs who buy their equipment at dealers like Thomann[101] also buy standardized flightcases at these dealers.

What do the competitors do?
German companies with high tech manufacturing paired with intuitive online stores represent the biggest threat for the Austrian flightcase industry. Additional services offered by these companies extend the classical customer-supplier relationship.

[98] Nagl (2014), p. 19
[99] Nagl (2014), p. 19
[100] Cf. Moulding (2010)
[101] Thomann GmbH (2016), online: <http://www.thomann.de/at/index.html>

Will statutory provisions be changed in the future?
It does not seem that trading laws inside the European Union will be changed in the near future.

Will there be a technological change in the future?
It seems that improved plastic materials will increase the market share of plastic flightcases. These materials are lighter than plywood and become more and more stable. To be competitive, this technology should be followed and implemented where possible.

According to figure 10 these internal and external factors will be combined and used for the development of a corporate strategy (chapter 4) as well as for the development of a service and product portfolio (chapter 6).

3.6 Porter's five forces analysis

The structure of a business sector has a strong influence on competition rules as well as on strategies which can be potentially applied by the company. External forces play a minor role because they have an influence on all elements of the sector. The individual ability of every single company to deal with them is crucial. [102]

The intensity of the competition inside a sector depends on five competition forces which are shown in figure 11. The strongest forces are decisive for the strategy formulation[103].

The purpose of a competition strategy is to find a position for the company where it can protect itself from competition forces as good as possible.[104] A sector is defined as a group of companies that produce products which can be substituted by each other.[105]

[102] Cf. Porter (2013), p. 37
[103] Cf. Porter (2013), p. 40
[104] Cf. Porter (2013), pp. 37–38
[105] Cf. Porter (2013), p. 39

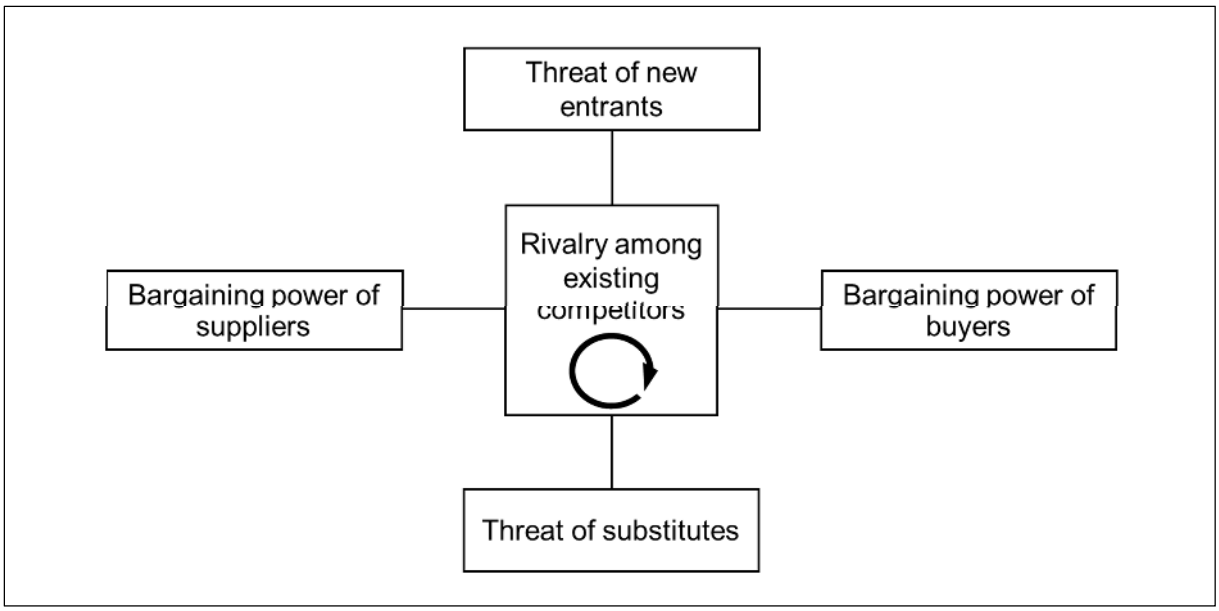

Figure 11: Five forces in a sector[106]

Existing competition

Intense competition, especially in slow growing or regressive markets, ends up in high pressure on profit margins and therefore, on the profitability of the companies. Rivalry increasing factors are:[107]

1. High number of competitors with similar size and market power.
   The number of Austrian competitors for JO Production is quite low but competing with German companies seems to be a tough task.
2. The competitors follow different strategies.
   As shown in chapter 3.3, also the strategies in Austria and Germany differ a lot.
3. High exit barriers for the market.

Potential competitors

New market participants bring new capacities, the wish for profit and sometimes immense assets. This could lower the prices and increase the costs for the existing competitors.[108] As shown during the competitor analysis in chapter 3.3, the Austrian flightcase manufacturers barely offer online shops and additional services. For example, if JO Production comes up with such services, the costs for competitors would increase in order to set up such services and become competitive again.

The risk of a market entry depends on existing entry barriers as well as on the competitors' behavior. Some entry barriers are:[109]

[106] Based on Porter (2013), p. 38
[107] Cf. Nagl (2014), p. 17
[108] Cf. Porter (2013), p. 41
[109] Cf. Nagl (2014), p. 18

1. The degree of market exhaustion. The more existing companies share the market the more difficult it is to gain market share. As seen in chapter 3.3, the companies Hardcon and Austrian Cases cooperate to share the market.
2. High investments for increasing publicity, building up sales channels or setting up a production are financial barriers for new companies when entering the market.

Substitution of products

The threat of substitute products increases as cheaper or more efficient products gain significant market shares. The most critical substitute products are those with a higher cost/benefit relationship for the customer.[110] For the flightcase market, bags are substitute products which already conquered the submarket for music instruments. They have less protection than sturdy flightcases but they are less expensive and have less weight. This cost/benefit relationship seems to work for musicians very well. One way to avoid the threat of substitute products is to gain customer loyalty.

Suppliers

Suppliers are all kinds of sources which are necessary to generate output. They have the power to increase the pressure by e.g. inflating the prices. The strong bargaining position of suppliers is caused by the following factors:[111]

1. A market segment is controlled by few suppliers. This is the case in the Austrian flightcase market since the main supplier for flightcase parts is the German company Adam Hall GmbH. They deliver to most of the German speaking flightcase market.
2. The supplier offers unique products with high exit barriers for the companies.
3. The suppliers threaten the market with a vertical integration which means they enter the flightcase market as competitors. As seen in chapter 3.3, this is happening for the German companies Penn Elcom GmbH and Megacase GmbH.

Clients

Clients have a strong negotiation position too if:[112]

1. The market segment has a high density of competitors and the customer is purchasing high quantities. This is especially the case for B2B customers like sound equipment manufacturers.
2. The customer is able to purchase standardized and non-differentiated products which can replace the original product. A lot of companies offer standardized flightcases which replace the individually designed accessory cases.
3. Also for buyers the threat of a vertical integration is realistic and a negotiation argument.

[110] Cf. Nagl (2014), p. 19
[111] Cf. Nagl (2014), p. 18
[112] Cf. Nagl (2014), pp. 18–19

4 Development of a corporate strategy

Before defining specific goals and a product portfolio, the company has to define a strategy[113]. This strategy can be emerged out of a specific planning procedure or during the day-to-day business operations of different departments[114]. The sum of the department specific approaches will rarely be the optimal strategy for the entire company[115]. Figure 12 shows an approach to develop a corporate strategy which is valid for the entire company. Chapters 4.1 to 4.4 explain the process in detail.

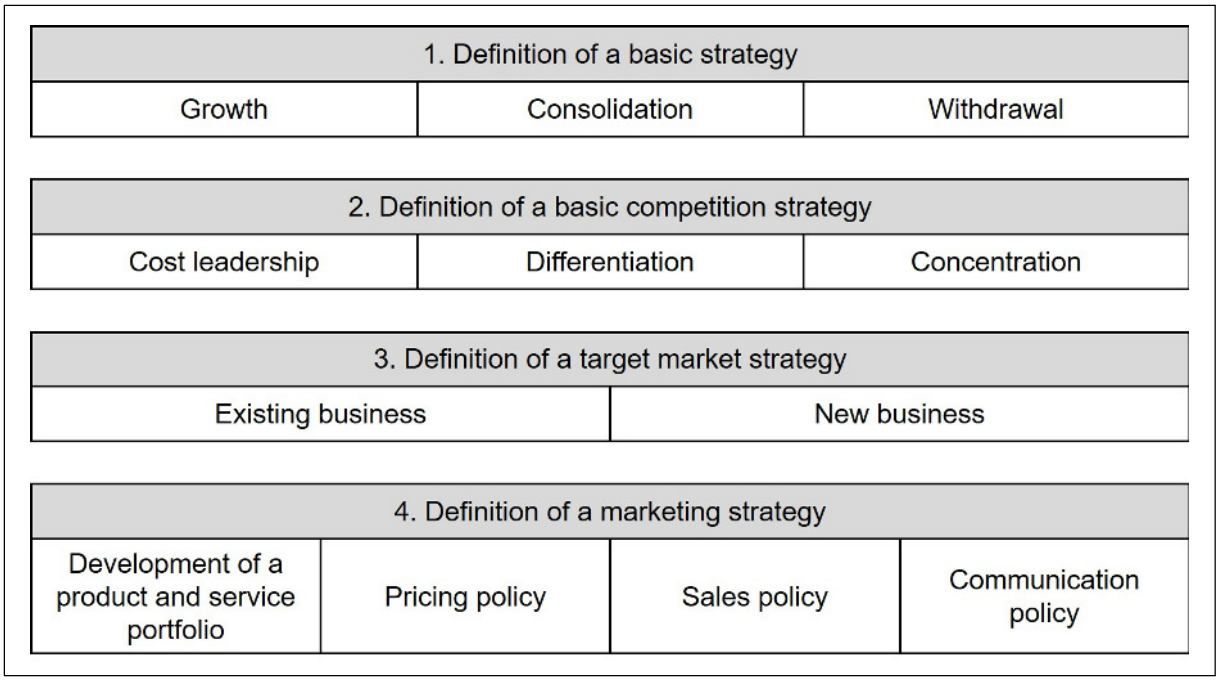

Figure 12: Four main components of a corporate strategy[116].

4.1 Definition of a basic strategy

By having a business idea or showing entrepreneurial initiative companies are mainly focused on growth. It can also be possible that entrepreneurial initiative become necessary to secure existing market shares e.g. when it comes to a consolidation.[117]

JO Production clearly focuses on growth. To find an optimal growth strategy the portfolio-market-matrix will be applied as follows.

[113] Cf. Grimm (2014), p. 51
[114] Cf. Porter (2013), p. 25
[115] Cf. Porter (2013), p. 25
[116] Based on Nagl (2014), p. 24
[117] Cf. Nagl (2014), p. 23

Portfolio-Market-Matrix

This method for determining a growth strategy was developed in the 60's by Harry Igor Ansoff[118]. It shows the correlation between the market and the product and helps to rate the risks and potentials of four possible growth strategies. The four strategies are shown in figure 13 and described in detail afterwards.[119]

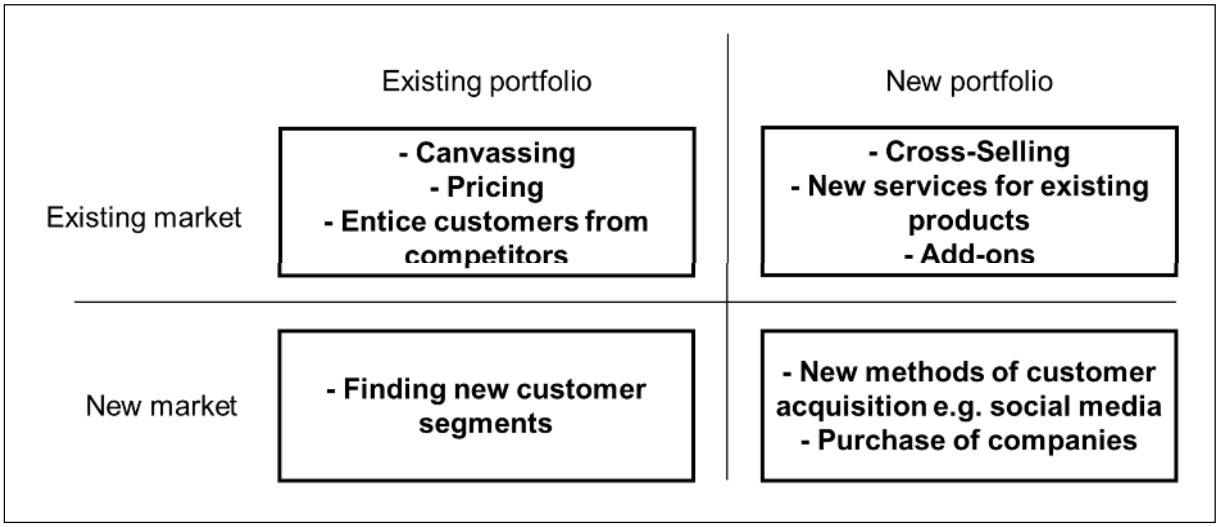

Figure 13: Portfolio-market-matrix[120]

Market penetration strategy

A growth of a company has to be achieved by attracting new customers (e.g. by taking over competitors' market shares). This strategy is characterized by low risk but also low growth rates if the market is saturated.[121]

Event engineers and musicians are typical representatives of such existing target markets filled with flightcases that have been offered for decades[122]. The competitor analysis in chapter 3.3 showed that nearly all of the Austrian and German flightcase manufacturers mainly focus on these two target groups by offering state of the art flightcases. To penetrate these markets a well-fitting competition strategy for JO Production will be investigated in chapter 4.2.

Market development strategy

The exploitation of new markets with existing products (e.g. regional expansion, or new market segments) is the main focus of a market development strategy. The exploitation of new markets comes along with investments and therefore increases the risk.[123]

[118] Cf. Ansoff (2007), p. X
[119] Cf. Grimm (2014), p. 75
[120] Based on Steven (2007), p. 125
[121] Cf. Grimm (2014), p. 76
[122] Otti (2015a)
[123] Cf. Grimm (2014), p. 76

The company Lichtenauer (chapter 3.3) showed how to develop a market. They offered flightcases to the equitation market to transport tournament equipment. This is a rather small market but they gained a monopoly position since they are the only supplier in Austria. Besides the equitation market they also offer flightcases for veterinarians to transport medical equipment. To find and develop new markets is often a difficult task.

Portfolio development strategy

A product or portfolio development gives a temporary advantage over the competition. The benefits of this strategy are the low risk and calculable investment needs paired with moderate growth rates.[124]

The company ProCase GmbH (chapter 3.3) offers flightcases made out of ABS (Acrylnitril-Butadien-Styrol) which is a plastic with a 30% weight reduction compared to the traditional plywood flightcases. The development of new technologies should be postponed to a stage where JO Production is capable of the process and has already a moderate market share.

Diversification strategy

This strategy promises the highest growth rates while being very risky too. To create new markets with new products very high investments are needed.[125]

The diversification strategy should be implemented if the market penetration and market development strategy fail. The Austrian market seems to be small and slightly antiquated so JO Production could penetrate the market very efficiently. If the assertion against the German competitors by penetrating the market fails, decisions have to be made quickly and a strategy change to diversification is necessary.

4.2 Definition of a basic competition strategy

Every competing company has a competitive strategy - either conscious or unconscious[126]. These strategies aim at standing out against competitors based on the ability to meet customer needs. This goal can be reached either by offering better products or by cheaper products.[127] Figure 14 connects these two concepts to strategic target markets.

[124] Cf. Grimm (2014), p. 76
[125] Cf. Grimm (2014), p. 76
[126] Cf. Porter (2013), p. 25
[127] Cf. Nagl (2014), p. 24

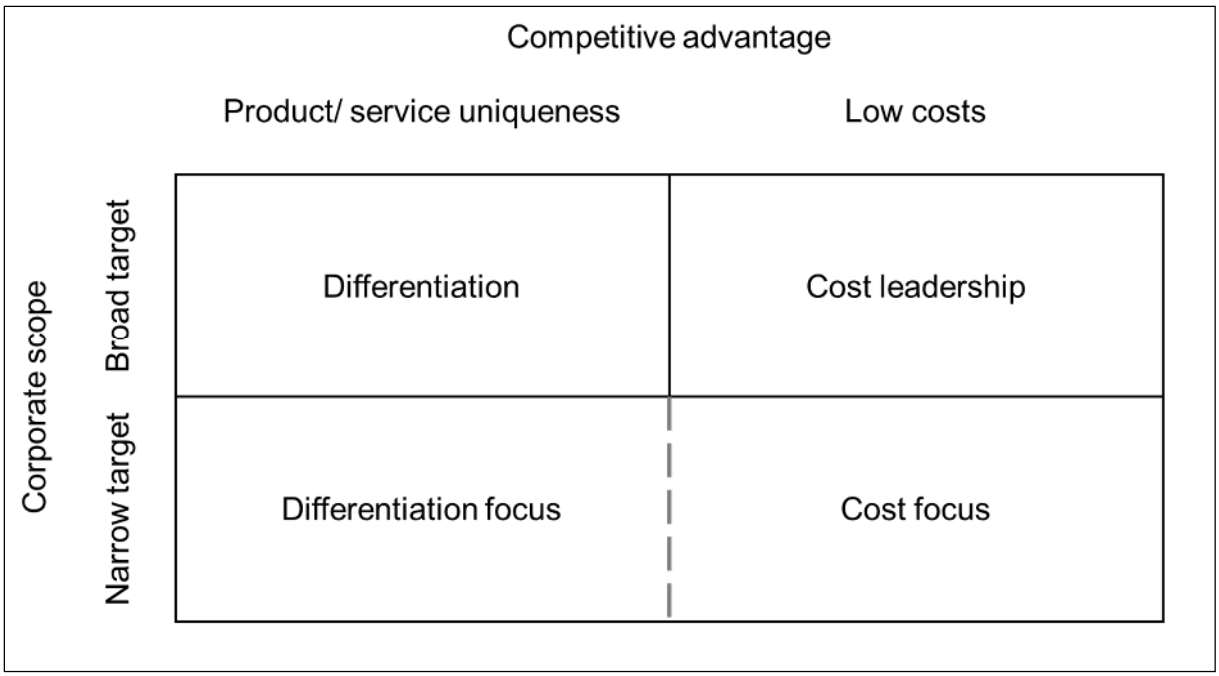

Figure 14: Generic strategies by Porter[128]

To penetrate the market in an efficient way, one of the following competition strategies has to be chosen and applied very strictly.

Cost leadership

The aim of this strategy is to become the cheapest supplier in the sector by using cost advantages and cost efficient acquisition. This prerequisites a rather high market share and a standardized process. Also technological progress and mass production can lead to these effects and therefore to cost leadership.[129]

This strategy does not fit to JO Production since the company does not have a market share yet and cannot benefit from the effects of this strategy. The threat of a “Cheap-Image” which might come up with this strategy also does not fit to Johannes Otti’s philosophy as shown in chapter 1.3.

Differentiation

Differentiation aims at setting apart from the competitors by creating unique products or services whereby cost factors lose their importance. Some of the areas where uniqueness can be achieved are quality, design, image, technology or service.[130]

Figure 9 shows that the price is not the main decision criterion when purchasing flightcases. This fact implies to focus on a differentiation strategy i.e. on functionality and quality of the

[128] Based on Porter (1998)
[129] Cf. Nagl (2014), p. 24
[130] Cf. Nagl (2014), p. 25

products. JO Production could also set itself apart by offering additional services. This would be a benefit especially against the Austrian competitors.

Focus on a niche strategy

A niche is a market segment which is not or only insufficiently served by the existing products. The niche should be big enough and have a sufficient growth potential.[131]

A good example is the company Lichtenauer (chapter 3.3). They focus on a clear market development strategy and differentiate by offering flightcases to the niche market of equitation.

4.2.1 Focus versus differentiation

Inevitably small enterprises or newly founded departments in companies start with some few products. They have a core competence and focus on specific portfolio elements or markets. Due to reasons like customer requests the portfolio gets extended. An extended portfolio has two main characteristics: It reduces the risk and increases costs. Companies that follow a focusing strategy face the thread that their few specific products do not bring the forecasted success. On the other hand if companies focus on a diversification strategy and have a broad product portfolio, the failure of unsuccessful portfolio elements is absorbed by the other elements. This strategy comes along with an increase in costs due to internal complexity and additional administrative processes.[132]

The right strategy for JO Production is not one or another but a combination of both strategies. By offering focused solutions for markets (e.g. Promotion stands) the company could gain a significant market share very quickly. Simultaneously, offering standardized flightcases for event engineers and musicians would spread the risk. Due to the similarity of the products, costs would be decreased because of synergy effects on purchasing, marketing and sales. A set of portfolio elements for focusing and diversification will be shown in chapter 6.

4.2.2 Unique selling point (USP)

The unique selling point strategy is a management method that ensures an increase of value creation and earnings. This method can be used to set oneself apart from competitors and to build barriers for imitators. The USP strategy should be applied in the market entry phase and the growth phase of new products. The so called USPs (Unique Selling Propositions) are characteristics of products or an entire product portfolio which show the uniqueness of a

[131] Cf. Nagl (2014), p. 25
[132] Cf. Grimm (2014), pp. 43–51

company or a product compared to competitors.[133] It is a statement which describes how your product or company is different compared to competitors'. A good USP explains how the customer will be benefited from a company or product in a few memorable words. [134]

4.2.2.1 Characteristics of USPs

To identify, assess and develop an USP is one of the most important success factors for a company. There are several characteristics of USPs which are crucial for an implementation in the corporate strategy.[135]

Real customer benefit

An USP has to address customer needs and show advantages compared to the offers of the competitors. Characteristics of a product like a specific color or size do not represent an USP as long there are no explicit customer needs for these characteristics.[136]

Chapter 3.4 presented the specific needs of JO Production's customers. These needs have to be addressed with the USP ranked by their importance. For instance the need for high quality could be connected to the very strong focus of JO Production as an event engineer that delivers high quality.

Differentiation characteristic

A product or company has to point out how it differs from its competitors. Therefore the USP points out special characteristics of products (e.g. less weight than competing products) or company characteristics (e.g. environmental friendly production). Again, these characteristics have to be a crucial benefit for the customer.[137]

JO Production's characteristic is that the company is a lead user. It uses its own flightcases for rough tours in the field of event engineering. This fact itself is no USP because customers cannot see the benefit they gain out of this fact. So it has to be formulated in a way that customers can realize the very high quality, functionality and durability demands of JO Production as an event engineer (e.g. "We will never sell products which we would not use for our own event engineering business"). No other flightcase producer in Austria is an event engineering company as well. This differentiation characteristic can be emphasized to show the benefit for the customers.

[133] Cf. Grimm (2014), p. 97
[134] Cf. Wendy Connick (2015), online: <https://www.nasp.com/article/1733F0D9-5C1F/5-examples-of-unique-selling-propositions.html>
[135] Cf. Grimm (2014), p. 98
[136] Cf. Grimm (2014), p. 98
[137] Cf. Grimm (2014), p. 98

Economic efficiency

The prices for products and services are crucial factors for competition in many business sectors. Connected to this also the economic efficiency of USPs is an important criterion to be competitive. A cost-versus-benefit view from both, a customer's perspective and a company perspective guarantees the success of an USP. High product costs, even when they point out a significant customer benefit, can eliminate the advantages of the USP.[138]

The need for high quality flightcases comes along with increased costs for production. JO Production has to ensure a high quality standard while decreasing the production costs to find a consensus which is accepted by the customer.

Convenience and transparency

An USP has to be easy to understand and catchy to be successful. Customers have to spot their benefits from the USP instantly. Complex argumentations are difficult to communicate.[139]

Defense against third parties

Successful USPs have to be formulated in a way that enables them to stand against critical argumentations. If critics reveal that an USP does not deliver the promised benefits or, even worse, causes disadvantages for the customer, a very critical situation for the company occurs. It often leads to a loss of customer trust and the disposition to buy. A detailed analysis of the USP is necessary to achieve a long lasting success.[140]

The argument that JO Production is also an event engineering company could be transferred to the argument that JO Production cannot deliver suitable products since the flightcase production is not their core business.

Validity

In some cases USPs are temporary and copied after some time by competitors. Therefore a permanent review of the validity of the USP has to be performed.[141]

[138] Cf. Grimm (2014), pp. 98–99
[139] Cf. Grimm (2014), p. 99
[140] Cf. Grimm (2014), p. 99
[141] Cf. Grimm (2014), p. 99

4.2.2.2 USP examples

Avis

For many years Avis was the second-largest car rental company, behind the company Hertz. It seemed to be a negative quality to be number two but Avis turned it into a benefit. By doing a total image makeover Avis' market share grew from 11% to 35% in just four years. A main factor was the new advertising campaign using their USP as a slogan:[142]

"We´re number two. We try harder."[143]

M&Ms

This company transformed a crucial benefit for customers into a very successful USP.[144]

"The milk chocolate melts in your mouth, not in your hand."[145]

De Beers

De Beers is a leading company in the diamond industry. It has been using its slogan since 1948. The slogan points out that diamonds last forever and are almost unbreakable. This USP led to the fact that diamond rings became the most popular choice for engagement rings since they are a perfect symbol for eternal love.[146]

"A diamond is forever."[147]

Domino's Pizza

The slogan of Domino's Pizza is too long to be catchy but it is a very good example of an excellent USP[148].

"You get fresh, hot pizza delivered to your door in 30 minutes or less or it´s free."[149]

4.2.2.3 Developing an USP for JO Production

The most outstanding characteristic of JO Production is that the company is both, a supplier for flightcases and a successful event engineering company. The fact that JO Production is a supplier and a customer at the same time should make clear that the products and services are very user-oriented. With lead user experience, JO Production could communicate that they know the needs and requirements of event engineers and musicians:

"We would never sell products that we wouldn't use in our own event engineering business."

[142] Cf. Wendy Connick (2015)
[143] Wendy Connick (2015)
[144] Cf. Wendy Connick (2015)
[145] Wendy Connick (2015)
[146] Cf. Wendy Connick (2015)
[147] Wendy Connick (2015)
[148] Cf. Wendy Connick (2015)
[149] Wendy Connick (2015)

4.3 Definition of a target market strategy

The main target market of event engineers and musicians will be penetrated by a differentiation strategy as shown before. To do so, figure 15 shows the process which should be followed for these target markets.

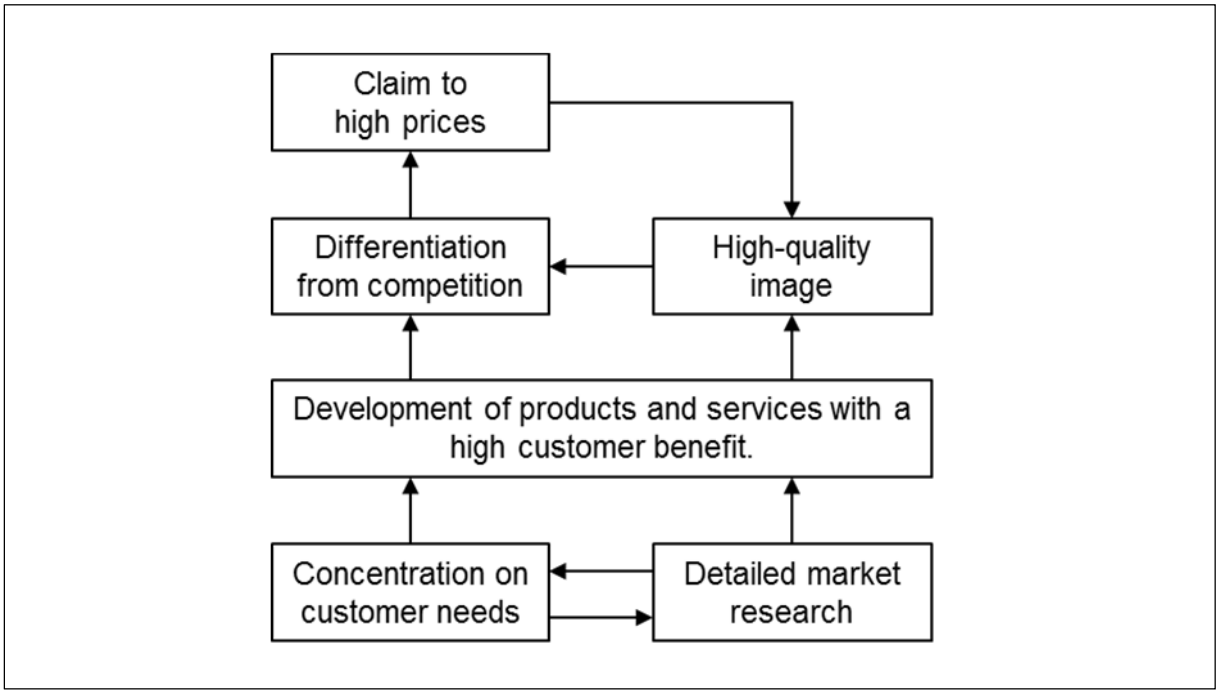

Figure 15: Action plan for the main target markets event engineering and musicians[150]

As long as a differentiation strategy is followed, this process layout can also be applied for other markets that might emerge as well.

4.4 Definition of operational marketing strategies

In the field of operational marketing decisions about the use of the marketing instruments are made. These instruments are often called “marketing mix”. Marketing mix means the creation and coordination of the product, price, sales and communication policies. Along with the marketing instruments the “4 Ps” can provide a guideline and orientation.[151]

4.4.1 Product

The width and depth of the product and service portfolio will be specified during this chapter and developed further in chapter 6.

[150] Based on Nagl (2014), p. 27
[151] Cf. Nagl (2014), p. 38

The product portfolio for JO Production results from the basic and competition strategies in chapter 4.1 and 4.2 as well as from the competitor and customer analysis in chapter 3.3 and 3.4. Figure 16 shows the two main product strategies. The main products are flightcases for event engineering and musicians with focus on the most important characteristics (functionality and quality) as well as the secondary product line which focuses on a market development by offering e.g. individualized promotion stands for all sorts of companies.

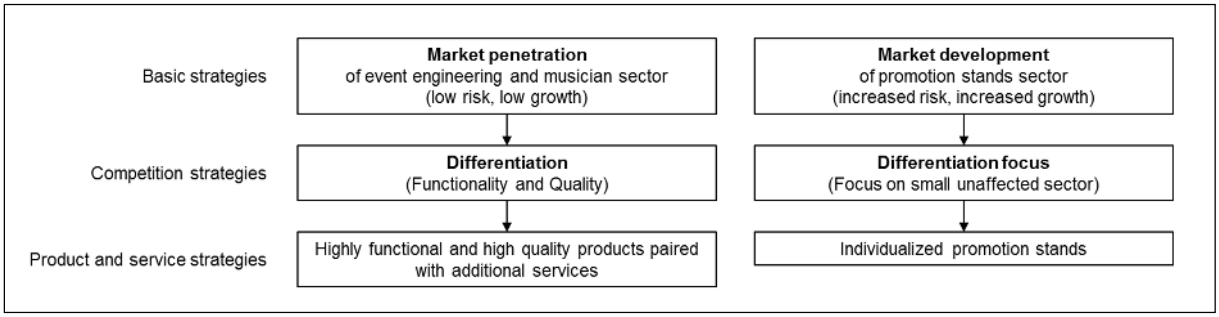

Figure 16: Recommended product strategies for JO Production

The market penetration will provide a basic growth with low risk while the market development of e.g. promotion stands could deliver a fast growth.

4.4.2 Price

Pricing policy sets the price level and has a direct influence on the success and revenue of the company. For an optimized price strategy the knowledge of the cost structure of the products is necessary.[152] This will be investigated thoroughly in chapter 7.

4.4.3 Placement

How does the product reach the customer (e.g. sales channels, storage, and transport)[153]? This question is answered by the distribution policy which includes the planning of sales channels and the associated logistic. The decision for a multi-channel management is based on different factors like the need for an explanation of the products or environmental factors.[154]

Basically there are two main distribution systems - the direct sales and indirect sales as shown in figure 17. In the direct sales strategy products get from the producer to the customer directly (e.g. without intermediaries). Advantages of this strategy are a good customer service for complex products which need consultation and a short reaction time for

[152] Cf. Nagl (2014), pp. 41–42
[153] Cf. Nagl (2014), p. 38
[154] Cf. Nagl (2014), p. 44

changes among customer requirements. The advantage of the indirect sales strategy are reduced investments.[155]

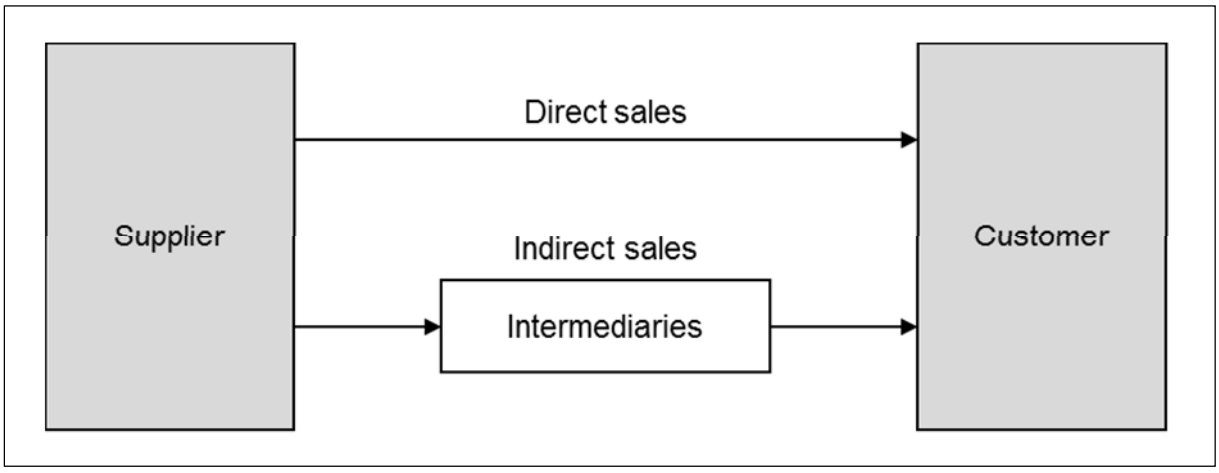

Figure 17: Distribution systems[156]

Figure 8 showed that ordering via e-mail, online shop and telephone is much more accepted by the target group than a brick and mortar store or a salesman. This is also pointed out by table 5 which demonstrates that all Austrian and German competitors focus on e-mail and telemarketing while only few German manufacturers offer an online shop and an online configurator as well. To implement a direct sales strategy could also be a promising way for JO Production. Especially an online shop has advantages in the field of speed, costs and range[157].

This does not mean that indirect distribution should be neglected by JO Production completely. Table 8 showed that 37.71% of the survey participants buy their flightcases at dealers like Thomann[158]. To get contracts with such big dealers is a complex task and comes with some disadvantages. Therefore this master thesis focuses on a direct sales strategy as an entry for JO Production and to gain market share.

As to logistics, the location of Carinthia was always a prerequisite of this thesis. The two product strategies defined in chapter 4.4.1 require mainly a make-to-order concept (which means a very small stock). Facilities for an inventory up to 50 flightcases are already existing at JO Production. Since JO Production does not own transportation facilities like trucks and buses, a cooperation with transport companies is necessary.

[155] Cf. Nagl (2014), p. 45
[156] Based on Nagl (2014), p. 45
[157] Cf. Nagl (2014), p. 45
[158] Thomann GmbH (2016)

4.4.4 Promotion

In this chapter communication tools and strategies for JO Production will be developed. The aim of communication policy is to generate attention, transport information, to convince the customers of benefits and build up a permanent relationship between customers and the manufacturer. Advertisements, sales promotions, public relations and the attendance at trade fairs are some of the communication tools.[159]

The communication policy is a permanent process and can be separated into 6 tasks as shown in figure 18.

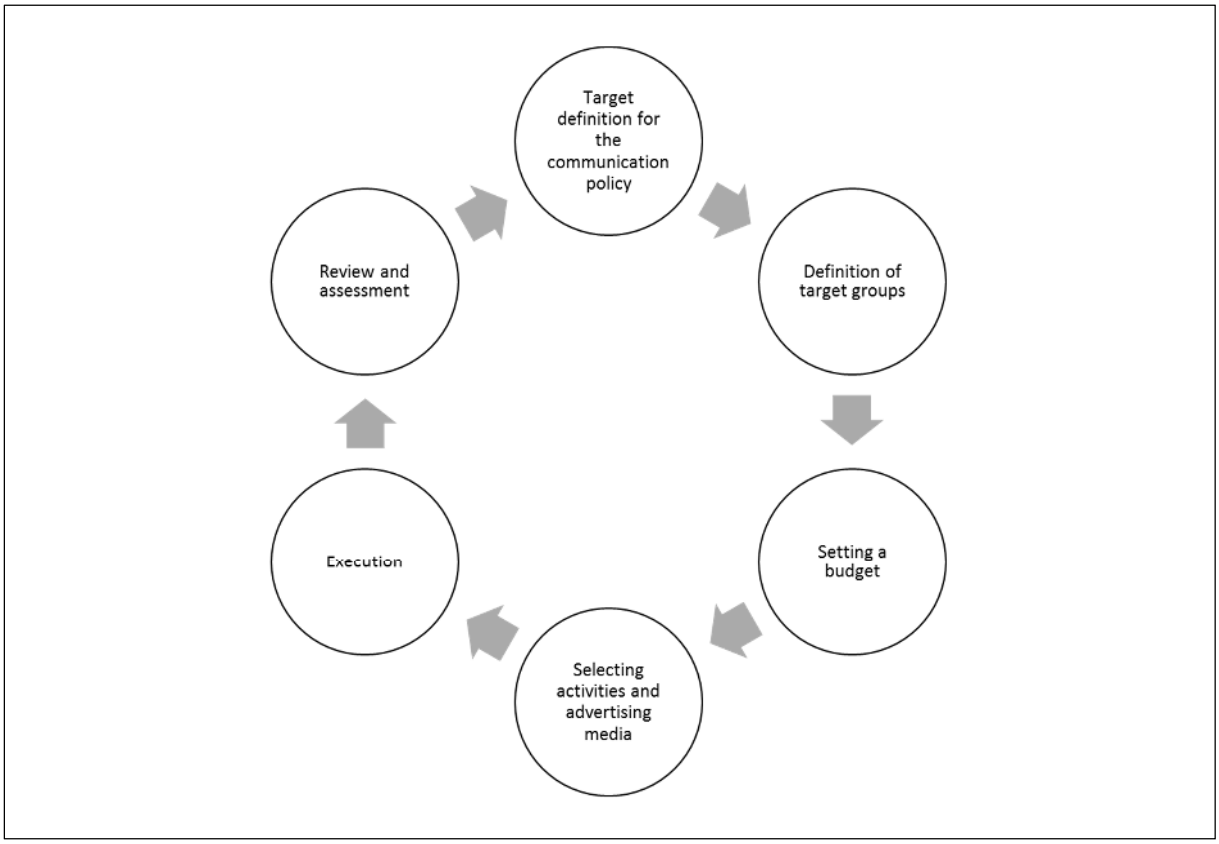

Figure 18: Communication policy cycle[160]

[159] Cf. Nagl (2014), p. 46
[160] Based on Nagl (2014), p. 46

Advertisements

With advertisements the customer should be contacted and informed[161]. Classical advertisement media are[162]:

- Television
- Radio
- Cinema
- Newspaper
- Magazines
- Address books
- Inserts
- Internet
- Direct mailing
- Telephone marketing
- Outdoor advertising
- Social media

Public relations

Public relations aim at a positive influence on the public opinion about the company. This field is often committed to press but should be worked on actively to increase publicity and sympathy.[163]

Traditional public relations activities are[164]:

- Press relations
- Open house presentations
- Symposiums
- Attendance at exhibitions
- Publication of annual reports
- Organization of events
- Sponsoring
- Networking

Trade fairs

Trade fairs and exhibitions are very effective means to present the company to a broad audience. Potential customers should get the opportunity to be convinced of the capability of the products and services. Companies can meet customers and suppliers, observe competitors and find new employees. The disadvantage are often high costs for stands.[165]

[161] Cf. Nagl (2014), p. 46
[162] Cf. Nagl (2014), p. 47
[163] Cf. Nagl (2014), pp. 47–48
[164] Cf. Nagl (2014), p. 48
[165] Cf. Nagl (2014), p. 48

Customer satisfaction and customer loyalty

The successful execution of the marketing instruments results in high customer satisfaction. Customer satisfaction is a very important key performance factor and describes how much the offered product or service satisfies the customer needs and requirements. Only positively convinced customers buy again and therefore, represent a main factor for a long-term company success. To strive for a high customer satisfaction means to implement quick and flexible processes in order to be able to offer products and services with a very high quality at any time. Only satisfied customers whose needs and requirements are met recommend the company further.

5 Long-, mid- and short-term goals

Badly defined company goals which often come along with unclear corporate strategies to reach these goals usually lead to actions and decisions which miss the target or even do not gain any measurable success at all.[166]

Therefore, SMART long-, mid- and short-term goals will be generated out of the previously gained knowledge and strategies during this chapter. Figure 19 shows what the acronym SMART stands for.

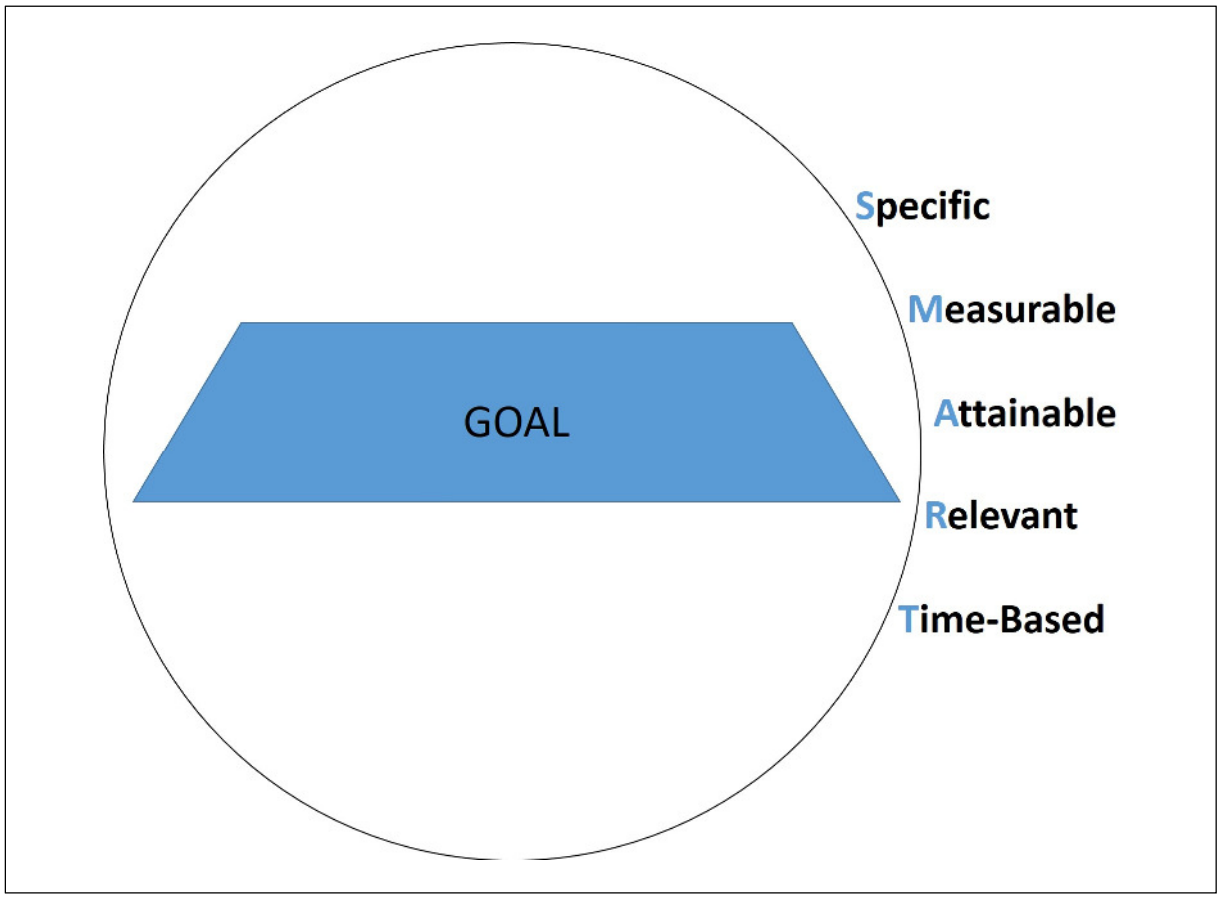

Figure 19: Characteristics of goals[167]

SMART goal setting ensures to go beyond fuzzy goals and generates an actionable plan to achieve results.[168]

Specific

Vague goal definitions like “Sell more products” have to be avoided. In this example neither the term “more” is clearly defined nor does it say which products are meant. Hence, goals have to be as specific as possible.[169]

[166] Cf. Grimm (2014), p. 111
[167] Based on Zahorsky, online: <http://sbinformation.about.com/od/businessmanagemen1/a/businessgoals.htm>
[168] Cf. Zahorsky

Measurable

Since different figures are an essential part of a business, each goal needs concrete figures. These figures help to visualize whether the process is on track and define clearly when the goal is reached.[170]

Attainable

Setting goals which are attainable is essential. Dreaming big is part of the vision, not of concrete objectives.[171]

Relevant

Relevant goals are always based on current conditions. If the market changes and the conditions do not support the fulfillment of the goals the goals become irrelevant.[172]

Time-Based

A timeframe is essential to ensure that goals are reached in time.

The following top-down-hierarchy shows a set of long-, mid- and short-term goals which were developed in cooperation with Johannes Otti[173] to fulfill JO Production's vision statement. Since the vision and mission statements are idealistic and wide spread, they do not fulfill all characteristics of SMART goals. The mid- and short-term goals are much more dynamic. They are generated out of the main goal on top of the hierarchy and have to respond and be adapted to changing environmental and marketplace requirements regularly[174]. The generated goal set represents a guideline and should be adapted and extended along the process. The realization of the project and hence, the fulfillment of every single goal has to be done from bottom-up.

[169] Cf. Zahorsky
[170] Cf. Zahorsky
[171] Cf. Zahorsky
[172] Cf. Zahorsky
[173] Otti (2015d)
[174] Cf. Strategy Planning Institute and StratPlan Software, Inc. (2015), p. 30

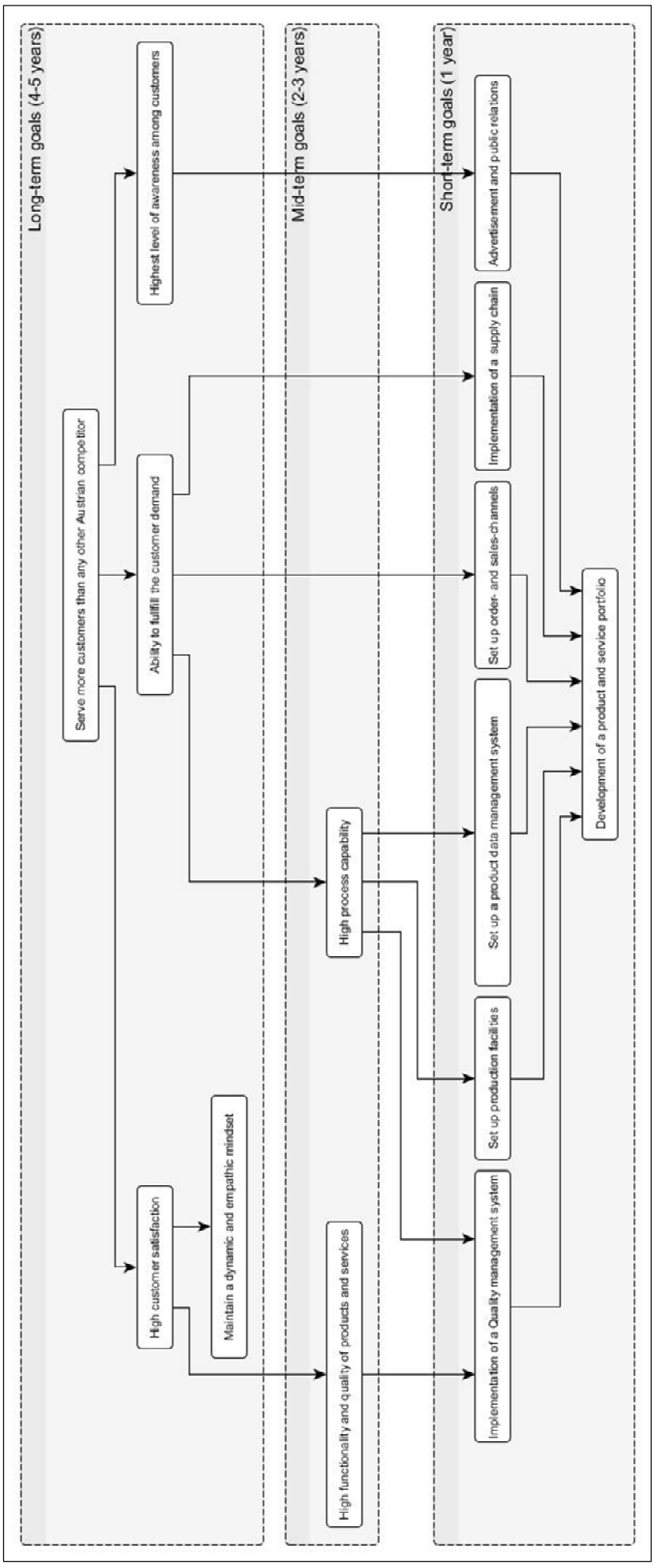

Figure 20: Break down of the vision statement into long-, mid- and short term goals

The following paragraphs explain the meaning of each goal for JO Production in detail.

5.1 Long-term goals

Serve more customers than any other Austrian competitor

This goal is derived from the vision statement in chapter 0. According to the online survey (table 8), the most significant Austrian flightcase manufacturer and biggest Austrian competitor is the company “Austrian Cases” which is part of the Grames GmbH[175]. 5 out of 12 customers (41.7%) that buy their flightcases at Austrian manufacturers named Austrian Cases as their main supplier. To fulfill this goal at least 6 out of 12 customers have to order from JO Production in 2022. Since the market shares of competitors change, competitor and market assessments have to be performed regularly in order to keep the goal up-to-date.

Highest level of awareness among customers

In order to be able to buy products, customers have to be aware of the existence of the company. The goal is to gain the highest customer awareness among the Austrian flightcase suppliers by 2022. This goal is measurable by conducting an online survey and asking customers to name Austrian flightcase manufacturers in their evoked set[176].

Ability to fulfill the customer demand

This rather technical goal aims at the ability to generate the needed output and ensure proper transportation of materials and products i.e. the goal is to provide the needed resources, produce the right products and deliver the products according to changing order quantities.

High customer satisfaction

This goal aims at growth and customer attraction. Meeting customer expectations or even outperforming them results in customer satisfaction and leads to returning customers and word-of-mouth recommendations. Highly satisfied customers do not tend to change the supplier what means that JO Production should aim for a 100% customer satisfaction. This value can be measured by different qualitative and quantitative methods like the Critical-Incident-Method or a survey.[177]

Maintain a dynamic and empathic mindset

The current success of JO Production is, among others, based on a dynamic and empathic team and led to high customer satisfaction. This mindset is part of JO Production’s corporate identity and can be measured together with the customer satisfaction.

[175] GRAMES GmbH (2015)
[176] Cf. Wübbenhorst & Esch (2016), online: <http://wirtschaftslexikon.gabler.de/Archiv/7631/evoked-set-v6.html>
[177] Cf. Kotler, Keller & Bliemel (2007), pp. 46–54

5.2 Mid-term goals

High functionality and quality of products and services

In order to meet the customer expectations, the customer needs (identified in chapter 3.4) have to be known and the offered products and services have to focus on them. A periodic (2-3 years) review of the portfolio and surveys to identify changes of customer needs have to ensure this focus. This goal is based on the identified customer needs represented in figure 9 and is fulfilled if all products and services meet the determined needs and expectations.

High process capability

This goal is achieved by being able to handle all machines and processes needed to produce flightcases within the borders set by the quality management system.

5.3 Short-term goals

Advertisement and public relations

This short-term goal emerged from chapter 4.4.4 and is fulfilled by an annual appliance of the communication policy cycle (figure 18).

Implementation of a quality management system

Implementing a quality management system consisting of quality planning, quality control, quality assurance and quality improvement is the aim of this short-term goal. This will ensure a continuous improvement of the products, services and processes.[178]

Set up a product data management (PDM) system

A PDM system is used to connect different stages (E.g. CAD, CAE and CAM) inside a process chain via a central database. This database stores and provides actual and up-to-date product data.[179] This goal is depending on the technology level of the company and has to be adapted according to the complexity of the products and production facility structure. One possible software solution would be Microsoft Access as an entry into PDM.

Set up production facilities

To set up the needed production facilities is a basic step to start the production and reach the ability to fulfill the customer demands. The needed facilities are based on the product and service portfolio and have to be adapted and extended according to an extension of the portfolio.

[178] Cf. Brückner (2009), pp. 34–35
[179] Cf. Wehlitz (2001), p. 24

Implementation of a supply chain

To acquire reliable sources for all components of a flightcase and build up transportation networks to deliver the finished products is the aim of this goal. Examples of suppliers and parcel services are the leading companies Adam Hall GmbH[180] and GLS[181].

Set up order possibilities and sales channels

The implementation of a website including an online shop and an e-mail address is essential to reach this goal. These order and sales channels emerged out of the favorite communication channels (figure 8) rated by potential customers in the online survey.

Development of a product and service portfolio

Almost all of the long-, mid- and short-term goals are based on a well-defined product and service portfolio. The development of a service and product portfolio according to specifications of the previous chapters will be executed in the following chapter.

[180] Adam Hall GmbH (2016), online: <http://www.adamhall.com/de/Alle_Produkte.html>
[181] General Logistics Systems Austria GmbH (2016), online: <https://gls-group.eu/AT/de/versandunternehmen>

6 Service and product portfolio

A focused orientation of the product and service portfolio can only be successful if the aim is clear. Therefore, the chapters 3 and 4 provide guidelines and strategies for the development of a portfolio in this chapter.[182]

6.1 Product variants

In order to be flexible and cover diverse customer requirements, companies offer both, traditional products and individualized solutions. This strategy is often applied in the software segment but is also applicable for the flightcase segment.[183] For example the German company “ProCase GmbH” offers a large variety of standardized flightcases in its online shop and individualized solutions for special customer requirements (as shown in chapter 3.3).

6.1.1 Standardized Products

The reproduction of a product for multiple sales results in a reduced number of options for the customer. Either the customer accepts the offered product, goes for an alternative product or declines the product. Since the beginning of the industrialization, customers appreciate low prizes for products which have been reproduced and accept that they are not able to ask for further individualization. These products are traditional consumer goods which are not further adapted after they leave the production.[184] In every case a reproduced product does not serve a single customer but is supposed to serve the entire market. It only makes sense to offer standardized products if the characteristics of the product (e.g. price) are more beneficial than the disadvantages which come along with the failure to fulfill individual customer requirements.[185] Figure 21 shows that reproductions of a product does not aim at a specific customer but at the entire market.

[182] Cf. Grimm (2014), pp. 51–52
[183] Cf. Grimm (2014), p. 16
[184] Cf. Grimm (2014), p. 21
[185] Cf. Grimm (2014), p. 23

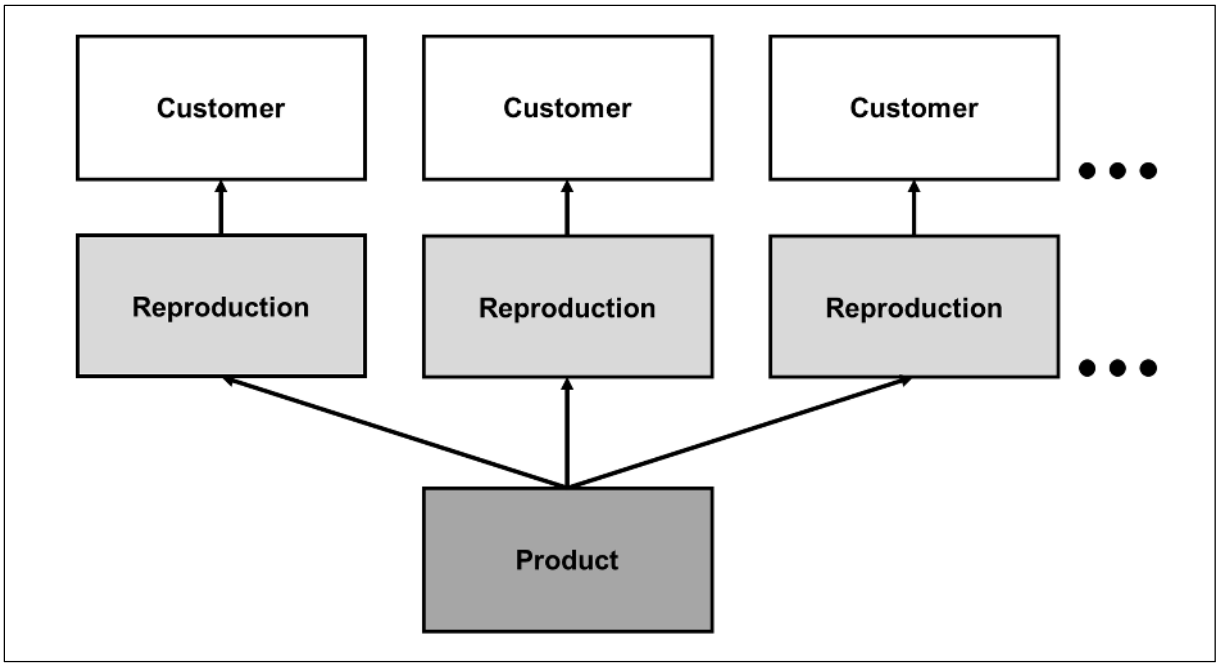

Figure 21: Standardized product levels.[186]

As we saw in the market analysis in chapter 3.4, there is a significant market for alternative products for flightcases. To increase the acceptance for flightcases, JO Production has to compensate the natural disadvantages of flightcases (e.g. weight) and come up with innovative products which can compete with alternative products. In general, JO Production should not focus on standardized products since those cannot fit the companies' guideline of individualized, customer oriented products. However they can be a profitable extension of the portfolio which can easily be offered in an online store.

Table 11 shows some potential standardized products which could be offered by JO Production directly in an online store.

Product	Target group	Description
Cases for truss connecting elements	Event engineers, Musicians	Flightcases for truss connecting elements are simple accessory cases with a number of different inlays which can be exchanged according to the truss brand used by the event engineer.
Tool cases	All groups	Tool cases are used in nearly all target groups identified in chapter 3.2.

[186] Based on Grimm (2014), p. 22

Accessory cases	Event Engineers, Musicians	To store sound, light and video equipment accessories as well as personal stuff or music instrument accessories a variety of accessory cases with different sizes can be reproduced and offered.
19'' rack cases	Event engineers, musicians, IT	19'' rack cases are very common and can carry various devices with this specific width[187]. As a standardized product it has to be offered in a number of hights, so called rack units (1U=1 ¾ inch= 44,45 millimeter)

Table 11: Standardized product recommendations for the portfolio of JO Production.

For the completeness of this thesis the big target group of B2B customers such as sound or light OEM's have to be mentioned. These order standardized flightcases in huge quantities for their sound or light equipment.

6.1.2 Meta-products

To follow an uncompromising "Take it or leave it!" strategy in sectors where customers are dissatisfied with standardized solutions is dangerous and often followed by disadvantages for the producer. Even if the standardized products share the same basis with individualized ones, not responding to the individual needs of the customers could end up in unsaleable products. For meta-products a common basis is designed which allows modifications for specific needs. The extension modules can be generated by the company itself or from partner companies with a specific know-how.[188] In contrast to standardized products, figure 22 shows that the meta-products serve specific customers and their needs.

[187] Otti (2015b)
[188] Cf. Grimm (2014), p. 23

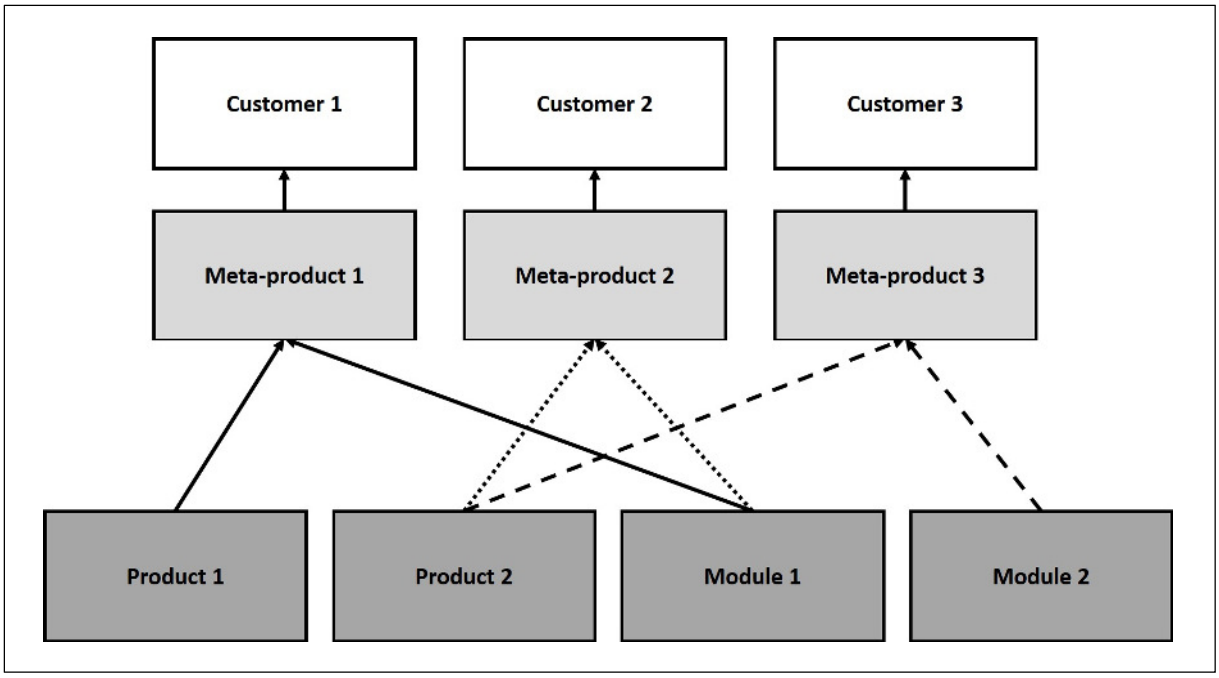

Figure 22: Meta-product levels[189]

A perfect representative of meta-products are 19'' rack cases. These kind of flightcases can be easily produced by JO Production and extended by different external modules according to the customer demands. There are many products available for musicians and event engineers with this specific width as shown in figure 23.

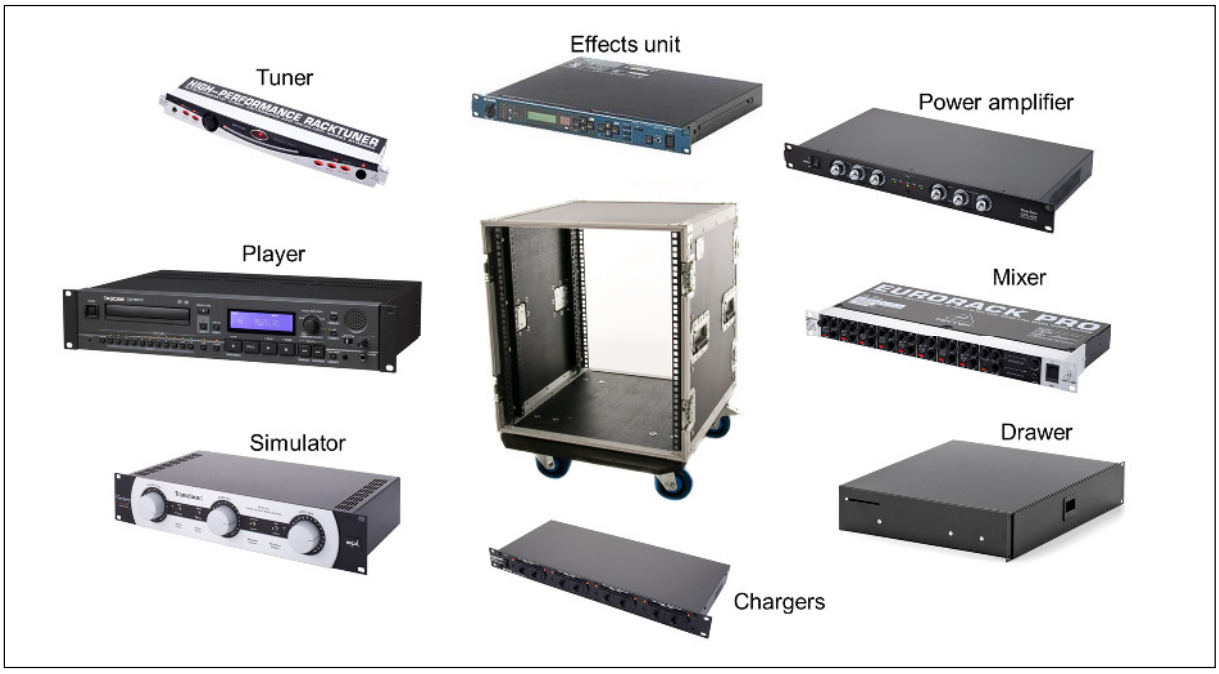

Figure 23: 19" rack case and some 19" modules [190]

[189] Based on Grimm (2014), p. 24
[190] Thomann GmbH (2016), prepared by the author

Some examples of meta-products which would be applicable for JO Production are shown in table 12.

Product	Target group	Description
Refrigerator case	Furniture, event engineering, catering, merchandizing	A basic flightcase produced by JO Production that can be equipped with a variety of refrigerators.
Musicians “Plug & Play” rack	Musicians	Flightcases with preassembled guitar equipment such as amplifier, pedalboard, tuner and drawers for cables or personal equipment represent additionally to the protection of the equipment a simplification and time reduction for the assembly on stage.

Table 12: Meta-product recommendations for the portfolio of JO Production.

The difficulty of meta-products is the degree of complexity. Too many extension modules result in high product management efforts and the loss of the product’s identity. Although it is difficult to keep the balance between complexity and simplicity, this kind of product is applied more and more often because it allows a compromise between reproduction of a product and individualization according to customer specifications.[191]

6.1.3 Individual products

In higher developed sectors customers are hardly satisfied with a limited offer of individualization. The reason is that a higher level of development often comes along with a higher degree of specialization and focus on single activities. For such sectors individually adapted products are essential. It is common that companies which produce individual products use checklists to comprehend the order and operate project based. These products are not reproductions of products but of processes as shown in figure 24. Customers are willing to pay a higher price if their individual needs are met. The challenge for manufacturers in this product category is to detect periodic patterns and standardize these processes. Most of the time individualized solutions can be reached by well-defined processes.[192]

[191] Cf. Grimm (2014), pp. 25–26
[192] Cf. Grimm (2014), pp. 26–27

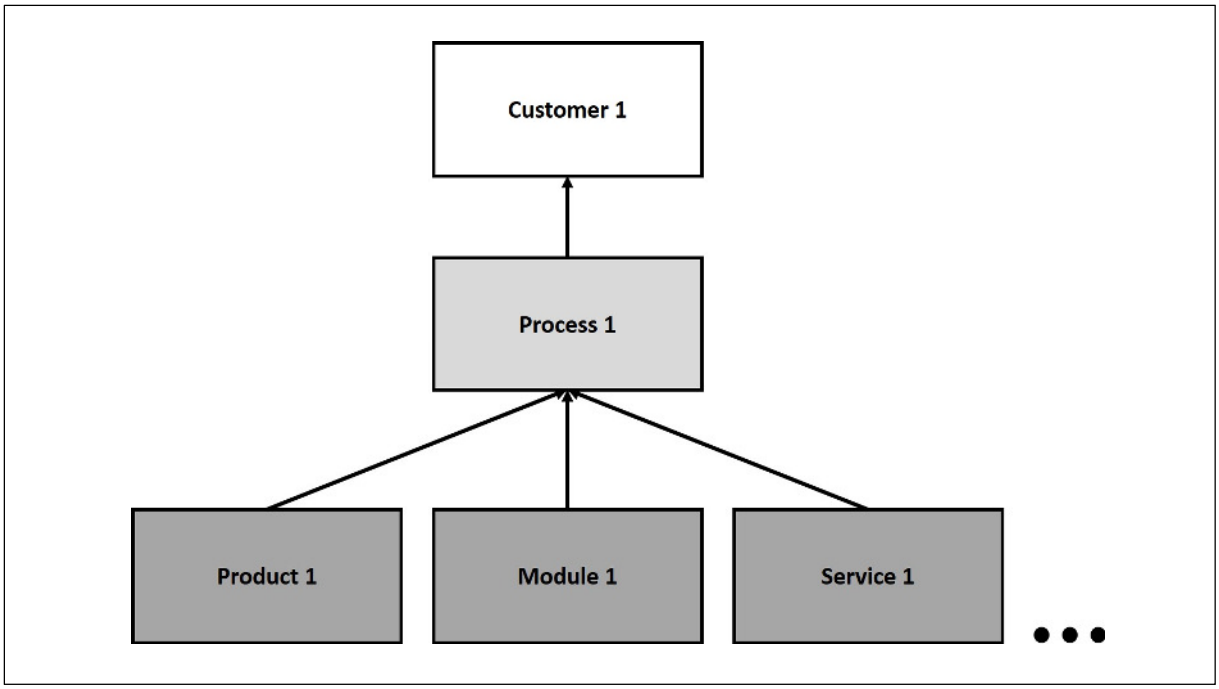

Figure 24: Individual product levels.[193]

Most of the Austrian flightcase manufacturers only focus on individualized products. However, chapter 3 has shown that this strategy is not constructive.

Examples for individualized products which could be offered by JO Production are:

Product	Target group	Description
Cases for special light or sound equipment	Event engineers	These flightcases are very common because of additional compartments for equipment accessories and the individualized shock absorbing foam.
Accessory cases	Event engineers, musicians	As basic flightcase for every event engineers inventory the flightcases can store nearly everything. Often the case is separated inside with flexible walls to change the size of the internal compartments.
Promotion flightcases	Industry	These flightcases are for an appealing representations of products. Often alcoholic drinks and glasses are transported in such branded flightcases.

[193] Based on Grimm (2014), p. 27

Musical instrument cases	Musicians	These flightcases need special care when adapting the foam to the musical instrument because of the instrument´s sensitivity.
Promotion stand	Industry	Promotion stands are often made out of uncountable pieces of pipes, plates, connections and trusses etc. which are normally transported by multiple bags or boxes. A promotion stand which fits into one flightcase would be a clear USP.

Table 13: Individualized product recommendations for the portfolio of JO Production

6.2 Gradual development of the portfolio

If the success of a project is hardly predictable, it is an advantage to develop the project gradually to reduce risks although it implies an increase of costs and time[194]. For JO Production this approach can be applied as follows:

1. Gradual increase of the product portfolio (Figure 25).
   Every customer request for an individual product has to be executed in a way that a further reproduction of this product is possible. For instance a musician orders one flightcase which should contain all of his equipment he needs on stage. Since this product has not been in JO Production's meta-product or standardized product portfolio yet, it has to be developed and produced especially for this customer. However, if there is enough market potential for this product it can be offered as a meta-product or standardized product as well.[195]

[194] Cf. Grimm (2014), p. 18
[195] Cf. Grimm (2014), p. 43

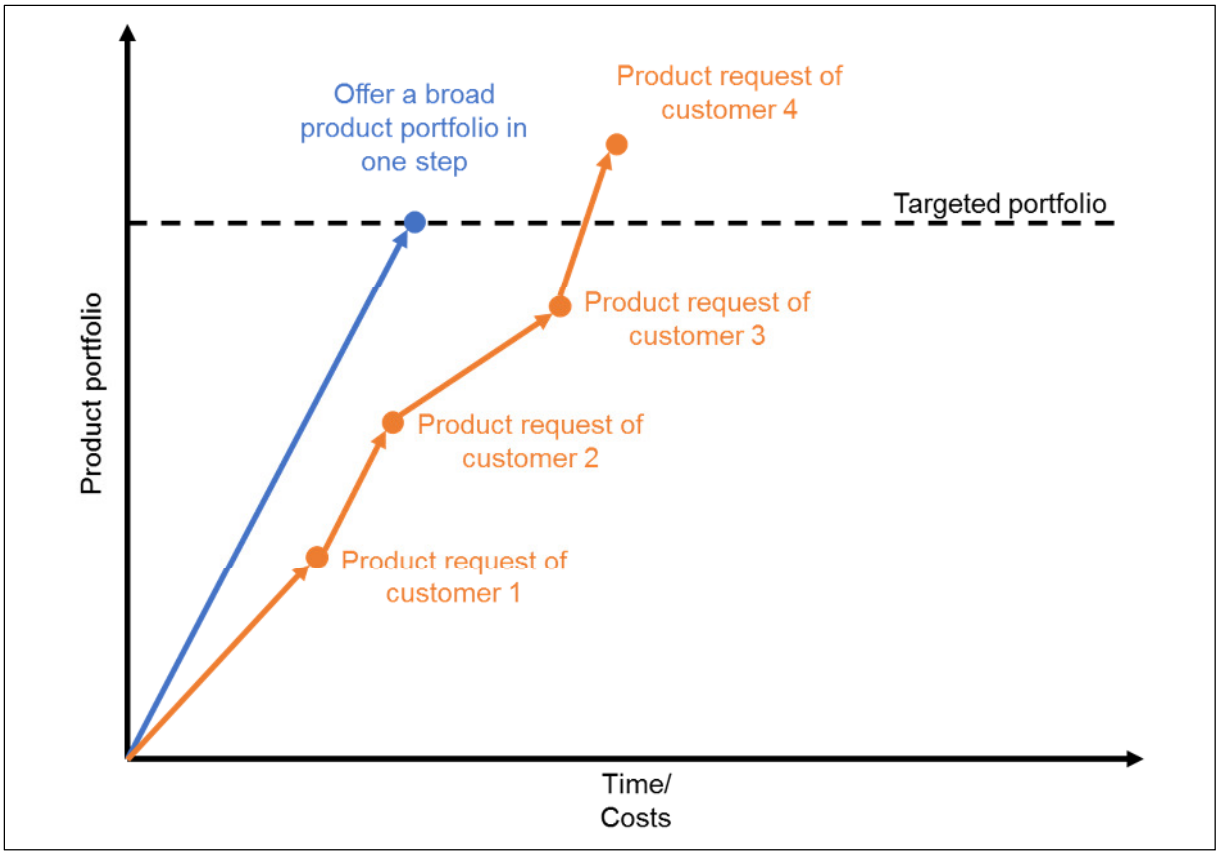

Figure 25: Gradual development of the product portfolio.[196]

Figure 26 shows that if an individual product was developed it is possible to gain several meta-products or even standardized products out of it. Such portfolio extensions have to be inveCfstigated thoroughly because of the threat of an uncontrollable growth of the portfolio which comes along with high administrational costs[197].

[196] Based on Grimm (2014), p. 19
[197] Cf. Grimm (2014), p. 25

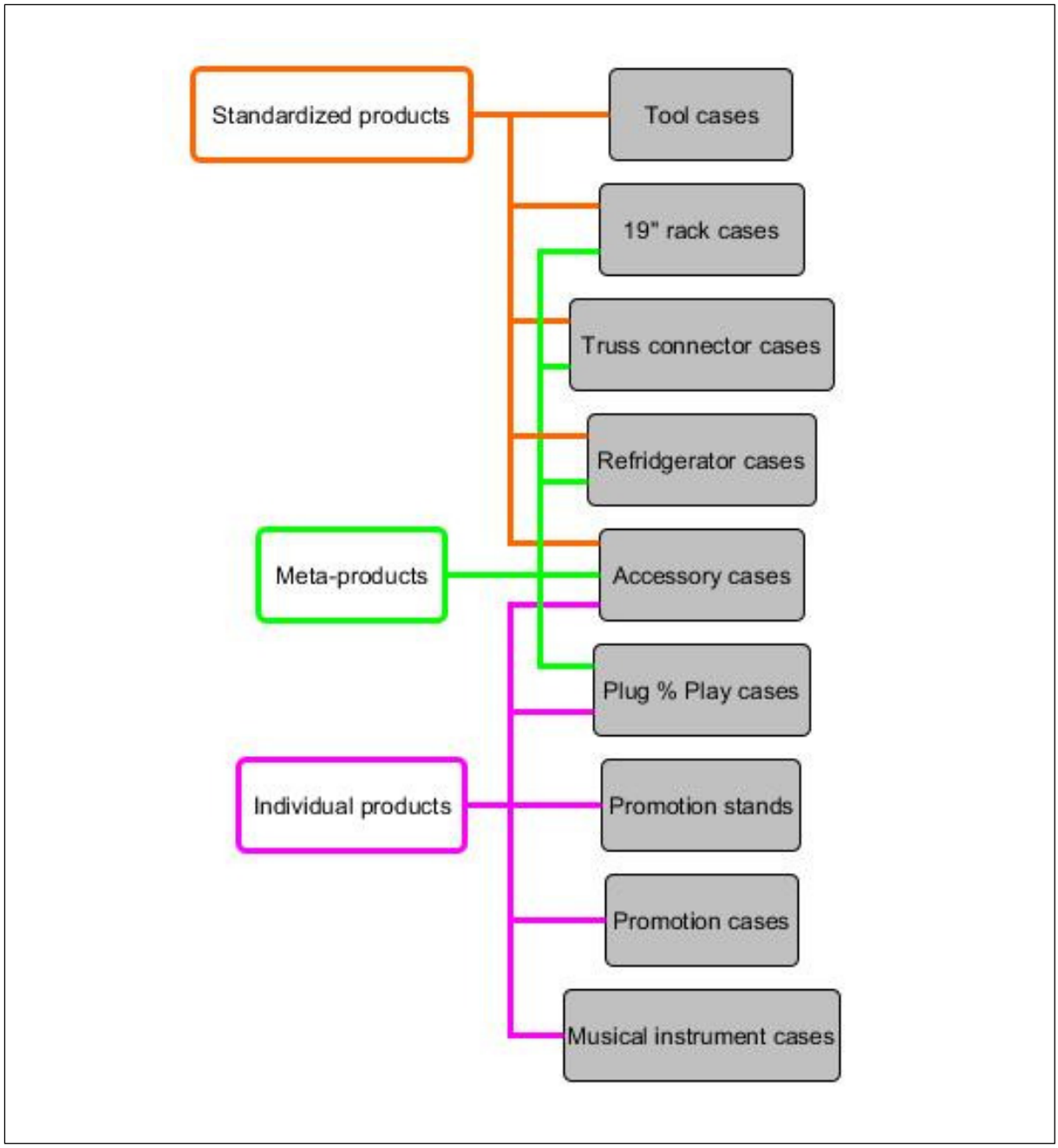

Figure 26: Assignment of potential portfolio elements to multiple product categories

2. A gradual increase of the manufacturing technology level (Figure 27) comes along with growing order numbers. The shop floor single unit production is a very basic production concept which guarantees a maximum of flexibility[198]. According to the goals defined in chapter 5, at some point the shop floor production has to be extended because of the increasing number of orders. The gradual approach of starting at a shop floor production and increasing the technology level according to order numbers would increase the costs. This is due to the uselessness of some machines when implementing a more advanced production technology (e.g. when a fully automated production cell replaces a milling machine). On the other hand, this

[198] Cf. Kletti & Schumacher (2014), p. 45

approach would significantly increase the security of the project because of the lower financial risk of an organic growth.

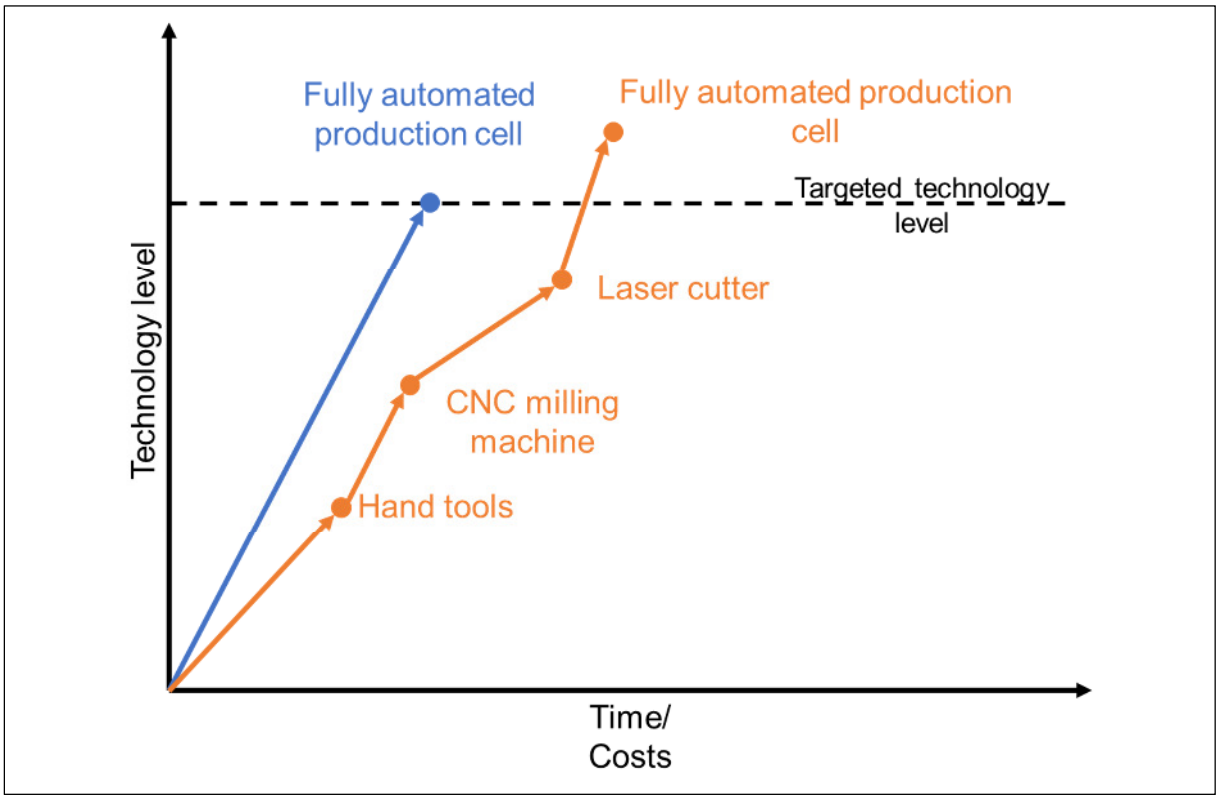

Figure 27: Gradual development of the technology level[199]

6.3 Spreading the risk

Investing in some product lines which are depending on different influencing factors would spread the risk and is often applied by agricultural businesses as using intercropping. A multiple product strategy increases the probability that at least one product is successful.[200]

If JO Production would implement all three product categories as described in chapter 6.1, the probability that all three products are successful is as follows: Index A refers here to standardized products, index B to meta-products and index C to individual products.

$$P_{(A \cap B \cap C)} = P_{(A)} * P_{(B)} * P_{(C)}$$ [201]

With hypothetical values for the success of the products by Johannes Otti:

$$P_{(A \cap B \cap C)} = 70\% * 35\% * 70\% = 17\%$$

[199] Based on Grimm (2014), p. 19
[200] Cf. Grimm (2014), pp. 31–32
[201] Grimm (2014), p. 32

The probability that at least one of these three products is successful is:

$$P_{(A \cup B \cup C)} = P_{(A)} + P_{(B)} + P_{(C)} - P_{(A \cap B \cap C)} - P_{(A \cap B)} - P_{(B \cap C)} - P_{(A \cap C)}$$ [202]

$$P_{(A \cup B \cup C)} = 70\% + 35\% + 70\% - 17\% - 24.5\% - 24.5\% - 49\% = 77\%$$

This calculation demonstrates that the probability for the success of a portfolio increases with the amount of products. The probability would decrease for products which are depending on each other. It makes sense to have a portfolio with several products which are not influencing each other and which are depending on few influencing factors. The disadvantage is that independent products often come along with additional costs. On the other hand, the placement of one product in different markets increases the probability for success while the costs would nearly stay the same.[203]

Following additional costs should be considered:[204]

1. Multiple market researches (for every product)
2. Multiple costs for the product lifecycle (development, documentation, sales, maintenance)
3. Multiple costs for reporting and administration

Since the products are independent and the additional costs are very low for the three product categories, JO Production should realize all of these products. This would increase the probability for success significantly.

6.4 Potential Services

Companies are permanently forced to differentiate themselves from their competitors because of an increasing homogenization of products as well as stagnating markets. This results in an increased intensity of competition and pricing. Companies react to this development by offering additional services to their customers.[205]

Customers often do not want isolated products but competent solutions for a specific problem[206]. Therefore, a set of services was determined in cooperation with Johannes Otti[207] and rated by Austrian event engineers and musicians in the online survey (Figure 28) to identify potential services which would be honored by the customer.

[202] Grimm (2014), p. 33
[203] Cf. Grimm (2014), p. 34
[204] Cf. Grimm (2014), p. 35
[205] Cf. Schallmo (2013), pp. 1–2
[206] Cf. Nagl (2014), p. 41
[207] Otti (2015e)

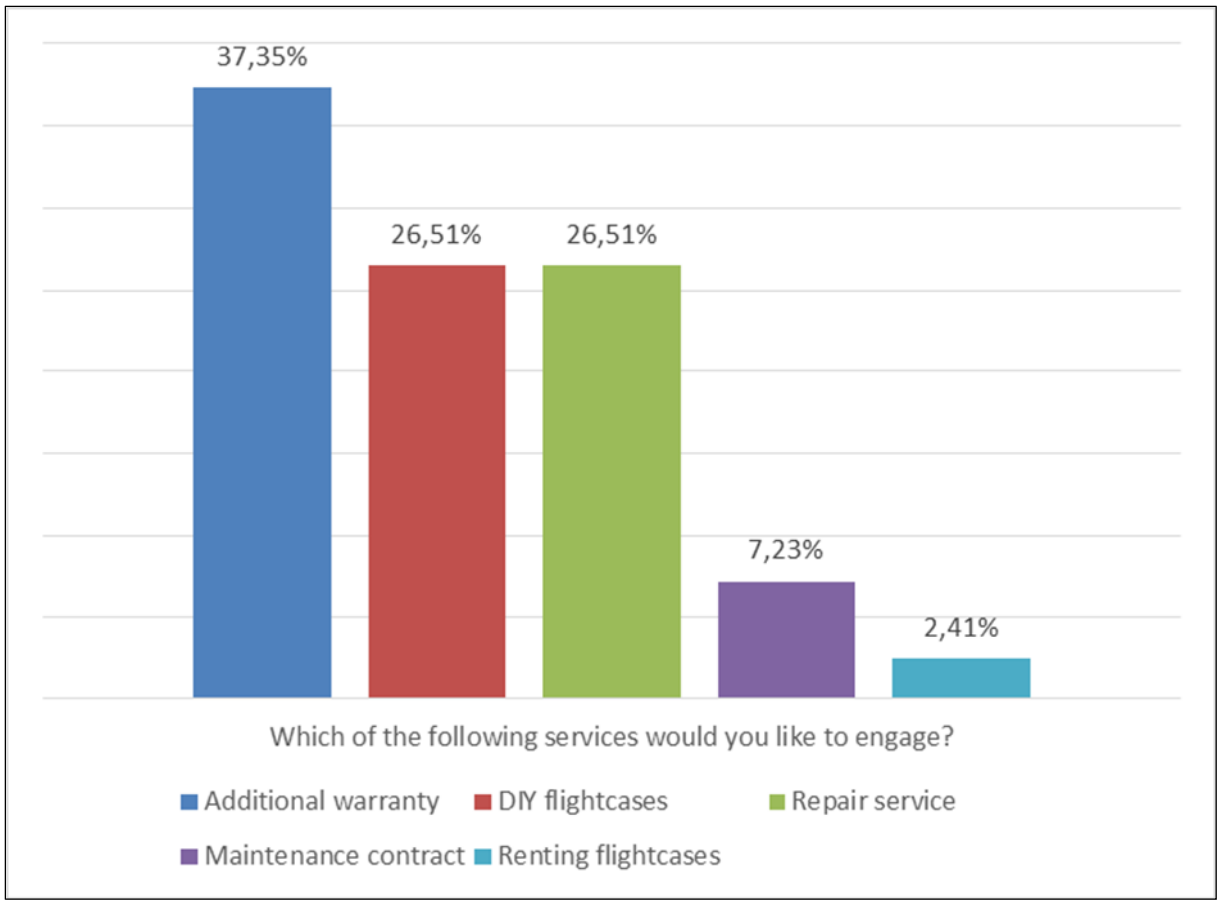

Figure 28: Additional services that could be provided by JO Production

The additional service “DIY flightcases” emerged when the answers to table 7 were reviewed. According to the survey, 15.32% of the Austrian event engineers and musicians build their flightcases on their own. This led to the idea of providing pre-cut plywood, catches, pre-cut aluminum extrusions, fittings, handles and corners to the customer so that the expensive assembly process can be carried out by the customer. Johannes Otti calls it the “IKEA principle” because of the similarity to the construction kit strategy of the IKEA furniture store[208].

All in all figure 28 and table 5 show that offering additional warranty, DIY flightcases and a repair service are demanded by the customers and not yet offered by Austrian manufacturers. This is a great opportunity for JO Production to gain an advantage.

[208] Otti (2015e)

6.5 Example: Truss connector case

To gain better insights into cost, material and development structures and processes, a first prototype was developed at JO Production.

JO Production's event engineering sector needs a flightcase for its trussing system to transport and organize the connecting elements. So the standardized flightcase for truss connector elements as described in chapter 6.1.1 was chosen and built from scratch.

6.5.1 Analysis

To get information about the product structure of a flightcase, several of JO Production's flightcases have been analyzed and disassembled. Basically, a flightcase consists of the following elements (figure 29 and table 14):

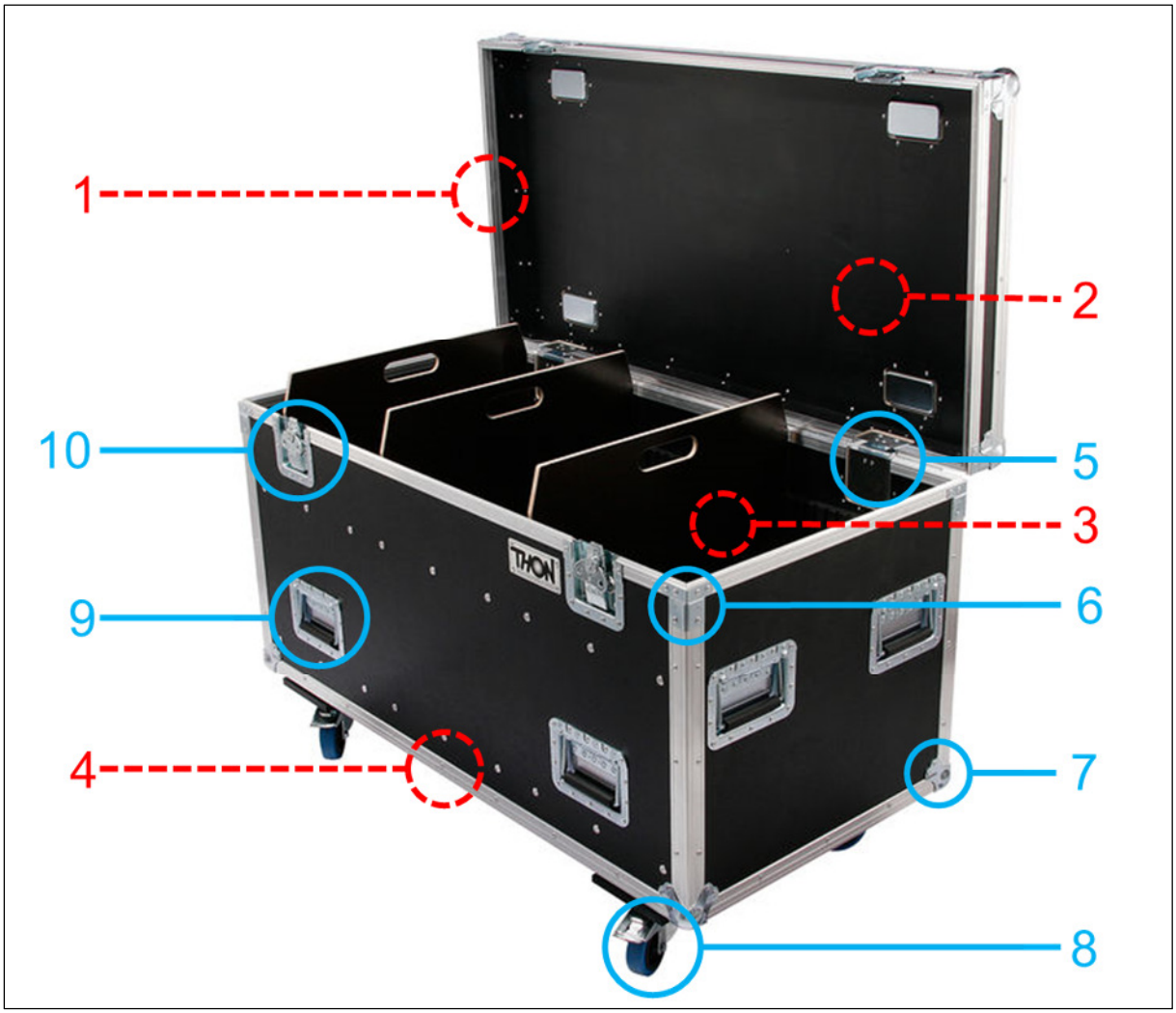

Figure 29: Accessory case and its components [209]

[209] Thomann GmbH (2016), prepared by the author

Number	Name	Average quantity per flightcase	Description
1	Lid location	8	These aluminum extrusions secure the closing of the upper and lower part of the flightcase and have to be cut according to the main dimensions of the flightcase.
2	Wood or plastic sheets	10	The most common material is plywood, plastic-coated with stabilizing foil. The plates have to be cut according to the main dimensions of the flightcase and additional pockets have to be cut out to fit the catches and handles.
3	Felt or foam	-	Depending on the equipment which has to be transported, the flightcases are filled with felt or foam. The felt protects from scratches and the foam additionally absorbs shocks and vibrations
4	Case angle	16	These aluminum extrusions ensure a fixed joint between the wood or plastic walls by connecting them with rivets.
5	Hinges and lidstays	2-4	The hinges and lidstays are standard parts and connect the lid with the lower part of the flightcase.
6	Corner braces	8	These standard parts support the corners of the flightcase to give stabilization.
7	Corners	8	Very common are ball corners. They compensate shocks on the edges of the flightcase.
8	Wheels	4	Wheels are needed for cases which exceed the size of a suitcase.
9	Handles	8	It is common to place two handles on each side of the flightcase to lift them on other cases or for vehicle loading.
10	Catches	2-4	The catches provide a fixed connection between the lid and the lower part of the flightcase.

Table 14: Flightcase components

The interior of a flightcase depends very strongly on its field of application and the transported goods. This is why it is not listed in table 14. Also for 19'' rack cases there are some more extrusions and other elements needed for the interior which are not mentioned here either.

6.5.2 CAD design

The next step at developing the prototype was the CAD design of the flightcase. Figure 30 shows the assembly of the truss connector case without the standard parts like handles and corners.

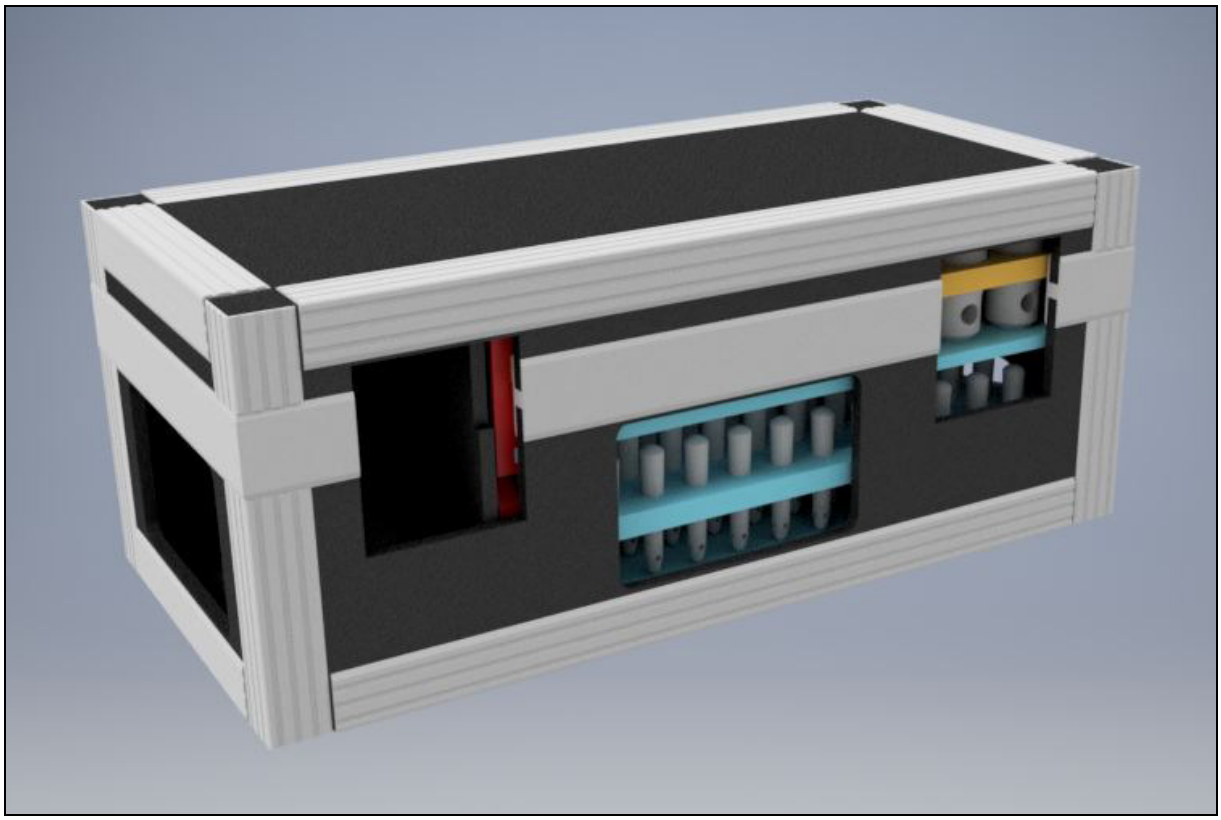

Figure 30: Truss connector case assembly

The inlays which are shown in figure 31 and figure 32 carry the two connecting elements and can be simply placed inside the flightcase.

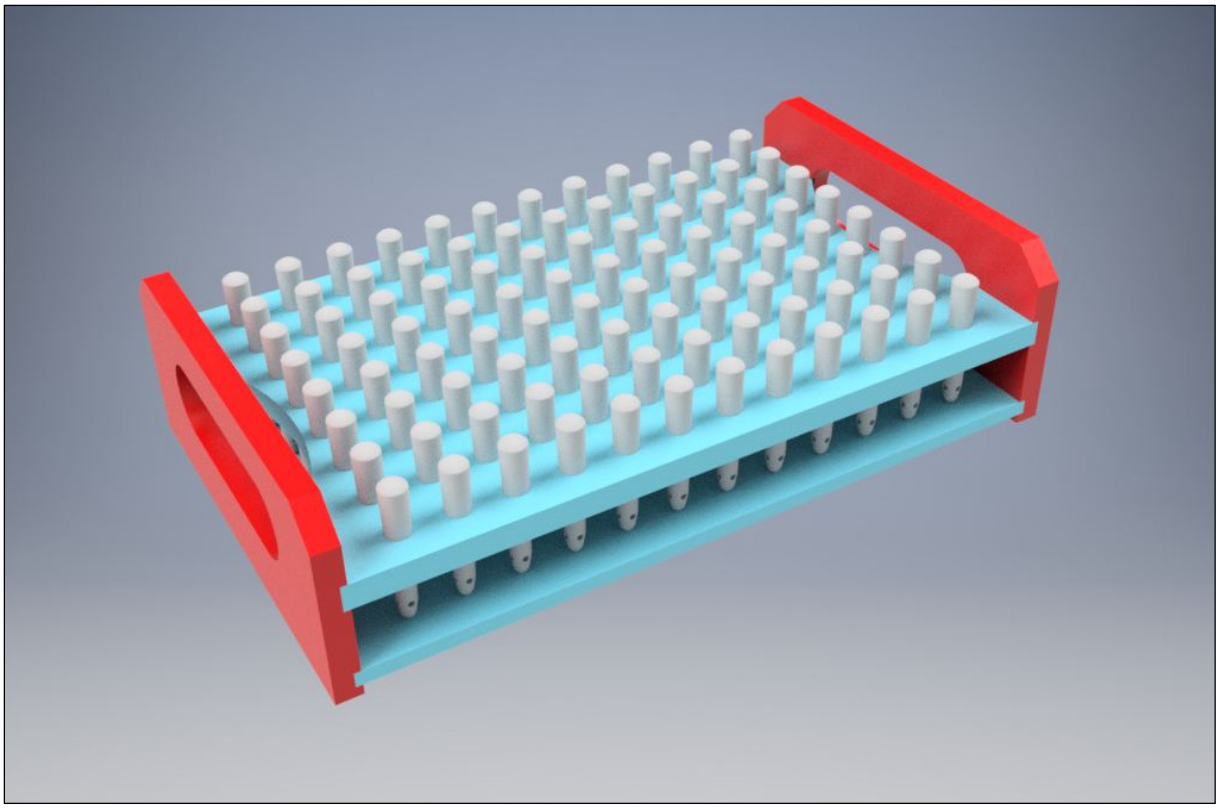

Figure 31: CAD design of the bolt inlays

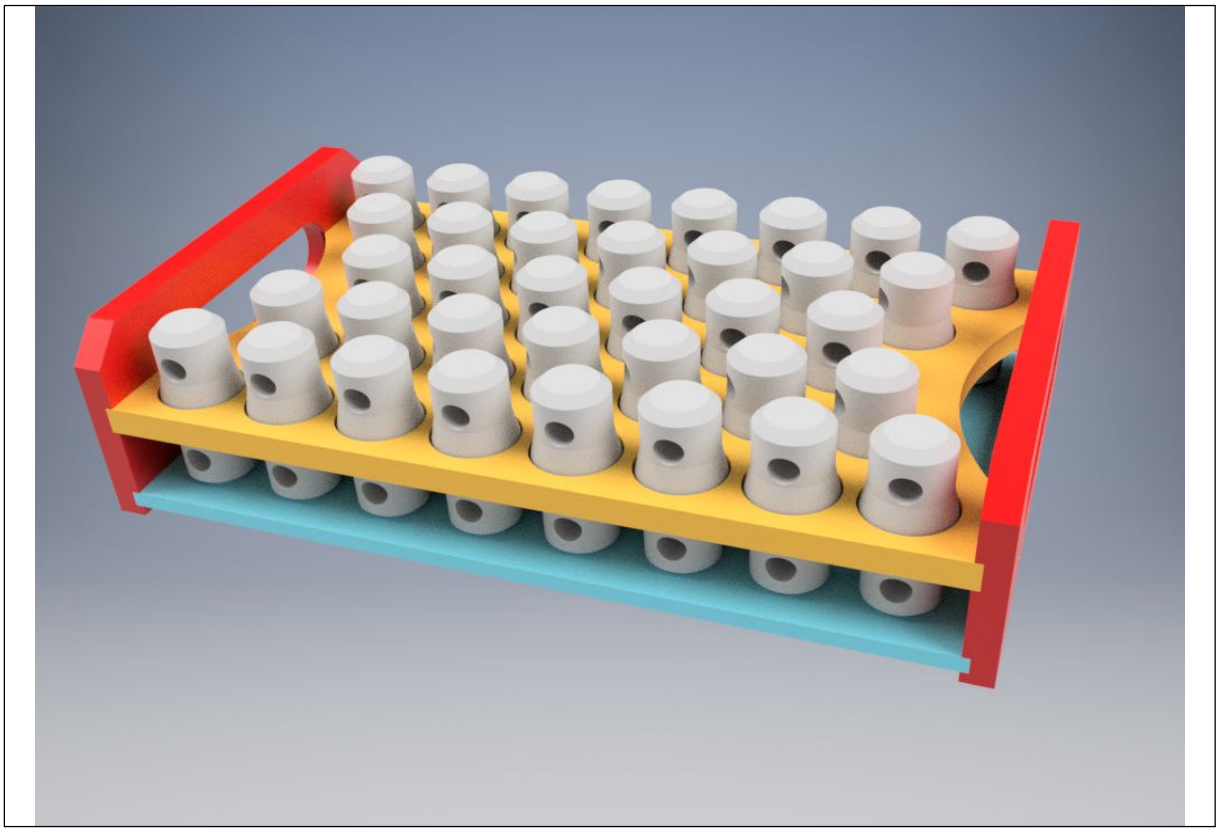

Figure 32: CAD design of the connector inlays

After designing the flightcase, all blueprints for the machining and the Bill of material (BOM) for ordering were generated.

6.5.3 Ordering

For ordering the Adam Hall GmbH[210] was used as source for the entire material displayed in table 15.

Element	Material	Quantity	Dimensions [mm]
Base plate	7mm plywood	2	218x468
Side plate	7mm plywood	2	218x130,5
Front and rear plate	7mm plywood	2	482x130,5
Lid front and rear plate	7mm plywood	2	482x55,5
Lid side plates	7mm plywood	2	218x55,5
Case angle	30x30 aluminum extrusion	4	424
Case angle	30x30 aluminum extrusion	4	115,5
Case angle	30x30 aluminum extrusion	4	40,5
Case angle	30x30 aluminum extrusion	4	174
Hybrid lid location	7mm aluminum extrusion	4	235
Hybrid lid location	7mm aluminum extrusion	2	190
Hybrid lid location	7mm aluminum extrusion	4	70,5
Hybrid lid location	7mm aluminum extrusion	2	485
Butterfly catches		2	
Ball corners		4	
Case handles		2	
Lidstays		2	
Corner braces		8	

Table 15: Bill of material (BOM) of the “Truss connector case” (without inlays)

[210] Adam Hall GmbH (2016)

6.5.4 Machining

The machining of the plywood and the aluminum extrusions was done entirely by hand in JO Production's shop floor. Since the plywood was delivered as a 2x1 m plate, a cutting layout was designed (figure 33) to reduce waste and minimize the cutting effort.

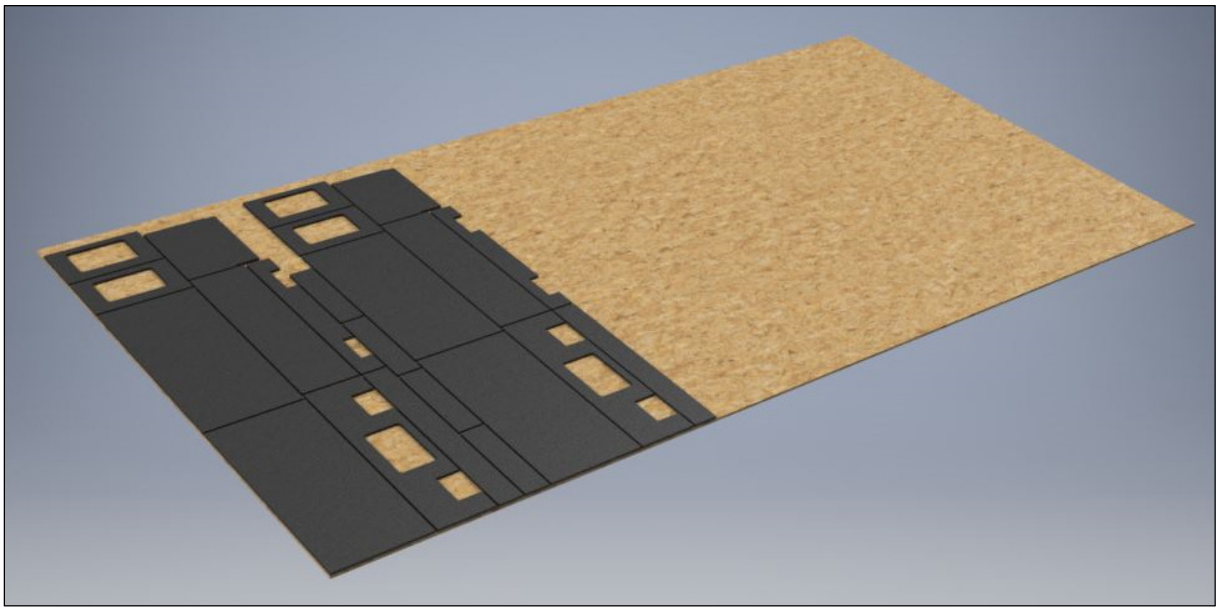

Figure 33: Cutting layout for the plywood plate.

6.5.5 Assembling

All elements were joined with simple pop-rivets.

Although the time of producing the prototype was not even close to the production time of an optimized production process, the bottleneck of the process could be determined. With about 70% of the total production time, the machining process was the most time consuming process. The CAD design with about 15% will definitely be reduced for further prototypes because of the reuse of already designed aluminum extrusions. Also the assembly process took about 15% of the overall production time. By eliminating the bottleneck of machining by investing in better tools or even CNC-machinery, a significant increase of productivity could be reached. This will be part of the scenario analysis in chapter 8.

7 Pricing

In the end the price is the crucial factor that generates income. On one hand, it specifies the revenue per sold product and on the other hand, it is an important – but not the only – decision criterion for customers to buy the product.[211] At this point of the thesis, the market and the portfolio are already investigated and known so that the pricing policy and the price can be determined in this chapter.

7.1 Pricing strategy

The pricing policy has to be coordinated and harmonized with the corporate strategy developed in chapter 4. It is a major instrument to address different groups of buyers and points the way for future price developments.[212]

Premium pricing

As shown in figure 15, a premium pricing is often followed to address a specific group of buyers and their need of high quality products. A high price can maximize the earnings, build up a specific image and generate customer loyalty.[213]

Since JO Production should emphasize its high quality image and focuses on the main customer needs of functionality and quality (shown in figure 9), a premium price strategy would fit perfectly.

Low price strategy

Low price strategies are often applied for saturated markets where competitors have established leading positions or if the own USPs do not offer important benefits for the customers and therefore, a cost leadership would form a new USP.[214]

This strategy was considered and rejected in chapter 4.2 by following a differentiation strategy.

Dynamic pricing

A dynamic price policy does not stick to one price policy but is adapted constantly according to factors like market, customer, environment or company internal factors. Examples are season-based pricing models, regional pricing models or workload-based models.[215]

For JO Production such a dynamic pricing model does not make sense since the market and the environment are stable and variable prices could lead to customer dissatisfaction.

[211] Cf. Grimm (2014), p. 136
[212] Cf. Grimm (2014), p. 137
[213] Cf. Grimm (2014), p. 137
[214] Cf. Grimm (2014), p. 137
[215] Cf. Grimm (2014), p. 137

Many companies that follow a price policy generated hybrid forms of premium and low price strategies. This is done to increase the production volume and hence, reduce the fixed costs per product unit. The mixture of premium and low price products could damage the image of a company critically.[216]

7.2 Price calculation

Following three methods can be used to ascertain and identify the product price. The methods are applied for the truss connector case developed in chapter 6.5.

Cost oriented pricing

The so called cost-plus pricing uses the cost structure of the products to determine the production costs and add then a mark-up as shown in figure 34[217].

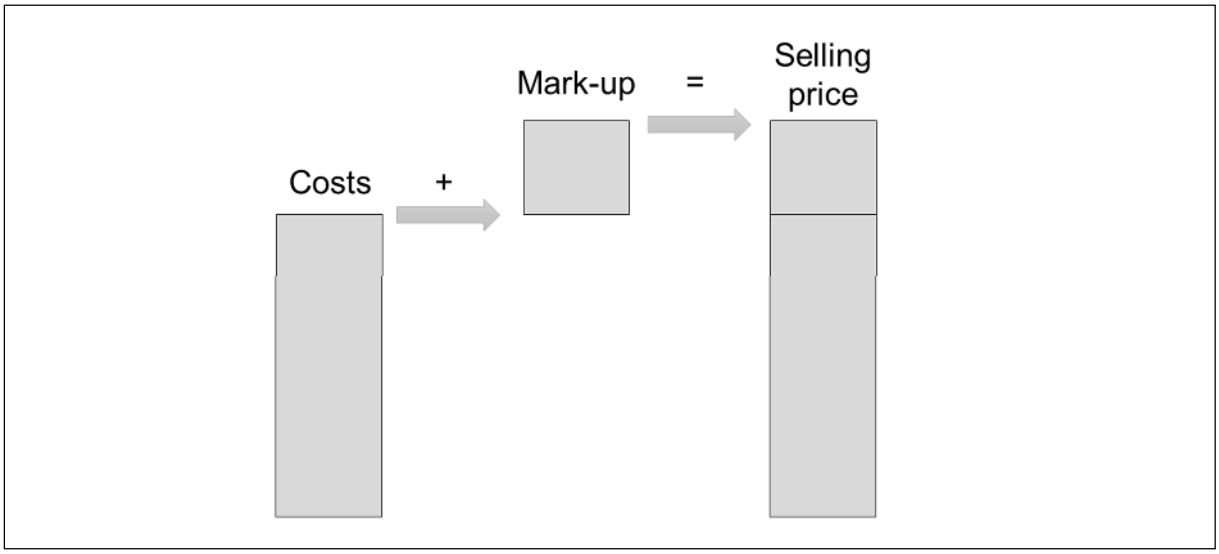

Figure 34: Cost-plus pricing [218]

This cost oriented method gives the possibility to decide whether a project or product is worth of realizing it. But it considers the product itself only and excludes possible synergetic effects, market potentials or the value for the customer. This is why this method is often used to define a lower price limit which enables a comparison to market oriented prices and provides information about the profitability of the product.[219]

[216] Cf. Grimm (2014), p. 138
[217] Cf. Nagl (2014), p. 42
[218] Based on Grossklaus (2014), p. 204
[219] Cf. Grimm (2014), p. 139

For the truss connector case the cost-oriented pricing is calculated as follows:

Net costs			
	Direct material costs		58.77
+	Material overhead costs	10%	5.88
=	**Material costs**		**64.65**
	Direct production costs		30.07
+	Production overhead costs	15%	4.51
=	**Production costs**		**34.58**
	Material costs		64.65
+	Production costs		34.58
=	**Manufacturing costs**		**99.23**
+	Administrative overhead costs	5 %	4.96
+	Sales overhead costs	2 %	1.99
=	**Calculated net costs**		**106.18**
List price			
	Calculated net costs		106.18
+	Mark-up	15 %	15.93
+	Cash discount	2 %	2.12
=	**List price before tax**		**124.23**

Table 16: Calculation of the list price for the truss connector case[220]

[220] Based on Wildt & Alexander, online: <http://www.controllingportal.de/Fachinfo/Kostenrechnung/Preiskalkulation-Wie-kalkuliere-ich-meinen-Verkaufspreis.html>

Competition-based pricing

The competition-based pricing strategy determines a benchmark price which is usually either the price of the market leader or the average market price[221]. This method is based on a detailed market analysis and includes market factors like purchasing power, requirements of the market, legal factors like patents or the competition within market[222].

The research for competitor products for JO Production's truss connector case is shown in table 17. According to Johannes Otti these products have slightly less quality than the JO Production standard[223]. All displayed prices are without taxes and shipping costs.

Dealer/ Manufacturer	**Picture**	**Price**
MUSIC STORE professional GmbH[224]		83.20€
Licht Produktiv[225]		96.64€
Thomann GmbH[226]		100.00€

[221] Cf. Nagl (2014), p. 42
[222] Cf. Grimm (2014), p. 139
[223] Otti (2015f)
[224] MUSIC STORE professional GmbH (2016), online: <https://www.musicstore.de/de_CH/CHF/Accu-Case-ACF-SW-Conus-Case-fuer-Konus-Bolzen-Splinte/art-LIG0005666-000>
[225] Licht Produktiv (2016), online: <http://www.licht-produktiv.de/Dap-Audio-UCA-CA1-Conical-ADap-Audioter-Case-I>
[226] Thomann GmbH (2016), online: <http://www.thomann.de/de/thon_traversenverbinderkoffer_24_48.htm?ref=search_rslt_Truss+Bolts+Case+_187774_3>

Pro Lighting e.K.[227]		91.60€
Average Price		**92.86€**

Table 17: Calculation of the average market price for truss connector cases

An offer from Amp Town Cases GmbH[228] who are producing high quality cases is about 160.00 € per truss connector case[229].

Demand-oriented pricing

With this method the price is determined by investigating what price the customer is willing to pay[230]. It can be investigated by simply asking benevolent customers. These prices represent a good guideline for the upper price limit. This method is also called “value-based pricing”.[231]

[227] Pro Lighting e.K. (2016), online: <http://www.prolighting.de/Traversen/Transportsysteme/Stacking_Case_fuer_48_konische_Trussverbinder_Trusskoffer_i1300_17662_0.htm>
[228] Amp Town Cases GmbH (2016), online: <http://www.amptown-cases.de/?page_id=12490>
[229] Otti (2015f)
[230] Cf. Nagl (2014), p. 42
[231] Cf. Grimm (2014), p. 140

The combination of these three methods for ascertaining the price is illustrated in figure 35.

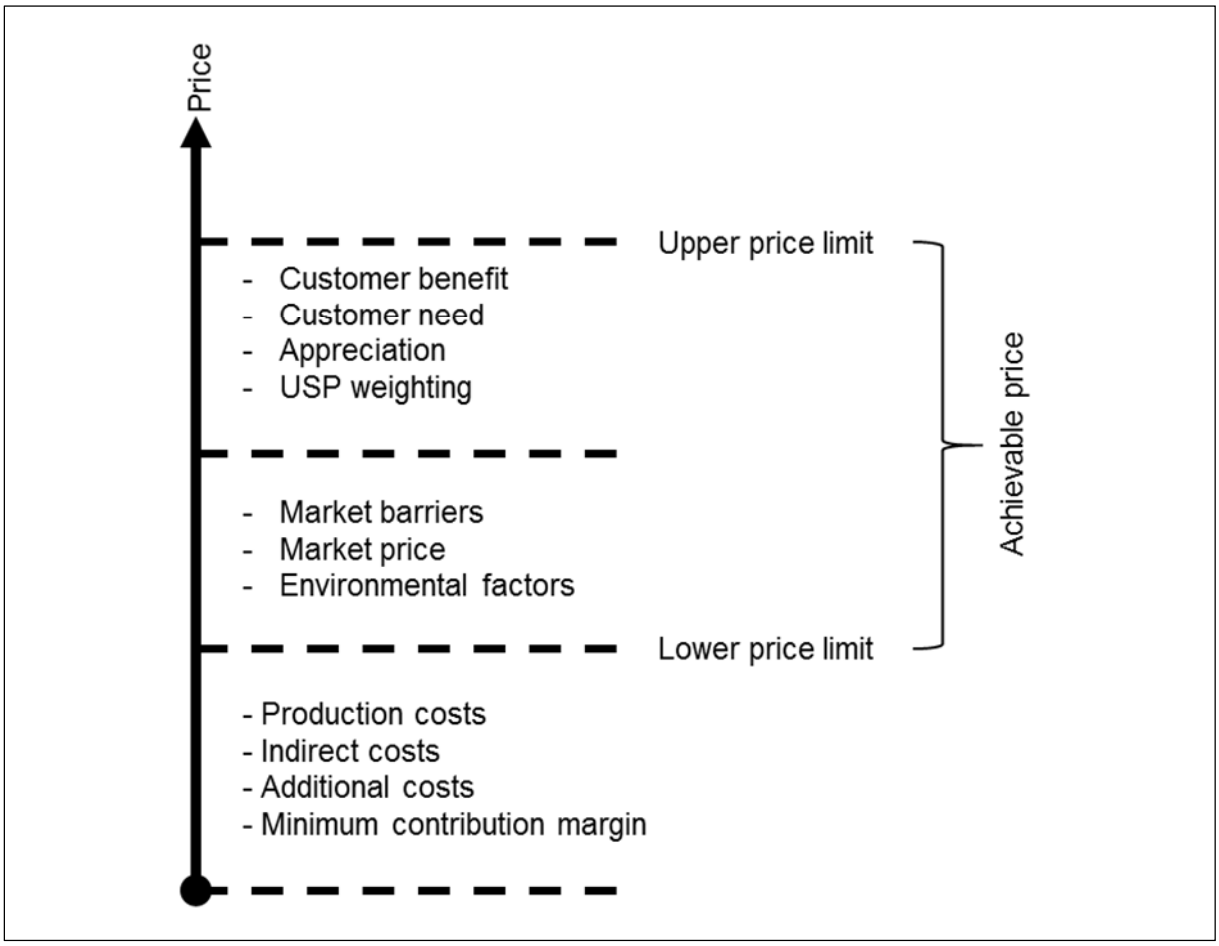

Figure 35: Determination of a price[232]

[232] Based on Grimm (2014), p. 141

8 Financial planning

Until now a lot of aspects have been presented which promote the realization of the project. Nevertheless, in the end the entire project has to be profitable. This means that the sum of earnings at least has to cover the costs for the entire project.[233] In this chapter information gathered in previous chapters will be transferred into concrete numbers. With these several individual plans will be generated. The individual plans rely on multiple assumptions and represent a basis for the three financial plans as shown in figure 36. Because of this, changes in the individual plans (e.g. corrections or adaptions of assumptions) always ask for revisions of the financial plans.[234] Because of the very high number of assumptions which have to be made, just the first fiscal year is observed. The implementation of the financial plans in an excel file can be used by JO Production to adapt and further develop these plans.

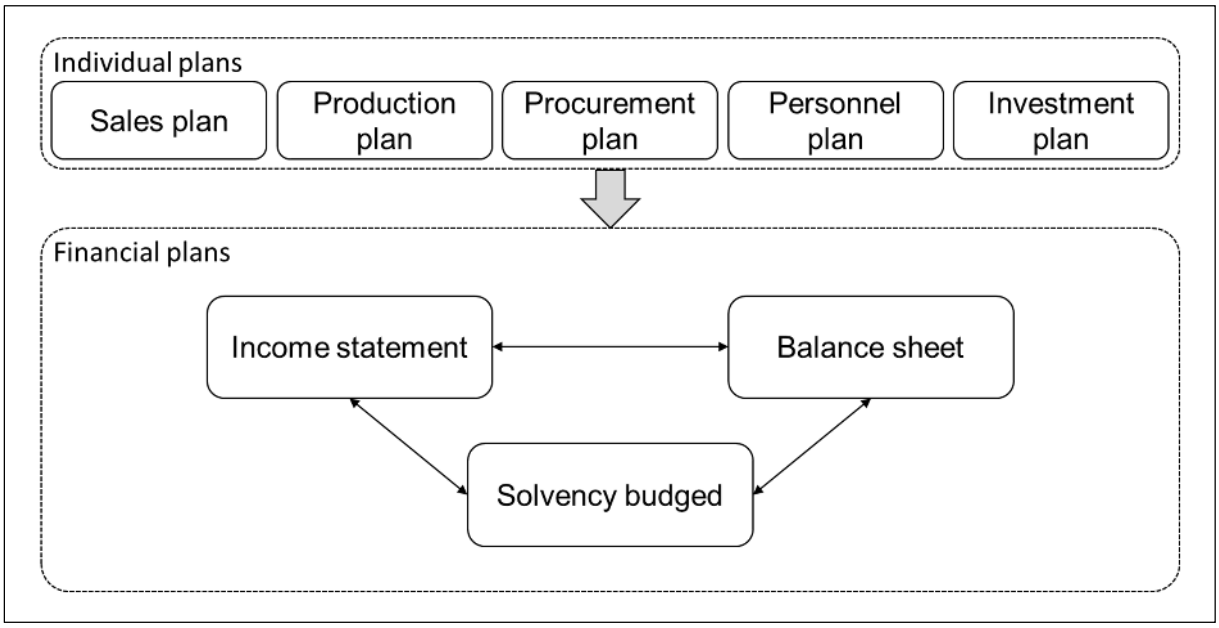

Figure 36: Components of the financial planning[235]

8.1 Sales plan

Assumptions[236]:

1. Product portfolio
   Due to the high demand for 19'' rack cases and accessory cases (these are among others the most popular flightcases according to Johannes Otti) these two, in combination with the already developed truss connector case, form the predicted product portfolio for the first fiscal year (table 18).

[233] Cf. Grimm (2014), p. 9
[234] Cf. Nagl (2014), p. 62
[235] Based on Nagl (2014), p. 63
[236] Otti (2015f)

2. The list prices for these products are assumed by Johannes Otti and represented in table 19.

Product	**1st quarter [#]**	**2nd quarter [#]**	**3rd quarter [#]**	**4th quarter [#]**	**Sum [#]**
Truss connector case	5	5	8	7	25
19'' rack case					
Small (4 U)	0	0	2	3	5
Large (16 U)	0	0	2	3	5
Accessory case					
Small (80x60x80 cm)	1	3	4	2	10
Large (120x60x80 cm)	2	2	6	5	15
Sum	8	10	22	20	60

Table 18: Sales plan (quantity) for the first fiscal year[237]

Product	**List price [€]**
Truss connector case	145.00
19'' rack case	
Small (4 U)	110.00
Large (16 U)	155.00
Accessory case	
Small (80x60x80 cm)	300.00
Large (120x60x80 cm)	350.00

Table 19: List prices assumed by Johannes Otti for the predicted product portfolio[238]

[237] Based on Nagl (2014), p. 65
[238] Based on Nagl (2014), p. 65

The revenue (table 20) is calculated by combining the list prices and the sales plan.

Product	1st quarter [€]	2nd quarter [€]	3rd quarter [€]	4th quarter [€]	Sum [€]
Truss connector case	725.00	725.00	1,160.00	1,015.00	3,625.00
19'' rack case					
Small (4 U)	0.00	0.00	220.00	330.00	550.00
Large (16 U)	0.00	0.00	310.00	465.00	775.00
Accessory case					
Small (80x60x80 cm)	300.00	900.00	1,200.00	600.00	3,000.00
Large (120x60x80 cm)	700.00	700.00	2,100.00	1,750.00	5,250.00
Sum	1,725.00	2,325.00	4,990.00	4,160.00	13,200.00

Table 20: Revenue of the assumed portfolio

8.2 Production plan

Assumptions[239]:

1. The production times for the products (shown in table 21) are estimated by Johannes Otti due to insights gained at the production of the truss connector case. Since the machining process at the manual flightcase production takes about 70% of the total production time (as shown in chapter 6.5), a CNC milling machine could decrease the total production time significantly.
2. The production plan combines the sales plan with the production times.[240] Since a make to order strategy[241] is assumed and the production time of a flightcase is less than a quarter, the production plan is equal to the sales plan (table 18). This means for example that the products which are needed in the 1st quarter are produced within this quarter.

[239] Otti (2015f)
[240] Cf. Nagl (2014), p. 65
[241] Cf. Kirchgeorg & Krieger (2016), online: <http://wirtschaftslexikon.gabler.de/Archiv/82851/make-to-order-v9.html>

Product	Production time with hand tools [h]	Production time with CNC support [h]
Truss connector case	3	1.25
19'' rack case		
Small (4 U)	2.5	1
Large (16 U)	3	1.25
Accessory case		
Small (80x60x80 cm)	3	1.25
Large (120x60x80 cm)	3.5	1.5

Table 21: Estimated production times for the predicted portfolio

8.3 Procurement plan

The procurement plan shows at which time which materials are needed to produce the products and keep the production plan. The BOM, shown in table 22, presents assumptions based on the knowledge gained from table 15[242].

Product	Plywood [m^2]	Case angles [m]	Hybrid lid location [m]	Butterfly catches [#]	Ball corners [#]	Case handles [#]	Lidstays [#]	Corner braces [#]	Wheels [#]	Rack extrusions [m]
Truss connector case	0.23	2.5	2.6	2	8	3	3	8	0	0
19'' rack case										
Small (4 U)	1.2	5.54	6.28	4	8	2	0	8	0	0.94
Large (16 U)	2.34	7.52	10.24	8	8	4	0	8	0	2.92
Accessory case										
Small (80x60x80 cm)	3.2	8.8	5.6	2	8	8	2	8	4	0

[242] Otti (2015f)

Large (120x60x80 cm)	4.34	10.4	7.2	2	8	8	2	8	4	0

Table 22: BOM for the predicted product portfolio[243]

With this information the procurement plan can be generated by combining table 18 and table 22. The needed resources for the first fiscal year are displayed in table 23.

Resource	**1st quarter**	**2nd quarter**	**3rd quarter**	**4th quarter**	**Sum**
Plywood [m^2]	13.03	19.43	47.76	40.33	120.55
Case angles [m]	42.10	59.70	143.72	126.28	371.80
Hybrid lid location [m]	33.00	44.20	119.44	114.96	311.60
Butterfly catches [#]	16	20	60	64	160
Ball corners [#]	64	80	176	160	480
Case handles [#]	39	55	116	95	305
Lidstays [#]	21	20	40	28	100
Corner braces [#]	64	80	176	160	480
Wheels [#]	12	20	40	28	100
Rack extrusions [m]	0	0	7.72	11.58	19.30

Table 23: Procurement plan for the first fiscal year[244]

To calculate the costs of materials for the first fiscal year (table 25), the necessary resource prices are taken from the Adam Hall GmbH website[245] (table 24). The prices are reseller prices from JO Production[246].

Resource	**Procurement costs [€]**
Plywood [m^2]	22.5
Case angles [m]	1.71
Hybrid lid location [m]	1.61
Butterfly catches [#]	4.26
Ball corners [#]	0.80

[243] Based on Nagl (2014), p. 66
[244] Based on Nagl (2014), p. 66
[245] Adam Hall GmbH (2016)
[246] Otti (2015f)

Case handles [#]	2.68
Lidstays [#]	3.80
Corner braces [#]	0.19
Wheels [#]	6.88
Rack extrusions [m]	4,82

Table 24: Procurement costs per resource[247]

Resource	**1st quarter**	**2nd quarter**	**3rd quarter**	**4th quarter**	**Sum**
Plywood [€]	293.18	437.18	10774.60	907.43	2,712.38
Case angles [€]	71.99	102.09	245.76	215.94	635.78
Hybrid lid location [€]	53.13	71.16	192.30	185.09	501.68
Butterfly catches [€]	68.16	85.20	255.60	272.64	681.60
Ball corners [€]	51.20	64.00	140.80	128.00	384.00
Case handles [€]	104.52	147.40	310.88	254.60	817.40
Lidstays [€]	79.80	95.00	167.20	133.00	475.00
Corner braces [€]	12.16	15.20	33.44	30.40	91.20
Wheels [€]	82.56	137.60	275.20	192.64	688.00
Rack extrusions [€]	0.00	0.00	37.21	55.82	93.03
Sum	816.70	1,154.82	2,732.99	2,375.55	7,080.06

Table 25: Material costs for the first fiscal year[248]

8.4 Personnel plan

The personnel plans (table 26 and table 27) result from the production plan and the production times.

Assumptions[249]:

1. Within the personnel planning a working time of 8 hours per day and 40 hours per week is assumed[250].

[247] Based on Nagl (2014), p. 69
[248] Based on Nagl (2014), p. 69
[249] Otti (2015f)
[250] Cf. Kammer für Arbeiter und Angestellte Wien (2016), online: <http://www.arbeiterkammer.at/beratung/arbeitundrecht/Arbeitszeit/Normalarbeitszeit/Normalarbeitszeit.html>

2. To calculate the personnel costs for the first fiscal year (table 29 and table 30) the wages and salaries are estimated as shown in table 28.

	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
Administration and sales [h]	1	2	3	2	8
Production [h]	25	31	68	61	185
Sum [h]	26	33	71	63	193

Table 26: Personnel plan for a manual production with hand tools[251]

	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
Administration and sales [h]	1	2	3	2	8
Production [h]	10.5	13	28.5	25.5	77.5
Sum[h]	11.5	15	31.5	27.5	85.5

Table 27: Personnel plan for CNC supported production[252]

	Salary	Wage	Additional staff costs	Sum
Administration and sales [€/h]	9.95		1.60	11.542
Production [€/h]		9.95	1.60	11.542

Table 28: Salaries and wages for the needed staff[253]

	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
Administration and sales [€]	11.54	23.08	34.63	23.08	92.34
Production [€]	288.55	357.80	784.86	704.06	2135.27
Sum [€]	300.09	380.89	819.48	727.15	2,227.61

Table 29: Personnel costs for a manual production with hand tools[254]

[251] Based on Nagl (2014), p. 66
[252] Based on Nagl (2014), p. 66
[253] Based on Nagl (2014), p. 70
[254] Based on Nagl (2014), p. 70

	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
Administration and sales [€]	11.54	23.08	34.63	23.08	92.34
Production [€]	121.19	150.05	328.95	294.32	894.51
Sum[€]	132.73	173.13	363.57	317.41	986.84

Table 30: Personnel costs for a CNC supported production[255]

8.5 Investment plan

Assumption[256]:

1. Basically, every flightcase can be manufactured with the existing hand tools in JO Production's shop floor. However, for the purchase of a CNC machine an additional investment of roughly 7,000.00 €[257] would be necessary.

2. For the financial plan a straight line method of depreciation is estimated with a 5 year utilization of the CNC machine (1,400.00 € depreciation per year) and a 3 year depreciation for the equipment which is worth 4,500.00 € (1,500.00 € depreciation per year).[258]

Fixed assets	1st fiscal year
Equipment depreciation [€]	1,500.00
CNC machine depreciation [€]	1,400.00

3. Table 31 shows the depreciation for the first fiscal year based on the fixed assets.

Fixed assets	1st fiscal year
Equipment depreciation [€]	1,500.00
CNC machine depreciation [€]	1,400.00

Table 31: Depreciation of the machinery and equipment[259]

8.6 Income statement

The income statement is a periodical observation of all revenues and expenses emerged during this period. It provides insights into the structure within the net income or loss of the financial period.[260]

[255] Based on Nagl (2014), p. 70
[256] Otti (2015f)
[257] Cf. Sorotec GmbH (2016), online: <http://www.sorotec.de/shop/CNC-Portalfraesen/BZT-Portalfraesen-316/BZT-PFE-Baureihe-317/BZT-PFE1512PX.html>
[258] Cf. Nagl (2014), p. 66
[259] Based on Nagl (2014), p. 70

Assumptions[261]:

1. For this thesis the cost categories oriented format is chosen and presented in table 32 and table 33.

	[€]	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
1	Revenue	1,725.00	2,325.00	4,990.00	4,160.00	13,200.00
2	Increase or decrease in inventories	0	0	0	0	0
3	Own work capitalized	0	0	0	0	0
4	Other operating revenue	0	0	0	0	0
5	Raw materials used	-816.70	-1,154.82	-2,732.99	-2,375.55	-7,080.06
6	Staff costs	-300.09	-380.89	-819.48	-727.15	-2227.61
7	Depreciation	-375.00	-375.00	-375.00	-375.00	-1500.00
8	Other operating charges	-1,515.00	-1,515.00	-1,515.00	-1,515.00	-6,060.00
9	**Operating profit**	**-1281.79**	**-1100.71**	**-452.47**	**-832.69**	**-3667.66**
10	Share of associates profit	0	0	0	0	0
11	Interest income	0	0	0	0	0
12	Revenue on disposal of investment properties	0	0	0	0	0
13	Share of associates losses	0	0	0	0	0
14	Depreciation of financial assets	0	0	0	0	0

[260] Cf. Sicherer (2013), p. 101
[261] Otti (2015f)

15	Interest expenses	0	0	0	0	0
16	**Financial profit**	**0**	**0**	**0**	**0**	**0**
17	**Net operating income or loss**	**-1281.79**	**-1100.71**	**-452.47**	**-832.69**	**-3667.66**
18	Tax on profit	0	0	0	0	0
19	**After-tax profit or loss**	**-1281.79**	**-1100.71**	**-452.47**	**-832.69**	**-3667.66**
20	Other taxes	0	0	0	0	0
21	**Net income or loss for the financial year**	**-1281.79**	**-1100.71**	**-452.47**	**-832.69**	**-3667.66**
22	Reversal of financial reserves	0	0	0	0	0
23	Reversal of revenue reserves	0	0	0	0	0
24	Established revenue reserves	0	0	0	0	0
25	Returned earnings or losses brought forward	0	0	0	0	0
26	**Unappropriated result**	**-1281.79**	**-1100.71**	**-452.47**	**-832.69**	**-3667.66**

Table 32: Cost categories oriented income statement for the first fiscal year (manual production with hand tools)[262]

	[€]	1st quarter	2nd quarter	3rd quarter	4th quarter	Sum
1	Revenue	1,725.00	2,325.00	4,990.00	4,160.00	13,200.00
2	Increase or decrease in	0	0	0	0	0

[262] Based on ADVOKAT Unternehmensberatung Greiter & Greiter GmbH (2016), online: <http://www.jusline.at/231_Gliederung_UGB.html>

	inventories					
3	Own work capitalized	0	0	0	0	0
4	Other operating revenue	0	0	0	0	0
5	Raw materials used	-816.00	-1,154.82	-2,732.99	-2,375.55	-7,080.06
6	Staff costs	-132.73	-173.13	-363.57	-317.41	-986.84
7	Depreciation	-725.00	-725.00	-725.00	-725.00	-2900.00
8	Other operating charges	-1,600.00	-1,600.00	-1,600.00	-1,600.00	-6400.00
9	**Operating profit**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**
10	Share of associates profit	0	0	0	0	0
11	Interest income	0	0	0	0	0
12	Revenue on disposal of investment properties	0	0	0	0	0
13	Share of associates losses	0	0	0	0	0
14	Depreciation of financial assets	0	0	0	0	0
15	Interest expenses	0	0	0	0	0
16	**Financial profit**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**
17	**Net operating income or loss**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**
18	Tax on profit	0	0	0	0	0
19	**After-tax profit or loss**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**
20	Other taxes	0	0	0	0	0
21	**Net income or**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**

	loss for the financial year					
22	Reversal of financial reserves	0	0	0	0	0
23	Reversal of revenue reserves	0	0	0	0	0
24	Established revenue reserves	0	0	0	0	0
25	Returned earnings or losses brought forward	0	0	0	0	0
26	**Unappropriated result**	**-1,549.43**	**-1,327.95**	**-431.56**	**-857.95**	**-4166.90**

Table 33: Cost categories oriented income statement for the first fiscal year (CNC supported production)[263]

According to the income statements neither by manual production with hand tools nor by a CNC supported production there can be a positive result. This means that the revenue has to be increased and more products have to be sold. But which products cover the fixed costs the best? By calculating the profit contribution the most promising products can be identified and promoted.

$$Profit\ contribution\ of\ \ product\ X = Revenue\ of\ product\ X - Variable\ costs\ product\ X$$ [264]

Product	**Profit contribution Hand tools [€]**	**Profit contribution CNC support [€]**
Truss connector case	60.86	81.06
19'' rack case		
Small (4 U)	-0.29	17.02
Large (16 U)	-28.42	-8,22
Accessory case		

[263] Based on ADVOKAT Unternehmensberatung Greiter & Greiter GmbH (2016)
[264] Cf. Matz (1964), p. 208

Small (80x60x80 cm)	96.31	116.51
Large (120x60x80 cm)	109.58	132.66

Table 34: Profit contribution of the portfolio elements

Table 34 shows that the two 19'' rack cases have negative profit contributions. Such products have to be eliminated from the portfolio immediately. However, the negative profit contributions could also be a result of wrong assumptions.

8.7 Balance sheet

Data from the income statement and individual plans are used to generate the balance sheet which will provide insights into the sources and usage of funds (table 35).[265] The usage of funds is called "assets" and includes long-term fixed assets and short-term current assets. The sources of funds are called total equity and liabilities and contain long-term equity and loan capital. The sum of the assets as well as the equity and liabilities have to be equal.[266]

Assumption[267]:

1. To identify the minimum needed cash per period in chapter 8.7. the cash in the balance sheet is assumed to be 0.00€

	1st fiscal year
Assets	
Fixed assets	
Intangible assets [€]	0
Tangible fixed assets [€]	4,500.00
Financial assets [€]	0
Current assets	
Inventories [€]	0
Receivables and other assets [€]	0

[265] Cf. Nagl (2014), p. 70
[266] Cf. Nagl (2014), p. 71
[267] Otti (2015f)

Marketable securities and shares [€]	0
Cash [€]	0
Accounting apportionment item [€]	**0**
Sum [€]	**4,500.00**
Equity and liabilities	
Equity	
Common stock [€]	4,500.00
Capital reserves [€]	0
Revenue reserves [€]	0
Unappropriated result [€]	0
Untaxed reserves [€]	**0**
Provisions [€]	**0**
Payables [€]	**0**
Accounting apportionment item [€]	0
Sum [€]	**4,500.00**

Table 35: Balance sheet for the first fiscal year[268]

[268] Based on ADVOKAT Unternehmensberatung Greiter & Greiter GmbH (2016), online: <http://www.jusline.at/index.php?cpid=ba688068a8c8a95352ed951ddb88783e&lawid=10&paid=224&mvpa=165>

This balance sheet does not contain the CNC machine scenario. However, with the CNC machine the tangible fixed assets on the assets side would increase by the costs of the machine and on the equity and liabilities side either the equity or the payables rise to the same value. Furthermore, the only assets are the existing machines in the shop floor. The balance sheet shows that these are entirely financed by equity.

8.8 Solvency budged

The need for cash in a specific period can be calculated by subtracting the payments of receipts in this period. The results are either underabsorptions or overabsorptions as shown in figure 37. New businesses are often characterized by significant underabsorptions during the first periods.[269]

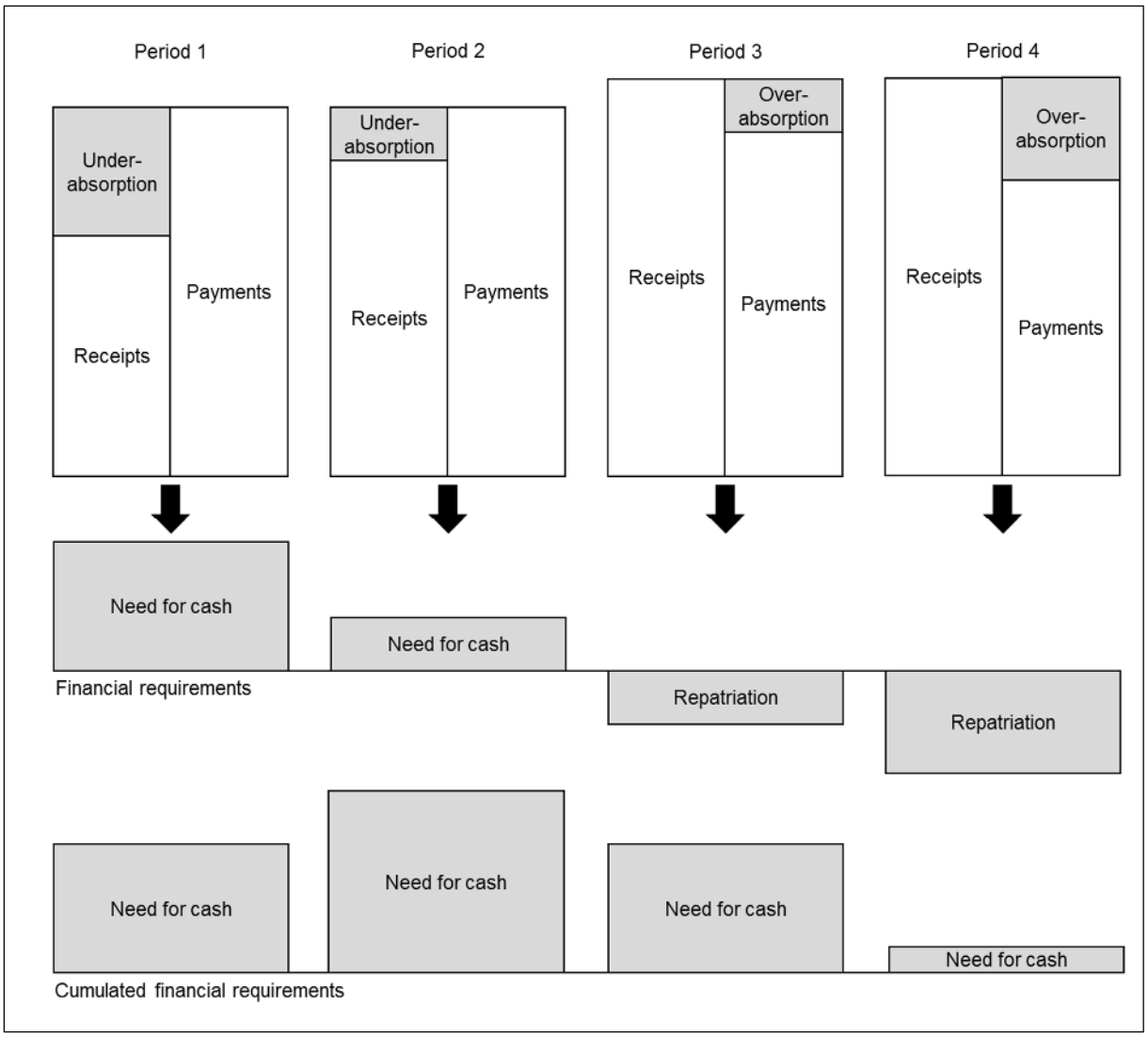

Figure 37: Structure of a liquidity plan[270]

[269] Cf. Grimm (2014), pp. 261–62
[270] Based on Grimm (2014), p. 261

The liquidity plan for JO Production is generated from the previous financial plans and shown in table 36.

	1st quarter	2nd quarter	3rd quarter	4th quarter
Receipts				
Revenue [€]	1,725.00	2,325.00	4,990.00	4,160.00
External finance [€]	0	0	0	0
Payments				
Purchased goods [€]	-816.70	-1,154.82	-2,732.99	-2,375.55
Personnel [€]	-300.09	-380.89	-819.48	-727.15
Operating costs [€]	-1,515.00	-1,515.00	-1,515.00	-1,515.00
Investments [€]	0	0	0	0
Interest/ Extinction [€]	0	0	0	0
Taxes [€]	0	0	0	0
Needed cash [€]	**-906.79**	**-1,632.50**	**-1,709.97**	**-2,167.67**

Table 36: Liquidity plan for a manual production with hand tools[271]

With this production program the needed cash until the end of the first fiscal year would be 2,167.67 €. Considered that two products do not even have a positive profit contribution this amount of needed cash seems to be acceptable for the first year.

[271] Based on Nagl (2014), p. 74

9 Summary and outlook

The purpose of this thesis is to develop a business plan for a business field extension. The company JO Production is a service provider in the event engineering sector and thinks about extending its portfolio by a flightcase production. The business plan should provide information for Johannes Otti, the founder of JO Production, to make decisions about the realization and provide knowledge for it.

The thesis is composed of eight chapters, each of them dealing with specific aspects of a business plan. Every chapter presents a theoretical background, followed by the practical application. This ensures a quick adaption to changing external conditions during the realization phase.

Chapter one is introductory and divided into three parts. First the history of JO Production is sketched. Here the entrepreneurial attitude of Johannes Otti becomes clear. Second, decision factors are developed during an interview with Johannes Otti. These social, economic and personal factors led to the idea of starting a flightcase production. Third, a product description is shown which gives an overview of the existing categories of flightcases.

Chapter two gives an aim and direction for the first five years of production. At first, a vision statement is developed. How to reach the vision of becoming Austria's biggest flightcase producer is described by the mission statement afterwards. It points out that JO Production is both, a flightcase producer and a successful event engineering company with the credo of high quality and simplicity.

Chapter three answers three basic questions: 1) Who are the customers? Since nearly every movable object can be protected by a flightcase, the market seems to be huge. However, an online research showed that the biggest user groups are event engineers and musicians. 2) Who are the competitors? An online research in this section of the thesis presents a list of Austrian and German flightcase manufacturers with detailed information about their product and service portfolio, web presence and characteristics of the companies. One main outcome of this is that Austrian manufacturers totally fail at their web presence and hardly offer additional services. Furthermore, the two centers of industry are in Vienna and Bavaria, which is an advantage since there is almost no local competition in Carinthia. 3) What are the customer needs and requirements? Based on question one a questionnaire was sent out to Austrian event engineers and musicians. These answered questions about their preferred flightcase materials, most used flightcase categories, favored communication channels and flightcase characteristics. Furthermore, customers were asked to name their manufacturers which gives insights about market shares of competitors. To prepare for the following chapters, a SWOT-analysis and a market structure analysis are also presented at the end of chapter three.

Chapter four deals with the development of four corporate strategies. The first strategy developed is the basic strategy. It recommends a market penetration strategy to gain market shares. However, in the case that the market penetration fails due to the strong German competitors, a diversification strategy should be implemented. The second strategy developed is the competition strategy. The use of a differentiation strategy was obvious due to the mission statement and the presented mindset of Johannes Otti during the first chapter. The target market strategy recommends to use the event engineering sector for the market penetration strategy and provides an action plan for an implementation of these strategies. The last strategy developed in this chapter is the marketing strategy. It gives a brief insight into the four Ps and provides basic information about the marketing processes.

The fifth chapter summarizes all previous chapters by providing a goal hierarchy which starts with a goal generated from the vision statement and breaks it down into SMART long-, mid- and short-term goals. This goal hierarchy can be used during the realization phase to achieve the vision of JO Production.

Chapter six provides information about the different types of products (standardized products, meta-products and individual products) and product and service portfolio proposals. Furthermore, the advantages of a gradual portfolio development and multiple product type portfolios are shown. The last section of this chapter is an exemplary development of a portfolio element. This includes the development and production of a complete flightcase which gives detailed insights into the flightcases superstructure and cost structure through the processes of design, ordering, machining and assembly.

Chapter seven is split into two parts. The first part gives insight into the difference of the three pricing methods (premium, low and dynamic pricing). The second part is an application of these methods for the previously developed portfolio element.

The final chapter concentrates on the development of an exemplary financial plan for the first fiscal year. The financial planning process is divided into five individual plans which represent the basis for the income statement, the balance sheet and the solvency budged. Although the individual plans are based on several assumptions made with the support of Johannes Otti, it represents one possible scenario for JO Production’s first fiscal year.

To get convincing results from the financial planning, it has to be extended by further scenarios and a longer timeframe. For this it is necessary to eliminate or at least minimize the high number of assumptions. This can be achieved by:

1. Producing many more flightcases to get better insights into production time, cost structure, material structure and the learning curve;
2. Specifying a CNC machine to get detailed machine data and investment costs;
3. Recording of energy consumption and other operating charges;

4. The sourcing prices (procurement costs) vary according to the quantity of the ordered raw material. This has a strong influence on the production costs. A specification of the inventory size for raw materials is necessary to plan the order quantities.
5. Recording of administration and sales efforts per quarter is necessary to refine the personnel plan.

Considering all these aspects it becomes clear that the business field extension is associated with very low risks. The already existing basic equipment, Austrian competitors with very low customer orientation, existing connections to potential customers, the knowledge of the exact customer needs and the prepared procedure plan for the realization phase in this thesis are just some of the supportive factors. Also a rather pessimistic version of the sales plan revealed a very low need for additional cash for the first fiscal year. This amount of cash is only a fraction of JO Production's assets and gives time to react and adapt the strategy. Last but not least, a further scenario with an outsourced production would be useful since the lack of production knowhow is JO Production's main weakness.

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List of illustrations

List of tables

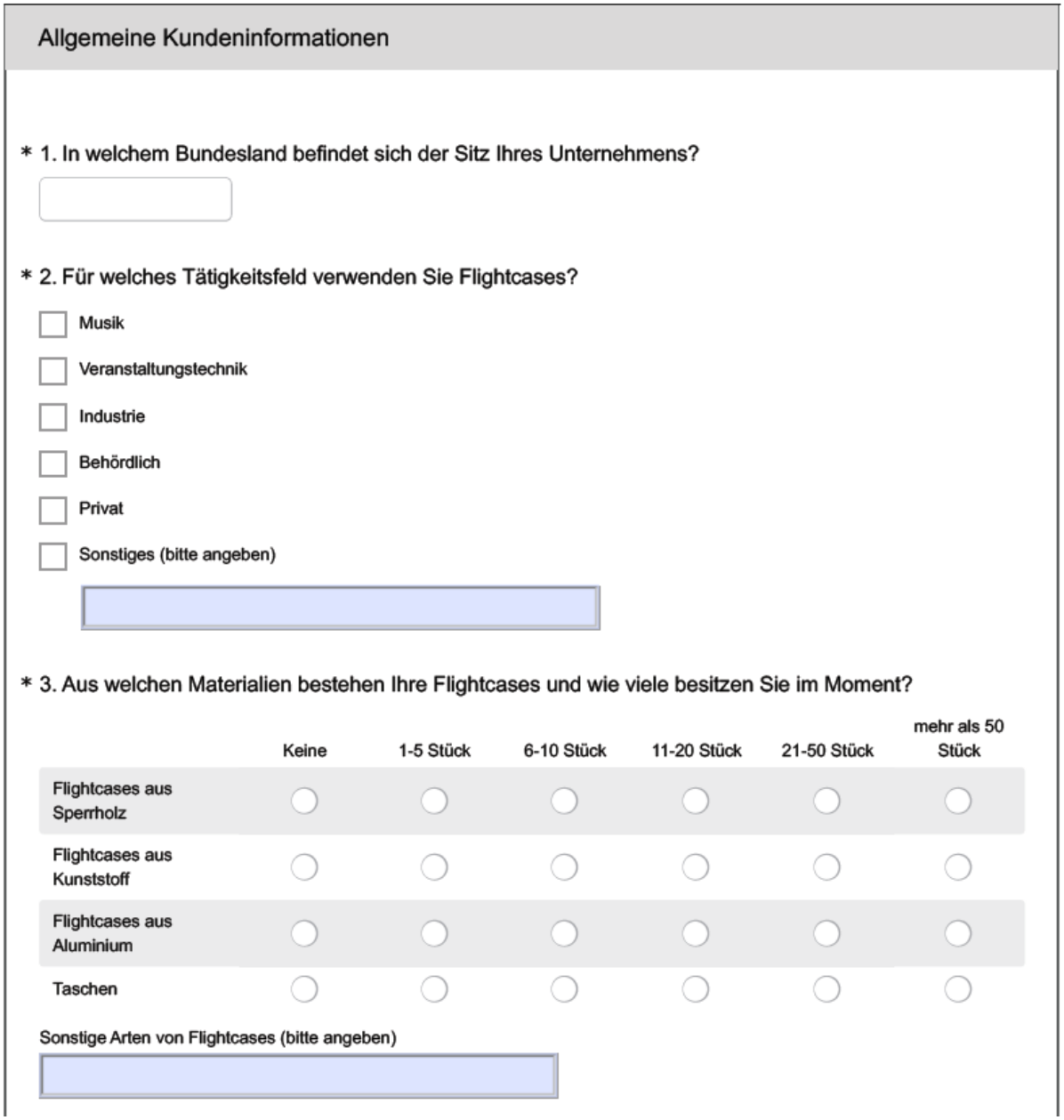
List of abbreviations

SME	Small and Medium Enterprises
e.g.	Exempli gratia (for example)
FOH	Front of house
no.	Number
SWOT	Strengths, Weaknesses, Opportunities, Threats
5S	Workplace organization method. Seiri, Seiton, Seiso, Seiketsu, Shitsuke
DIY	Do it yourself
BOM	Bill of material
EU	European Union
i.e.	Id est (that is)
USP	Unique selling proposition
CAD	Computer aided design
ABS	Acrylnitril-Butadien-Styrol (thermoplastic polymer)
LOHAS	Lifestyles of health and sustainability
PA	Public address system
DJ	Disc jockey
AV	Audiovisual
PDM	Product data management
CAE	Computer aided engineering
CAM	Computer aided manufacturing
SMART	Specific, Measurable, Attainable, Relevant, Time-based
U	Rack unit
RU	Rack unit
CNC	Computer numerical control
vs.	Versus
B2C	Business to customer
B2B	Business to business
Cf.	Conferre

Appendix

Appendix 1: Online survey

The following survey was send out to Austrian musicians and event engineers:



Allgemeine Kundeninformationen

* 1. In welchem Bundesland befindet sich der Sitz Ihres Unternehmens?

* 2. Für welches Tätigkeitsfeld verwenden Sie Flightcases?

- [ ] Musik
- [ ] Veranstaltungstechnik
- [ ] Industrie
- [ ] Behördlich
- [ ] Privat
- [ ] Sonstiges (bitte angeben)

* 3. Aus welchen Materialien bestehen Ihre Flightcases und wie viele besitzen Sie im Moment?

	Keine	1-5 Stück	6-10 Stück	11-20 Stück	21-50 Stück	mehr als 50 Stück
Flightcases aus Sperrholz	○	○	○	○	○	○
Flightcases aus Kunststoff	○	○	○	○	○	○
Flightcases aus Aluminium	○	○	○	○	○	○
Taschen	○	○	○	○	○	○

Sonstige Arten von Flightcases (bitte angeben)

4. Welche Arten von Flightcases verwenden Sie?

- [ ] Instrumentencases
- [ ] Mixercases
- [ ] Ampcases
- [ ] PA-Equipmentcases
- [ ] DJ-Equipmentcases
- [ ] Lichtequipmentcases
- [ ] Studioequipmentcases
- [ ] Zubehörcases
- [ ] 19" Zoll Racks
- [ ] 19" Rackkoffer
- [ ] AV-Equipmentcases
- [ ] Sonstiges (bitte angeben)

Käuferverhalten

* 5. Woher beziehen Sie Ihre Flightcases?

- [ ] Über einen Zwischenhändler (z.B. Thomann, Rockshop, Klangfarbe)
- [ ] Direkt bei einem Hersteller
- [ ] Ich fertige meine Flightcases selbst
- [ ] Sonstiges (bitte angeben)

6. Wenn Sie Ihre Flightcases von einem Hersteller/ Händler beziehen - von welchem?

Hersteller/Händler 1:

Hersteller/Händler 2:

Hersteller/Händler 3:

* 7. Wie wichtig sind Ihnen folgende Kommunikationswege beim Kauf von Flightcases?

	Entscheidend	Sehr wichtig	Einigermaßen wichtig	Nicht sehr wichtig	Überhaupt nicht wichtig
Onlineshop	○	○	○	○	○
Bestellmöglichkeit über E-Mail	○	○	○	○	○
Showroom und Geschäft	○	○	○	○	○
Telefonische Bestellung	○	○	○	○	○
Kauf und Bestellung über einen Vertreter	○	○	○	○	○

Sonstiges (bitte angeben)

Produkteigenschaften

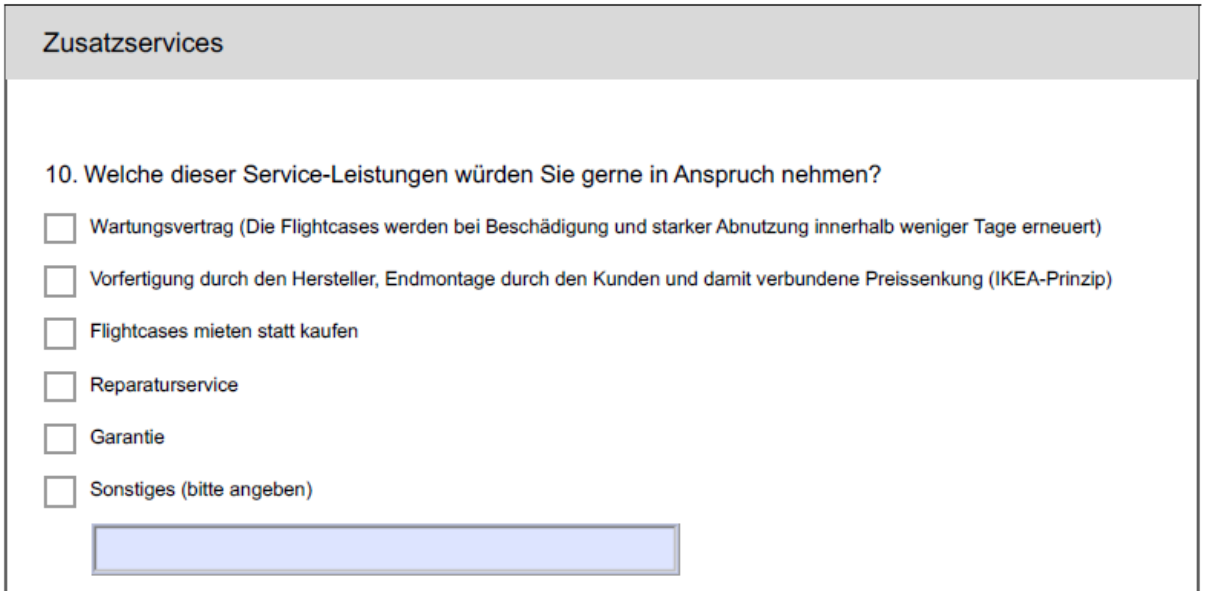
* 8. Wie wichtig sind Ihnen folgende Eigenschaften eines Flightcases?

	Entscheidend	Sehr wichtig	Einigermaßen wichtig	Nicht sehr wichtig	Überhaupt nicht wichtig
Preis	○	○	○	○	○
Qualität der Verarbeitung	○	○	○	○	○
Individuelle Gestalltung (Farben, Ausstattung, Bereifung, Material etc.)	○	○	○	○	○
Lieferzeit	○	○	○	○	○
Herstellung in Österreich	○	○	○	○	○
Branding (Individuelle Beschriftung Ihres Flightcases)	○	○	○	○	○
Funktionalität	○	○	○	○	○

Sonstiges (bitte angeben)

* 9. Verwenden Sie ein speziell für Ihre Bedürfnisse/Geräte angepasstes Flightcase?

- ☐ Ja, ich habe es von einem Hersteller anfertigen lassen.
- ☐ Ja, ich habe es direkt bei einem Händler (z.B. Thomann) bestellt.
- ☐ Ja, ich habe ein "Standardcase" selbst modifiziert.
- ☐ Nein.
- ☐ Sonstiges (bitte angeben)



Zusatzservices

10. Welche dieser Service-Leistungen würden Sie gerne in Anspruch nehmen?

- [ ] Wartungsvertrag (Die Flightcases werden bei Beschädigung und starker Abnutzung innerhalb weniger Tage erneuert)
- [ ] Vorfertigung durch den Hersteller, Endmontage durch den Kunden und damit verbundene Preissenkung (IKEA-Prinzip)
- [ ] Flightcases mieten statt kaufen
- [ ] Reparaturservice
- [ ] Garantie
- [ ] Sonstiges (bitte angeben)

Appendix 2: Financial planning excel worksheet

The financial plan presented in chapter 8 was transferred into an excel sheet so it is easy for Johannes Otti to extend and adapt it according to changing scenarios.

Sales plan		quarters								
		1	2	3	4	Sum	Selling prices (competitor oriented)	Production time hand tools [h]	Production time CNC support [h]	
portfolio	Truss connector case [#]	0	5	8	7	20	145,00	3,00	1,25	
	19'' rack small 4 U [#]	0	0	2	3	5	110,00	2,50	1	
	19'' rack large 16 U [#]	0	0	2	3	5	155,00	3,00	1,25	
	Small case (80x60x80 cm) [#]	1	3	4	2	10	300,00	3,00	1,25	
	Large case (120x60x80) [#]	2	2	6	5	15	350,00	3,50	1,5	
	Sum	3	10	22	20	55				

Bill of Material											
		Plywood [m^2]	Case angles [m]	Hybrid angles [m]	Butterfly catches [#]	Ball corners [#]	Case handles [#]	Lidstays [#]	Corner braces [#]	Wheels [#]	Rack extrusions [m]
	Truss connector case [#]	0,23	2,5	2,6	2	8	3	3	8	0	0
	19'' rack small 4 U [#]	1,2	5,54	6,28	4	8	2	0	8	0	0,94
	19'' rack large 16 U [#]	2,34	7,52	10,24	8	8	4	0	8	0	2,92
	Small case (80x60x80 cm) [#]	3,2	8,8	5,6	2	8	8	2	8	4	0
	Large case (120x60x80) [#]	4,34	10,4	7,2	2	8	8	2	8	4	0
	Procurement costs [€]	22,5	1,71	1,61	4,26	0,8	3	3,8	0,19	6,88	4,82

Production plan		quarters						
		1	2	3	4	Sum	CM hand tools	CM CNC
portfolio	Truss connector case [#]	5	5	8	7	25	60,858	81,0565
	19'' rack small 4 U [#]	0	0	2	3	5	-0,29	17,023
	19'' rack large 16 U [#]	0	0	2	3	5	-28,416	-8,2175
	Small case (80x60x80 cm) [#]	1	3	4	2	10	96,31	116,5085
	Large case (120x60x80) [#]	2	2	6	5	15	109,577	132,661
	Sum	8	10	22	20	60		

Production plan	quarters				
	1	2	3	4	Sum
Plywood [m^2]	13,03	19,43	47,76	40,33	120,55
Case angles [m]	42,10	59,70	143,72	126,28	371,80
Hybrid angles [m]	33,00	44,20	119,44	114,96	311,60
Butterfly catches [#]	16	20	60	64	160
Ball corners [#]	64	80	176	160	480
Case handles [#]	39	55	116	95	305
Lidstays [#]	21	25	44	35	125
Corner braces [#]	64	80	176	160	480
Wheels [#]	12	20	40	28	100
Rack extrusions [m]	0,00	0,00	7,72	11,58	19,30

Material costs	quarters				
	1	2	3	4	Sum
Plywood [€]	293,18	437,18	1074,60	907,43	2712,38
Case angles [€]	71,99	102,09	245,76	215,94	635,78
Hybrid angles [€]	53,13	71,16	192,30	185,09	501,68
Butterfly catches [€]	68,16	85,20	255,60	272,64	681,60
Ball corners [€]	51,20	64,00	140,80	128,00	384,00
Case handles [€]	104,52	147,40	310,88	254,60	817,40
Lidstays [€]	79,80	95,00	167,20	133,00	475,00
Corner braces [€]	12,16	15,20	33,44	30,40	91,20
Wheels [€]	82,56	137,60	275,20	192,64	688,00
Rack extrusions [€]	0,00	0,00	37,21	55,82	93,03
Sum	816,70	1154,82	2732,99	2375,55	7080,06

Personnel plan - hand tools		quarters							
		1	2	3	4	Sum	Salary/ wages per h	Additional staff costs [16%]	Sum
	Administration and sales [h]	1	2	3	2	8	9,95	1,59	11,54
	Production [h]	10	31	68	61	170	9,95	1,59	11,54
	Sum	11	33	71	63	178			

Personnel plan - CNC		quarters				
		1	2	3	4	Sum
	Administration and sales [h]	1	2	3	2	8
	Production [h]	4,25	13	28,5	25,5	71,25
	Sum	5,25	15	31,5	27,5	79,25

Personnel costs - hand tools		quarters				
		1	2	3	4	Sum
	Administration and sales [€]	11,54	23,08	34,63	23,08	92,34
	Production [€]	115,42	357,80	784,86	704,06	1962,14
	Sum	126,96	380,89	819,48	727,15	2054,48

Personnel costs - CNC		quarters				
		1	2	3	4	Sum
	Administration and sales [€]	11,54	23,08	34,63	23,08	92,34
	Production [€]	49,05	150,05	328,95	294,32	822,37
	Sum	60,60	173,13	363,57	317,41	914,70

Depreciation		
	Equipment [€/year]	1500,00
	CNC machine depreciation [€/year]	1400,00
	Sum [€/year]	2900,00

Revenue		quarters				
		1	2	3	4	Sum
portfolio	Truss connector case [€]	0,00	725,00	1160,00	1015,00	2900,00
	19'' rack small 4 U [€]	0,00	0,00	220,00	330,00	550,00
	19'' rack large 16 U [€]	0,00	0,00	310,00	465,00	775,00
	Small case (80x60x80 cm) [€]	300,00	900,00	1200,00	600,00	3000,00
	Large case (120x60x80) [€]	700,00	700,00	2100,00	1750,00	5250,00
	Sum [€]	1000,00	2325,00	4990,00	4160,00	12475,00

Income statement - hand tools	quarters				
	1	2	3	4	Sum
Revenue	1000,00	2325,00	4990,00	4160,00	12475,00
Material costs	-816,70	-1154,82	-2732,99	-2375,55	-7080,06
Personnel costs	-126,96	-380,89	-819,48	-727,15	-2054,48
Depreciation	-375,00	-375,00	-375,00	-375,00	-1500,00
Other operating costs (rent, a	-1515,00	-1515,00	-1515,00	-1515,00	-6060,00
Operating profit	-1833,66	-1100,71	-452,47	-832,69	-4219,53

Income statement - CNC	quarters				
	1	2	3	4	Sum
Revenue	1000,00	2325,00	4990,00	4160,00	12475,00
Material costs	-816,70	-1154,82	-2732,99	-2375,55	-7080,06
Personnel costs	-60,60	-173,13	-363,57	-317,41	-914,70
Depreciation	-725,00	-725,00	-725,00	-725,00	-2900,00
Other operating costs (rent, a	-1600,00	-1600,00	-1600,00	-1600,00	-6400,00
Operating profit	-2202,29	-1327,95	-431,56	-857,95	-4819,76

Break even point - hand tools		quarters									
		1	2	3	4	Sum					
	Fixed costs	1890,00	1890,00	1890,00	1890,00	7560,00		Depreciation+Other operating costs			
	Variable costs	943,66	1535,71	3552,47	3102,69	9134,53		Material + Personnelcosts			
	Break-even revenue	33545,1	5567,35	6560,64	7436,24	28232,9					
	CM	56,34	789,29	1437,53	1057,31	3340,47					
Break even point - CNC		quarters									
		1	2	3	4	Sum					
	Fixed costs	2325,00	2325,00	2325,00	2325,00	9300,00		Depreciation+Other operating costs			
	Variable costs	877,29	1327,95	3096,56	2692,95	7994,76		Material + Personnelcosts			
	Break-even revenue	18947,3	5421,64	6127,35	6592,82	25895,4					
	CM	122,71	997,05	1893,44	1467,05	4480,24					