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FACULTY OF ECONOMICS AND BUSINESS

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A critical assessment of the resource-based view of the firm

A case in the music industry

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0253655

Thesis submitted to obtain
the degree of

MASTER OF BUSINESS ECONOMICS
Major International Business, Strategy and Innovation

Promoter: Prof. Dr. Bart Van Looy
Assistant: Dennis Verhoeven

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The resource-based view of the firm is a widely accepted and acknowledged theory in the management literature. However, the empirical support for the theory remains rather limited due to problems in empirical research. This master thesis analyses the validity of the resource-based view by doing a case study in the music industry. The music industry is particularly interesting since there is persisting dominance by the industry leaders and declining industry revenues simultaneously. The dominance off the industry leaders will be explained by the resource-based view while the declining industry revenues will highlight the limitations of said theory. By analysing the revenue chains in the music industry both before and after the internet revolution, conclusions will be made with regard to the applicability of the resource-based view of the firm. I conclude that the resource-based view of the firm only manages to explain relative firm performance and not absolute firm performance. Also, I question whether the resource-based view of the firm will lead to a sustainable competitive advantage since technological changes could cause the firm's profitability to drop below sustainable levels. Besides making conclusions with regard to the resource-based view, I also made some conclusions about the disruptive innovation framework.

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General Introduction

The resource-based view of the firm is a term first used by Wernerfelt in 1984 and became one of the mostly cited theories in the management literature over the last 25 years (Kraaijenbrink, Spender and Groen, 2010). In its simplest form, the theory says that resources have the ability to protect the competitive advantage of companies if they are valuable, rare, inimitable and non-substitutable (Barney, 1991). Although the resource-based view is a well-established theory in academia and in management practice, it has one major problem. The empirical support for this theory is rather limited (Newbert, 2007). Problems in defining the dependent and independent variables and difficulties in specifying testable hypotheses led to research that is difficult to compare (Lockett, Thompson and Morgenstern, 2009). Due to the problems with empirical research, this master thesis will attempt to make theoretical contributions to the validity of the resource-based of the firm based on a case study in the music industry.

The last 15 years in the music industry have been characterized by declining sales numbers and increasing uncertainty. The industry went from a total trade value of 28,1 billion US dollar in 2000 (IFPI, 2011) to 14,97 billion US dollar in 2014 (IFPI, 2015a). The cause for this evolution was the rise of the MP3 format combined with the widespread adoption of the internet. The MP3 format or MPEG-1 Layer Three format was created in 1992 by Franhofer laboratories in Germany. Originally, the MP3 technology was used to convert videos in digital files. However, in the months following the invention it became clear that the technology could also be used to compress recorded music. It's this realization that led to the emergence of the first peer-to-peer networks and recorded music piracy in 1993. Although the technological opportunities were there in 1992 already, it took the industry majors more than ten year to give legal access to its catalogues. More specifically, the iTunes Music Store was the first to gain access to the catalogues of most labels in the industry (Moreau, 2013). However, in 2011 digital revenues were still only 25% of the industry's revenues.

Although digital business models are being accepted in the music industry today, the industry is struggling with the non-excludability that was created by the MP3 format and the worldwide web. This is well illustrated by the article of Kaye (2015) about the monetization of recorded music by artists. Kaye (2015) highlights the case of Portishead who only earned 2 511,79 US dollar from 34 million streams on Spotify and YouTube and this case is not an exception (Blacc, 2014; Wallop, 2014; Plunkett, 2011). This master thesis will assess the effect of technological change on the music industry. This will be done by adopting an 'evidence' based perspective, whereby empirical facts and figures are guiding the analysis. In the first chapter of this master thesis the sales evolutions and market share evolutions in the music industry will be elaborated on. These figures will serve as a basis for the further analysis. Strikingly, I will conclude that although the industry has shrunk tremendously over the last 15 years, the market shares of the industry majors has remained relatively stable (IFPI, 2015a; The Nielsen Company, 2015a).

However, one would expect that small labels and new entrants better dealt with the digitization of the music industry than the major labels and grew accordingly in terms of market share. This is what Christensen (1997) predicted in his disruptive innovation theory. His reasoning was based on the observation that small firms tend to be more

entrepreneurial and more willing to change than large firms and will therefore benefit more from disruptive innovations whereas large firms do not. Plus, internet technology allows small labels to reach out globally, which was much more a problem in the 'physical' world. However, it turns out that after 15 years digitization, the major labels remain dominant in the music industry. The small labels failed to monetize on the opportunities of the internet whereas new entrants such as iTunes and Spotify successfully targeted this new market segment. The second chapter of this master thesis will be focussing on explaining this anomaly in Christensen's theory. This reasoning will be centred around the resource based view of the firm on sustainable competitive advantage.

Although the resource-based view of the firm will be able to explain the dominance of the major labels in the music industry, it leaves part of the empirical observations unexplained. More specifically, the declining industry profitability is not explained by the resource-based view as the RBV makes assumption that a sustainable competitive advantage will lead to firm performance. This will be addressed in chapter three of this master thesis by analysing the revenue chain of the music industry both before and after the widespread adoption of the internet. As Newbert (2008) already indicated, a sustainable competitive advantage is a necessary but not sufficient condition for firm performance. Based on the revenue chains, a set of variables that affect firm performance in the music industry has been found. These variables highlight the limitations and shortcomings of the resource-based view of the firm.

Besides highlighting the limitations of the resource-based view of the firm, I will also add to the literature on disruptive innovation. More specifically, the need to include changes in business model to the theory will be discussed. The business model gravely affects the profitability of an industry and has a direct effect on the rationale behind the ambidextrous firm. Shifts to less profitable business models reduce the profitability of a firm and thus discourage them to become ambidextrous. For those firms, it's more profitable to protect their original business model. Also, this reduces the motivation of small firms react in an entrepreneurial and flexible way to opportunities.

1 The recorded music industry in figures

In this section, industry statistics and trends will be described in order to better situate the music industry as a whole. This is important as the goal of this master thesis is to explain the simultaneous presence of high market shares and a decline in profitability for the major labels. As this emergence could be due to mismeasurement of data or due to external reasons, it's important to first analyse all available data sources. This will mainly be done by using industry statistics from secondary sources.

1.1 Industry profitability

According to IFPI (2011, 2015a), the recorded music industry went from a total trade value of 28,6 billion US dollar in 1999 to only 15 billion US dollar in 2014. Notice that the decline for the physical revenues is even stronger: from 28.6 US billion dollars in 1999 (IFPI, 2011) to 6.8 billion US dollar in 2014 (IFPI, 2015a) which is a division by 4. It's important to note that the total industry revenues have been stable for the first time in 2013 and 2014 at 15 billion US dollar. However, whether this trend will persist in the future is not clear yet. The figure below can be found on page 6 in Recording Industry in numbers published by IFPI (2015a).

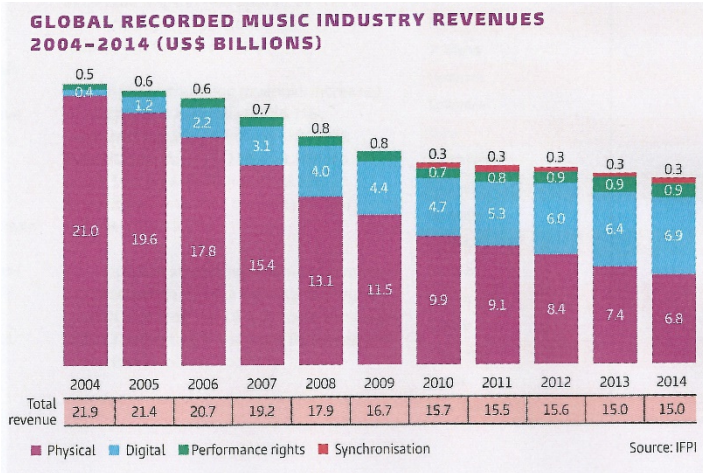


Figure 1. Global Recorded Music Sales (IFPI, 2015a, p. 6)

1.2 Market shares

The next important industry statistic are the market shares in the recorded music industry. In this respect, the Nielsen music industry report (2012) said that EMI, SME, WMG and UMG had a combined market share of 88,58 % in 2012 while the indie labels only had a market share of 11,42%. Arditi (2013, page 412) plotted the evolution of the Nielsen Soundscan market share for indie labels over the period 1996 to 2010. This plot clearly shows that the indie labels have been losing market share over this period.

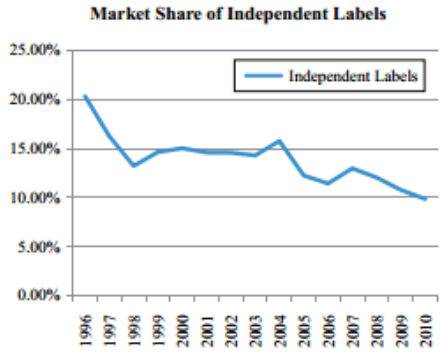


Figure 2. Market share of indie labels (Arditi, 2013, p. 412)

More recent Nielsen data gives a slightly different and more nuanced view on market shares in the music industry. In 2014, Nielsen made the distinction between label ownership and distribution ownership. These two types of market shares are summarized below (Christman, 2015).

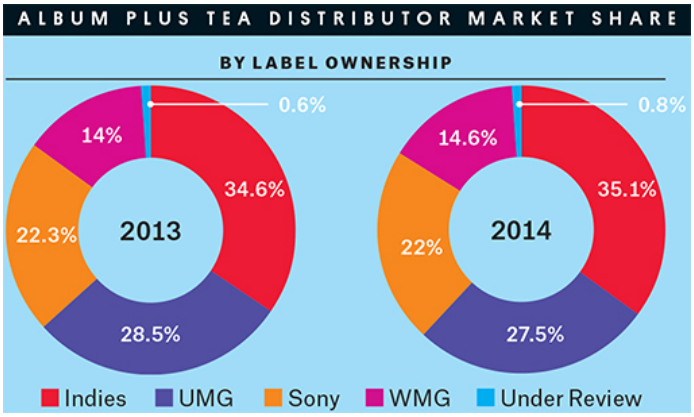


Figure 3. Market shares by label ownership (Christman, 2015)

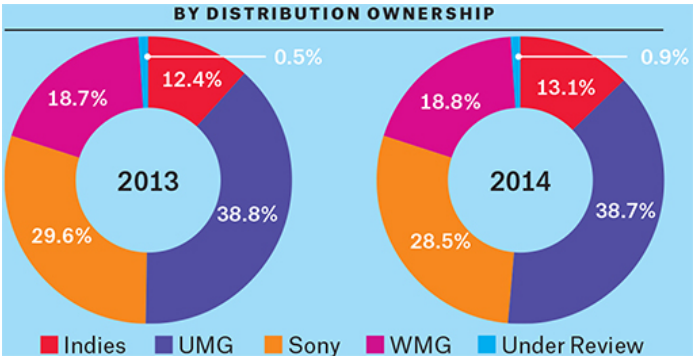


Figure 4. Market shares by distribution ownership (Christman, 2015)

Figure 3 and 4 make clear that the Arditi data represent the market shares by distribution ownership. When the comparison is made between the market share by distribution ownership and by label ownership we see that there is a significant difference between the two. However, as there is no pre-2000 comparison data for the market shares by label ownership (A2IM, 2011) it's difficult to draw conclusions from this difference. The only certainty from these data is that the major labels remain very dominant in the recorded music industry. Although that indie labels are more present in terms of label ownership, they still occupy only 35,1% of the market in 2014.

Another insightful distinction the Nielsen music industry report from 2012 makes, is the distinction between physical and digital sales. More specifically, Nielsen calculates separate market shares for physical albums, digital albums and digital singles. In 2012, the indie labels had a market share of 9,19% in physical albums, 15,14% in digital albums and 15,63% in digital singles. As expected, the indie labels score better in the digital world but this difference is rather small and in fact smaller than one might expect. This observation will be the central issue in chapter two of this master thesis. More specifically, I will attempt to explain why the market shares of the major labels is still so high today. In chapter three, I will try to explain the simultaneous emergence of high market shares and decreasing profitability for the major labels. However, before starting with this I will fact check the Nielsen data as much as possible by referring to alternative data sources.

Although the Nielsen music industry report is generally considered as a reliable data source, the counter-intuitive nature of these data require some double checking. The counterintuitive nature of the data might be due to that Nielsen music industry report is based on radio airplay, online streaming figures and digital and physical sales in only 19 countries. The report doesn't cover the entire world and might therefore not be entirely representative (this reasoning is not entirely correct since the US and Japan produce around 50% of the worldwide trade value in recorded music, this makes that using data from 19 countries will probably be representative for the entire industry).

An alternative to the Nielsen music industry report is data collected by Music & Copyright which is supported by the consultancy bureau Ovum. However, very little information is provided by Music & Copyright on how these market share figures were calculated. Therefore, the reliability of these figures is questionable but nonetheless are they indicative for the industry. The following table can be found in Music & Copyright (2014).

(%)	Physical			Digital			Physical/digital		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
EMI	10.3	7.0	–	9.3	7.3	–	9.9	7.1	–
SME	22.4	22.8	22.5	21.1	21.5	22.3	21.9	22.3	22.4
UMG	27.5	31.2	34.3	28.7	32.6	39.7	27.9	31.7	36.7
WMG	15.0	14.2	14.8	15.3	15.9	17.1	15.1	14.8	15.8
Independents	24.9	24.8	28.4	25.6	22.7	20.9	25.2	24.0	25.1
Note: Columns might not add up to 100%, because of rounding.									

Figure 5. Market share figures by Music & Copyright (Music & Copyright, 2014)[1]

The previous market share figures once again indicate the dominance of EMI, SME, WMG and UMG. Although that the Music & Copyright figures differ from the Nielsen figures, the major labels remain the biggest players in the industry. As we don't know how the Music & Copyright figures have been calculated, the difference between the figures can't be explained. Therefore, there is a need for additional indicators for market shares in the industry. First, I will look at the annual reports of the major labels and compare the revenue growth from these reports with the industry growth. Second, I will look at the

[1] EMI stands for Electrical and Musical Industries
SME stands for Sony Music Group
UMG stands for Universal Music Group
WMG stands for Warner Music Group

billboard top 50 artists of 2014 and the top 10 highest-revenue generating artists in the US.

1.2.1 Annual reports of the major labels

The first market share indicator is the revenue growth of the major labels. By getting the revenue figures from the annual accounts of the major labels, it's easy to compare the major label growth versus the industry growth. If the major labels shrink faster than the industry, we would expect the market shares of the major labels to go down. However, if the major labels shrink slower than the industry, we would expect the market share figures to increase or at least remain stable. In order to make an accurate comparison the average industry growth of the period 2010 – 2014 is compared with the major label growth of the same period. The results are summarized in the following table (Sony Music Entertainment, 2011; 2012; 2013; 2014; 2015; Warner Music Group, 2011; 2012; 2013; 2014; 2015; Universal Music Group, 2011; 2012; 2013; 2014; 2015). Note that EMI Music is not present in the following table as the company got liquidated in 2012 which makes accurate comparison impossible.

	Growth 2010 - 2014
Industry growth 2010-2014	-3,91%
WMG growth 2010-2014	-0,99%
SME growth 2010-2014	6,57%
UMG growth 2010-2014	1,07%
Major label growth 2010-2014	2,22%

Table 1. Industry growth versus major label growth

The conclusion from the previous table is that the major labels shrink slower than the industry. Two of the major labels even grew the last five years while the industry as a whole shrank 3,91%. This illustrates that the market share data above represents reality and that the major labels are outperforming most independent labels.

1.2.2 Billboard top 50 artists and top 10 highest-earning artists

The next market share indicator is the 2014 billboard (2014a) top 50. The billboard top 50 is based on a combination of radio airplay, sales data, streaming data, social media activity and the box score. In order to analyse the 2014 billboard top 50, I linked every artist with its record label. Next, I assessed whether the labels are part of one of the major labels. If the label in question was not part of one the major labels, I assessed whether there are collaboration agreements with one of the major labels and if so, the nature of this collaboration was documented. If there were no collaboration agreements, the indie label in question was researched.

The results of this analysis showed that 74% of the 2014 top 50 artists are part of the major labels. However, there also a number of joint ventures and partnerships between indie labels and major labels. If we take these into account, 86% of the 2014 top 50 artists had a connection with the major labels. If we also take into account distribution agreements this number rises to 92%. For the remaining 8% of the artists, 6% was part of the Disney Music Group which is not a typical independent record label since it has several similarities with the major labels. The remaining 2%, which represents Jason

Aldean, is the only artist on the billboard top 50 list who didn't get support of any of the large companies if we consider Disney Music Group to be a large company as well.

Player	Amount of artists	Percentage of the top 50
Major label deals	37	74%
Major label deals + Joint ventures and partnerships	43	86%
Major label deals + Joint ventures and partnerships + distribution agreements	46	92%
Disney Music Group	3	6%
Independent labels[2]	1	2%

Table 2. Billboard top 50 artists analysed

The previous figures indicate that the major labels still dominate in the popular music genre. Even more, when we look at the top 10 highest revenue-generating albums, single sales and on-demand audio streams of 2014 in the US we see that 9 out of 10 artists are signed with a major label (The Nielsen Company, 2015a). The non-major label top 10 album is the Frozen album released by Disney Music Group indicating that in order to reach a large audience, a large company is needed. The following table can be found in the 2014 Nielsen music industry report.

2014 OVERALL TOP 10

(Based on U.S. Album Sales; Track Equivalent Albums; Stream Equivalent Albums)

Rank	Artist	Title	Total Volume	Album Sales	Song Sales	On-Demand Audio Streams
1	VARIOUS ARTISTS	FROZEN	**4,471,000**	3,527,000	7,982,000	218,997,000
2	TAYLOR SWIFT	1989	**4,399,000**	3,661,000	7,210,000	26,143,000
3	SAM SMITH	IN THE LONELY HOUR	**2,075,000**	1,207,000	6,782,000	285,271,000
4	ARIANA GRANDE	MY EVERYTHING	**1,514,000**	509,000	8,313,000	260,176,000
5	KATY PERRY	PRISM	**1,503,000**	584,000	7,742,000	216,535,000
6	LORDE	PURE HEROINE	**1,481,000**	841,000	4,683,000	257,961,000
7	BEYONCE	BEYONCE	**1,469,000**	878,000	4,829,000	162,408,000
8	ED SHEERAN	X	**1,396,000**	810,000	4,493,000	204,933,000
9	PHARRELL WILLIAMS	G I R L	**1,390,000**	581,000	7,344,000	111,198,000
10	LUKE BRYAN	CRASH MY PARTY	**1,341,000**	800,000	4,579,000	125,736,000

Figure 6. 2014 overall top performing artists (The Nielsen Company, 2015a)

The Billboard top 50 and the top 10 highest-earning artists both confirm the market share figures above. Based on all data mentioned above, I conclude that the major labels dominate in the recorded music industry. In the next chapter I will try to explain this

[2] The term independent labels refers in this table to to all labels who act completely independently from the major labels or other large multinational corporations such as Disney Music Group.

observation by using the resource-based view of the firm. First, I will give a brief literature review of the resource-based view. Second, this literature will be applied to the music industry.

2 Sustainable competitive advantage

The previous market share figures and market share indicators suggest that the major labels have managed to remain dominant in a declining market. In this chapter, I will attempt to explain the sustainable competitive advantage of the major labels. One of the dominant models in academia to explain sustainable competitive advantages is the resource-based view of the firm (Lockett and Wild, 2014). Over the last 25 years, this theory grew significantly in importance and has become one of the most influential and cited theories in the management literature (Kraaijenbrink, Spender and Groen, 2010). For this reason, I choose to position my master thesis against the resource-based view. In this chapter, I will first give a brief literature review of the resource-based view and second, apply this literature to the recorded music industry in order to explain the market share stability of the last 15 years. In the next chapter, I will address the limitations of the resource-based view by analysing how external factors affect the framework.

2.1 Literature review

2.1.1 The theory

The resource-based view of the firm is a term which was first used by Wernerfelt in 1984 in a theoretic and rather abstract paper. The general premise in his article is that certain resources can act as barriers to entry and therefore protect the competitive advantage of the company. However, Wernerfelt's article didn't gain a lot of traction early on. It took until 1990 when Prahalad and Hamel published their article '*The core competence of the corporation'* that resource-based thinking popularized. Prahalad and Hamel argue that successful companies manage to acquire the necessary core competencies. In the short run, current products might be able to keep certain companies alive but in the long run, only those survive that have the competences to renew their product base.

After the article from Prahalad and Hamel, the attention shifted towards the characteristics of resources. The most important contribution with this respect is the article from Barney in 1991. Barney argues that resources should be valuable, rare, imperfectly imitable and non-substitutable (from now on referred to as VRIN) in order to generate a sustainable competitive advantage. Besides those four conditions, Barney also assumes that the resources are immobile and heterogeneous. The immobility assumption is needed because perfectly mobile resources would cause the resource in question to keep on moving to the highest bidder which would cause the rents to go down to zero. The heterogeneity assumption means that all firms in the industry have different resources. If this is not the case, obtaining a sustainable competitive advantage won't be possible.

An alternative approach which also got significant attention is the 1993 Peteraf article. Peteraf also lists four criteria for the resource-based view to work. In her view, resources should be heterogeneously distributed in the industry, imperfectly mobile and there should be ex-post and ex-ante limits to competition. By ex-post limits to competition, Peteraf means that resources should be difficult to imitate or substitute. By ex-ante limits to competition, Peteraf points out that competition for resources should be limited before

acquiring them. Otherwise, rents will be reduced to zero. This is what Oliver (1997) refers to as the institutional view. The premise of Oliver's institutional view is that the environment influences how resources are acquired and managed. Although that this argument is very relevant for firms in the process of acquiring resources, it is not relevant when analysing existing resource-bases. Therefore, this criteria will be ignored in further analyses.

Fiol (2001) later added the importance of having dynamic capabilities. Fiol's reasoning is that changing environments can cause core resources to become core rigidities (Leonard-Barton, 1992 cited in Fiol, 2001). The consequence of this is that companies need to continuously change in order to get a sustainable competitive advantage. A second argument of Fiol is that resources don't lead to a sustainable competitive advantage if they're not aligned with the routines or goals of the company. The idea of Fiol got formalized by Helfat and Peteraf (2003) in their capability lifecycle model which shows how capabilities are created and transformed during its lifetime in order to support resources as good as possible. If I translate the arguments of Fiol into a criterion, this leads to the exploitability criterion. This means that companies should always have the right resources, capabilities, processes and routines in place to maximize firm performance even if this means that the firm has to cannibalize prior resources and capabilities.

The last important addition to the resource-based view was suggested by Adner and Zemsky in 2006. They argue that customer valuation of resources is crucial to the sustainable competitive advantage. Certain resources might be valuable (in terms of money), rare, difficult to imitate and substitute and exploitable (from now on referred to as VRIN/E) but as long as the resource doesn't create customer value it won't generate any willingness to pay and therefore won't generate a sustainable competitive advantage. Although Adner and Zemsky (2006) argue that customer valuation should be tackled separately in the resource-based view, I will include the customer valuation in the value of resources. So far, the definition of value of resources was defined rather vague. However, I will use the customer valuation of resources as the primary way of determining the value of resources. Alternative methods might provide valid results as well but a number of customer-driven resources form the basis of the sustainable competitive advantage of the firm.

2.1.2 Empirical evidence

As already said, the resource-based theory of the firm is one of the mostly cited theories in the management literature. Intuitively, one would expect that there is large empirical support for this theory by now. However, this is not the case (Newbert, 2007). Empirically testing the resource-based theory of the firm turns out to be a challenge in practice. This is mainly due to difficulties in specifying testable hypotheses and measuring dependent and explanatory variables (Lockett, Thompson and Morgenstern, 2009). The consequence of these problems is that there is a wide variety in empirical research of the resource-based view. Often done in different industries with different hypotheses and different variables which makes it very difficult to compare these results. Therefore I will mainly focus on review articles that combine and analyse the empirical research of the resource-based view.

The first scholarly review article in this respect was written by Barney and Arikan (2001 cited in Newbert, 2007). The authors concluded from 166 studies that only 2% of those studies were partially inconsistent with the resource-based view of the firm. However, Newbert (2007) criticizes Barney and Arikan's work by saying they had a serious selection bias in their work and that they processed the 166 articles too simplistically. Newbert tried to correct these mistakes in his 2007 article and by doing so he came to completely different results. His results showed that 53% of the research studies support the resource-based view which indicates that there is only modest support for the resource-based view in empirical research.

Although the scholarly reviews already give insight in the empirical validity of the resource-based view, most of the articles Newbert (2007) and Barney and Arikan (2001 cited in Newbert, 2007) cited, linked specific resources directly with firm performance. Very few articles made attempts to operationalize the resource-based view criteria and test the resource-based view on a conceptual level. However, Newbert (2008) addressed this gap in the literature by testing hypothesis related to the value and rareness of resources. He tested these hypothesis by doing a survey which operationalized the value and rareness criteria and simultaneously was non-resource specific. His results showed that both the value and the rareness of resources are significantly correlated with the competitive advantage of the firm. Also, the competitive advantage of the firm is significantly correlated with the firm performance which is a confirmation of the theory.

Another conceptual level research article is written by Markman, Espina and Phan (2004) and focusses on patents as valuable and rare resources. By linking patent database information with financial accounts from 85 publicly traded US-based pharmaceuticals, they tested whether inimitable and non-substitutable patents lead to superior performance. The inimitability of patents is obtained from the legal protection given by the government. This prevents other firms from simply imitating the first mover. The non-substitutability of patents is obtained when it becomes too expensive to invent around the original patent. The results from their research showed that inimitability significantly leads to superior performance while non-substitutability doesn't lead to superior performance. Important to mention is that the generalizability of these results is questionable as they focused on patents only. However, these results are still indicative but prove that further conceptual and empirical validation is needed for the resource-based view of the firm.

2.1.3 Criticism on the resource-based view

Lastly, I will summarize the most important critiques on the resource-based view of the firm. With this respect, the highly-cited review article from Kraaijenbrink, Spender and Groen (2010) will be used as the main source. The authors group the criticism on the resource-based view in eight categories and conclude that the theory can withstand five of them if it is applied with care. Those five groups of criticism are the lack of managerial implications, the infinite regress problem, the limited applicability, the illusion of a sustainable competitive advantage and the criticism that the resource-based view is not a theory of the firm. Kraaijenbrink, Spender and Groen manage to quite easily counter these critiques.

For the lack of managerial implications, the authors argue that the resource-based view was never intended to be a managerial prescription towards a sustainable competitive advantage but rather had explanatory goals. The infinite regress problem argues that the

resource-based view creates a quest towards increasingly higher order capabilities. For example, the capability to develop new structures to innovate better if superior to the capability to innovate today. According to this reasoning, the firm with the highest order capability will eventually outperform all other firms. However, Kraaijenbrink, Spender and Groen (2010) argue that the amount of orders is limited in practice. Next, The limited applicability argument is assessed and is three-folded. First, some researchers argued that the resource uniqueness of the resource-based view prevents generalization. However, Kraaijenbrink, Spender and Groen argue that it is still possible to make conclusions about the degree of resource uniqueness. Second, it's also said that the resource-based view of the firm only applies to large firms but this argument can be countered successfully by including non-tangible resources which small firms can also possess. Third, it is argued that VRIN resources are difficult and sometimes even impossible to acquire. However, if the resource-based view includes the entrepreneur's individual resources and capabilities this argument is also countered. The next group of criticism is the illusion of a sustainable competitive advantage. They argue that companies must constantly change in order to maintain their competitive advantage so in fact the resource-base of a company leads to a temporary competitive advantage. However, the authors counter this by including dynamic resources in the resource-based view of the firm. For the last group of criticism, which says the resource-based view is not a theory of the firm, the authors acknowledge that this is correct but argue that the resource-based view was never intended to be a theory of the firm but rather a complement to these theories (Kraaijenbrink, Spender and Groen, 2010).

Of the remaining three criticism groups, two fall outside of the scope of this master thesis. They are both concerned with problematic definitions of key concepts. These definitions don't affect the use of the resource-based view in the music industry and would therefore only distract the reader from the essential matters. For more information on these critiques I would like to refer to the article from Kraaijenbrink, Spender and Groen (2010). The only remaining criticism on the resource-based view is very relevant for this master thesis and will be discussed in more detail.

The critique is that the VRIN criteria together with the exploitability criterion (E) are neither necessary nor sufficient to explain sustainable competitive advantages. The critique on the sufficiency has two sources. First of all, there is the lack of empirical support (as mentioned before) as indicated by the review article of Newbert (2007). Second, it's been argued that the mere possession of resources is not enough to obtain a sustainable competitive advantage as being able to deploy resources is necessary to achieve a sustainable competitive advantage. However, the second source of critique can be countered by arguing that deployment capabilities are included in the resource-based view in the form of the exploitability criterion (Kraaijenbrink, Spender and Groen, 2010). However, this master thesis will further address this sufficiency critique as described in chapter two. Especially when considering firm performance, the resource-based view is not a sufficient theory (Newbert, 2008).

Besides the critique on the sufficiency of the resource-based view, there is also critique on the necessity. Some researchers argue that demand uncertainty and resource immobility are the only conditions required to reach a sustainable competitive advantage (Foss and Knudsen, 2003). Other conditions, such as the rareness and value of resources, are additional to those two in their opinion. This argument asks for comparative research between these opposing models which is outside the scope of this

master thesis and will therefore not be addressed further on (Kraaijenbrink, Spender and Groen, 2010).

2.2 Application to the recorded music industry

After briefly summarizing the most important academic contributions related to the resource-based view, I will apply the theory to the case of the recorded music industry in this section. This will mainly be done based on secondary sources. I will attempt to rely as much as possible on data to prove the importance or futility of specific resources. However, as data is not available for every resource, interviews, blogposts, newspaper articles and scientific articles will be used. This section will begin with elaborating on the value chain in the recorded music industry and the resources that support the primary activities in the value chain. Important to mention is that this analysis will be done from a major label perspective.

2.2.1 Value chain in the recorded music industry

Before making conclusions on which resources provide a sustainable competitive advantage and which don't, it's essential to define the activities of record labels. Investing in music published by IFPI (2014a, p. 8) provides a useful figure which describes the cash flow cycle in the recorded music industry. This figure shows the primary activities of record labels.

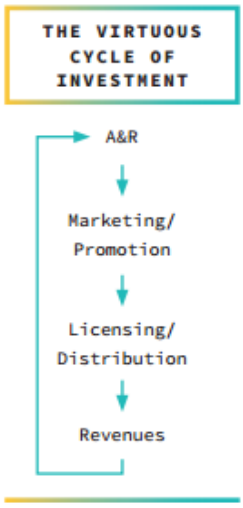


Figure 7. Investment cycle of labels (IFPI, 2014a, p. 8)

The first component of the investment cycle of record labels is the A&R or artist and repertoire process which entails all artist selection and cultivation activities. Not included in the investment cycle above but still present are the recording activities of record labels. Next, there are the marketing activities which includes both the traditional marketing and the online marketing tools. Lastly, there is the distribution and licensing which includes the traditional distribution and online distribution. For each activity, the supporting resources will be identified in the following table. Important to mention is that licensing will be ignored in this analysis as IFPI (2015a) figures showed that 92% of the industry

revenues comes from digital and physical sales. The remaining 8% includes performance rights and synchronization revenues. As this only a small stake of the total revenues, it would be incorrect to conclude that licensing provides record labels with a sustainable competitive advantage.

A&R	Recording	Marketing	Distribution
A&R capability	Recording capability	Marketing capability	Distribution capability
Reputation	Recording infrastructure	Reputation	Distribution network
Capital	Artist roster	Marketing network	Capital
	Capital	Capital	

Table 3. Activities and resources

In the previous table it can be seen that for every activity there is a related capability which is in line with the resource-based view which says that resources should be exploitable. This exploitability is guaranteed by the capability. Besides the respective capabilities, each activity also uses the capital base from the company. However, the capital intensity of each activity differs but more elaboration on this topic will follow. The presence of the recording infrastructure, the marketing network, the physical distribution network and the online retailer contracts are self-explanatory in the table above.

However, the resources reputation and artist roster require further explanation. The effect of a record label's reputation is two-folded. First of all, there is the effect on the artist. Artists tend to choose those record labels with a good reputation which makes reputation a vital aspect in the A&R process (proof will follow later). Second, reputation also influences radio-stations, television-channels, print and online media, and other media channels. This makes the reputation an important resource for the marketing activities. The next resource that requires additional explanations is the artist roster. The artist roster supports the recording process since artists signed with the same label typically join forces in studio sessions. Almost every starting artist, gets support from more experienced artists with its song writing.

2.2.2 Resource analysis

2.2.2.1 A&R capability

In absolute figures, the global recorded music industry spent around 2,5 billion US dollar on A&R in 2013 (IFPI, 2014a). Based on this number, one might argue that there are economies of scale in the A&R process. However, whether this is the case becomes clear by looking at the definition of the A&R process by Resnikoff (2012). The author describes A&R as the talent-related expertise division. This definition explains why there are no notable differences between the indie and major labels. The A&R department doesn't depend on scale or capital but primarily on music experts. Meaning that small labels can run an A&R department with as little as one expert and still be successful.

However, data on whether there are differences in artist selection between indie and major labels is very difficult to find. Although that the CEO of BMG (Music week, 2011) said that A&R is becoming less important and Lindvall (2011) wrote in The Guardian an

article on the changes happening in the A&R process, there is no mention of better practices for the major or the indie labels. The Guardian only says that major labels are becoming stricter in their selection and require an artist to have a sufficient fan base before signing them. This might even suggest that indie labels are performing better than the major labels in A&R as major labels are likely to make type I errors due to their risk averse behaviour.

In terms of the VRIN/E criteria, it becomes clear that the A&R process is not rare and not difficult to imitate as the previous two paragraphs indicated. This leads to the conclusion that although the A&R process might be valuable to the major labels, it doesn't provide a sustainable competitive advantage. For the substitutability, record labels recently got several alternatives to the traditional A&R. According to Klembas (n.a.), these alternatives are crowdsourcing, crowdfunding and market research and data analysis of online platforms. Lastly, the exploitability is irrelevant in the case of capabilities as capabilities are needed to exploit resources. Therefore, the exploitability can't and won't be discussed in the case of capabilities.

2.2.2.2 Reputation

The next resource of record labels is its reputation. As already said, the reputation of a label has a two-folded effect. An effect on artists and on popular media. The effect on artists will be described first. In order to describe this, the top 10 new artists by billboard were analysed for 2014(b) and 2013. For 2014, it turned out that the entire top 10 had signed a record deal with one of the major labels. For 2013, the situation differed slightly. Seven of the top 10 new artists were directly signed with one of the major labels, two other new artists had collaboration agreements with the major labels and only one artist – Awolnation – was signed to an independent label. Important to mention is that Awolnation signed its record deal with Red Bull records which is the recording division of the global Austrian concern Red Bull Gmbh and can therefore not be considered a typical independent label. Conclusion is that almost all new top artists have a connection with at least one major firm.

Player	2013	2014
Major label deals	100%	70%
Major label deals + Joint ventures and partnerships	0%	10%
Major label deals + Joint ventures and partnerships + distribution agreements	0%	10%
Independent labels	0%	10%

Table 4. Billboard top 10 new artists 2013 and 2014 analysed

Although I don't elaborate on the statistical relevance of the previous figures, they give an indication that the major labels have a reputation for successfully launching new artists. The importance of that reputation becomes clear when you consider that signing a record deal can be considered to be an experience good. This means that the quality of the record label is very difficult to assess before signing the deal (Besanko et al., 2013). However, artists will have to make a decision and will do this based on available signals of quality. One of the readily available signals of quality is the reputation of the labels. This is illustrated by a survey done by Reverbnation (2011) which concluded that 75% of

the artists want to get signed with a label. However, more importantly is that the top 5 most desired labels are all subsidiaries of the major labels.

Based on the top 10 new artists data and the Reverbnation survey, the major labels have a strong reputation. However, the 'do-it-yourself' or 'DIY' trend in music is promoting independence among artists. On blogs and newspaper, many have argued that the time of the major label has passed and that indie labels are the way to go. One example of this is given by Ostrow (2010) who says that major labels are struggling with the online business model and argues that indie labels are a very attractive alternative. Other sources of criticism on the major labels or publicity for indie labels come from Masnick (2015), Christman (2013), Buerger (2014) and Lindvall (2013). These articles criticize the major labels for not properly developing artists, not paying out artists or highlight successful indie artists. However, these sources usually neglect data-based evidence and it's difficult to assess how large the following is of this stream. However, I will assume that the major labels still have an advantage in terms of reputation from the artist's perspective.

Besides affecting artists, a label's reputation also affects popular media such as radio-stations, television-channels, print and online media. In this analysis, I will focus particularly on radio-stations as research from the NPD Group (2011) showed that AM and FM radio is still the most important source of music discovery (together with friends and family). Radio stations, as Ingham (2015) proves, support major label artists significantly more than independent artists. Ingham (2015) said that only 6% of BBC radio 1 and BBC radio 2's most rotated songs were from indie labels. This dominance of the major labels on radio stations can on one hand be explained by their superior skills in pushing music to the radio. On the other hand, the reputation of the major labels can also attributed to that.

When evaluating the reputation of the major labels in terms of the VRIN/E characteristics, I conclude that their reputation is valuable, rare, difficult to imitate and non-substitutable. For the exploitability criterion, the assumption must be made that the major labels have the right capabilities to exploit their reputation. This result is in line with the research done by Boyd, Bergh and Ketchen (2010) which was published in the journal of management. They concluded that reputation is a resource that will lead to a sustainable competitive advantage which is supported in this paper.

2.2.2.3 Capital

An important aspect of major label support is the capital investment made by the label. They are still the largest investors in artists and musicians (IFPI, 2014a). The following figure summarizes the investment costs made by major labels in newly signed artists. This figure can be found in Investing in Music published by IFPI (2014a) on page 13.

Advance	US$50,000–350,000
Recording	US$150,000–500,000
Video production	US$50,000–300,000
Tour support	US$50,000–150,000
Marketing and promotion	US$200,000–700,000
TOTAL	**US$500,000–2,000,000**

Figure 8. Typical investment of major labels per artist (IFPI, 2014a, p. 13)

Previous figures indicate that the major labels invest between 500.000 US dollar and 2.000.000 US dollar in newly signed artists. If we combine these figures with the fact that the major labels have a roster of more than 7500 active artists, we conclude that the music industry is very capital intensive. Even more, the music industry spends 15,6% of net sales on A&R which is more than the 14,4% that the pharmaceutical industry spends on R&D. However, in absolute terms the music industry spent only 2,5 billion US dollars on A&R in 2013 and over 20 billion US dollar in marketing and advertising over the period 2009 – 2013 (IFPI, 2014a). Compared to an R&D expenditure of 142 billion US dollar by the pharmaceutical industry in 2014 (Statista, 2015a) the music industry is only moderately capital intensive.

Besides this consequence, it's also questionable whether the indie labels can provide these capital investments to their newly signed artists. This is exemplified by XL Recordings. XL recordings won in 2012 the Music Week Awards for best A&R campaign, best artist marketing campaign and best record label (Music Week, 2012). XL Recordings can therefore be seen as the perfect indie label for this example. Over the period 1998 until 2010 their average operating profit was 1,4 million £ or around 2,2 million US dollar. With such an operating income it will be difficult to systematically invest between 500.000 and 2.000.000 US dollar in newly signed artists, especially for smaller independent labels. Data on the budgets of indie labels is very scarce and depends on a wide range of variables but Rose (2012) provided a summary of the indie label economics. Rose used a real-life data example where an indie label had a budget of around 60.000 US dollar for a single release. Although the reliability of these figures is very difficult to track down, they most certainly illustrate the enormous difference between the indie labels and the majors. Although these were just two examples, it's clear that the major labels have an enormous advantage regarding capital intensive investments.

In terms of the VRIN/E criteria, the capital base of the major labels can't be considered rare as money is per definition an abundant and undifferentiated resource. This makes an analysis about the value, inimitability and non-substitutability pointless as the capital base of the major labels won't lead to a sustainable competitive advantage.

2.2.2.4 Recording infrastructure and capability

The next resource and related capability is the recording infrastructure with the accompanying recording capability. Although recording is not directly part of the investment cycle published by IFPI (2014a), music recording is considered to be part of the A&R process. Mizell (2009) as well as The Independent (2010), Homer (2009), Pareles (2005), Stereo Society (n.a.) and many others said, the importance of recording studios is declining. The cost of building a recording studio declined significantly in the

last 10 years (Mizell, 2009) which was mainly due to the digitization of music recording. This evolution happened to such an extent that so-called home recording studios started emerging. The consequence of this is the closure of formerly renowned studios like the Olympic Studios in London. Even more, in 2008 only, one out of four British recording studios had to close (Homer, 2009). Whether this is due to music industry-specific reasons or macro-economic reasons is not discussed by Homer but this figure is still indicative for the declining importance of the recording studio.

Among the remaining studios, price competition arose and this made it easier for independent artists to gain access to high-quality studios. Although the truly top-notch studios are still difficult to reach, independent labels and artists can easily reach comparable studio quality sound (Stereo Society, n.a.). Grooms (2014) even argues that for some purposes, home-recording studios produce a comparable sound quality. There are even examples of artists, such as Amatorski, who made radio hits in their home studios (Van Dijck, 2011).

With regard to the VRIN/E criteria, it's obvious that the home recording evolution made the recording infrastructure and capability imitable, substitutable and widely spread. The conclusion from this analysis is that the recording infrastructure and capability does not provide a sustainable competitive advantage to the major labels.

2.2.2.5 Artist roster

The artist roster of labels is an important resource to labels in two different ways. First of all, the exclusive contracts that artists sign bind them to their label and make labels exclusive supplier of certain artists (Knab, 2010). Second, a large artist roster allows labels to increase the creativity during the song writing process by creating collaborations between artists. It's very common for newly signed artists to get help from more experienced songwriters during their recording process (Condron, 2014). Or as rapper Spose said: "You write songs by committee" (Condron, 2014, p. 2).

The underlying resource of the artist roster are the artist contracts. Many sources confirm that these contracts are hugely in favor of the major labels (Mcdonald, n.a.). Arguably the most important advantage for the major labels is the ability to bind the artist to the record label for six to eight records (Knab, 2010). This indicates that successful artists won't be able to leave their record label even if they wanted to. This is exemplified by rapper Young Thug who is considered to be hip-hop's next star by Buzzfeed. After signing a deal with a major label he faced considerable difficulties with leaving the label due to contractual issues (Zeichner, 2014).

From the label's perspective, these demanding contracts are very logical as there is a principal-agent relationship between artists and their record labels. The record labels are responsible for maximizing firm profit while artists attempt to advance their own career as good as possible. In a lot of situations, this is a reason for disputes. Examples of this are Childish Gambino, who expressed on Twitter his anger towards his label, and Azelia Banks who even begged to be dropped from Universal (Bassil, 2014). The major labels recognize the risk of agency problems and attempt to prevent potential supplier hold-up by making their contracts as complete as possible in favour of the label.

If the previous reasoning holds true, one expects that most of the all-time most selling artists were part of the same label during most of their career. This will be analysed by

looking at the top 20 most successful artists between the period 2000 to 2010. The chart that will be used for this comes from Tsort.com (n.a. a) and is based on a combination of all official charts. For the exact calculation method of this chart, I would like to refer to tsort.info/music/faq_site_generation.htm (Tsort, n.a. b). In the analysis, it was checked whether each artist stayed with one record label or whether they changed labels. However, it's important to take into account that a large group of artists starts off in an indie label and then moves to a major label so this first shift was not taken into account in the analysis. That way it was checked whether successful artists were capable of moving away from a major label. The results indicate that 35% of the artists changed record labels during their career while 65% stayed with their initial label. This clearly indicates that, although there is significant loyalty to the major labels, there are opportunities to switch between labels. Especially if we consider that the previous analysis was done for the top 20 most successful artists. Based on this we can conclude that contracts will probably affect the mobility of artists in the short run but on the long run there is more mobility possible between labels.

The conclusion from the previous reasoning is that record deals constrain the artist mobility as illustrated by the case of Young Thug and Azelia Banks. However, when looking at the artist mobility of successful artists, we find that even major labels allow artists to switch record labels after some time. For the VRIN/E criteria, I will make an assessment for artist contracts and the artist roster separately. As illustrated above, both the artist contracts and artist roster as a whole have value for the major labels. The artist contracts and artist roster are also difficult to imitate and substitute and can considered to be rare as artists can only sign one record deal at the time and the extensive artist roster of the major labels is unique. However, for this resource it's necessary to question the assumption of imperfect mobility of resources. As already said, on the long run there are opportunities for artists to switch between record labels. This leads to the conclusion that the artist roster and related record deals lead to a sustainable competitive advantage on the short run. On the long run, there is no certainty that this resource will lead to a sustainable competitive advantage as there will mobility of resources.

2.2.2.6 Marketing network and capability

Next to the A&R department, the marketing department is of crucial importance in the recorded music industry. In absolute figures, the recorded music industry has invested 1,8 billion US dollars in marketing in 2013. The marketing activities of the major labels consist of the traditional radio, TV and print activities as well as the new online advertising and promotion. An important advantage for the major labels in marketing is their experience and extensive network of contacts in the traditional marketing world. Next to that, they also have the ability to set up an international marketing campaign (IFPI, 2014a). However, there is very little data evidence on the importance of these resources but in order to indicate its importance, some specific mini-cases will be highlighted.

As first mini-case, Macklemore and Ryan Lewis will be used. The Grammy-winning duo independently released their album 'Heist' in 2012 through their own label LLC Macklemore and became the first independent artists to top the billboard charts in 20 years (Feeney, 2013). Although they are known as a prime example of DIY artists, they still contracted with the pop radio promotion department of Warner Music Group for their radio campaign. The reason for this is that radio stations mostly rely on the major labels for their music. Independent artists therefore face serious difficulties when trying to get airplay (Buerger, 2014). If we combine this observation with the research results from the

NPD Group (2011) that the AM/FM radio together with friends and family are the most important source of music discovery, it becomes obvious that major label support is crucial in marketing. In the US, around 90% of the people still listen to the radio at least once a week (The Nielsen Company, 2015b) and is the total number of monthly radio listeners still growing (Statista, 2015b). Based on these arguments it becomes clear that having access to radio is crucial to success in the recorded music industry.

The second mini-case is the example of Ed Sheeran. Ed Sheeran and his producer Jake Gosling were able to record several EP's together and get to number 2 on the iTunes charts without any support of a record label. However, recently they signed a record deal with Atlantic records which is part of the Warner Music Group. Jake Gosling said with this respect that "all we needed was help and support and finance, getting us to more people and being able to pull the strings when needed to get us on a TV show – those moves are harder to do when you're a bit more independent". This is basically the same argument as mentioned above. In order to reach large audiences, major labels provide valuable services which are difficult to find with small labels (Lindvall, 2012).

A similar case can be told about Nerina Pallot who moved to the Warner Music Group after she had successfully launched a gold album independently. As main reason she also referred to the importance of reaching radio and TV channels (Lindvall, 2009a). Yet another example is Adele who signed with XL recordings, one of the bigger independent labels, but still depends on Columbia records for distribution and promotion in the US (Erickson and Brown, 2013). Many more examples could be given on this topic but the general idea has become clear. The marketing network and more specifically the network in the traditional marketing world are crucially important for the major labels.

The previous mini-cases are also confirmed by the available data sources. Ingham (2015) wrote that only 6% of the most rotated songs on BBC 1 radio and BBC 2 radio in 2014 were independent releases. If this number is compared with the 2014 market shares figures of 35% for the indie labels and 65% for the major labels based on label ownership (Billboard, 2015), I conclude that major labels have superior access to radio stations. Whether this is due to their superior marketing network, superior music, their reputation or perhaps, as some argue, because they pay for airplay (Masnick, 2011), is not entirely clear. Fact is however that they in the end receive more airplay which is still of vital importance in the music industry as illustrated above.

In terms of the VRIN/E criteria, it's clear that the marketing network and capability of the major labels is valuable, rare, difficult to imitate and non-substitutable. The rareness and the inimitability of the resource is illustrated by the fact that the indie labels didn't manage to copy this resource over the last 15 years. For the non-substitutability, many would argue that online marketing tools are a substitute to the traditional marketing. However, as already mentioned, radio is still the most important source of music discovery (Edison Research and Triton Digital, 2014) and around 90% of the US-citizens listen at least once a week to the radio (The Nielsen Company, 2015b). However, online music discovery is becoming more and more important. Edison Research and Triton Digital calculated that 10% of the people uses YouTube most to keep up-to-date with music discovery while 9% of the people uses Pandora as most common source. So, online marketing is becoming increasingly important and is a substitute to radio airplay but radio airplay is still the most important source of music discovery for 35% of the population and is used by 65% of the 12-24 year olds to discover music. In conclusion, the marketing network and capability of the major labels leads to a sustainable competitive advantage. However, the future will

tell whether the marketing network of the major labels will remain a source of sustainable competitive advantage for the major labels.

2.2.2.7 Distribution network and capability

The last element of the investment cycle of record labels is distribution and licensing. More broadly, this can be generalized to the monetization aspect of the music industry. With regard to that, record labels have four different sources of income – physical sales, digital sales, performance rights and synchronization revenue. However, the two most important sources of income – physical and digital revenues – account for 92% of the total revenues in the industry. Therefore, this analysis will focus on the revenues from physical and digital sales from music. The following figure summarizes the global recorded sales by sector over the period 2007-2011 (IFPI, 2012, page 8).

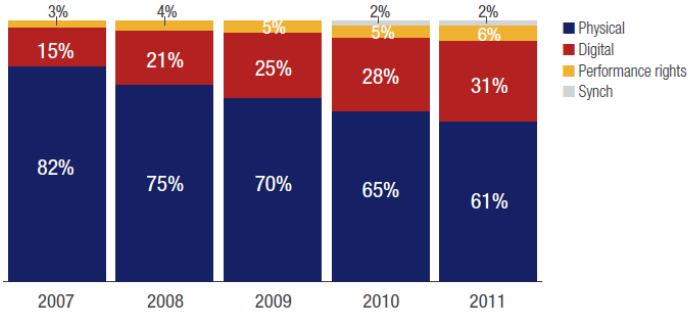


Figure 9. Global recorded music revenues by segment (IFPI, 2012, p. 8)

If we complement figure 7 with more recent data from the Digital Music Report of 2014(b) and 2015(b) published by IFPI, we see that physical distribution accounted for 56,1% of industry revenues in 2012, for 51,4% of the industry revenues in 2013 and for 46% of in the industry revenues in 2014. The digital revenues for 2012, 2013 and 2014 represented 37%, 39% and 46% of the industry revenues respectively. The conclusion from these figures is that in 2014 digital revenues equalled physical sales. What the future will bring with regard to distribution is uncertain but if we extrapolate the previous figures to the future, calculations show that within 5 years digital revenues are three times as large as physical revenues if we assume that the average growth rate of each sector of the past 5 years can be used to predict the future. In practice, this approach is too simplistic. However, this still gives an indication of the trend towards digital in the recorded music industry.

The shift towards digital distribution makes launching music much more accessible than before. Any musician can record their music at home and release it on iTunes or Spotify by using websites like CDbaby.com or Tunecore.com. Independent labels and artists are therefore becoming less dependent on major label support. However, in 2014 the physical sales still represented 46% of the industry revenues so while future expectations are quite pessimistic for physical sales, at this moment in time, having a distribution network is still an asset to the major labels. More specifically, the distribution network of the major labels can be considered valuable, rare, and inimitable. The only condition that's not met in this case is the non-substitutability as online distribution is widely regarded as a decent substitute to the traditional distribution network. The conclusion for the traditional distribution network is that, although it provides a short term competitive advantage, it won't provide a sustainable competitive advantage (Besanko, 2013).

Besides the traditional distribution network, the major labels are also working on building an online distribution network. More specifically, the major labels are in the process of becoming a significant shareholder of the most important online distributors. First of all, there is the story of Spotify. Lindvall (2009b) reports that in 2009 the major labels got an equity stake of 18% in Spotify which makes them a significant shareholder according to the shareholder table published by Arrington (2009). The same story can be told about Beats Music, where the major labels got an equity share of 5% (Resnikoff, 2014), or Soundcloud, who recently signed its first contract with a major label (Calvano, 2015). However, at this moment it's not sure whether the major labels are doing this for strategic reasons or monetary reasons. The acquisition of Beats Music by Apple led to significant earnings for the major labels (Resnikoff, 2014). So, for now it's impossible to conclude whether the goal of the major labels is to simply enjoy part of the earnings from an IPO or acquisition or whether they regard their equity stake as a strategic resource to the company. However, there could be a very clear strategic rationale for the major labels to become shareholder in the most important online distributors. By becoming shareholders, they can prevent the online distributors to move towards label activities. Although a similar move has already happened in the movie industry, where the online distributor Netflix announced several in-house movie productions (West, 2014), there is no evidence of this in the recorded music industry. By becoming a significant shareholder in all online distributors, the major labels could prevent this move from happening in the music industry.

With regard to the VRIN/E criteria, it's very difficult to assess the value of these shares. One could argue that a significant equity stake could allow them demand better conditions. A second argument could be the strategic value of the shares. As such, the equity stakes could have value. However, as there is no information yet on the intentions of the major labels, it's not certain whether the equity stakes will be used in such a way. However, if used properly, they will have value. Also, the equity stakes are rare, inimitable and non-substitutable in nature. This leads to the conclusion that the major labels could get a sustainable competitive advantage from their online distribution resources.

The last distribution-related resource are the contracts with the online distributors. Lindvall (2009b) wrote that labels are treated unequally by Spotify. Where the major labels get an advance and a minimum pay out per stream, the indie labels got none of that. However, it's difficult to assess whether the Spotify case is the exception in the industry as there is a large amount of secrecy around the licensing deals of the major labels. Sumra (2013) wrote that the Apple iTunes radio terms are similar for both indie and major labels but for the other online platforms around there is very little information. In terms of the VRIN/E criteria, the conclusion is that as the major labels are still developing this resource it's very difficult to make conclusions with regard to the sustainable competitive advantage of the major labels. In its fullest form, this resource could be valuable, rare, difficult to imitate and difficult to substitute but due to lacking data I conclude that contracts with online distributors don't lead to a sustainable competitive advantage.

2.2.2.8 Conclusion

In the previous analysis, all resources of the major labels were analysed and based on the results the market share figures from chapter one can be explained. The major labels have four resources which give them a sustainable competitive advantage. More

specifically, their reputation, marketing network, artist roster and online distribution network protect the major labels from competitors and new entrants. In the next chapter, the profitability decline in the music industry will be analysed and based on those results, conclusions will be made about the applicability and limitations of the resource-based view of the firm.

3 Major label profitability

In the previous chapter, the dominance of the major labels was explained by using a resource-based perspective. However, the resource-based view of the firm failed to explain the firm performance as chapter one indicated. As Lockett, Thompson and Morgenstern (2009) said, valuable, rare, inimitable and non-substitutable resources can be used to neutralize threats in the environment. However, technological changes, such as those in the recorded music industry, have the power to drastically change the environment even though some players possess VRIN/E resources. This chapter will explain the major label profitability by constructing and analysing the revenue chains in the music industry both before and after the technology shift.

3.1 The revenue chains

In order to analyse the effect of technological change on the environment, the revenue chain will be used. The revenue chain of an industry is the collection of all players in an industry, their revenue sources and the relation between those two. Important to note is that a revenue source for one player is a cost driver for another. In the comparative analysis, the emergence of new players, revenue sources or relationships are of interest. Also, changing relationships and shifting importance in the revenue chain might also explain the declining profitability in the industry. Therefore, the changes in the revenue chains will be analysed for each player in the industry. However, this will be done from a major label perspective. This means that the consequences of all changes will be translated to the major labels.

The revenue chains below were constructed together with professor Bart van Looy, professor in innovation at the KU Leuven and former entrepreneur in the music industry, Dennis Verhoeven, doctoral researcher in the field of innovation, and Olivier Maeterlinck, CEO of the Belgian Entertainment Association which represents the Belgian music, gaming and video industry. Interviews with these experts led to the two revenue chains below.

Important to note is that due to the complexity of the revenue chain after the technological change, I was required to simplify this revenue chain. More specifically, the revenue chain after technological change is only completed for the major labels since there is very little difference with indie labels and DIY artists. However, the changes that occurred there will nonetheless be discussed later. Also, in figure 8, the dotted lines indicate that a certain player, revenue source or relationship is only marginally important compared to the rest of the chain.

Figure 10. Revenue chain of the music industry before technological change

Figure 11. Revenue chain of the music industry after technological change

3.2 Discussion

3.2.1 The emergence of Illegal downloading platforms

The first and most important difference between the two revenue chains above is the emergence of illegal downloading platforms after the technological evolution. In 1993, the online downloading platform 'Internet Underground Music Archive' was created and in 1998 the first legal online streaming service was launched called eMusic. The emergence of those (and other) platforms was a direct consequence of the creation of the MP3 format in 1992. However, It took the major labels more than 10 years to react on this evolution. Only in 2003, the industry majors granted the iTunes Music Store access to their catalogue and it took several more years for them to accept streaming models (Moreau, 2013). During this time, illegal downloading platforms and later the illegal streaming platforms changed the perceptions of the consumer.

Since the introduction of the MP3 format, many researchers investigated how illegal downloading affected music sales. With this respect, most researchers refer to two competing effects of illegal downloading. First, there is the substitution effect where illegal music is a substitute to legal sales. Second, there is the penetration effect where the increased reach of an artist leads to more sales (Blackburn, 2004; Andersen and Frenz, 2010). Figure 1 (as seen on page 3) already indicates which of these two effects turned out to be dominant. The enormous decline in profitability in the music industry is an indication that the substitution effect dominated over the penetration effect. This is supported by research from Blackburn (2004), Hong (2004) and Hong (2011).

However, some researchers concluded that the penetration effect is able to cancel out the substitution effect (Andersen and Frenz, 2010; Waldfogel, 2011). Koh, Murthi and Raghunathan (2014) explain these opposing results by analysing the use of data. Those studies that used data before 2003 generally concluded that music piracy had a negative effect on music sales. However, studies that included post-2003 data concluded the opposite. Koh, Murthi and Raghunathan (2014) conclude in their study that the presence of legal online channels weakens the negative relationship of music piracy on music sales.

However, nowadays it's obvious that music piracy gravely affected the willingness-to-pay of the consumer in the long run. Dou (2004) refers to this as the free mentality. The author says that there exists a strong belief that everything on the internet should be free. Ferguson (2003) also wrote that the "music for free" attitude is pulling the recorded music industry down. The numbers also show that cheap distribution channels are gaining in importance. This is illustrated by the following figure published by CNN Money (2013). This figure shows the declining sales of CD's and the immense popularity of the digital singles. This is in line with the free mentality of music as the price difference between CD's and singles is on average around 12 US dollar (Friedlander, 2015; Stone, 2009).

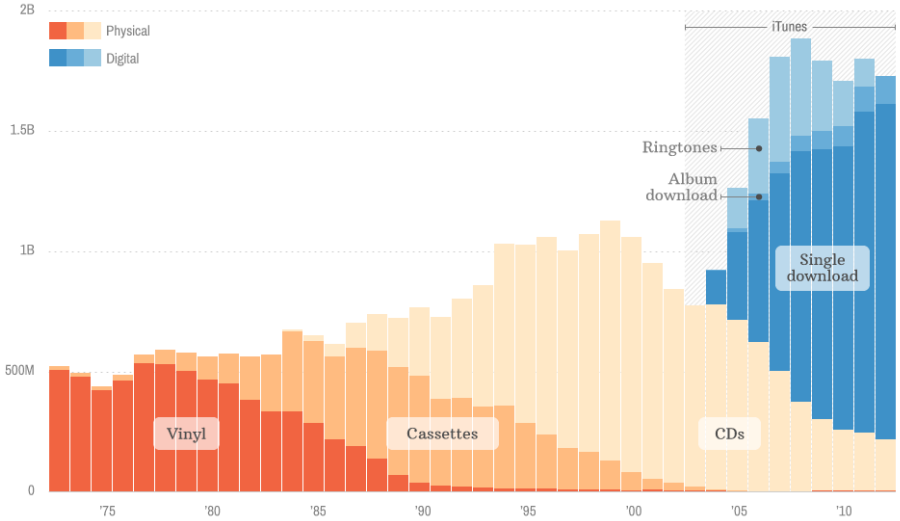


Figure 12. Unit sales per carrier (CNN Money, 2013)

The decreased willingness-to-pay for recorded music had serious consequences for the revenue chain in the industry. As the revenues from recorded music declined, pressure on both artists and labels increased to respond to this new challenge. New players also emerged that better exploited opportunities in the environment. The reaction of those parties will be assessed in the next sections.

3.2.2 Industry response

3.2.2.1 Artists' response

The important change for artists is the increasing importance of live performance. As said above, the recorded music industry's decline can be blamed on the shift towards singles. There are even cases of well-known artists complaining about the lack of earnings originating from their records. One example of this being Beyoncé who complained that she probably won't make any money on her latest album (Wallop, 2014). But there is also the case of Aloe Blacc who co-wrote the hit song *Wake Me Up* with the Swedish producer Avicii. Despite being the 13th most popular song on Pandora with more than 168 million streams, they only earned 12.359 US dollar from Pandora which they still had to divide among the songwriters and the publishers (Blacc, 2014). The previous two mini-cases illustrated that well-established artists struggle to make money on their recorded music. It's only logical that a lot of small and medium-sized artists will also have difficulties to live from their records. In order to get an impression on the situation for lesser-known artists, the distribution of income will examined.

The figure below was published by Jefferson (2010) on The Root and indicates where the cash flows in the recorded music industry go to. A more recent figure in this respect was published by Masnick (2015). Although these figures won't completely represent reality, it becomes obvious that artists only receive a small part of the total cash flow. In Jefferson (2010), the artists and their following receive 13% of the earnings while Masnick estimated that the artists receive 16,8% of the earnings. Next, this share in the earnings still has to be divided between all band members, the personal manager, the business manager, the lawyer and the producer.

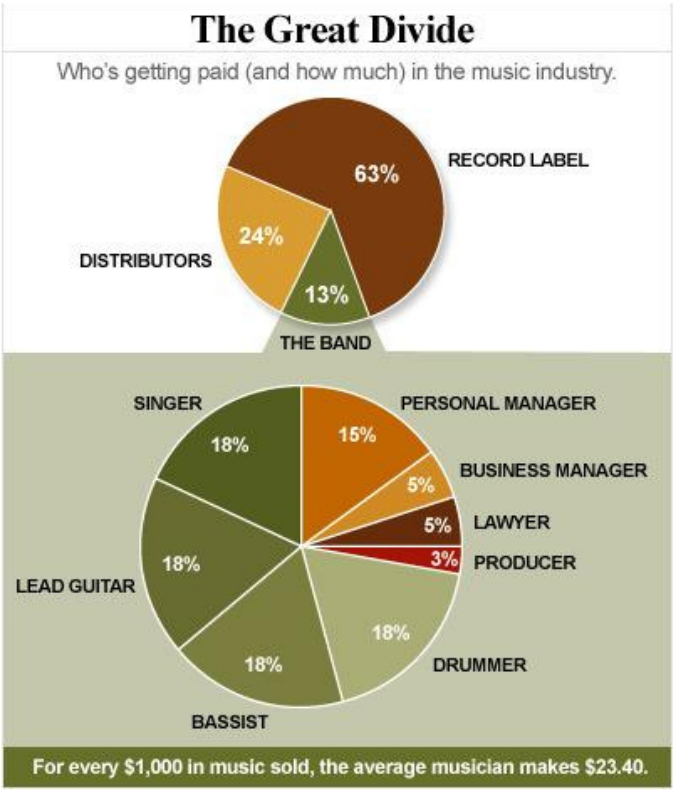


Figure 13. Profit distribution in the recorded music industry (Jefferson, 2010)

Please note that copyright earnings are not part of the Jefferson figure as artists don't necessarily write their own music and therefore won't earn any copyrights. However, for artists who also write their music, this is also an important source of revenue. Bowie (2014) wrote in this respect that the London based 'Capital London' radio station alone paid the publishers and songwriters of the hit song *Wake Me Up* three times more than Pandora did. If we assume that different radio stations have similar copyright rates, the copyright earnings for songwriters becomes a very important source of revenue. However, it's important to note that there are wide differences national regulation. For example, US radio stations don't have to pay songwriters for radio airplay (Bowie, 2014).

'Investing answers' calculated in this respect that artists should sell around 12.399 tracks on iTunes or Napster a month in order to earn the minimum wage in the US. As for streaming, a song should be streamed for 849.817 on Rhapsody, 1.546.667 times on last.fm or 4.053.110 times on Spotify in order to reach the US minimum wage (Investing answers, 2011). On the other hand, when independently launching a song on the iTunes store in collaboration with an online distributor, only 1554 singles will need to be sold in order to earn a minimum wage.

The consequence of this evolution is that artists had to seek new sources of income in order to make their career sustainable. Artists can do this through personal appearances, advertising deals and live performance. However, personal appearances and advertising deals are only available to well-established artists. For all others, live performance becomes an important source of their earnings. Also, some artists choose to release their music independently instead of signing with a major label and as such earn more. In some cases it can be more profitable for an artist to sign with an indie label or release their music their selves as the sales requirements will be lower. The more independent

the artist's release, the lower the required sales in order to make a living. However, the primary source of income for many artists is now live performance (Thomson, 2012). Therefore, I will focus on live performance for the rest of this section. More specifically, I will look more closely to the bargaining power and willingness-to-pay of venues and festivals and the consumer.

If live performance is becoming more important for artists, this should be reflected in the artist fees that venues and festivals have to pay. Absolute figures of artist fees are given by Price Economics (Crockett, 2014) and indicate that successful bands or artists can charge artist fees up to 1 million US dollar. In fact, there are even acts that have a pre-expense asking price over one million US dollar. Most of this pre-expense asking price ends up directly with the artists. Although these figures are not representative for all artists, it still becomes clear that live performance provides top artists with a significantly higher income compared to selling or streaming music. However, due to a lack of representative data on artists' earnings from live performance, additional evidence will be presented.

More proof of the importance of live performance is found in the European Arena Report published by Masson (2015, page 63). In an annual survey with 50 venues from 16 different countries, Masson asked for the first and second most important factor influencing the arena industry. The results show that artist fees and ticket prices are the most important factors, followed by competition from other arenas and the state of the economy (Masson, 2015).These factors provide important insights in the industry. The first factor, being the increasing artist fees, directly reflects the increasing importance of live performance discussed above. The competition from other venues and the lack of suitable headliners shows that artists have the possibility to increase their fees since venues lack the bargaining power to negotiate better prices for an already limited amount of headliners.

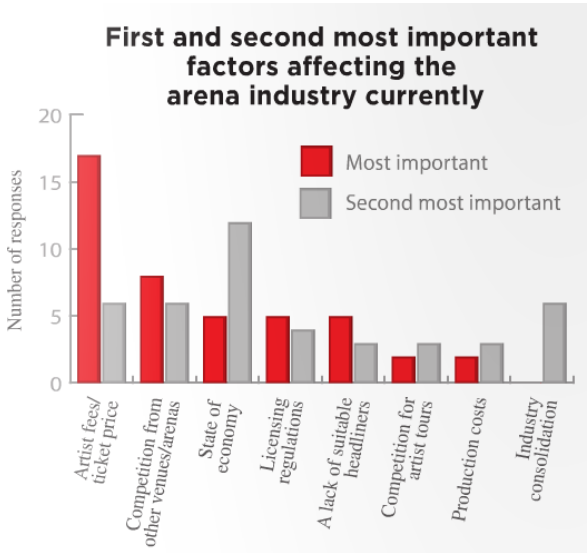


Figure 14. Most important factors influencing the arena industry (Masson, 2015, p. 63)

When comparing figure 11 with its equivalent from 2010, it can be seen that the score for artist fees as most important factor increased from around 17 to the score it has today. Similarly, the score for competition from other venues also increased around 3 points compared to 2010 (Masson, 2010). A similar survey was also done in the European

Festival Report (2013) and lead to very comparable results. Again, the factor that was considered most influential in the festival industry were the artist fees followed by competition in the industry.

The increasing importance of live performance for artists is also supported by the consumer. As Deloitte (2014) wrote, the US-based millennials have a budget of 125 US dollar for music in 2015. Of this budget, 100 US dollar goes to live music while only 25 US dollar goes to digital music downloads and streaming. Herstand (2014) showed that the percentage of the total consumer spending on live events increased significantly over the last 20 years. This is also confirmed by the Nielsen Company (2015c) and Statista (2015c). Both sources show that in 2014 the spending on recorded music was about the same as the spending on live performances. More specifically, Nielsen calculated that 51,5% of the consumer budget on music goes to live performance. The following graph can be found in Herstand (2014) and shows that consumers are spending more and more money on live events instead of recorded music. Statista (2015d) even showed that the per capita money spent on recorded music declined slightly.

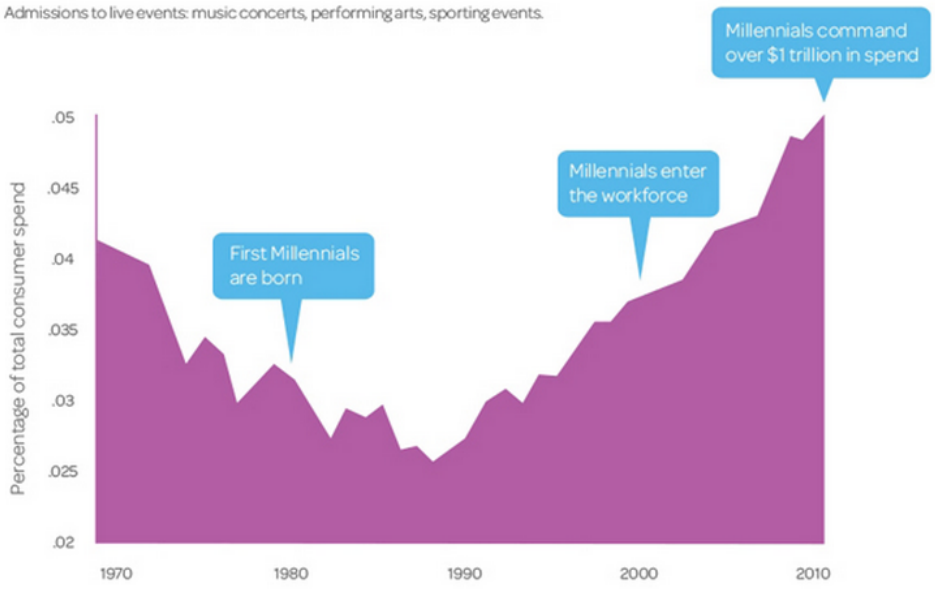


Figure 15. Expenditure on live events over time (Herstand, 2014)

For some artists, live performance is even that important that they decided to sign a distribution deal with one of the big live agencies and not with a music label. Famous examples of this are Madonna and U2 who signed a long-term distribution and promotion deal with Live nation (Suddath, 2013). Since 2007, Madonna has no connection anymore with any record label (Kafka, 2007). In conclusion, artists managed to create a viable, new business model for which they don't rely on recorded music anymore. For the artist, their recorded music is used for promoting their live shows.

3.2.2.2 Distribution shift

A second consequence of the illegal downloading platforms is a complete shift in distribution. Although initially the major labels tried to protect their business model with government regulation, eventually they gave online distributors legal access to their catalogues. In 2014, digital revenues equalled physical revenues for the first time (IFPI, 2015a). However, the acceptance of online distribution had several consequences for the

major labels. First of all, online distribution changed the focus from albums to singles which have a lower margin. Second, online distribution channels have more bargaining power than traditional retailers. Thirdly, indie labels don't need the major labels anymore to distribute their music and therefore the major labels miss out on the distribution fee.

3.2.2.2.1. From albums to singles

The first important consequence of the change in distribution is the shift from album sales to the sales of singles as figure 12 on page 24 already indicated. The introduction of the MP3 format combined with the emergence of iTunes and the iPod, led to an immense increase in the sales of singles instead of albums (Covert, 2013). In 2014, a total of 1,2 billion digital singles were sold in the US compared to only 144,1 million CDs (Friedlander, 2015). In 2000 on the other hand, 943 million CDs were sold in the US which is a decrease of more than 650% in the sales of CDs over the last 14 years (Covert, 2013).

Although that figure 12 indicates the shift from albums to singles, the importance of this shift only becomes clear when figure 12 is compared with figure 14 which was published by CNN Money (2013). The RIAA music industry shipment and revenues report (Friedlander, 2015) showed that in 2014 a total of 1,2 billion singles were sold while only 144,1 million CDs were sold. However, we find that the 1,2 billion singles lead to 1,410 billion US dollar while the 144,1 million CDs lead to 1,854 billion US dollar in revenues. If we compare the entire digital segment of the recorded music market with the entire physical segment, these figures change to 4,510 billion US dollar and 2,272 billion US dollar respectively (Friedlander, 2015). Both the CNN Money and RIAA data show that although the physical segment of the recorded music market is relatively small in terms of unit sales, it still provides a large part of the revenues. This is due to the large difference in profit per unit sold of CDs and digital albums compared to singles.

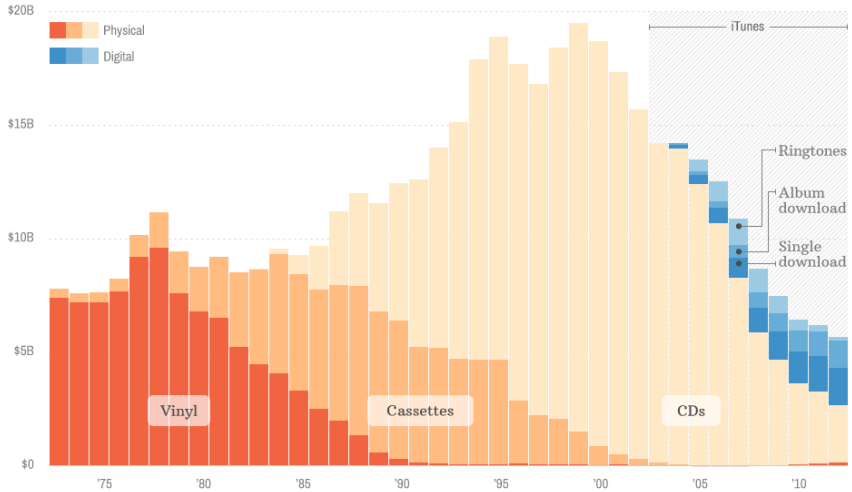


Figure 16. Sales in US dollar per carrier (CNN Money, 2013)

Jefferson (2010) stated that 63% of the income of CDs is going to the record label while 24% of the income is going to the distributor and 13% to the artists and their following if we exclude taxes from the equation. With average CD prices being around 13 US dollars in 2014 (Friedlander, 2015), the resulting revenues for the record labels is 8,19 US dollar per CD if we ignore state-specific VAT regulations. Digital singles on the other hand are

being sold for 69 cents, 99 cents or 1,29 US dollar (Stone, 2009). Assuming that the profit margins for CDs are comparable for digital singles, the resulting revenues from singles are either 43 cents, 62 cents or 81 cents per unit sold.

The striking difference between the revenues per unit sold for CDs and digital singles provides an explanation for the declining industry profits. Just to illustrate this, if the industry sales of 1999 were to be reached by solely selling digital singles, more than 46 billion singles would have to sold at 99 cents. Given that in 2014 there were only 1,2 billion singles sold and that the market for digital singles purchasing is declining, it is questionable whether this figure can ever be reached.

3.2.2.2.2. Bargaining power

The second consequence of the MP3 format and online distribution is a higher bargaining power for online distributors than for physical distributors. The MP3 format and the internet made recorded music a non-excludable good. This means that the online distributors don't necessarily need label support to offer music. In fact, online streaming providers typically first offer music illegally to the consumer and only start negotiating with the major labels once they reached a critical mass. The two most famous examples of this are Spotify and SoundCloud (Sandoval, 2013; Ulloa, 2014). The strategy of those two companies was to first gain popularity among consumers and afterwards start to negotiate with labels.

These kinds of strategies were unimaginable for physical retailers. Physical retailers depend completely on the supply of music from labels and distributors. As such, the bargaining position of the physical retailers differs completely from the bargaining position of the online distributors. The online distribution channels have more bargaining power than the traditional retailers. However, as already said in chapter two, the major labels might be working on improving their bargaining position by becoming a significant shareholder of the most important online distributors (Lindvall, 2009b). These actions might have improved the bargaining position of the major labels in the 2013 renegotiations of the licensing deal with Spotify (Attack magazine, 2013). However, this is difficult to check as there is very much secrecy around the contracts between distributors and labels.

3.2.2.2.3. Distribution fee

The last consequence of the digitalization of music distribution is the decreasing importance of the distribution fee. Although there is very little data on this, the general premise is very simple. In the times before the MP3 and the internet, indie labels had to go to an external distributor in order to get large scale distribution. Most of these distributors are part of the major labels. As such, the major labels benefitted from distribution fees from the indie labels. The alternative for independent labels at that time was to go for independent retail stores. However, with the rise of the internet, the MP3 format and legal online distribution, the indie labels have a very important substitute to the traditional retailer. Consequently, the major labels will earn less from the distribution fee they charge independent labels.

3.2.3 Conclusion for the major labels

The environment of the major labels changed in several ways due to the MP3 format. These changes will briefly be summarized here. Firstly, there is the changing willingness-to-pay for recorded music which was created by the free mentality on the internet. This caused the need to find new sources of income for both artists and labels. One way artists responded, is choosing for indie labels instead of major labels as the financial requirements at the major labels are stricter. Some artists even decided to launch their music completely independently. A second way artists responded to this threat is shift their effort to live performance, personal appearances and advertising deals as there's more money to be earned in those fields. This creates a principal-agent problem between the artist and the record label as the record now serves as a promotional tool for the artist. Additionally, this created an extra competitor for the major labels as the big live agencies also started signing artists.

On the distribution side, online music retailing and music streaming services arose and changed the distribution of music drastically. Although these business models were initially blocked out and ignored by the major labels, they got accepted after some time. However, at that time it was already too late for the industry majors to play a significant role in these new distribution systems. The most important consequence of the distribution switch is the drop in profit margin which has crumbled the industry. Besides the drop in profit margin, there is also the partial loss of the distribution fee revenues which were charged to the independent labels who wanted their music displayed by traditional retailers. Lastly, there is a shift in bargaining power. Where traditional retailers completely relied on the major labels for their supply, online distributors usually start as illegal streaming or downloading platforms and later start lobbying for legality. This makes that the bargaining power of online distributors is slightly higher than traditional retailers.

Lastly, I will consider the actions of the major labels in the last 15 years and assess how this fits in the previous picture. Initially, the major labels reacted to the MP3 format in an aggressive way. By taking down and suing illegal downloading platforms (Halliday, 2010; n.a., 2014) , the majors hoped to banish illegal downloading and shift attention back to the physical CD. Although the regulatory actions never stopped (Mason, 2015), the industry realized that legal digital alternatives were required. Therefore, iTunes was the first to legally gain access to the catalogue of the major labels. In the beginning the revenues coming from online sales were very minimal as the IFPI (2011) data showed. However, the revenues from CD's were still declining rapidly so the major labels had to find a new business model. They found two rather successful alternative sources of income, synchronization revenues and performance rights revenues. However, in 2014 these were still only 8% of the total industry revenues (IFPI, 2015b) which indicates that the major labels (and the indie labels) never managed to find a profitable alternative business model. This briefly summarizes the declining revenues in the music industry. In the conclusion, these observations will be linked with the resource-based view of the firm and the disruptive innovation framework.

General Conclusion

In the previous chapter, the profitability in the music industry was analysed using the revenue chains of the industry. Based on the results of that analysis, conclusions will be drawn for the resource-based view of the firm and the disruptive innovation theory. First, conclusions will be made with regard to the resource-based view of the firm.

The first important conclusion is that the resource-based view does not explain the absolute performance of firms. The previous chapter indicated that a wide variety of environmental factors determine the profitability of the music industry. In the recorded music industry, the state of technology, the business model and the bargaining power of both suppliers and customers are the most important determinants of the industry profitability. These factors are external to the resource-based view of the firm and as such, the resource-based view is unable to explain absolute firm performance.

This critique is very similar to the critique of Kraaijenbrink, Spender and Groen (2010) who question whether VRIN/E resources are a sufficient condition for a sustainable competitive advantage. In this master thesis, I came to the conclusion that VRIN/E resources are not sufficient in explaining firm performance as a set of external factors is needed to explain firm performance. The resource-based view of the firm could only explain relative differences between firms. In fact, this view is in line with Barney's highly-cited 1991 article where he used a definition of sustainable competitive advantage in terms of product-market strategies. In his view, being able to sustain a unique product-market strategy was a sustainable competitive advantage. However, this doesn't tell anything about the rents. Later, other researchers such as Peteraf in 1993, shifted the attention towards rent differentials (Foss and Knudsen, 2003).

This conclusion might provide an explanation for the lacking empirical support in Newbert (2007). The use of incorrect definitions of firm performance might have created divergence in the empirical literature. This is confirmed by Kraaijenbrink, Spender and Groen (2010) who wrote that the lack of a commonly accepted definition for firm performance in the empirical research has led to incomparable research studies. This master thesis stresses once again the importance of a common definition of firm performance in empirical research related to the resource-based view of the firm.

Along the same line, another conclusion can be made with regard to the resource-based view of the firm. The resource-based view of the firm uses a comparative definition of sustainable competitive advantage. Barney (1991, page 102) stated that a firm has a sustainable competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy. However, there is no mention of a required minimum profitability that is needed to keep the operations running. In my opinion, this is a crucial component of a sustainable competitive advantage. A competitive advantage per definition can't be sustainable if it doesn't generate enough cash in order to keep the business running.

This reasoning has serious consequences for the resource-based view of the firm. In the previous chapter, it was established that the profitability in the music industry is determined by a set of factors which are external to the resource-based view of the firm such as customer bargaining power and business model change. Hypothetically, this

could mean that these external factors cause long term losses for all players in the industry while the industry leaders still have VRIN/E resources. In such a scenario, the competitive advantage of the industry leaders is not sustainable anymore although they possess VRIN/E resources. Following this logic, one must conclude that the resource-based view of the firm is not a sufficient condition for obtaining a sustainable competitive advantage. The right environmental and technological conditions are needed for a company to reach a sustainable competitive advantage.

In practice, this scenario might be non-existing but the dynamics presented above might cause firms to end up with a negative economic rate of return while maintaining a positive accounting rate of return. In this position, the firm in question won't go bankrupt but is still constantly losing money compared to the financial markets. Whether this situation is sustainable is arguable and differs per case. However, it is reasonable to assume that such a situation won't be sustainable in some companies.

Besides implications for the resource-based view, conclusions can be drawn with regard to the disruptive innovation literature. The theory of disruptive innovation was founded by Clayton Christensen (1997) and he stated that disruptive innovations are those type of innovations that cause well-managed companies to fail. Later, the characteristics of these disruptive innovations were defined as innovations that initially underperform compared to existing products, are simpler, less costly to produce and sold at a lower price and are therefore initially only attractive to niche markets. These three characteristics make that incumbent firms initially ignore these innovations. However, the last characteristic of disruptive innovations is that their performance improves significantly over time. The consequence of this characteristic is that incumbent firms tend to be too late to benefit from disruptive innovations which might cause the end of their existence (Moreau, 2013). In 2013, Moreau concluded that the MP3 format and the internet are disruptive innovations to the recorded music industry.

An influential theory in the disruptive innovation literature is the theory of complementary assets created by Tripsas (1997). This theory says that complementary assets protect incumbent firms from disruptive innovations. When applied to the music industry, one could argue that the marketing network, artist roster and reputation of the major labels protects them from the disruptive innovation. However, it is obvious that this theory is a mere application of the resource-based view of the firm. Therefore, the same criticism as mentioned above applies to the theory of complementary assets. More specifically, complementary assets might not suffice to explain firm performance. Environmental changes caused by the disruptive innovation also determine who captures the rents in an industry.

A second important stream of literature in the disruptive innovation academia is related to the ambidextrous organization. Tushman and O'Reilly (1996) described ambidextrous organizations as companies with the ability to simultaneously innovate incrementally and disruptively. Although a lot has been written about the ambidextrous organization, one stream of literature attempts to identify conditions under which incumbent firms become ambidextrous organizations. Van Looy, Martens and Debackere (2005) wrote in this respect that extended timeframes and synergies in technology bases encourage incumbent firms to become ambidextrous. This master thesis contributed that a shift to less profitable business models discourages incumbent firms to become ambidextrous. In the music industry, the major labels initially tried to protect their business model through legal means and only after some time started accepting online business models.

The business model switch in the recorded music industry also explains why small labels didn't benefit as much from the disruptive innovation as expected. There is evidence that the small labels better dealt with the internet revolution than the major labels. One simple indication of this is the fact that the indie labels already gave legal access to their catalogue in 1998 when eMusic was launched (Moreau, 2013). However, the indie labels never benefitted financially from these early mover advantages as there was very little money to earn online in 1998. As the figures in chapter one indicated, even in 2011 only 25% of the industry revenues came from online sources. This slow evolution towards online business models gave the major labels sufficient time to adapt and therefore reduced the early mover advantages of small players in the industry significantly.

Besides my addition to the literature on the resource-based view of the firm and the disruptive innovation theory, I also showed the usefulness of the revenue chain in longitudinal case study research. Lastly, I also addressed a need in the music industry research for more conceptual level studies of the music industry.

The most important limitation of this research paper is the lack of primary data. Although the revenue chains were constructed together with interviewees, the rest of this thesis was based on secondary sources. Although this is not necessarily a problem, the nature of this research required me to use less reliable secondary sources such as newspaper articles, blogposts, and so on. Wherever I could, I used data sources but as these were not always available, some arguments have been funded by less reliable sources.

A second important limitation is the lack of a database for secondary sources. There is no way to make sure that all important arguments and articles have been included in this paper as the worldwide web is too large to fully screen. For example, country specific data sources were only scarcely used while it is very probable that many of those exist. However, this only applies for the non-academic secondary sources. For the academic sources, the Web of Science database and the University of Leuven Limo search engine were used.

A last limitation is with regard the conclusions on the disruptive innovation theory. During the process of creating this master thesis the centre of attention moved more and more towards the resource-based view of the firm as dominant model to position this thesis against. Therefore, I now lack in depth insight in the literature on disruptive innovation to fully assess the value of my conclusions. However, in order to not let the insights for the disruptive innovation literature be lost I included it in this thesis.

For future research, additional longitudinal single case studies in other industries will provide extra insights in the effect of technological innovations on industries. By comparing the revenue chain evolutions in other industries with those in the music industry, we could be able to generalize the effect of technological innovations on industries. Second, there is also a need for reassessing the empirical research on the resource-based view of the firm. Newbert (2007) found that only 53% of the empirical articles supported the resource-based view. It would be insightful to redo this analysis while taking into account the conclusions in this master thesis. Some empirical articles used by Newbert might have defined the firm performance in a more absolute way while there is a need for a common relative definition of firm performance.

For the disruptive innovation literature, there is a need to confirm the findings in this master thesis with regard to the business model in other studies. It would be interesting to

find other case studies where a business model shift worked in favour (or hindrance) of incumbent firms when faced with disruptive innovations. In the music industry, an interesting research direction would be to analyse the reasons for the major labels to have equity shares in the most important online distributors. So far, there are mixed signals with regard to this.

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