SPOTBOX:
THE CONCEPT DEVELOPMENT OF A DIGITAL JUKEBOX

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Guilherme Gomes and Pauline Droz
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Summary of the thesis

Title
SpotBox: The Concept Development of a Digital Jukebox

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Supervisor
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Level
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Key words

Purpose
To Turn the new-product idea of the digital jukebox called SpotBox into a product concept.

Method
In the method we explain the process to develop our concept. Based in three phases, we started by combining secondary data and primary data through a focus group in order to understand better the potential consumers of our product, then personal interviews are made with our customers and the technical requirements are measured in the end through an interview.

Theoretical framework
Kotler’s and Cooper’s approach about New-Product Development are first introduced. Then the Concept Development theories of both authors are explained which allow us in a last paragraph to build and present our own approach of the process of concept development.

Conclusions
The SpotBox concept developed through this work is presented and explained in detail: A digital jukebox in a futuristic shape which allows users to share, listen and program songs in a new, convenient and exciting way, giving to the music market a new customer-oriented dimension.

[6]
1 INTRODUCTION

In this part we would like to provide the reader the background of the changes over the last decade in the music industry. The problem outlines a short discussion about the importance for companies of the development process for new products and some emergent needs that we have recognized for the music industry are then presented which led us to the idea of a New-Product. At the end the purpose of this thesis is introduced, as the delimitations and the audience.

1.1 FROM NAPSTER TO SPOTIFY

“The music industry is in the midst of one of the most radical and tumultuous transformations of any industry in recent memory”, affirmed the last report of the Redwood Capital Group of Investment (Goodstadt, A., Lee, J. & Treu, E., 2010, p.1). Indeed, over this decade the sales of CDs decreased year by year, putting down the revenues of majors and the entire music business. The starting point of this dazzling decrease is the year 2000 (The Economist online, 15th Oct 2008). In the figure 1, the contraction of the United States CD sales market since 2000 can be observed.

Figure 1 - US CD Sales (units in millions), from Recording Industry Association of America.

One year before, in June of the year 1999, the music industry witnessed another phenomenon. Two young students Shawn Fanning, 18 and Sean Parker, 19 years old released a free software called Napster, allowing people to share mp3 music in a faster and simple way (Greenfeld, K. T., Taylor, C. & Thigpen, D.E, 2000, para. 3). The software had a very big impact on the music industry, since the main part of these files shared were unable of copyrights. From that time on, the users of Napster have discovered the freedom about getting access to free, fast and a huge variety of music (The Associated Press, 2000). At this time,
Rob Glaser, the chairman of the Real Networks described his perception of Napster as “One who has been on the mountain top and seen the Promised Land” (Gillen, M. A, 2000, para. 1). The music market was getting into a new phase, CDs sales were now threatened by the digital music. The Redwood Capital report (2010) states that the digital music can eclipse the sales of physical CDs in the US, the biggest music market, by 2011 (Goodstadt, A. et al., 2010, p. 1). But in parallel to the decrease of the CD sales, the consumption of music, in any form, has never been as high as in the last five years. This considerable gap means that consumers are not buying CDs so often anymore, but they are still listening to music as never before (Goodstadt, A. et al., 2010, p. 2). John Jordan (2003) explains that finding the best solution to solve this situation and creating an effective business model has been the main issue of the music industry and its main major players: Universal Music Group, Sony, Warner, Bertelsmann Music Group, and EMI over the last decade (Jordan, J., 2003). Even with the important efforts of political lobs, the digital music protection and anti-piracy politics, the consumption of the digital music and its change from tangible to an intangible good seems to be a no way back option (Ibid).

Following the objective to find a new profitable model to the music business, a Swedish streaming music service has been released in October 2008 called Spotify (Ricknas M., 2008, para. 5). The Spotify software offers to the users the choice between paying a monthly fee to receive the live streaming music that they desire on demand, as much as they want, or receiving the live streaming music for free mixed with advertising. Despite the success of the Spotify in Europe, this business idea is not completely new. According to the Redwood Capital (2010, p.3), many businesses have rightly detected this new market but still have difficulties to exploit it mostly because of the “poor consumer awareness” and “competing free (and often illegal) alternatives” (Goodstadt, A. et al., 2010, p.3). One of the key points of the Spotify’s idea is the free ad-supported subscription (Kennedy, J., 2010, p. 14). Evidence which proves this point is that about 95% of the Spotify users have a free subscription account (Cellan-Jones, R., 2010). Another interesting feature is that this software enables premium users to listen playlists even if there is not an Internet connection in their computers or mobile devices. Daniel Ek, the CEO of the Spotify AB, said during an interview that Spotify “has taken off in the past 12 months to become a hit with fans - seven million of whom have signed up in six European countries - and be touted by some as the future of the music industry” (Ibid).

1.2 DEVELOPING A NEW PRODUCT

As it is demonstrated in the previous part, the music industry has changed drastically in the last years with new ways of consumption, new technologies and a new competition. These elements make clear that customers are demanding new solutions. “In the face of changing customers needs, technologies and competition, product innovation or development of new products, has become vital to a company’s survival” (Kotler, P.; Wong, V.; Saunders, J.; Armstrong, G. (2005), p.551). Let’s take the example of the Apple’s Ipod: In 2001, the Apple Company saw an interesting opportunity created by this new digital environment. The company released the Ipod, its mp3 songs player and started to operate the iTunes, a software through which customers can buy digital music. According to the business analyst William J. Holstein, the success of the Ipod is not only based on the product itself, but also on the business model created by the Apple when the company developed it iTunes software. “Apple came up with a business design that is unique in that field. Think about all the elements.
Think about iPod without the iTunes music store” (Holstein, W. J., 2006, para. 4. The Ipod became a huge success of sales, increasing Apple’s fiscal quarter revenue from US$1.38 billion in 2002 to $15.68 billion in the last quarter of 2009 (Fox, L. ,2001; Dowling, S. ,2010). With 69% of share of the download market, the company is appointed in the world as the leader into this market. “iTunes has proven that consumers are indeed willing to pay for music if it is presented in a consumer-friendly application, transactions are simple and convenient, and the value proposition is right.” (Goodstadt, A. et al., 2010, p.1).

However, not all the new products have the same success as the Apple’s Ipod. The reason could be part of the New Product Development process which can be considered as a key to the success for a company. (Booze, Allen & Hamilton, 1982). Kotler et al. (2005) clearly defined this New Product Development process as “the development of original products, product improvements, product modifications and new brands through the firm’s own R&D efforts” (2005, p. 551). In a general point of view, companies that follow carefully the larger number steps of this process have a higher likelihood to achieve better results with their products. (Cooper, Kleinschmidt, 1986).

1.3 MEETING FOUR EMERGENT NEEDS

The actual condition of the music industry, combined with the recent success of free and paying subscriptions of the Spotify in Europe, show new opportunities using this software as basic platform, all the more since the live streaming music with the Spotify software is completely legal. As young music consumers, observing the world around us, and all the changes on the way of how people consume music, we decided to highlight four emergent needs that we have recognized in the contest of music consumption:

Share:

People need to share with others. This phenomenon is not only about music. According to the Alexa database, Facebook, Youtube, Wikipedia, Blogger, MySpace, Wordpress and Twitter are part of the top 20 of the most visited websites in the world. People like showing some part of their universe, of their personality to the others. They like sharing comments, videos, pictures or music. In 1999, before the Napster was released, that was the key issue to the success of its software (Greenfeld, K.T et al., 2000). People needed to share their files. And the result is definitely notable: Napster had more than 25 million of users before it complete the first year of operation (Greenfeld, K. T. et al., 2000, para. 6).

Free Music:

Paying for music should be optional since the users of Napster got used to have free music. (Goodstadt, A. et al., 2010, p.1). This can be better illustrated through the BBC interview with Daniel Ek, the CEO of Spotify about the success of the company who said that 95% of the 7 million users of the Spotify are using the free service (Cellan-Jones, R., 2010). “We live in a world where €1 is considered as extravagant for a music download” (Kennedy, J., 2010, p. 23).

Accessible:

The Redwood Capital report (2010) sets that one of the nine key tends and challenges of the digital music business is the importance of the wireless broadband (Goodstadt, A. et al., 2010,
p. 2). This is vital for the live streaming music, but customers now need more than only be online everywhere (Ibid). According to Martin Campbell (2009), “one of the hyped commercial opportunities these days appears to be software as a service or SaaS (software as a service).” In other words, SaaS is a service which allows the customers to have their special files, documents and playlists online and to have access on it on every computers connected to the internet (Campbell, 2009). People want to listen “…any song, anywhere, at any time, on demand with the click of a button” (Goodstadt, A., 2010, p.1)

**Exciting Experience:**

In his book entitled The Big Idea, Robert Jones mentions about “the blight of sameness” (2000, p. 11) arguing that over the last decades, products and services became very similar due to the globalization. By this way, it makes difficult for customers to know the special features of a determined product. The new technologies seem to be a key factor to differentiate new products, “the number one in success factor of new products is a unique superior product” (Kotler et al., 2005, p.432). The Redwood Capital report shows that:”consumers remain willing to pay for exciting new technologies and products” (2010, p.6). Paying ring tones for mobile phones are a good example of that. We can easily see the same thing when we analyze the success of sales of the Nintendo Wii Versus its powerful competitors Sony Playstation 3 and Microsoft Xbox 360. The key point of success of the Nintendo was the exciting experience that the new system of game brings to the user (Kotler et al., 2005, pp459-460).

### 1.4 THE SPOTBOX PROJECT

From this combination of emergent needs, we have detected interesting opportunities. The idea generation led us to consider different products that could meet all these needs. Kotler et al. rightly say that to achieve the success, companies must understand the needs of their consumers and know their markets and competitors to develop products with superior values to their customers” (Kotler et al., 2005, page431). One idea appears as better than the others: The possibility to create an electronic jukebox using the Spotify software. This software allows us, as researchers, to explore features which have never been exploited before in an electronic music system since the Spotify has a growing database of more than 8 millions of songs (Andy, 2010). Moreover, the Spotify provides their software codes permitting users with computer science skills to develop their own version of the software. Based on the name of the Spotify software and the Jukebox machine, we decided that our product would be called SpotBox.

The main idea about the SpotBox concerns an interactive electronic device through which the users can not only choose and order music as the traditional jukebox but also experience a different interaction with the machine by combining the hardware with the online environment, by sharing information with their friends. Internet, mobile devices, Bluetooth and live streaming music are the technologies that will guide our initial ideas to achieve a final concept of SpotBox, meeting the needs that we have initially recognized and the ones that this research will provide us.

At this point, we need to define some important terms that we will use in this research. As we suppose that our product is an electronic device with a potential to be used in numerous social places and not only in bars, restaurants, pubs, night clubs and cafés, as the old jukebox system, we will use the term **Social Places** to refer the places where the SpotBox could be
used. The owners of these social places are the ones who have the decision power to buy the SpotBox, so it defines them as our customers. However, the SpotBox will be used by the customers of these social places. So they are our consumers, also called as end-users. It is important to keep this difference in mind because the main goal of our product concept is that the SpotBox meet the needs of both, customers and consumers.

1.5 MUSIC: A MARKETING TOOL
Since that we have pointed these four emergent needs to guide our new-product idea, these ones have to be well understood. Stephanie Wilson (2003) states that “it is clearly evident that music has the potential to influence commercial processes” (2003, p. 108). Once that we have imagined the SpotBox being used in social places, we know that this can have a direct influence in the customer satisfaction and also in their perception towards these places. The background music in social places can influence not only the atmosphere of the places but also the taste of the customers (Ibid). Another piece of evidence is given by the Dr. Adrian C. North who demonstrates that the background music influences the taste of wine: “The specific taste of the wine was influenced in a manner consistent with the mood evoked by the music” (The Heriot Watt University, 2008). The music can also be influent in the decision to buy products: “Findings also suggest that stores which play upbeat or upmarket music may be able to charge higher prices. Overall, the absence of music had the most negative effect on atmosphere and the amount of money patrons were prepared to spend (Wilson, S., 2003, p.108).

Thus, for the concept development of our SpotBox idea, we will aim not only at meeting the consumers’ needs, but also at trying to understand and solve the needs of our customers. The objective of this research will be to try to find a way which makes consumers desirous to use the SpotBox machine and customers considering this device as an attractive business opportunity.

1.6 PURPOSE
The purpose of our thesis is to turn the new-product idea of the digital jukebox called SpotBox into a product concept.

1.7 AUDIENCE
This thesis is written for those who are interested in the new product development process and especially in the concept development stage. This work can also bring inspiration for persons who work with new technologies and look for new applications for it. Moreover, people who want to explore the new opportunities offered by the music industry can get an interesting new business model by reading this work.

1.8 DELIMITATIONS
This thesis will be focused only on the product concept development. It will not emphasize on the other stages included in a process of developing new-products. The development of the physical product and its launch into the market will not be part of this research. Moreover, as
we are students and not actors within a company, the financial aspect will not be taken into account.
2 THEORETICAL FRAMEWORK

The aim of this part is to guide our research, making explicit the different terms we are going to use in this thesis. We are giving the main definitions in order to make this work consistent for the reader and to enable her/him to well understand the topic and its stakes. As we already introduced it, we are going to develop the concept of a digital jukebox. This action takes part of a whole process named New-Product Development Process. Its definition is the starting point of the theoretical framework; we will emphasize on its importance for a company to launch a new product on the market successfully. By going progressively into deeper aspects, we will end this framework by outlining the main concept of this research, the concept development, and by creating our own Conceptual Framework about this one.

2.1 THE NEW PRODUCT DEVELOPMENT PROCESS

“A process is a methodology that is developed to replace the old ways and to guide corporate activity year after year. It is not a special guest. It is not temporary. It is not to be tolerated for a while and then abandoned” (Thomas H. Berry, 1990, p.1).

2.1.1 The New-product Development process by Kotler.

Developing a new product is much more than developing a concept, as the aim of our thesis. To make this concept development understandable and relevant, we need to have an overview of the whole process of product development. We are going to explain it through the view of Kotler et al. with their work entitled Principles of Marketing because it is well known in the marketing educational system for being clear and relevant. Keep in mind that we will not focus on all these stages but only on the concept development which is a part of the Concept Development and Testing stage as it is called by Kotler.

To obtain new products, companies can either acquire existing brands or undertake a new product development in the company’s research and development department. Kotler et al. (2005) describe the new product development as “the development of original products, product improvements, product modifications and new brands through firm’s own R&D efforts” (2005, p.551). Let us now take a look at the nine main steps in the new product development strategy according Kotler et al., illustrated through the figure 2.
The new product development can be made if the new product team has direction which permits to focus its efforts, if tasks are delegated between the team to allow them to work independently and if managers agree on a proactive planning. By this way, a new-product strategy is needed to draw manager’s attention with guidelines, to force them to ask the right questions about the product/market to focus on, the major goals or objectives (Kotler et al., 2005).

Then, managers have to find many ideas. Products come from ideas which are searched through a systematic process. This process is called idea generation. A company can find new ideas through formal research and development and draw its inspiration from all the people who take part to the internal organization. Companies can also pick the brain of their customers, competitors, distributors… As we already introduced it in the 1.4 part, the idea generation in our process consisted in trying to meet the four emergent needs by observing the young person’s behavior when they are listening to music during pre parties especially. Obtaining a flow of ideas is necessary in order to find a few good ones; this requires the idea screening step. Indeed, by screening new-product ideas, managers “spot good ideas and drop poor ones as soon as possible” (Kotler et al., 2005, p.557). These two stages require taking carefully into consideration all the factors such as technological, social, economical and political points. This is essential as the limitations at this early stage of the new product development process are not so obvious and can have important consequences on the product development if they are neglected.

The fourth stage is the concept development and testing. The purpose of this step is to turn the product idea into a concept. Once the company gets the best product idea from the idea screening, it has to develop this product into alternative product concepts, and then evaluate how attractive each concept is to customers and choose the best one. An efficient way to evaluate this attractiveness is to present a word, a picture description or even a physical presentation of the concept to a group of target consumers (Kotler et al., 2005).
can help the company to see which concept has the strongest appeal. This step will be described deeper later as it is the main purpose of our thesis.

The following step consists in developing a **marketing strategy**. Kotler et al. (2005) define it as “designing an initial marketing strategy for a new product based on the product concept” (p.559). This involves creating a marketing strategy statement which “outlines the intended target market, the planned product positioning, the sales, market share and profit goals for the first few years” (Ibid). As the previous steps, the marketing strategy needs to be evaluated; the company has to ensure that these factors satisfy the company’s objectives. For that, a **business analysis** is necessary because it involves a review of the sales, costs and profit projections for a new product (Ibid).

Having done all these steps one by one, the company has now a product concept well-defined with objectives. Then, this product concept has to be developed into a physical product in order to point out if it can be a workable product. This is the purpose of the **product development** step. Here, companies should focus their attention on the needs and wants of their customers but also on how the designs will be produced. Kotler et al. rightly say “Look beyond simply creating products that satisfy consumer needs and wants…Companies work to fashion products that are both satisfying and easy to manufacture.(2005, p.561). This new product should obviously be tested through the next step, the **test marketing**. Testing it through test markets (Standard test markets, controlled test markets, simulated test markets…), the company can therefore evaluates the features of the product, the entire marketing programme and it lets the company learn how customers react to the product (Kotler et al., 2005).

The last step, according Kotler et al. (2005), consists in **commercializing** the product, introducing it into the market. It is fundamental to consider four aspects: When, Where, To Whom and How do we have to launch the new product into the market? All these decisions have to be consistent with the marketing strategy statement: the objectives, the positioning and the target customers.

### 2.1.2 The New-Product Development process by Cooper

Many books about this New Product Development process are available to readers. Winning at New Products by Richard G. Cooper, New Products Management by Merle Crawford and Anthony Di Benedetto are some examples among a huge choice of authors. They all suggest a New Product Development process whose aim is to launch a new product into the market successfully. The main point which differs between these authors is the number, the order or the name of these stages. The New Product Development process described in the previous part is relevant but going further could bring a better understanding of what is this process and point out its importance for a company. Therefore, another point of view will be introduced in this part to show that there is not only one way to consider this process. This leads us to introduce now the New Product Development process according to the view of Robert G. Cooper. The reason of this choice is that Robert G. Cooper “pioneered the original research that led to his many groundbreaking discoveries including the Stage-Gate Idea-to-Launch Process” (The Product development Institute Inc., 1996, para. 2). He is the author of several books on product development and was made a Fellow of the Product Development and Management Association in 1999. (Robert G. Cooper, 2001).
Robert G. Cooper calls the New Product Development process the Stage-Gate Process. Indeed, his process has a particular shape: This process is characterized by a predetermined set of stages which consists in a set of parallel activities. The entrance of each stage is a gate whose aim is to check and control the outsets of the previous stage. This particular shape is illustrated through the figure 3. He defines it as “the conceptual and operational model for moving a new product project from idea to launch”, (2001, p.129). As the Kotler’s process, the aim of the process defined by R. Cooper is to improve the efficiency and the effectiveness of the company to launch a new-product into the market.

**Figure 3: The typical Stage-Gate Model, from Discovery to Launch.** (Robert G. Cooper, 2001, p.130).

An overview of what is required within each stages and gates is now suggesting, explaining the different stages that are drawn in the figure 3. The Cooper’s (2001) consists of eleven points. The Stage-Gate process starts with the **Discovery Stage**. This involves generating ideas by making technical researches, trying to uncover some needs or wants, looking for some new technological opportunities or other significant ones. Comes then the Gate 1 called **Idea Screen** in which marketers have to select the best ideas. This selection is based on a set of criteria which often deal with the advantages and feasibility of the product, the market attractiveness or the magnitude of opportunity. Then, only the richest ideas will go to the Stage 1, the **Scoping Stage**. The spirit of this stage is to “determine the project’s technical and marketplace merits” (Robert G. Cooper, 2001, p.134) through a quick and inexpensive way. This involves four activities: a Preliminary Market Assessment in order to measure the
possible product acceptance among consumers, a Preliminary Technical Assessment which establishes the technical feasibility of the product and its possible risks. Once this Scoping Stage has been done, it is time to go through the gate 2, the Second Screen, which evaluates again the project but with the light of the new information obtained during the Stage 1. **Building the Business Case** is the Stage 2. In few words, it consists in defining clearly the product and checking the attractiveness of the project. It includes the target definition, the delineation of the product concept, some market investigations, market research studies to determine the customer’s needs, wants and preferences, a technical appraisal and a business and financial analysis. This stage requires a variety of sources to be able to bring a clear product definition. The gate following this important stage is the Go to Development one which is the last control before entering into heavy-spending. The stage 3 called **Development Stage** is the design and development of the product resulting in a prototype or sample product, which involves both technical and marketing activities. The gate 4, Go To Testing, checks if the Stage 3 tasks have been realized in a quality fashion and then brings us to the Stage 4 called **Testing and Validation**. In line with its name, its goal is to validate thanks to different kind of tests (In-house tests, customer tests, test market…) the product itself, the production process and the customer acceptance. Considerable progresses have already been realized in the development of the new-product. The final gate before the full commercialization, the Go To Launch gate, controls for the last time the project based on financial criteria, on the appropriateness of the launch, operations start-up plans. At least, it is time to launch the product into the market by implementing the marketing and operation plans that have been established previously.

**2.1.3 The New product Development stages: Kotler’s view versus Cooper’s view.**

The following table (figure 4) links the New Product Development stages from both points of view: the one of Kotler et al. and the one of Robert G. Cooper. Through this summary table, we, as the authors of this thesis, outline first the Kotler’s stage title, then reveal in parallel the title of the corresponding one from Cooper and in a third column the meaning of this stage is explaining from our own thinking, after a reading and an understanding of the both points of view. The reason of this table is first to make clear this important process of New Product Development process and also to build our own conceptual framework concerning the Concept Development stage. Indeed, comparing the different elements included in the Concept Development stage of Kotler and in the “Building the Business Case stage” of Cooper, selecting what we were considering as the most relevant, we have established our own Concept Development stage. This one will be explained deeper in the followed 2.2.1 part called The Concept Development.

<table>
<thead>
<tr>
<th>Kotler’s stage title</th>
<th>Cooper’s stage title</th>
<th>Meaning of the stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New-Product Strategy</td>
<td>Product Innovation and technological strategy</td>
<td>Fundamental task for an effective NPD process including:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- goals, definition of priorities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- delegation of the tasks among the team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- areas and strategic thrust</td>
</tr>
<tr>
<td>Idea Generation</td>
<td>Discovery Stage</td>
<td>Generating ideas through a systematic way</td>
</tr>
</tbody>
</table>
2.1.4 Doing well the New Product Development process: A key to success.

Through the summary table (figure 4), the Cooper’s view of the different stages of a New product Development process has been explained. It shows also that there is not only one single way to consider this process but several. However, even if the literature features well this process, reality is much more different (Cooper, Kleinschmidt, 1986). Indeed, Robert G. Cooper and Elko J. Kleinschmidt (1986) show in the article An Investigation into the New Product Process: Steps, Deficiencies and Impact that many stages and activities are omitted.
from the process by considering 203 projects, including 123 commercial successes and 80 commercial failures (1986, p.71). The figure 5 shows the frequency of New Product process Activities. The different terms are explained in the previous 2.1.2 part. Here we can notice that only 25.4% of the 203 projects use Marketing researches and only 22.5% use test market to develop their new product. Therefore, companies don’t seem aware of the importance of this process which can have a considerable effect on the success of the product launch.

Though, Booze, Allen and Hamilton (1982) reveal that the new product process is a key to success, whatever the number or the names of the different stages are in this process. Their study of new product management concludes that companies which have a closely-controlled new product process are more successful and that those who have one for a longer time develop new products better (Booze, Allen & Hamilton, 1982). Similarly, Peters and Waterman (1982), in the book In Search of Excellence, emphasize the fact that successes and failures depend upon what people do and how well they undertake tasks. One of the main finding of the report of Robert G. Cooper and E. Kleinschmidt (1986) is that the completeness of the new product process is strongly linked to project outcomes: “When one looks at the completeness of the new product process (i.e., how many activities were carried out), successful projects featured significantly more activities than did failures. (...) Among the 203 projects, nearly one quarter (23.6%) of all failures had five or less activities completed compared to only 4.8% of successes” (1986, p.81).

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**Figure 5: Frequency of New Product Process Activities.** (Cooper, Kleinschmidt, 1986, p.75).
The New Product Process is deficient in many companies (Cooper, Kleinschmidt, 1986, p. 84). The Detailed Marketing Study/Marketing Research is emphasized as it is the corresponding stage of the Concept Development. This link is explained through the figure 4. An observation can be done here: the marketing study and research (Concept Development stage) is obviously lacking in many companies as only 25.4% of the 203 projects were including such a stage. This NPD process can never be guaranteed but directing more attention to the way we conceive, develop and commercialize new products is a key to achieve its success. This theoretical framework about the new product development is needed to well understand how important all the steps are. We will now enter deeper into one of this step: the concept development stage. We will use it as a guideline for our thesis.

2.2 THE CONCEPT DEVELOPMENT.

We have previously outlined the different stages of a New Product Development. It is time to go deeper into the topic of this thesis: the Concept Development: the development of the product idea that the company can see itself offering to the market into alternative product concepts, a detailed version of the new-product idea stated in meaningful consumer terms. (Kotler, 2005, p593). Then our own stage called the Concept Development stage will be presented. Only this stage will be developed through this thesis.

2.2.1 The Concept Development: Our own Conceptual Framework.

Thanks to the summary table (figure 4) established previously in the 2.1.3 part, the conceptual framework could have been designed by the authors by comparing the concept development definition from Kotler and from Robert Cooper. Therefore, this framework comes from Kotler’s ideas, from Cooper’s ones and from our own perception and understanding of this topic. This is the Concept Development theory that will be implemented.

Robert G. Cooper (2001) explains that when marketers want to develop the product idea into a concept, they are still at an early stage in the game of the product development process, from Discovery to Development. Assume that you, as marketers, have done a good job of idea generation, that a lot of good ideas have been found and that the poorest ones have been dropped, the less worthy in terms of time and money. Attractive ideas must be now turned into product concepts. It means that we go from a product idea to a product concept. Distinguishing them is important. A product idea is “an idea for a possible product that the company can see itself offering to the market” (Kotler et al., 2005, p.593). A product concept is “a detailed version of the new-product idea stated in meaningful consumer terms” (Ibid). This evolution requires a special stage, as made both Robert G. Cooper (2001) and Kotler et al. (2005). A concept is more than the original thought; it is turned and examined taking into account several important elements. Moreover it is important to well understand that the spirit of this stage is to spend a little money, gather some information, so that the project can be re-evaluated for the product development in the light of the better information (Robert G. Cooper, 2001).

This special stage dedicated to the development of a product concept requires first to make a Market Assessment; it means that the marketers have to assess the market attractiveness and potential, to measure the possible product acceptance and to shape the idea into an attractive
product. This has to be reached quickly and for minimal costs. This involves gathering internal information which are already available by asking sales force, distributors, technical service people; examining secondary sources in reports, articles published by trade magazines, government agencies; contacting potential consumers. “It can be surprising how much valuable information can be gathered in this way from one person in a week or two of hard work “, (Cooper, 2001, p.179).

Once the Market Assessment has been realized, marketers have then to focus on technical aspects, which is the second part of the Concept Development stage. This Technical Assessment has to establish rough technical and product performance objectives, undertake a preliminary feasibility study and point out possible technical risks. Product requirements, the technical feasibility, the technological skills needed and the technical risks are points that marketers should answer through this technical assessment.

Once the good idea is found, the needs and wants of customers understood, all these information collected through these tasks are fundamental to enable marketers to develop a consistent and relevant product concept.
3 METHOD

As researchers, we need to collect information in order to answer our research question. It means that we need to know if our product idea has enough appeal for consumers and customers, if it is possible to turn it into a product concept besides technical requirements and we need to know how we could do that. Therefore, we have to decide at the outset whether we want to use a qualitative or/and quantitative data collection and analysis method. (Ghauri, Gronhaug, 2005). Then we are going to explain the different techniques we will use to achieve our objectives.

3.1 RESEARCH DESIGN

The research design relates through an overall plan the conceptual research problem to relevant and practicable empirical research. (P. Ghauri, K. Gronhaug, 2005). It provides a framework for data collection and draws the priorities for the researchers. The following figure (Figure 6) illustrates the different stages which precede and follow the Concept Development stage as it is the focus of this thesis. The outsets required in this stage are also explained. We will not develop the Concept testing as it is not part of the thesis purpose. The figure 6 shows which kind of information we have to show and to prove in order to present our new-product idea, the information we have to measure and to shape to be able to develop a product concept through the concept development process. Being aware of which information we have to look for, the necessary data and the appropriated method to collect it can now be developed.
3.2 QUALITATIVE VERSUS QUANTITATIVE RESEARCH.

Research methods consist in collecting data through a systematic and focus way in order to obtain information from them and to answer our research question. Two research methods are possible: the qualitative and the quantitative one (Ghauri, Gronhaug, 2005). The methods are different from techniques of data collection. Jancowicz explains in *Business research Projects for Students* (1991) that research methods and techniques differs according the research problem and the purpose of the project. The two next points will be dedicated to the description of the qualitative and the quantitative research method, and then we will expose our method that we will follow for this thesis.
3.2.1 What is qualitative research?

The main characteristic of a qualitative research is that it emphasizes on words rather than on the collection and analysis of data (Bryman, Bell, 2007). It means that this research does not use statistical methods or other procedures of quantification to provide findings. Using a qualitative research usually means that the research problem or objective is to uncover and understand a person’s experience or behavior, a phenomenon about which little is known. (Ghauri, Marshan-Piekkari & Welch, 2004). The typical methods used to make a qualitative approach are focus group interviewing, case study approaches, observations and personal interviewing. (Ghauri, Gronhaug, 2005). The main advantage of these techniques is the limited number of observation compared to quantitative methods which permit to go deeper in the explanation and so to understand better what marketers are looking for. Ghauri and Gronhaug (2005) say rightly that “qualitative methods are more suitable when the objectives of the study demand in-depth insight into a phenomenon” (2005, p. 112). Researchers can find a large number of rich and relevant information concerning attitudes, motivations or value. Indeed, these techniques reduce the psychic distance between the researcher and the interviewee (Craig, Douglas, 2000, Ch. 12).

3.2.2 What is quantitative research?

As it is adduced previously, the main difference of these two methods is the procedure and the focus and research problem of the project. The quantitative research procedure is considered as requiring measurement whereas qualitative is not. (Ghauri, Gronhaug, 2005). Then, the research objective here does not consist in an understanding of a phenomenon but in a testing and verification of theories or hypothesis. Researchers collect data through a critical and logical approach, there is not interpretation. (Ibid). “Quantitative methods allow researchers to accept or reject these hypotheses in a logical and consistent manner”. (Ghauri, Gronhaug, 2005, p.108). Mails and personal interviews are typical methods of quantitative research with a sufficient large sample to allow statistical analysis. (Kotler et al., 2005).

3.2.3 Our research technique choice

Qualitative and quantitative approaches have been shortly and clearly defined. Now it is important to keep in mind that our purpose is to develop a product idea into a product concept. The figure 6 reminds us which information we have to show. This requires the understanding and uncovering of our consumer’s needs behaviors towards the music and ideas to be able to develop some initial product concepts. Given this, the qualitative approach appears as the most appropriated method to find this information because it will allow us to go deeper in this phenomenon and therefore to develop a concept much closer of what customers and consumers desire.

3.3 DATA COLLECTION

Most of the time a research question involves obtaining data. Researchers need to collect data which can be divided into two categories: Secondary data and Primary one. The explanation is given in the following part.

3.3.1 Secondary data

Secondary data are already existent and are available, in books, newspapers, Internet and articles. (Kotler, 2005, p. 357). A large number of relevant online data can also be found through WebPages of firms, governments, semi-governments organizations and catalogues (Ghauri, Gronhaug, 2005). It is information which has been collected for a different purpose by individuals or groups such as researchers, international organizations or governments. (Ibid). These authors of these sources can be very different: from government offices about
society aspects data to students who have already written theses or reports (Ibid). These sources are commonly used to find secondary data because they provide neutral information including the positive and negative side of the information, which is not always the case of some catalogues or companies websites in which information can be exaggerated or biased, (Ghauri, Gronhaug, 2005). This point leads us to pay attention to the reliability of these sources by checking what the authors are claiming.

Several advantages of the secondary data can be pointed out: first it brings an answer to the research problem, it brings a better understanding of the purpose by “helping in problem formulation” (Ghauri, Gronhaug, 2005, p.92) and it is time and money saving; indeed researchers just have to go to the library, get and use the sources. It is easy to access. (Ghauri, Gronhaug, 2005).

3.3.2 Primary Data

In some cases, secondary data don’t provide enough information to answer the research questions. Indeed, you may have some difficulties to find information such as specific phenomenon which requires more than figures to be well understood (Ghauri, Gronhaug, 2005). In this case, collecting ourselves the data that are relevant for our particular research problem is needed. These data are called primary data. Kotler defines it as “the information collected for the particular purpose at hand” (2005, p.346). In a practical way the primary data can be collected by interviews, observations or surveys. (Ghauri, Gronhaug, 2005).

To bring a more concrete explanation, primary data are more about consumer’s opinions, attitudes, intentions, buying behaviors or also about past events and experiences. By using this kind of data, we get information more consistent with our research questions; we get information which fit perfectly with our objectives. (Ghauri, Gronhaug, 2005). Sure, this depth has a cost, in terms of time and of money. Indeed, it takes much more time and money to get access to information rather than with secondary data: “to find consumers, companies or other target groups who are willing to cooperate and answer these questions”, (Ghauri, Gronhaug, 2005, p.103).

3.3.3 Our data collection choice

Following our priorities clearly defined through the figure 6, secondary data are needed in order to show and prove that people need to share with others, that people want free and accessible music and then that they want exciting experience. Secondary data will be used to present our new-product idea as a potential and relevant idea. It is not about going in-depth in consumer’s behaviors or needs but it is about figures and data supporting our idea. Then going into the concept development stage, as the figure 5 outlines, requires using primary data. Indeed, measuring the product acceptance, shaping our new-product idea into a relevant concept, measuring roughly the technical feasibility involve collecting our own data that will fit and answer perfectly to these objectives. This stage involves discovering and understanding the behaviors, needs and wants of people towards the music consumption, especially towards the digital live music. As this specific information cannot be found with secondary data, we, as researchers, will collect it by our own techniques developed in the following part.
3.4 RESEARCH METHOD

Contrary to the research design, the aim of research methods is not to point out what researchers have to find and show but how they will do it. It refers to the techniques used to collect data. Of course, the quality and relevance of empirical research are highly influenced by the research design which has been presented above. (Ghauri, Gronhaug, 2005). Thanks to this research design (figure 6), we, as researchers, are now able to define which data we have to collect and therefore which techniques is the most appropriated to do it. These techniques are presented through the figure 7 and explained after.

The Figure 7 still illustrates the different stages included in our Concept Development but this time with its respective research methods that have to be used in order to collect the wanted data. It shows how the new-product idea could grow, how the initial product concept can be developed and then suggest a way to be able to create the final product concept if you as researchers are interested by this. As it is mentioned above, the concept testing will not be developed further as it is not a part of the purpose of this work.

![Figure 7: The Concept Development and Testing stages and its respective research methods. (Figure made by the authors).](image)

3.4.1 The growth of the New-Product Idea.

The idea of a new-product idea was born from the own observation of the thesis authors. As we, the authors of this thesis, are young music consumers and especially interested in the different ways of consuming music nowadays, we have paid a particular attention during the last few months to the behaviors of our friends and people who surrounded us during pre-parties at friends’ place or during parties in bars and pubs. Observation as a data collection means “listening and watching other people’s behaviors in a way that allows some type of learning and analytical interpretation”, (Ghauri, Gronhaug, 2005, p. 120). As participants (natural part of the events), we tried to be as neutral as possible and tried to catch the
dynamics of social behaviors and its main characteristics. This led us to characterize four needs interpreted by these observations which have been already explained in the introduction.

Then the following secondary data were useful to support the relevance of these observed needs:

- Figures, Data and Explanations about the changes in the music industry over the last decade to introduce the context of our topic.
- Figures and information about the music live streaming: the main actors and issues in this market to show its attractiveness.
- Figures about the Spotify Company including its size, the number of subscribed to introduce the software we use and its strengths.
- Figures, Data about successful social websites such as Facebook and Twitter in order to outline a potential emergent need.

For this different data we need to collect, we used secondary sources as newspaper articles online (The Economist, Times, New York Times), magazine reviews, reports (Redwood Capital Group Report), annual report (Apple one of 2001 and 2010) and websites such as the Alexa database or the Spotify website. The secondary data also became the source of information to understand better the old jukebox system, very used in the past. The book The Big Idea of Robert Jones (2000) bring us an interesting and very relevant inspiration about how we should lead our ideas and brainstorms to meet the recognized needs and get a positive feedback about our product concept. Because of the technological limitations and requirements of our product as the fast Internet connection to be used, we also had to search and consider our ideas based in some media reports from specialized companies as Nielsen and Redwood Capital.

All this data collection has been made using the model proposed by Bryman to the literature search: “Keeping notes of our literature, selecting keywords and regularly checking for new publications”. (Bryman, 2003, p.144). Indeed, we identified what we need to know and what we already knew about our topic, we developed a list of key terms such as Concept Development, Music Streaming and names such as Robert G. Cooper or P. Kotler and then we regularly looked for these in papers/reports. This list of key terms and key names has been reworked after compiling the literature we have found as we were getting more knowledgeable about the topic and so more aware of the most important point to include in this thesis.

3.4.2 The development of an initial product concept.

The three different methods used to collect our data are explained in this part. The way we run these meetings is not innocent. Indeed, starting by meeting and interviewing our consumers allow us to refine our target customers. Therefore, after this focus group we are more able to meet these customers and collect the data we need. Then all this data collected lead to the birth of possible features which have to be checked from a technical point of view; this is the aim of the technical interview.
The Focus Group for the Market Assessment

Still following the Figure 7, we go now into the concept development stage in order to develop one initial product concept with its own characteristics and functions. Here information about the way of consuming music needs to be collected in order to point out the possible product acceptance and its attractiveness. This Market Assessment is the first stage of the Concept Development process. By this way, primary sources will be used because as it is mentioned previously in 3.2.2, we can hardly learn about behaviors through secondary data, without asking directly the person involved. (Ghauri, Gronhaug, 2005). After having compared the different ways to obtain this information, we decided to organize a Focus group. This data collection method consists in stimulating an interaction between people in a small group in order to look for information on a small number of issues. (Stewart, Shamdasani, 1990; Bryman, Bell, 2003). A focus group allows researchers to get rich and in-depth data which are expressed in the participant’s own words and reactions, which is more difficult to obtain through other methods such as surveys, and it allows them to understand why people feel and behave in the way they do (Ibid). The interaction is not only between the participants and the interviewer(s) but also among participants, that is why focus groups are more likely to provide rich data. (Ghauri, Gronhaug, 2005). Moreover it is a time-saving, flexible and inexpensive method of data collection. (Ibid).

The focus group has been organized by us, the authors of the thesis, in the “creative room” in the Science Park of Halmstad. Eight students from 20 to 27 years old and from different countries have been invited. This selection has been made on purpose; mixing the cultures can only make the data richer as it is a device supposed to be in social places, where many different cultures can enter. The respondents attended this event during one hour and a half, in a warm and nice room where cookies and coffee were offered in order to make the participants comfortable and more likely to speak. As our budget was limited, one of the authors of the thesis, Guilherme Gomes, played the role of moderator whereas the other one, Pauline Droz, was taking notes. The aim of this focus group was to measure the product acceptance among the consumers. Therefore we formulated an interview guide with thirteen questions in order to help the moderator to structure the group discussion. This one has been structured into two main parts. Indeed, the first half of this meeting was dedicated to their habits of consuming music alone at home and with others in some public places but also about their opinion about the music streaming and especially the Spotify software. The questions that have been asked are outlined in the following table. The moderator has not said one single word about the new-product idea of a digital jukebox called Spotbox in order to not influence their answers.

<table>
<thead>
<tr>
<th>Music Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are you used to listen to music?</td>
</tr>
<tr>
<td>How are you used to listen to music in pre-parties?</td>
</tr>
<tr>
<td>Have you ever asked the Djs, waitress, sailor (...) for the name of an artist/band in a shop/restaurant/night clubs...?</td>
</tr>
<tr>
<td>Have you ever asked the Dj to play the music you want?</td>
</tr>
<tr>
<td>Do you mind about the music played in a public place where you go?</td>
</tr>
</tbody>
</table>
The main goal was to meet and uncover some consumer’s needs and wants that we would have missed. As our purpose is to develop a product concept from an idea, we need to know and understand as deep as possible how our consumers behave when they listen to music, what do they like in consuming music and what do they miss. As it is explained in the 2.1.4 part of the theory, this stage is lacking in many companies and it can have considerable effects on the efficiency and effectiveness of the new-product launch. Taking time to go in-depth in

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determine which music device is the most common used and in which conditions people prefer listen to music in order to find out whether the SpotBox device is appropriated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Need of sharing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How are you used to share music with your friends and other people?</td>
</tr>
<tr>
<td>• Do you use social websites such as Facebook or Twitter? Where?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure that the need of sharing information and music with others is real and discover how people deal with it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Music Streaming System</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do you use a music streaming system to listen to music? Which one?</td>
</tr>
<tr>
<td>• If you use the Spotify software, why this one? Which functions do you prefer and which ones do you like less?</td>
</tr>
<tr>
<td>• Do you pay for a premium subscription?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Check the Spotify software acceptance among our consumers.</td>
</tr>
</tbody>
</table>
these topics such as the way of consuming and sharing music or the music streaming system is important to be able to develop a product concept which will meet a real need of consumers and customers and therefore which will have more value than the competitor’s products.

Then, during this meeting a second part has been dedicated to the concept of the Spotbox, after the moderator introduced it shortly without saying anything about the design, functions or other features. Questions were about their perception towards the device: how they imagine it and with which features they would want to use it. These ones are outlined in the following table.

<table>
<thead>
<tr>
<th>The SpotBox Digital Jukebox.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Where do you imagine yourself using the SpotBox?</td>
</tr>
<tr>
<td>• Would you be willing to pay for using the SpotBox?</td>
</tr>
<tr>
<td>• How do you imagine the design of our device? You have 5 minutes to draw it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determine our target customers</td>
</tr>
<tr>
<td>• Measure the price sensitivity of the consumers towards this new way of consuming music.</td>
</tr>
<tr>
<td>• Shape the product concept in terms of design and functions.</td>
</tr>
</tbody>
</table>

The main goal here was to measure their interests towards our new-product idea by observing their reactions, looking at them and listening carefully their opinions and ideas about how this new device could look like and which sort of functions could be included in. Collecting this data may help us to develop an initial product concept that has strong appeals for consumers, which meet perfectly with what our consumers want. As it is explained in the theory (2.2.1 part), measuring the possible product acceptance and shaping the idea into an attractive product is the aim of the market Assessment including in our Concept Development process.

The Personal interview for the Preliminary Market Assessment.

Measuring the product acceptance should not be done only among the consumers, the end-users, but also among the customers who are the owners of the “social places”. Defining our target customers into more details will be done after having run the Focus Group. Therefore, personal interviews will be realized in several places in the Halmstad downtown: this data collection method appears as the best one for us because through the face-to-face interaction between the respondent and the interviewer researchers can get many in-depth and more accurate data. (Ghauri, Gronhaug, 2005). Thanks to the open-ended questions, respondents can express themselves according to their own thinking; answers have been voluntarily not
constrained by a few alternatives to make the respondent feeling free. Our choice was to ask any shop and commercial establishment that has a sound system and consumers. By this way, we have been walking an entire afternoon in the Halmstad downtown. We had not dated any interview or made any previous contact with the chosen places. Consequently in some places that we have been visiting, the attendant told us that he did not want to be part of our research, making these places being not considered on our survey. Therefore, all information that we will consider to this focus group is based on the answers of our interviews and not on our perceptions towards the places. Before meeting them, we have formulated an interview guide with several questions emphasizing in a first part on their possible wants or needs and their possible interest towards our new-product idea. By asking them questions about their customer’s behaviors, we wanted to find out a possible lack in their way to play music within their establishment.

### Questions about customer’s Wants, Needs and Interests.

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Do your customers usually ask you the name of the song that is playing in this place?</td>
</tr>
<tr>
<td>- Do your customers usually ask you to program some special music?</td>
</tr>
</tbody>
</table>

**Goal**

- Measure the interest of our customers towards our new-product idea.
- Uncover customer’s needs and wants.

Then, the questions asked were about their current way to spread music in their establishment, how they deal with their sound system. We, as researchers, wanted by this way to discover and understand how these places manage the sound system and how the SpotBox system could fit with these establishments. These questions are outlined:

### Questions about customer’s Music Management

<table>
<thead>
<tr>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Who program the playlist of this place?</td>
</tr>
<tr>
<td>- Do you use some specific software or device to program your songs?</td>
</tr>
<tr>
<td>- What is the criterion that you use to program your playlist?</td>
</tr>
</tbody>
</table>

**Goal**

- Discover how the SpotBox device could fit with these social places.
• The Technical Assessment interview

With the information collected through secondary sources, the focus group and the different personal interviews made with our customers, we are now able to develop with more details our product concept; but some other data are still necessary in order to develop an initial product concept. The technical requirements of this possible product have to be established. An interview will be used to collect this data to allow us to understand why our product concept is viable or not, to discover if there could have some technical risks, to recognize the features which could be too difficult to create and which ones could require too much investment. By interview we mean a face-to-face verbal contact in which the interviewer tries to obtain information, opinions or beliefs from the respondents. Given our research questions which require in-depth and clear explanations, the interview seems to be the best method as we can collect a more accurate picture of a respondent’s position and opinion through open-ended questions which allow interviewees to answer according to their own thinking. (P. Ghauri, K. Gronhaug, 2005). The traditional way for running this kind of data collection method involves only one respondent and one interviewer (P. Ghauri, K. Gronhaug, 2005). However, we decided to invite three specialist persons working in the technical field to make the answers more complete. As the Högskolan I Halmstad has Computer Science and Telecommunications courses, we get in contact with a PhD student and two ex-students from the university to collect the information and feedback about the SpotBox. These persons have all an interesting development related to the new technologies and they have all already a concrete experience in this field. We consider them as able to provide us with the information we need from this interview. After having selected the respondents, we have to analyze the results collected from the focus group with the consumers and from the personal interview with the customers.

This interview took place in the “creative room” in the Halmstad Science Park where cookies and coffee were offered to our guests in order to create a situation where the respondent willingly offers time. It lasted almost one hour. One of the authors, Guilherme Gomes, played the role of the interviewer whereas the other one, Pauline Droz, wrote notes. The way we run this interview was a little bit different from the way we did previously with the personal interviews. Indeed, all the data collected from secondary sources, from the Focus Group and the several personal interviews allow us to develop and define our new-product idea into a clearer and more accurate concept: several possible designs have been suggesting, several functions have been developed and the target customers have been defined. Therefore, we have presented and explained to these three specialists each feature that we have developed and that we could imagine fitting with our SpotBox device. After each explanation, these persons gave us their opinions in terms of skill requirements, the level of execution difficulty and the cost requirements.
4 FROM THE IDEA TO THE CONCEPT IN THREE PHASES

The theoretical framework draws the process of the concept development including a market assessment and a technical appraisal in order to be able to build a concept with a clear and relevant definition. The method shows and explains the way we chose to reach this objective: A focus group with our consumers, personal interviews with our customers and then an interview with technical specialists. For each of these methods, the data collected will be first outlined and then analyzed and interpreted in order to answer our research objective which is to build the SpotBox Concept.

As the data collected is qualitative data, we decided to divide the answers into several parts according their topic and their aim. The reason of that is to “bring order, structure and meaning to the mass of collected data”, (Marshall, C., Rossman, G.B., 1995, p.111).

4.1 CONSUMERS FOCUS GROUP

4.1.1 Empirical data

Organizing a Focus group involves first to identify the sample (Ghauri, Gronhaug, 2005). Interviewing those who are representative of the consumers is really important in this case as only a few persons are interviewed. At this stage, the target customers is still not clearly defined, it consists in the social places such as bars, pubs, restaurants, night clubs, fashion shops, libraries… Young people appeared as the best persons to represent our target consumers and to bring us the data we need. Indeed, young people usually go often to bars to spend a lot of time with friends, they go to library for their studies, to fashion shops to follow the new trends and to buy clothes. They also can be well aware of the new technologies and new possibilities to listen music nowadays; they may feel more comfortable with technologic devices compared to older persons as they have grown with it. By this way, eight students from Högskolan I Halmstad, the halmstad University, have been invited to this focus group. The only criteria were the age and the nationality. Indeed, we decided to integrate an international dimension within the sample. As we said previously, social places such as pubs, restaurants, and night clubs (…) are places which mix many cultures. Here is the presentation of the eight young persons who have been listened during the meeting called Focus Group:

- Celia, French, 20 years old, studying at the School of Business and Engineering.
- Jan, Swedish, 24 years old, studying the Medias.
- Camille, Swedish, 21 years old, studying at the School of Humanities.
- Evelina, Swedish, 21 years old, studying at the School of Social and Health Sciences.
- Emmy, Swedish, 20 years old, studying at the School of Humanities.
- Joe, Swedish, 27 years old, studying at the School of Business and Engineering.
- Susanna, Finnish, 21 years old, studying at the School of Business and Engineering.
- Daphné, French, 20 years old, studying at the School of Business and Engineering.

These persons are from different field, to make this sample representative of the largest part of our consumers.
Data collected about the Music Consumption

All of the respondents are used to listen to music both when they are alone and when they are with friends. This has an impact on the way of listening to music:

- **Alone**
  - **At home:** All of them use the Spotify Software. The two Swedish boys like also using their CDs or some Web radios. Daphne is the only one who keeps using the TV channel MTV to listen to music.
  - **Outside:** All the respondents use MP3 when they move around such as going to university or when they travel. They all consider this device as very practical but Jo adds that the quality of the sound is not high.
  - **With others**

- **At friend’s places:** The eight interviewees reported that in most of the pre-parties they attended, the Spotify software was used as the music player. Usually the owner of the place where happens the pre-party is in charge of the playlists. The main advantage is that it is an easy way; people can share their music with the others so it is an efficient way to discover new artists and playlists can be made before the pre-party. However it is common that someone doesn’t respect the queue of the playlist on Spotify and delete the songs that another person has programmed before.

- **Joe** prefers using his CD boxes when he is at home with some friends: “My friends can find many old school songs, they are surprised and it is much funnier. And when I go to some friend places, it is the same. By this way, you really enter in the musical sphere of your friends and you can discover really good music.” Joe.

- **In social places (bars, night-clubs and shops):** All of them recognize that it is a pity that clients of these places can’t have any influence on the music. They all mind about music in such places but with different levels. Indeed, the most important for them when they go to a restaurant is the food and not the music, as long as it is not disturbing. But the music played in clothes shops has a direct effect on the girl’s behavior and their perception of the shop. Daphne said that she is now reluctant to return in some fashion shops such as Bershka because there is always a very loud music which makes the atmosphere very unpleasant. “When I go out of this shop, I am always angry” said Daphne. All the girls agree. When we asked if they could have the power to change the music in these places or rather turning off the sound, all the participants said that they would prefer changing the music.

- All of them revealed that music is an obvious criterion for going in a particular pub/nightclub. Moreover, all the girls have already experienced to ask the DJ for a particular song and all the respondents have already ask the barman/barmaid/shop assistant for the title of a song or the name of artists.

Data collected about the Need of Sharing

- The eight respondents use the software Spotify to make playlists and then to share with their friends. The other way used by all of them is the sending of links via Youtube, Dailymotion.

- All the interviewees have a Facebook account and use it. They admit that now Facebook is an integral part of the daily life of young people. Jan even says that it can take too much time in a day. Some people use it whenever and wherever they are.
4.1.2 Analysis of the data collected from the Focus Group

The analysis of the data collected from this Focus Group will serve to reach two objectives of our Concept Development which is to measure the possible product acceptance among our consumers and try to shape our new-product idea into an attractive product concept.

Data collected about Music Streaming System

- The eight participants use the Spotify software. The main reasons are the fact that it is easy to use, free and legal. Moreover it offers a huge choice of artist songs, the possibility to create your own playlists and it relates the artist you are listening to similar artists.
- Only Jan has paid for a premium subscription.

Data collected about the SpotBox Digital jukebox

- The main places where the participants would want to use this SpotBox machine are bars and pubs, restaurants, fashion and food shops, night clubs, libraries and also airports. Other unusual places have been mentioned such as bathrooms, cars, school halls or hostels.
- The three Swedish girls are not willing to pay for using the SpotBox jukebox. However, the others participants could pay about 5 crowns to program a song if they want to share a specific one between friends to remember some souvenirs or if they want to discover a music suggested by a friend for example.
- The participants drew in a few minutes their perception of the SpotBox device shape and design. Four of the participants (Camille, Evelina, Susanna and Emmy) showed on the paper a digital screen with touch screen and whose size is around 42” or 52”. It should be installed on a wall. Celia, Jan, Joe and Daphne showed a real machine that it should be put on the ground related to the traditional jukebox shape but with a digital screen and a more modern aspect.

Data collected about Music Streaming System

- Social Websites such as Facebook or Twitter have gained a considerable importance for keeping contact with the others, for exchanging information. Sharing their taste in music is an activity that our consumers want to do.
- From that we see an interesting opportunity by creating a Social Network feature which could link the SpotBox software with these two websites. This interconnection brings the possibility to the consumer to share her/his music taste in real time through an easy and exciting way.
Analysis of the Music Consumption data

- The fact that during pre-parties some problems occur with the queue of the playlist songs in the Spotify software caught our attention. Indeed, people can feel bored and frustrated if someone comes and programs a song just after you and deletes the song that you have programmed before. This doesn’t meet the need of an Exciting Experience. We, as researchers, consider as a weakness that we want to explore and to improve.

  ➢ Face to this opportunity, a **Queue System feature** by which the consumer can be sure to listen to the song she/he programmed could bring a superior value that the current Spotify software does not. It seems to be an essential feature that can meet the Exciting Experience need and therefore can ensure the satisfaction of the consumer.

- The fact that consumers do not care about the music played with the same demanding level according they go to a restaurant/ fashion store or a bar/night club lead us to define two different needs depending on the kind of establishment. In restaurants and shops, the music is rarely an element of the company’s positioning and differentiation. The music played can improve the atmosphere and bring a value in term of environment, but it is not the main thing that consumers are looking for when they go to such places. A digital jukebox which demands to consumers to come to the machine and program their song does not seem appropriated in these kinds of social places. However, in bars and night clubs for which the music can definitely be a criterion for the consumer to choose one place rather than another one, a digital jukebox can be an entertainment product providing the consumer a real exciting experience.

  ➢ Face to this need distinction, the idea of creating only one music player device which could meet both needs led us to imagine that a SpotBox software could be downloaded and installed in the cell phone and that would communicate automatically by a **Bluetooth function** with the Spotbox machine. By this way, consumers can be only focused on the restaurant food or on store products and at the same time they can listen to their favorite songs, without doing anything. In night clubs or bars, the Spotbox device becomes more an entertaining product, the contact with the machine seems more appropriated. By offering the choice to the consumer to go and program its song or just let its cell phone does the same work, it makes this product a personalized one which adapts itself according what consumers want. The needs of Accessibility and of an Exciting Experience are completely met.

Analysis of the Music Streaming System data

- The fact that the eight respondents have and use the Spotify software confirm its attractiveness and its acceptance among young people. Of course it concerns only eight persons but we generalize among the young population based also on the data collected from secondary sources which clearly point out the success of this software through for example the incredible number of the subscribed persons.

  ➢ This considerable interest towards the Spotify software confirms that it can be a good and relevant idea to develop such an application within a hardware offering even more benefits than the current Spotify software.
Analysis of the SpotBox device data

- Participants can imagine themselves using the SpotBox device in places where people go to meet and to spend time with other persons. This device seems appropriated with these kinds of establishment where sharing is essential. People share the space, information...

  ➢ This analysis reinforces our conviction that adding the share of music in these social places are appropriated and relevant, it could bring a superior value for these establishments.

  ➢ The different places mentioned allowed us to refine our target customers. The first reaction of the participants was to think about bars, pubs, restaurants, night clubs, shops and also library and airports. The unusual places mentioned will not be taken into account as we do not consider the need of listening and sharing music as strong as the one of the social places where people want to share. Therefore, the target customer is defined as the owners of bars, pubs, night clubs and fashion clothes. The need to have such an entertaining device in libraries, food shops or airports does not appear obvious, we decided in this work to not include it in our target.

- Despite the fact that people nowadays consider that listening music should be free, they seem willing to pay for using such a digital music machine for the benefits and the exciting experience that it brings. It is not only about listening music; the SpotBox device offers a friendly way to access to music.

  ➢ This analysis appears as surprising in the way that besides of the important phenomenon of downloading music illegally and for free, people are still willing to pay for music if they see enough advantages for that. It shows that young people are open for a new way of consuming music. As marketers we see an interesting opportunity by making the access of using the SpotBox device paying, without entirely abandoned the free character of the SpotBox. People want music for free if it does not bring any more benefits for them.

- The participants perceive the SpotBox device as a modern device: a digital screen with touch screen installed on the wall. It could be also integrated into a hardware looking like the old traditional jukebox but with more futuristic aspect.

  ➢ It is interesting to see that people do not associate a design relating to the old and traditional jukebox with a vintage style. They immediately link the SpotBox jukebox to the new technologies and with a futuristic style. From this analysis, the design of our jukebox concept will be a hardware whose size would be about one meter long by half a meter wide, integrating a digital screen with touch screen and using modern material rather than vintage one such as wood. This Spotbox machine should refer to the future rather than to the past; it is a new way for consumers to listen to music.
Our Concept Development process explained in the Theoretical Framework (part 2.2.1) starts by measuring the consumer’s acceptance and perception towards the new-product idea, by shaping the idea into an attractive product concept. This Focus Group allowed us to meet a group that we consider as representative of our consumers in order to fulfill these tasks. Many rich ideas came from this data collection method; some of them have confirmed our initial thoughts - developed thanks to our own observation and thanks to data collected from secondary sources - , others led us to refine or explore other approaches - such as our target customers or the free dimension of our digital jukebox - and some ideas gave birth to new functions that will be included in the new-product concept. This meeting made our concept richer in terms of consistency and relevance with the consumer’s needs. Moreover, it led us to define our target customers that now can be interviewed in order to keep on developing our product concept.

4.2 THE CUSTOMER PERSONAL INTERVIEWS

4.2.1 Empirical Data

As the focus group, the personal interview is a data collection method which demands selecting a sample. The customer target has been delineated above thanks to the focus group: Bars, Night Clubs, Restaurants, Clothing stores. Therefore, we have been visiting seven places in Halmstad asking about their music system. Our Goal on it was to discover how these different places deal with their music playlist and try to get information to discover whether they care about creating a customer-oriented music playlist or if this is not part of their precaution to use music as a marketing tool to satisfy their customers. All the places we have been collecting information are located in the city center of Halmstad and are well known in the city. These ones are:

1. Name: La Cocaracha  Segment: Nightclub & Restaurant
2. Name: Carlings   Segment: Fashion Clothing store
3. Name: Monki      Segment: Fashion Clothing store
4. Name: B&B        Segment: Bowling, Pub & Night Club
5. Name: InterSport Segment: Sports clothes and equipments store
6. Name: Stadium    Segment: Sports clothes and equipments store
7. Name: Lilla Helfwetet Segment: Nightclub & Restaurant

Data collected about customer’s Wants, Needs and Interests.

- All the pubs and restaurants are used to have their customers asking for programming their music with a large frequency. However, it does not happen in any shops that we have been interviewing and it is rare in the restaurant; customers never ask for a song in these shops.

- The customers of these places often ask for the title of a song or the name of an artist that is playing by the sound system. The only exception is the InterSport store where customers do not ask so often and the Stadium one where customers have never asked before.
4.2.2 Analysis of the data collected from the Personal Interviews.

The data reformulated above is going to be analyzed and interpreted by us, the authors of this thesis, in order to reach the objectives of these interviews. Once this analysis is done, we should be able to know if the SpotBox machine really meets the customer’s needs and which features could make the device more useful and appropriated for them. This analysis is made in line with our purpose which is to develop an idea into a product concept.
The fact that the pubs and night clubs have always customers asking for music in these places give us the idea that their music playlist can influence directly the satisfaction of the customers, making the music a part of the attraction of the place. And it also reinforces our thinking that people would like to program their music on a device such as the SpotBox one, from their cell-phone or directly on the SpotBox machine. However, the fact that people never ask for music in the mentioned shops and the restaurants show that the music played is part of the background in these places. But this does not mean that the customers of these places do not mind about the music that is playing. Given that in some of these shops as Carlings, customers usually ask for the name of some songs played by its system, we can say that they pay attention to the music of these social places but they are not necessarily willing to program the music they want. This is in line with the data collected during the focus group when Daphne told us that she is now reluctant to return to some shops in which she does not like the music usually played.

Face to the conclusion that the songs played in the shops have an impact on the customers’ satisfaction; the interesting opportunity here would be to have a data base registering the songs programmed by customers. The best way is to create a system of user account, as the one in Facebook or Spotify for example. So then all the songs that the users have programmed will be registered and could be used to know the customer music taste.

If the user has the SpotBox software installed in his mobile phone, the software would register the songs (s)he listens the most. When this user gets inside of a shop which has the SpotBox device, the machine would automatically communicate via Bluetooth with her/his cell-phone, would receive the top songs of this user and would start playing it. By this way the shops can have a customer oriented playlist playing exactly what their customers want to hear without the need of the customer to program the songs. This solution would be for all the target places but we consider it as more relevant for the restaurants and clothes as people don’t seem really interested by programming by their own the music.
These personal Interviews are still part of the Market assessment, trying to evaluate the interest rate of our customers, to uncover their needs and wants and to see which features could increase the benefits of the SpotBox device for the customers. Interviewing the customer is an efficient way to collect relevant data because the direct contact and the proximity leads to a better understanding of what customers really mean when they answer to a question. Thanks to these interviews we were more able to imagine features which can increase the utility of the machine in these social places such as the Intelligent playlist. These interviews reinforced also our conviction that if the music could be part of a marketing tool which would ensure the consumer’s satisfaction, the staff of these places would also be satisfied.

Analysis of the data collected about Customers’ Music Management

- The fact that all the places have a different way to manage their playlist makes us believing that the SpotBox could be an interesting solution for these places, all the more since the preparation of the playlists are made by the owner perceptions mainly without any specific criterion. As it is outlined in the introduction, the music played in a store can influence directly the revenue of the place. One of the objectives of our concept development is to assess the market potential of our new product. Therefore we recognize as a need of those places a customer-oriented music system. Based on it, we think that shops could be an interesting segment for our SpotBox concept since we could offer a playlist solution based on their customer taste.

- Some of these places are still using CD players and also mp3 players. The main reason is that updating their playlist costs money and demands time. As it is mentioned in the introduction, the Spotify software has a crescent library of more than eight million of songs which is considered as an important advantage for them.

- The Karaoke function suggested by Jose from B&B seems to be an interesting feature for the SpotBox device. This new feature idea should be analyzed in the technical assessment.

- Face to the fact that the playlists of the places are made mainly based in one person perception and not necessary used as an efficient marketing tool, a part of the solution for it can be our Bluetooth system that we have already described on the focus group analyses. But we also see as important for our product the creation of a feature that we will call as Intelligent Playlist. This will be used when no one is programming the music in the SpotBox, as the music should not stop in these places, the SpotBox will start to play automatically the top 40 songs the most programmed in a determined machine combined with songs from related artists.
4.3 The Technical Interview

The focus group with our consumers and the personal interviews with our customers have been realized; the SpotBox jukebox has now evolved from an idea into a concept with its own functions, a specific shape and design and a clear target customer. This market assessment allowed us to develop a concept which fits with our consumer and customer’s needs and wants. But our concept development goes further than this market investigation; the product concept viability has to be checked from a technical side. We decided therefore to meet three technical specialist to point out whether the product concept could be turn into a physical product.

4.3.1 Empirical Data

This interview with these technical specialists is the last stage of the concept development before obtaining a concept with a clear definition which should be then tested, developed into a physical product and launched into the market. As it is explained in the method part, running this technical interview required to do it at the end of the concept development process for the reason that we need to present the different features we imagined fitting well consumer and customer’s needs. It involves that these different features have already been thought. Here, these different ones have been in-depth explained to the technical specialists then they gave us their opinion about the technical feasibility and the skills requirements. As the Högskolan University includes Computer Science and Telecommunications courses, we had the opportunity to meet three persons in this field who seemed interested by our project to develop a new product concept. An appointment has been planned for the interview. Here is a short presentation of these three technical specialists:

- **Edison Pignaton de Freitas**, PhD. Student of the Centre for Research on Embedded Systems (CERES) and School of Information Science, Computer and Electrical Engineering of the Halmstad University.
- **Denny Toazza**, Computer Science Bachelor and Technology manager Swedloop Entertainment, Halmstad.

In the following tables are presented the different features which have been developed through the different data collection method realized before and the opinion expressed by the three interviewed persons. First there are the software features, then the hardware features.
### Software Features

<table>
<thead>
<tr>
<th><strong>Queue system feature</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
</tr>
<tr>
<td>The SpotBox playlist respects the programming order of the users. This means that the first song programmed by a user will be the first one played by the machine; the second one will be played immediately after but without interrupting the first one.</td>
</tr>
<tr>
<td><strong>Technical Opinion</strong></td>
</tr>
<tr>
<td>It is largely feasible; it doesn’t require much investment or skill competences.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bluetooth function</strong></th>
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<tr>
<td><strong>Presentation</strong></td>
</tr>
<tr>
<td>The SpotBox device will communicate with the consumer cell phones using a Bluetooth connection. Once that the SpotBox software is running in the consumer’s cell phone, this one can exchange automatically information with the SpotBox machine that (s)he can find in social places. With this software it will be possible to be connected to any SpotBox machine -inside the Bluetooth area- and it will make possible the following features:</td>
</tr>
<tr>
<td>1) The top ten songs of the customer can start playing automatically by the SpotBox machine if there is no other song programmed in it.</td>
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<tr>
<td>2) The customers can program their song from their mobile.</td>
</tr>
<tr>
<td>3) The Spotbox mobile software has already the log-in of the Twitter and Facebook; therefore it is automatically linked with these websites.</td>
</tr>
<tr>
<td><strong>Technical opinion</strong></td>
</tr>
<tr>
<td>This feature is easy to install all the more since almost all the cell phones have a Bluetooth function nowadays. But it involves creating a Spotbox application that could be downloaded in the cell phone, which is also easy to do.</td>
</tr>
</tbody>
</table>
Social Network feature

Presentation

The SpotBox device will be connected with the Twitter and Facebook social websites. When programming a song from her/his cell phone thanks to the Bluetooth function or directly by using the SpotBox machine, the software would ask the user for a personal message which would be automatically posted on her/his Facebook or Twitter wall and by this way shared with her/his network. With this personal message would be added a playlist link which allows the person who click on it to see and listen to the playlist played in the social place where the SpotBox device user is.

Technical Opinion

Completely viable, despite their never saw such a function in any music software before. The easiest way for that would be that consumers create a SpotBox account, with a log-in and a password. As the account would have all the information about the Facebook profile and the Twitter one of the user, the process would be easier and faster.

Karaoke

Presentation

Integrating a Karaoke function to the Spotbox jukebox can bring a higher level of entertainment and make our target customers more attractive. The jukebox is getting funnier to use for the consumer and an interesting commercial opportunity for the customers.

Technical Opinion

The Spotify library does not have any karaoke function already built. So to integrate a karaoke function on the SpotBox, the costs of the programmers and the development of this feature would be very expensive to be a normal function of the SpotBox. Alex suggests developing the karaoke function later on and then selling it as a plug-in, the customers who want a karaoke function will pay for this feature separately.
**Intelligent Playlist**

**Presentation**

When no one is programming a song on the SpotBox or by cell phone, the SpotBox starts automatically by playing the songs of the top 40 of this place and the songs of the top 40 related artists. E.g.: If the clients of a determined Pub have listened more 60’s & 70’s jazz music, these songs will be part of the automatic playlist of the SpotBox, combined with some new artists that have a similar music style. By this way, the place has an automatic playlist generated by their own customers which is an interesting opportunity to increase the customer satisfaction.

**Technical Opinion**

It is an interesting feature and easy to create. The Spotify software offers a service which is similar: you can find playlists made with the most listened songs according the countries. It is completely viable.

This feature could also solve a possible technological risk; in case of the Internet connection falls down. Indeed, the owner of the place where the SpotBox is should download this Intelligent Playlist. By this way the playlist could be played even if there is no Internet connection.

**Payment System**

**Presentation**

For programming one song, the user could pay 5 crowns by inserting a coin in the machine, as the traditional jukebox system. But how could they pay if they program one song from their cell-phone?

**Technical Opinion**

The easiest way for consumers would be to buy a SpotBox prepaid card in which there will be a number and they will have to write this number down on the SpotBox device or on their cell phone keypad. This doesn’t mean that the coin system should be abandoned, both can be easily combined.
Hardware Software

Presentation

A Touch Screen monitor would make easier and more intuitive the use of the SpotBox. To write the name of the song or artist, the software will display a virtual keyboard.

The SpotBox will need a Bluetooth device operating with a range that can be modified according to the size of the place.

As the Spotify software runs in a Microsoft Windows environment. We will need a computer with its operational system.

Technical Opinion

The three technical specialists immediately agreed on the point that all these features are really common nowadays and so well-known and used. There is no difficulty in integrating it in the SpotBox hardware.

4.3.2 Analysis of the data collected from the Technical Interview

The analysis of these answers corresponds of the Technical Assessment of our Concept Development. This technical interview should lead us to screen our different features, to check whether it is viable from a technical point of view. The necessary data have been collected from the technical specialists; they have to be now analyzed.

First, the technical approbation about the Queue System feature reinforces our thinking that this Spotbox should include this feature which will guaranty the consumer’s satisfaction. The Bluetooth System should also definitely be part of the Spotbox concept. The Bluetooth function is now integrated in almost all the cell-phone so a largest part of the consumers will have the possibility to use it. Then, demanding the consumers who want to use the Social Network feature to create an account is a rich idea. Indeed, by having a Spotbox account people won’t have to write several passwords or log-in to open the Facebook or Twitter page, it will be much less boring and will meet better the Exciting Experience need. This account will be also useful for the payment. Indeed, inserting coins in the SpotBox machine will not be the only way to pay; users will be able to buy prepaid cards for a certain amount of money. As we really want to develop a product concept which offers convenience and accessibility, it will be easy for consumers to access and buy prepaid cards. After having created an account, users will just have to enter the number written on the prepaid card on a specific place in the SpotBox application –from their cell phone or directly on the jukebox machine- and they will be able to program their song. Moreover, offering a Karaoke function separately from the SpotBox would have the advantage to satisfy the customers who desire it and those who do not. It would make the product concept more adapted to the need of our customers. In the end, despite the technical approval about the Intelligent Playlist feature, the fact that it already
exists in the Spotify software gives the evidence that it is feasible and could be integrated in the SpotBox concept to make it more complete and interesting.

Concerning the SpotBox hardware, the discussion with these specialists confirmed that a Touch Screen, a Bluetooth device and a computer based on its Operational System are entirely compatible with our product concept. This feature will be the components of the SpotBox hardware.

The different features characterizing the SpotBox software—which will be integrated to the SpotBox hardware— are now clearly defined. They all seem meeting consumer and customer’s needs and are technically feasible.
5 THE SPOTBOX CONCEPT

The purpose of this thesis is to turn an idea into a product concept. The initial idea went through our Concept Development and became a product concept which is now ready to be presented. The different final features which characterize the SpotBox device will be explained and then the benefits it brings for both consumers and customers are outlined.

Spotbox: A digital jukebox in a futuristic shape which allows users to share, listen and program songs in a new, convenient and exciting way, giving to the music market a new customer-oriented dimension.

5.1 The SpotBox features and appearance.
This device has to meet the consumer’s need of accessibility, of sharing, of having an exciting and free experience and at the same time brings benefits for the owners of bars, restaurants, night clubs and fashion shops. This objective can be reached by developing a software with the following features.

A digital jukebox is a musical device which offers to the user the possibility to program its favorite songs in a playlist. This playlist is shared among the users, so it will be composed of a variety of artists and bands according the consumer’s music tastes. This involves a Queue System feature which permits to listen successively to the different songs without interrupting the one which is playing. It brings order and structure. To program one song, the user will have to pay a certain amount of money. It turns out that people want have an access to free music if it does not bring any more benefits from them. The SpotBox offers not only an access to music; it brings an easy, funny and exciting experience for the consumers who can listen, share and program the song they desire. Moreover, if no one has already programmed a song in one of the target places, the favorite playlist of the user who has installed the SpotBox application in her/his cell-phone will start automatically to be played by the machine for free. The free dimension is therefore not entirely abandoned in the SpotBox concept.

A special software for mobile phone will be developed in order to profit from the rich Bluetooth feature. This software will have to be downloaded and installed in the cell-phone; an account will have to be created by the user. The SpotBox device, thanks to the Bluetooth function, will communicate automatically with the user’s cell-phone; its favorite playlist will be send when (s)he enters in a place where the SpotBox is and will be played by the machine if no one has already programmed a song. This Bluetooth feature will also allow the user to be connected with the Facebook and Twitter social websites. Why do we have to limit the music share among the consumers who are in a same place? This Social Network feature will extend this sharing with the user’s network. Then, the SpotBox software will include an Intelligent Playlist. This playlist corresponds of the most listened songs in the determined place where the SpotBox is. If no one has programmed a song and no one has downloaded the SpotBox software on her/his cell phone, so the jukebox will play automatically this playlist. Therefore, consumers will listen to the music they like without doing anything and the customers will deliver the right environment without doing anything. The last feature which is part of this product concept is a karaoke function. This one will not be an integral part of the jukebox; it will be sold separately. The customer will have the choice to buy it if (s)he considers that it fits with her/his consumer’s wants.

[48]
All these different features will be implemented in a hardware which requires only a Touch Screen, a computer with the Windows Operational System and a Bluetooth device. By this way, the SpotBox’ shape and design could be really different from the one we have proposed. The SpotBox Jukebox refers to the new technologies, it refers to a new way of consumption; it is a window opened to the future. In accordance with that, the SpotBox will be a metallic device with a digital screen, as it is illustrated through the figure 8.

![Figure 8: The SpotBox Concept. (Created by the authors).](image)

5.2 The SpotBox benefits.
The benefits offered by the SpotBox can be perceived in two different ways: from the consumer’s point of view and from the customer’s one. Let’s try to understand both perceptions. The SpotBox digital jukebox brings a new-business model for the social place owners. Indeed, the user has to pay to program one song. A percentage of this money will be transferred to the owner; therefore SpotBox brings a permanent financial benefit. This is the first and obvious reason. However, the SpotBox can have the potential to increase the revenue of social places by another and indirect way: by improving the customer’s satisfaction.
Considering the music as a marketing tool is not something very usual in the company functioning; though it can be. The SpotBox device offers to the cited social places the possibility to play personalized playlists according the music tastes of their customers and allows these customers to program their song they want to listen. This digital jukebox is a way to deliver an environment in which the consumers feel well and comfortable because it offers something closer and more appropriated to what consumers like, to what consumers are.

For the consumer, the SpotBox is first of all an entertaining device which brings fun and excitement. The consumer faces something new because the SpotBox has a singular shape and design, because it uses new and intelligent technologies, because it creates an interaction between the user, the persons in the same place and also the Facebook and Twitter's user network. It is a new way of consuming music. This digital jukebox meets at the same time the consumer's needs of sharing, of having an accessible and exciting experience. Then, people will have to pay if they want to program a song. If it can be considered as a drawback, it can also be seen as a benefit provider for the consumer. By paying and programing a song that a user wants to listen, it can provide her/him the feeling to be important, to be powerful; as the traditional jukebox had an influence on the perception of the others.
6 CONCLUSIVE REFLECTION

6.1 The Concept Development process
Developing the SpotBox concept provided us a better understanding of the meaning and the importance of the concept development within the New Product development process. Developing a concept could be compared to work with clay: you have an idea of form in your mind and you try to transcribe it. But it does not fit with your expectations. It does not express feelings you were looking for. So you shape it again and again until you get it. Developing a concept resembles this process; it is not about expressing feelings but about meeting needs. We consider as a misfortune the fact that some companies do not pay enough attention for this stage as Cooper demonstrated it. When the ideas are still in the researcher’s mind, these ones have no limitations. It is only when they face the reality, when researchers try to turn it into a concept that several issues appear. These limitations can come from different sources: Political, Environmental, Social or Technological. Therefore, this stage demands a deep reflection to allow researchers to measure the different alternatives and to choose the good one. It involves for the researchers to elaborate, organize, define priorities and analyze these ideas. Jumping this step could lead to miss the point, to neglect an aspect which can have considerable consequences in the product future.

6.2 Our own Concept Development process
The choice of building and following our own Concept Development rather than the one of Kotler or Cooper made us anxious because we were wondering if it will be as efficient as these ones. But once the process started, we understood that the concept development does not need to be followed in a unique formula. We believe that this process should be molded according to the needs of the product which is developed. It means that the concept development process for a new pen will probably be different of the one for a new car. Then, the process of the Focus Group, the Personal Interviews methods followed by the Technical Interview turned out to be relevant and efficient for collecting the in-depth data that we were looking for. Meeting consumers and customers is the best way to really know them; and by knowing them researchers can more easily uncover their needs and wants. In a general point of view, the process of concept development is not so easy and fast as we thought. Every single new information that is collected brings a new dimension and a new possibility for the researchers to run their concept development process. For example, we started the process thinking about creating an electronic jukebox system that would bring a large choice of artists, bands and songs based on the Spotify software; we started the process thinking also about creating some features related with the new technologies. But the deeper we went into our process, the larger number of potential opportunities we progressively discovered such as the one for creating a customer oriented music system which can make our SpotBox much more appropriated to a considerable number of different places. Moreover, the fact that we were in Sweden when we were writing this thesis has a real impact on this work. Indeed, it has influenced the idea generation as the Spotify software has been created in Sweden and by this way it is well-known and used by the inhabitants of this country. Most of the people talk about Spotify and use it to listen to music. This leads us to think that the SpotBox concept could have been different if we were in another country (by using another streaming music software for example).
We also realized that being involved in the process and being interested in the area in which the product concept takes part is a fundamental point for the researchers. If a rich product idea comes, the likelihood that this one is turned successfully into a concept will be higher if this process is run by several persons involved rather than one single person. This conclusion comes from our own experience; we consider as very profitable the discussions generated by our different points of view during this concept development process that we made. As we have different kinds of knowledge in specific areas, these discussions have created new issues for our concept and consequently resulted in some of the features that we have developed to solve it. It is unquestionable that researchers have a central role in the Concept Development process. Thanks to our personal background about music, technology, consumer behavior and marketing, we recognized four initial consumers’ needs that were part of our main lines during the entire process. Researchers have to be involved, open-minded and curious about the product universe to be able to recognize when there is a rich opportunity and to catch it.

6.3 Idea For future Research
Developing a product concept which combines new technologies and emergent needs involves working in an unstable market as the music industry. We feel very excited to try to guide the reader through some issues that could represent interesting tends for the music market. Here are some of these ideas:

- **Spotify applications:**
The Spotify software is one of the new current solutions for consuming music in a new way that offers the music industry; this one demands mainly just a computer with an internet connection to be used. As the SpotBox idea, the development of new products using the Spotify software as database could be interesting opportunities. A practical example of it could be the concept development of a domestic Wi-Fi sound system with the Spotify software.

- **Customer Oriented Music System:**
As it is related in this thesis, the creation of a customer oriented music system could be a very promising research area. Going deeper into the understanding of the considerable benefits that such a music system could bring to some companies, into the discovery of which places are the most/less appropriated for this option could be a rich and interesting research. Why don’t consider a customer-oriented music system in Taxis?

- **SpotBox Business Model and Marketing Plan**
The potential business model that the SpotBox suggests could be an interesting research subject in order to well understand how this product could be implemented and used in the market, and how its marketing plan could be developed.

6.4 Idea for the Concept Testing
For the testing of our new-product concept, it would be consistent and relevant to realize a quantitative survey among consumers in the universities to meet students and also in the downtown streets. This survey should include some of these key issues:
• Would you be willing to pay for programming a song? If yes, how much?

• Would you be willing to download the application of the SpotBox and install it on your cell phone?

Besides these questions, we think that this testing stage could be an interesting opportunity to measure the level of acceptance among the consumers older than thirty years old. We also suggest doing a personal interview with the customers of the SpotBox asking if they would buy the SpotBox device and how much they would pay. Some questions about how they perceive the SpotBox device could be helpful to understand some of its strengths and some of its weaknesses.
7 REFERENCES


Fox, L. (2001). Apple Reports First Quarter Results [Electronic version]. CUPERTINO, California.


8 APPENDIX

- Focus group with consumers. April 24th 2010 at the Science Park.

1. How are you used to listen to music?

Evelina, Camille, Susanna: When I am at home, I use Spotify. But when I go to the university or to city center for example I use my Ipod.

Emmy: I use Spotify and most of the time Itunes, also my Ipod when I am getting about.

Daphné: I have Spotify from only one week, so now I use it when I am at home to listen to music, but before I used to use MTV on TV and my MP3 when I get about.

Jo: When I am at home, I don’t use so much Spotify. I prefer using my CD or also some web radios.

Jan: At home, I use mostly CDs or records. I don’t use so much MP3 because I don’t really like the quality of the sound.

2. How do you listen to music in pre-parties?

All: Most of the time there is one person in charge of the music; it is often the owner of the place where the pre-party happens. It is an easy way but the main problem is that you don’t have influence and you may listen to music you don’t really like during the pre-party. Even when we program a song that we want to hear, sometimes there are some people who come after and don’t respect the queue of the playlist and put their song to be played before and sometimes delete the songs that we have programmed.

Evelina, Emmy, Camille: When it is a pre-party with a special theme, all of us send our 5 favorites songs to the person who organize it, and he makes a playlist on Spotify with these songs he received. By this way, everybody is satisfied. When there is no special theme, we use Spotify. When a person wants to listen to a song, he adds it on the playlist on Spotify.

Joe: Spotify is really easy to use, sure, but it can be also boring. Indeed, the main aspect I noticed is that when you are in front of the interface of Spotify, you have so much choice that you don’t have ideas of great songs that you would want to listen, you are not inspired. When my friends come to my place, I use my boxes of CDs. My friends can find many old school songs, they are surprised and it is much funnier. And when I go to some friend places, it is the same. By this way, you really enter in the musical sphere of your friends and you can discover such good music!
Why do you use Spotify?

**Jan:** It is the easiest way to have access, to find and to listen to music. It is much easier than the boxes of CDs for sure! The good thing of Spotify is you can make your own playlist. However, Spotify can also be boring in pre-party when the playlist is shared because you have to wait the queue to listen to your music.

**Evelina:** What I really like in this software is the fact that you get many names of artists who are similar to the one you are listening on Spotify. I discovered many great artists/bands thanks to this function.

**Emmy:** I often use Spotify to listen an artist I just discovered. If I like it, I download it. As I said, I use more Itunes than Spotify. Spotify allows me to check if the music is good or not for me, and so I decide if I am going to download it.

**Joe:** By the way, I have even seen some Djs in night clubs who use Spotify!!

**All:** Because it is really easy to use, almost every one (Swedish people) has this software on his computer. Moreover it is free and legal; this is a really good point!

3. **Who paid for a premium subscription?**

Only Jan paid.

4. **Have you ever asked the Djs, waitress, sailor (…) for the name of an artist/band in a shop/restaurant/night clubs…?**

**All:** Yes of course, when I really like the music.

5. **Have you ever asked the Dj to play the music you want?**

**Girls:** Yes!

6. **Do you mind about the music played in a public place where you go?**

**Joe:** I think the most important is to be with my friends. If I go to a restaurant, I mind first about the food. *(All agree).* Of course the music shouldn’t be too loud or too bad. However, if I go to a pub/night club, I really mind about the music. It is even the main criterion of my decision to go to a particular bar. *(All agree).* It has already happened that I went to a night club and the music was so bad that I had to spend 3 hours with my MP3 in this place!!

**Emmy, Daphne:** Yes, I really mind. Some fashion shops are used to put music very loud; mostly commercial music or radio. It has a really impact on our behavior because now I am really reluctant to go, I can’t spend more than 5 minutes in this kind of shops, I don’t like this kind of atmosphere. When I go out of Bershka for example I am always angry.
7. So imagine that you could have the power to change the music in these places but also to turn off the music. What would you prefer?

Daphne: I would change the music. (All agree).

8. How do you share music?

All: I use the playlists of Spotify but I also send some links to my friends when I discover a good song.

9. Where do you use Facebook/Twitter?

Jan: I have Facebook on my cell-phone. I don’t really like it because it takes a lot of time, it makes people too focus on it.

Celia: I used to have Facebook on my cell-phone too before coming in Sweden. It is true, it takes a lot of time; I almost used my phone more than my computer.

Emmy: I use it only on my computer. Some nights during which I decide to stay at home, watching a movie or whatever, I can read the status on Facebook of my friends who are out. They even use Facebook when they are in pubs or night clubs thanks to their mobile!

Jan: I do separate the real life with the “facebook” one. I don’t lose a lot of time because I don’t care about what my friends when I was 5 years old is doing now. I mean I didn’t have news from them since about 20 years; it is not now that I will look for them, especially not in Facebook. I use Facebook to keep contact with my friends who are abroad.

10. Where do you imagine yourself using the Spotbox?

All: In bars, pubs, restaurants, night clubs, fashion shops, food shops, libraries and also it could be nice to have it in airports.

Emmy: I would love also to use it in my bathroom!!(All the girls agree).

Girls: in food shops, on the beach, in bathrooms, school halls, work places, hostels, cabins in boat such as Viking Line, in cars…

Celia: I wouldn’t want music everywhere; sometimes the quietness is really good.

11. Would you be willing to pay for using the Spotbox?

Celia, Daphné: Yes, about 5 kroners, no more.

Evelina, Emmy, Camille: No.

Jan: Yes, of course. Also about 5 kroners.
Susanna: Yes, if it is not too expensive. I am willing to pay to listen to a special music we want with my friends to remember some souvenirs for example.

Joe: Yes if I want to listen to couple of songs or to discover some music. Bars are great place to discover music because you meet many people from different backgrounds/countries and people in such a place speak often about music.

12. How do you imagine the design of our device? You have 5 minutes to draw it.

Celia: Old concept of jukebox. The design should be retro, “vintage” but the rest modern such as the screen. It should have also features like similar and related artists, playlists.

Jan: box jukebox.

Camille, Emmy, Susanna: Big screen on the wall with some decorations? Something which looks modern.

Joe: Touched screen, a modern design!
Personal Interviews with customers. April 27th 2010 in the city center of Halmstad.

1 Who program the playlist of this place?

La Cocaracha: We have a DJ for the Nightclub. This same DJ prepares the playlist which is played in the restaurant during the day.
Carlings: It is always one of the salesperson who programs the playlist.
Monki: We use an internal radio system, we just plays songs that we receive from an external company.
B&B: It is the owner of the place who plays web radios that he likes. The nightclub has DJs.
Stadium: We use an internal radio system; we play the songs we receive from an external company.
InterSport: Usually it is one of the salesperson who deals with the music.
Lilla Helfwetet: It is the manager who creates the playlist. We have two different playlists, one for the lunchtime playing more pop songs and another one for the breakfast and dinner, playing Italian music.

2 Do you use some specific software or device to program your songs?

La Cocaracha: We use a MP3 player which plays the playlist saved in a Memory Stick.
Carlings: We use a CD player.
Monki: We use a live streaming music system. It means that all the Monki stores play the same song at the same time.
B&B: We use an Internet Radio and also a CD player.
Stadium: We use a live streaming music system. All the Stadium stores play the same song at the same time.
InterSport: We use the sellers’ Ipods, CDs and Mp3 Players.
Lilla Helfwetet: We use a computer with a Spotify Premium account.

3 What is the criterion that you use to program your playlist?

La Cocaracha: The place has a Latin concept, so the DJ creates his playlist based on it.
Carlings: The sellers choose what they want to play.
Monki: The responsible from the Halmstad store does not know.
B&B: The owner of the place chooses the songs based on his perception of the taste of his customers.
Stadium: The responsible from the Halmstad store does not know.
InterSport: The sellers choose what they want to listen. The only rule is that the store cannot be in silence. It should always have something playing.
Lilla Helfwetet: The owner of the place chooses the songs based in his perception of the taste of his customers.
4 Do your customers usually ask you the name of the song that is playing in this place?

La Cocaracha: Yes, Everytime!
Carlings: Yes
Monki: Yes
B&B: Yes
Stadium: No
InterSport: Rarely
Lilla Helfvsetet: Yes, but only when the place is a night club, it doesn’t happen when customers are eating.

5 Do your customers usually ask you to program some special music?

La Cocaracha: Yes, and sometimes we do it.
Carlings: No
Monki: No
B&B: Yes
Stadium: No
InterSport: No
Lilla Helfvsetet: Yes

Besides the answers collected above, we have collected interesting points of view through an informal talk about the SpotBox idea with our interviewees:
- “I would love to have my customers programming the songs that they like. Then my playlist would be updated and much more interesting.” Jose, from B&B.
- “I think my customers would like to pay to program a song. But it needs to be coins, if they have to pay by card, it would be very difficult when they are drunk.” Jose, from B&B.
- “We have different playlists for each periods of the day because we realized that our customers prefer to listen to more calm songs in the morning and happier and faster songs in the lunchtime.” Ana from Lilla Helfvsetet.
MAIN FEATURES - SOFTWARE:

**Introduction of the Queue System feature** - As a Jukebox system, the main function of the SpotBox is to play digital songs by live stream using the whole Spotify library. This Spotbox software should include a queue system which complies with the programming order of the songs. It means that the first person who programs a song would be the first one to listen to her/his song; the next user will be the second and so on. Programming a song can not interrupt the current one which is playing.

**Edison Pignaton:** Yes it is sure that such a music player should include a queue system to bring order. It is a common feature that you can find in a large number of software. I don’t see any obstacles in the elaboration of this feature.

**Alejandro Ochoa:** I agree but one detail differs from other queue systems offered by other music software; for example in the Spotify software I know that interrupting the song which is playing is possible. But that doesn’t require much more, it is completely viable.

**Introduction of the Karaoke feature**– We believe that if we could integrate a Karaoke function to the SpotBox it will increase the value of our product, being more fun to the users and an interesting commercial opportunity to our customers.

**Edison Pignaton:** The Karaoke function is well known by the programmers as it is a feature included in many products. So of course it is possible for you to add it to your product concept. I will just express one possible limitation: I know the Spotify software and it doesn’t have any karaoke function already built. Therefore to integrate a karaoke function on the SpotBox, the costs with programmers and development of this feature would be very expensive to be a normal function on the SpotBox.

**Alejandro Ochoa:** Exactly. I think the best solution would be to develop the karaoke function later on and then sell it as a plug-in, so the customers who want a karaoke function will pay for this feature separately.

**All agree**

**Introduction of the Intelligent Playlist** - The SpotBox would start automatically to play the songs of the top 40 of the place where it is and also the songs of these top 40 related artists. E.g.: If the clients of a determined Pub have listened more 60’s & 70’s jazz music. These songs will be part of the automatic playlist of the SpotBox, combined with some new artists that have a similar music style. This feature will guaranty that the place has an automatic playlist generated by their customers. It would be an interesting opportunity to increase the customer satisfaction.
Edison Pignaton: It is a really interesting feature. The Spotify software has a feature quite similar: you can find playlists composed of the most programmed songs according the countries. It is viable and doesn’t require so much money or technical skills.

All agree on the fact that it is completely feasible.

Introduction of the Social Network feature – We would want to create an interconnection between Facebook and Twitter through which when the user chooses a music in the SpotBox, the software will ask her/him for a personal message that automatically will be posted on her/his Facebook or/and Twitter wall and so be shared with the network of the user. The personal message will also include a playlist link, in which, who click on it can follow the playlist generated on the place where the SpotBox user posted it. It means that if a user programs a song in a SpotBox located in a “Pub A” and agrees that the SpotBox sends it to her/his Facebook profile, her/his friends would be able to read on these social websites wall the message, the playlist link and the place where the Spotbox user is. The user network would even be able to listen to the songs played by the Spotbox machine by clicking on the playlist link.

Denny Tazzoa: It is a feature that can be easily created. But there is one point which can be annoying; imagine you are in a crowded pub and you want to use this musical device and share on your facebook or twitter profile, so you go to the machine, you program your song and then you have to write your personal log-in and password to open these pages. I think it will take too much time, all the more since all the consumers of the pub want to do the same thing, and your device could lose its high attractiveness.

I would suggest developing the possibility for consumers who want to use this Social Network function to create a Spotify account. This one would have all the necessary information to access to Facebook or Twitter and it would be done automatically by the Spotbox. It would be time-saving and less boring.

Introduction of the Bluetooth feature - The SpotBox should communicate with the consumer’s cell phone by a Bluetooth connection. When the user uses the machine, there will be an option asking to send you a SpotBox mobile app by Bluetooth. With this software you will be able to be connected to any SpotBox (inside the Bluetooth area) and explore the following features:

1) The top ten songs of the consumer can starts playing automatically by Spotbox if there is no other song programmed in the machine.
2) The customers can program their song from their mobile.
3) The Spotbox mobile software has already the log in of the Twitter and Facebook; therefore it is automatically linked with these websites.

Edison Pignaton: Once again it is viable. I mean there is no limitation to create it. And it is not difficult. The only thing is that you will have necessarily to develop a mobile phone software (apps) which should be then downloaded and installed by your consumers on their cell phone. But I still don’t see any obstacles.
MAIN FEATURES - HARDWARE:

**Introduction of the Touch screen** – A Touch Screen monitor making easier and more intuitive the use of the SpotBox. To write the name of the song or artist, the software will display a virtual keyboard.

**Technical opinion:** Completely viable.

**Introduction of the Bluetooth device** – The SpotBox will need a Bluetooth device operating with a range that can be modified according to the size of the place.

**Technical opinion:** Completely viable

**Introduction of the Operational System condition** – As the Spotify software runs in a Microsoft Windows environment. We will need a computer with its operational system.

**Technical opinion:** Completely viable.
 MAIN FEATURES OF THE SPOTBOX:

- **Software**

**MUSIC PLAYER** - As a Jukebox system, the main function of the SpotBox is to play digital songs using the whole Spotify library. To our product, we should have a queue system in which the user is allowed to program only one song per time without interrupting the current one.

**INTELLIGENT PLAYLIST** - The SpotBox starts automatically to play the songs of the top 40 of this place and also the songs of these top 40 related artists. E.g.: If the clients of a determined Pub have listened more 60’s & 70’s jazz music. These songs will be part of the automatic playlist of the SpotBox, combined with some new artists that have a similar music style. The place would have an automatic playlist generated by their own customers automatically.

**SOCIAL NETWORK** - Create an interconnection between Facebook and Twitter through which when you chose a music in the SpotBox, the software will ask you for a personal message that automatically will be posted on your Facebook or/and Twitter and also be displayed in the SpotBox. The message will also have a playlist link which allows the person who clicks on it to have access to the playlist generated in the place where the SpotBox user posted it. It means that if I program a song on a SpotBox in a “Pub A” and agree that the SpotBox sends it to my Facebook profile, my friends could see on Facebook where I am, the message I posted and they could also see and listen to the songs that people are programming in the pub A.

**BLUETOOTH** - The SpotBox should communicate directly with the mobile phone of the customers using a Bluetooth connection. When the user uses the machine, there will be an option asking to send you a SpotBox mobile app by Bluetooth. With this software you will be able to be connected to any SpotBox (inside the Bluetooth area) and explore the following features:

4) The top ten songs and related artists of the user can start playing automatically by SpotBox if there is no other song programmed in the machine.
5) The customers can program their song from their mobile.
6) The SpotBox mobile software has already the log-in of the Twitter and Facebook; therefore it is automatically linked with these websites.

**KARAOKE** – A Karaoke function added to the SpotBox machine could increase the utility of this one, being more fun for the users and an interesting commercial opportunity to our customers. The karaoke package should be sold separately as a plug-in software and also the necessary hardware to use it.
• **Hardware**

**TOUCH SCREEN** – A Touch Screen monitor making easier and more intuitive the use of the SpotBox. To write the title of a song or the name of an artist, the software will display a virtual keyboard.

**BLUETOOTH DISPOSITIVE** – The SpotBox will need a Bluetooth dispositive operating with a range that can be modified according to the size of the place.

**COMPUTER BASED ON WINDOWS OS** – As the Spotify software runs in a Microsoft Windows environment, a computer with its operational system is required.