



The transformation of the music industry supply chain

Music industry
supply chain

A major label perspective

Gary Graham and Bernard Burnes

Manchester School of Management, UMIST, Manchester, UK

Gerard J. Lewis and Janet Langer

*Faculty for Business Administration, Hochschule für Technik und Wirtschaft
Dresden (FH), Dresden, Germany*

1087

Keywords *Internet, Supply chain management, Music industry*

Abstract *This article explores the impact of the Internet on the supply chain for music. Music is a massive global industry worth \$38 billion annually. The global music industry is dominated by the “big five” major record companies. However, as this article will show, the advent of the Internet is having a significant impact on both the supply chain for music and the dominance of the big record labels. The article begins by describing the background to our research and the methods employed. It then goes on to examine how the Internet is transforming the supply chain for music. This is followed by a discussion of the impact of piracy on the music industry. The article concludes by arguing that while the future may look bleak for the major record labels, it looks much more positive for artists and consumers.*

Introduction

For most of us, listening to music falls under the heading of entertainment; however, for the music industry, with annual global sales of \$38 billion, is very much a serious business (Webactive, 2004). The production of music as a saleable product it is a relatively recent phenomenon. The market for music began with the sale of sheet music in the nineteenth century, but it really took off in the twentieth century, with the emergence of and demand for recorded music in the form of vinyl records, cassettes, CDs, etc (Gillett, 1996). Music is now a global business. Whether in Moscow or Miami, the same records are being listened to and the same companies are supplying them.

However, though the physical product itself may have changed, the distribution channels and the division of labour within the industry have remained relatively stable: artists create music, record labels promote and distribute it and the fans consume it. The industry is dominated by the so-called “big five” major record labels (EMI, Sony, Universal-Vivendi, Time Warner and Bertelsmann BMG) who control the market for recorded music in terms of both production and distribution (Webactive, 2004). According to Parikh (1999), it is the ability of the major labels to control the supply chain for music that has prevented artists from independently distributing their own material. This explains why the labels collect approximately 85-90 per cent of the profit, from music sales. However, the advent of the Internet and the exploding popularity of the illegal downloading of digital music is challenging the traditional supply model that has relied on the physical distribution of music recordings such as CDs. The global piracy industry is now estimated to be worth about \$4.8 billion, with about 4.5 million counterfeit CDs sold each year in the UK alone (Reece, 2004).



This article will show how the advent of the Internet, and related software developments, are causing a seismic shift in the way music is distributed, and are threatening to sweep away the dominance of the “big five” record labels who control the industry. Record-making is economically as well as technically a complex process. Like books, films, television and other art forms, music is rarely just a product. Not only is it difficult to identify, develop and manage successful artists, the artistic value (and therefore the commercial value) of records depends on their consumers’ aesthetic preferences, which are neither stable nor predictable. Just because an artist has sold millions of records in the past does not mean they will in the future. The reverse is also the case. Before getting a record contract, even the biggest-selling artists, such as the Beatles, have usually been turned down by a number of record companies who failed to spot their sales potential. However, the potent combination of the Internet, and peer-to-peer (P2P) software programs for exchanging music via the Internet, is changing all that. The physical product, such as a CD, is being replaced by a digital product which can be distributed via the Internet. This has three major implications for the music industry. The first is that the physical distribution chain will become less and less important. The second is that the big five’s stranglehold on the music industry is likely to lessen as other players find it easier to enter the market. The last is that the rise of music piracy through the Internet will also undermine the position of the record labels. As this article will argue, the combination of these three developments is transforming the supply chain for music in ways that undermine rather than reinforce the dominance of the major companies in the market.

The article begins by describing the background to our research and the methods employed. It then goes on to examine how the Internet is transforming the supply chain for music. This is followed by a discussion of the impact of piracy on the music industry. The article concludes by arguing that while the future may look bleak for the major record labels, it looks much more positive for artists and consumers.

Research design and methods

Our aim in conducting the research was to provide an understanding of the impact that the Internet was having on the supply chain for music and supplier strategies. Music is a massive global industry worth \$38 billion annually (Webactive, 2004). Until fairly recently, most of the value in the industry supply chain has been captured on a global basis by the “big five” major record companies. With approximately 80 per cent of the global music market, these companies have dominated the industry and, until the appearance of the Internet, have used changes in technology to enhance their competitive position. The research presented in this article was part of a European Union sponsored research programme exploring the impact of the Internet on the music supply chain[1]. In designing the research, a qualitative approach was chosen because, as Yin (1994) argued, this type of approach is preferred when “how” or “why” questions are being asked. In this case, we were interested in how the Internet was changing the supply chain for music and how the industry was reacting to this. Similarly, Denzin and Lincoln (1998) and Robson (1993) also point to the ability of qualitative research to capture the real-life context within which events take place and to capture the essence of events, especially as they unfold.

Data collection

A literature review was undertaken to provide an evaluation of the traditional music industry supply model (Burnes, 2004; Graham *et al.*, 2002). To establish a future perspective for the music industry supply model, as seen from the point of view of the major companies in the industry, research in the form of interviews was undertaken. The personal interview method was deemed to be the most appropriate way to achieve this objective most effectively, as it facilitated the collection of detailed, holistic information and knowledge in an exploratory style. Furthermore, it enables close interaction with interviewees, so as to explore and develop new topics that might arise during the interviewing phase (Friedrich, 1990). For the purpose of structuring the interview a guideline with 20 questions was developed. Before the actual interview, participants received a short description of the purpose of the interview and the nature of the questions, in order to ensure a certain degree of preparation. Lowe's (1991) "qualitative coding matrix" (QCM) provided an operational means for analysing the qualitative data generated from the interviews[2]. It ensured that the results had a certain degree of rigour, validity and reliability, the lack of which is a common criticism of qualitative inquiry (Yin, 2003).

Sample selection

All the "big five" record companies have either their headquarters or at least a main subsidiary in New York. This city has been considered as representative to draw general conclusions about the music industry from the major companies' perspective. Interview participants were employed by one of the five major record companies and occupied an executive level position or had senior management experience in the music industry.

Sample size

Although enquiries for a personal interview can have a response rate as high as 90 per cent (McBurney, 1994), the music industry is a difficult target group to gain access to. Hence, 70 people were contacted either by phone or e-mail. A total of 15 one-to-one interviews ranging from 30 minutes to two hours were conducted and tape-recorded. The interviews were conducted in New York in January and February 2003.

The Internet and the transformation of the music supply chain

Supply chains can be described as a series of linked suppliers and customers, who can be termed links, actors or players; chains are commonly portrayed as simple linear processes. Within a supply chain, upstream suppliers provide input, the company then adds value to these inputs, before passing them downstream to the next actor which can be either another company or the end user (Porter, 1985). Handfield and Nichols (1998) describe the supply chain as all activities associated with the flow and transformation of goods from the raw material stage through to the end user, as well as the related information flows. Information and material flow both up and down the supply chain (Handfield and Nichols, 1998).

The introduction of network technology like the Internet has the potential to transform the supply chains of many industries because of the abolition of the trade-off between richness and reach of information (Evans and Wurster, 1997). Richness of information includes such characteristics as bandwidth, customisation, and

interactivity, i.e. the more detailed and specific the information the richer it is. Reach can be defined as connectivity, and is the number of people involved in exchanging information. Before the Internet, to reach large numbers of people with rich information was a costly and time-consuming process. This is because, traditionally, information could only be transferred in the form of a physical carrier such as a document, book, CD, etc; it could not travel by itself. Therefore, costs and physical constraints limited the size of the audience to which the information could be sent and the nature of the information itself. It was very costly, not to say impractical, for communication to be rich and broad at the same time and companies constantly had to make compromises between richness and reach.

With the explosion of connectivity through the introduction of universal technical standards for communication such as the Internet, extranets and intranets, this trade-off has been eliminated, which means everybody can communicate with everybody at almost zero cost, without constraints on the richness of information (Evans and Wurster, 1997).

Traditionally, significant investment was required to establish a broad distribution system (e.g. a chain of stores), but, as Amazon.com has shown, this is no longer necessary. Consumers can be reached directly, and intermediaries are theoretically no longer required. This can lead to radical changes in business and supply chain structures. Thus business models that have been built on limited access to distribution channels could lose their competitive advantage. Indeed, there is a growing body of work which shows that the Internet is leading companies to develop co-operative and less profit-centred activities which can be encompassed under the broad heading of a supply chain network (Ince, 2000; Lin *et al.*, 1998; Markus *et al.*, 2000). This concept builds on the networking literature and theory undertaken in physical marketplaces, such as the work of Harland (1996) and Gadde and Hakansson (1993). A supply chain network is a series of processes (also called tiers, states or phases) owned by one or more enterprises in order to promote information-sharing through the construction of a "virtual organisation" (Strader *et al.*, 1998). In this instance, a "virtual organisation" can be defined as a temporary network of companies that come together quickly to exploit fast-changing opportunities. Examples would include global brokerage and contracting services, payment and banking services, and electronic connections to customers that support activities such as order fulfilment and customer service. As Graham *et al.* (2002) note, the network theorists appear to be much more concerned with using the Internet to develop sharing communities rather than profit-making organisations. They see the Internet as an opportunity to create communities in which sharing rather than profit-making is the prime rationale for their existence.

Graham *et al.* (2002) argue that the implications of the rise of the Internet and the emergence of more co-operative, network-based approaches to business have two significant implications for the music industry supply chain. The first implication is that the supply chain will be radically transformed, with many intermediaries disappearing and the power of the major record labels diminishing. The second implication is that rather than purchasing music, consumers may instead choose to share it between them, thus reducing the sales and profits of record companies and artists. However, in order to establish whether these two developments are likely or not, it is necessary to identify specific changes in the characteristics that determine a

supply chain. According to Hardaker and Graham (2001) there are four interrelated dimensions involved in the design of supply chains:

- (1) the structure of activities;
- (2) the choice of actors;
- (3) the governance mechanism; and
- (4) the co-ordination structure.

These four supply chain dimensions have been used in this research to establish the nature of the transformation in the music supply chain. Each of the four dimensions will be briefly defined and then used to examine the traditional supply chain for music and to show how the Internet is changing the supply chain.

The structure of activities

The supply chain structure is usually determined by a natural sequence of processes inherent in the manufacturing process (Hardaker and Graham, 2001). In many industries, activities are serially interdependent, which means that act two can only be performed if act one has been successfully completed (Thompson, 1967). However, rather than being created through a process of rational planning, the structure of a supply chain emerges over time and is influenced by factors such as chance, habit and communication and co-ordination constraints (Hardaker and Graham, 2001).

The traditional structure of activities in the music supply chain

The traditional product in the music value chain is a package of pre-recorded music captured on a physical format, e.g. a CD. As Figure 1 shows, the product is the end point of a set of value-adding activities, which include discovering new musicians (usually referred to as the A&R process, i.e. artist and repertoire), recording their work in a studio, selecting their music and creating master tapes, followed by the production of a CD, cassette, etc. Finally the product is packaged, promoted, and distributed (Sviokla and Rayport, 1995). Music is currently promoted in several ways including live concerts, and most commonly radio and TV music stations, such as MTV. The dominance of MTV as a promotion tool requires the creation of costly videos (Kasaras, 2001). TV and radio deliver the majority of the new music that consumers get to hear and consequently buy. Consumers purchase a product by visiting a physical retail store or using a mail-order catalogue.

The impact of the Internet on the structure of activities

The Internet is significantly changing the way record companies carry out their business activities. All interviewees ($n = 15$) explained that product data and information are increasingly shared electronically, internally and externally. E-mails have become the main form of communication. The Internet has not only extended the reach of information but also the richness. Most interviewees ($n = 13$) agreed that since they started using the Internet they seek help more often from external companies to perform activities (see Figure 1).

More importantly, the Internet is having a major impact on how music is distributed. Music can be and increasingly is being distributed in digital format through the Internet, both legally and illegally. In response to the rising demand for digital distribution, and particularly to combat the illegal distributors such as Napster,

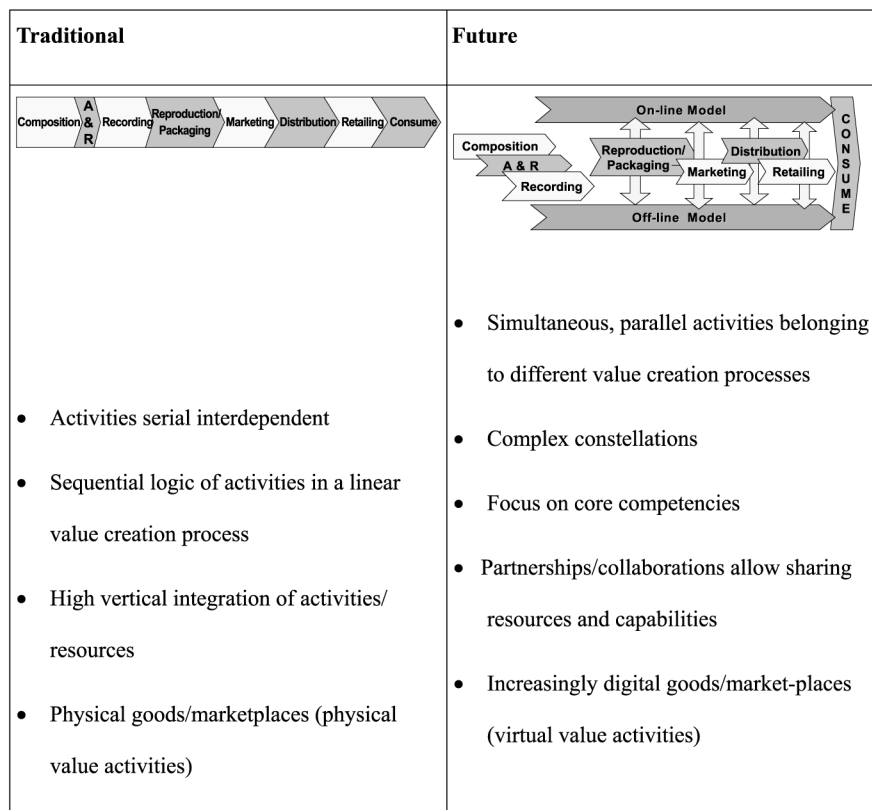


Figure 1.
The structure of activities

the major companies tried to establish their own online sales services, but none have been successful. The majority ($n = 12$) of the interviewees agreed that their strategy has changed recently towards partnerships with specialist online distribution companies. These are now seen as way to deal with the operational work of online sales and distribution.

With the advent of the Internet, it has become much easier for record companies to engage other parties to add value to their product. As Figure 1 shows, business activities appear to be more networked than structured in sequence. They also appear to be more dynamic and flexible. Therefore, the Internet is transforming the structure of activities in the music industry both in terms of virtual structures replacing physical ones, and network structures replacing sequential ones. These findings correspond with the results of a national study of the Ipec consortium on the changing music supply chain structure (Poel and Rutten, 2000).

The choice of actors

This dimension is related to the level of dynamism in the choice of actors in a supply chain (Hardaker and Graham, 2001). If partners in a chain are relatively established, the chain is very static. Alternatively, if the partners in the chain can vary from one market opportunity to another, the chain is very dynamic. In between, there are

intermediate levels of flexibility in the choice of supply chain partners. A supply chain is vertically integrated when all actors belong to the same organisation. Vertically-integrated chains usually indicate a high level of inflexibility, because corporations can only choose from companies they own or are willing to acquire.

The traditional actors in the music supply chain

Traditionally, the music industry supply chain has been very static. Actors have been well established and the choice of actors in the music supply chain has been very limited. Indeed, the conventional supply model in the music industry has not changed significantly since the beginning of commercial recording and distribution, more than a century ago. As Figure 2 shows, historically, there are three levels of intermediaries between the creator of music and the music consumer: the record company, the distributor and the retailer. Each intermediary between the artist and the consumer adds costs and takes profit which leads to a higher final product price. The artist creates initial value through his/her composition and arrangement. Record companies provide the necessary initial capital as well as the marketing know-how to create, market, and distribute music on a large scale. They have the expertise in creating superior sound quality and packaging, have key relationships with press, radio stations and music TV channels as well as with retail stores. In addition, they add value to the product by matching composers and artists, provide creative input through A&R managers and producers, and arrange the recording of the music as well as organising manufacturing, marketing and distribution activities. The major record companies have also made significant investments in distribution infrastructure. They

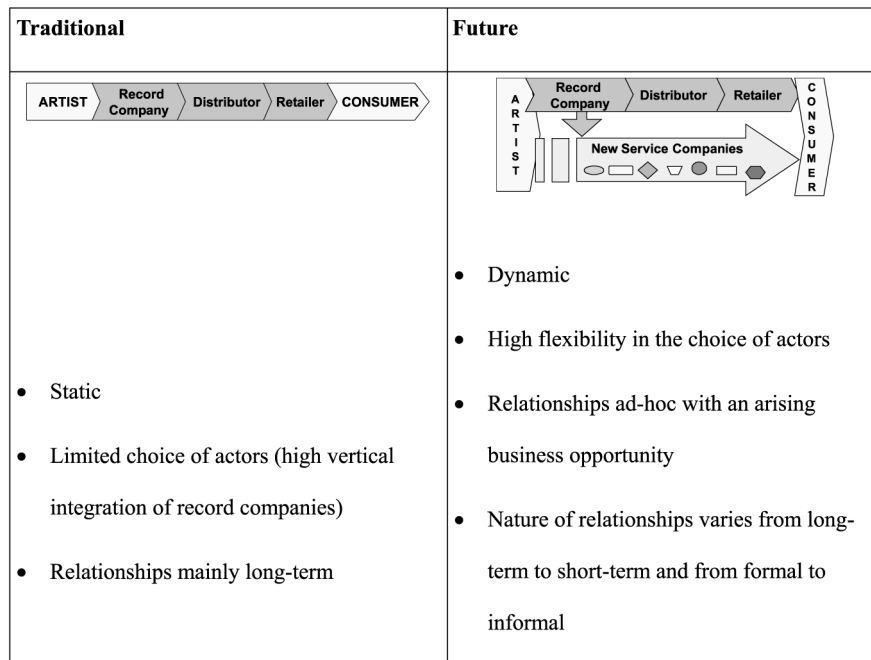


Figure 2.
The choice of actors

are now major distributors of physical music products to the retail stores that supply the music to the consumer (Poel and Rutten, 2000).

The Internet and the choice of actors

The Internet eliminates the need for physical distribution and retail of products. It also allows both consumers and those involved in making and distributing music to communicate far more easily. Therefore, as entry barriers are removed, new specialist companies are entering the market, and there will be a greater variety of potential partners; new combinations of customers, suppliers, and business partners are emerging to replace the dominance of the major record labels. Hence, the traditional, static music industry supply chain is becoming increasingly dynamic as new combinations of organisations come together (Tapscott *et al.*, 2000).

Most of the interviewees ($n = 13$) agreed that the Internet facilitates the establishment of new business relationships. They state that it has become much easier to find and also to interact with business partners. The types of business relationships range from very close partnerships to loose collaborations. The interviewees still see long-term relationships as an important competitive advantage ($n = 14$). The following statement reflects the majority of answers:

I don't believe that our business relationships will change from the long to short term. The creative side will always need studios, engineers and producers. [...] As far as advertising and radio go – these relationships will always be necessary. They may need to be tweaked slightly from time to time, but I don't think they will change drastically or become more short-term.

Further evidence for the preferences for long-term relationships can be found by taking a closer look at the current online distribution strategy of major record companies. Even though all of them license content to different music subscription services, almost all of the interviewees ($n = 14$) agreed that record companies do not want to give up control over content completely. Thus, all major record companies have bought equity stakes in two major music services they deliver content to, Pressplay and Musicnet. Additionally, record companies work together with a variety of technological partners on solutions for digital distribution and copyright protection as well as on the hardware side. These relationships were described by interviewees as loose partnerships.

Despite this, it is also the case that all the record companies sampled have started to interact with consumers directly, e.g. through their company's Web sites as well as the Web sites of signed artists. The focus is not on direct sales but on online promotion activities. Nine of the interviewees explained that this gave them the opportunity to learn more about consumer needs. However, many of the interviewees ($n = 9$) feel overwhelmed by the overarching reach of the Internet. For instance, one of the interviewees explained:

The Internet has made my job so much easier, but at the same time it has also made it a lot more difficult, just because there are so many [Web] sites. A few years ago we just talked to journalists, editors, and magazines. Now my contact database has over 7,000 people in it, because everybody has some type of publication on the Web or has a little Web scene.

As Figure 2 shows, the record companies have started to outsource a number of activities which traditionally they integrated in their supply chain, for example in the

field of content production and distribution. From the interviews it could be seen that the majority ($n = 11$) of record companies are focusing less on integrating activities into their organisation. Thus, they no longer see it as profitable to own all the actors in the supply chain any longer. According to Evans and Wurster (1997), the music industry is undertaking a process of supply chain deconstruction, which will lead to a proliferation in the number of potential actors involved in the supply of music, each of which will have its own unique source of competitive advantage.

Therefore, the supply of music in the digital age will consist of many different players, because the entry barriers to the music industry have been significantly lowered with decreasing transaction and production costs. Even though the major labels still see a role for long-term relationships, it is clear that the industry will comprise a more diverse and faster-changing population of actors who are able to take advantage of rapidly-changing conditions and tastes.

The governing mechanism

The governance dimension relates to the ownership and the control of various actors in the supply chain. In a vertically-integrated supply chain, the company that ties in other companies to integrate inputs and assemble the final product is usually the dominant force in the chain (Tapscott *et al.*, 2000). This company will also control the key channels and value steps in the chain. Alternatively, where vertical integration is not present, each organisation might operate independently of other parties, having only an arm's length relationship with them. In between these two extremes there are different grades or levels of relationships that can be seen between various actors in the supply chain (Lambert *et al.*, 1996). Hardaker and Graham (2001) state that the balance achieved between the cost of transacting business with customers and suppliers and the cost of producing goods in a supply chain will determine the governance of the chain. If transaction costs are high then companies will find it more economical to own suppliers and distributors and thus supply chains are likely to be vertically integrated (Hardaker and Graham, 2001). On the other hand, if transaction costs decrease, i.e. it becomes cheaper to purchase and distribute goods and materials, companies will find it more economical to outsource activities and concentrate on core competencies, such as developing and promoting artists, rather than less central activities, such as distribution (Tapscott *et al.*, 2000).

The traditional governing mechanism in the music supply chain

The music industry is characterised by high market entry costs and a scarcity in the number of distribution channels. The costs are associated with the market presence necessary to justify the initial sunk costs in A&R, recording and manufacturing as well as marketing. Traditionally, the music industry has been dominated by the "big five" record labels. The governing position of the major record companies has been built by vertical integration and growth-through-acquisition (see Figure 3). These companies have purchased forwards and backwards along the supply chain (e.g. new labels, manufacturing and distribution companies), or hired their own stables of producers and A&R managers (MacQuarrie *et al.*, 2000). By integrating vertically, record companies not only control other links in the supply chain but they also achieve economies of scale and are able to average the unit costs. They do not need to negotiate a manufacturing or distribution deal each time they sign a new artist, thus avoiding

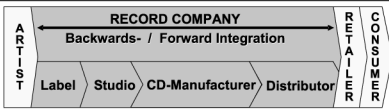
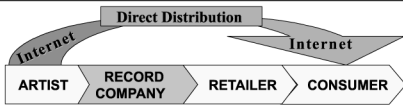
Traditional	Future
 Dominant position of major record companies because of: • Entry barriers due to high transaction and production costs • Economies of scale and scope (competitive advantage due to high vertical integration) • Control all distribution and marketing channels • Artists depend on record companies • Consumers are restricted (in terms of choice of music)	 Elimination of the dominant position of record companies: • Low entry barriers due to decreased transaction and production costs • Economies of scale and scope do not apply (vertical integration means no longer competitive advantage) • Loss gatekeeper position • Artists gain more control (over their music and activities) • Consumers gain bargaining power

Figure 3.
The governing mechanism

high contract costs. The high costs of establishing a distribution system and the control of distribution channels by the major record companies have created considerable barriers to entering the record industry. In this situation, artists not contracted to a record company have almost no chance of competing against these conglomerates. Therefore, artists have either remained independent and focused on small, niche markets, or have signed long-term contracts with major labels in an attempt to break into mass markets.

The Internet and the governing mechanism

The majority of the interviewees ($n = 11$) believed that the record companies will exhibit less governance over their supply chain as an increasing number of artists create and distribute music on their own. Though the record companies were in general agreement ($n = 15$) that the artists will become more self-sufficient, the interviewees ($n = 12$) also believed that the majority of artists will continue to sign up with the record companies, in order to profit from their marketing know-how. Consequently, as

Figure 3 shows, the supply chain for music is likely to split between those artists who seek to sell direct to their fans and those who continue to use record companies to do so.

Therefore, because the opportunity now exists with the Internet to link artists and consumers directly, both are gaining increased bargaining power. This would seem to support Porter's (2001, p. 66) claim that: "... the Internet eliminates powerful channels and shifts bargaining power to consumers". The results of the interviews, however, do not allow us to make an absolute judgment of how the governance mechanisms will change in future. This is because no one at present knows whether Internet piracy, the illegal downloading of music, will continue to increase, and possibly put the major labels out of business, or whether legitimate music sites will prevail (Graham *et al.*, 2002).

Among our interviewees, as one might expect, there was a general consensus ($n = 13$) that the record companies are likely to remain a strong player in the supply of music, though they also indicate that the companies' dominant position in the music industry will diminish. In essence, the interviewees argued that alternative channels to consumers coupled with the lowering of entry costs to the music market would weaken the major labels' bargaining position, but that many artists would continue to seek to benefit from the expertise and marketing of the major labels.

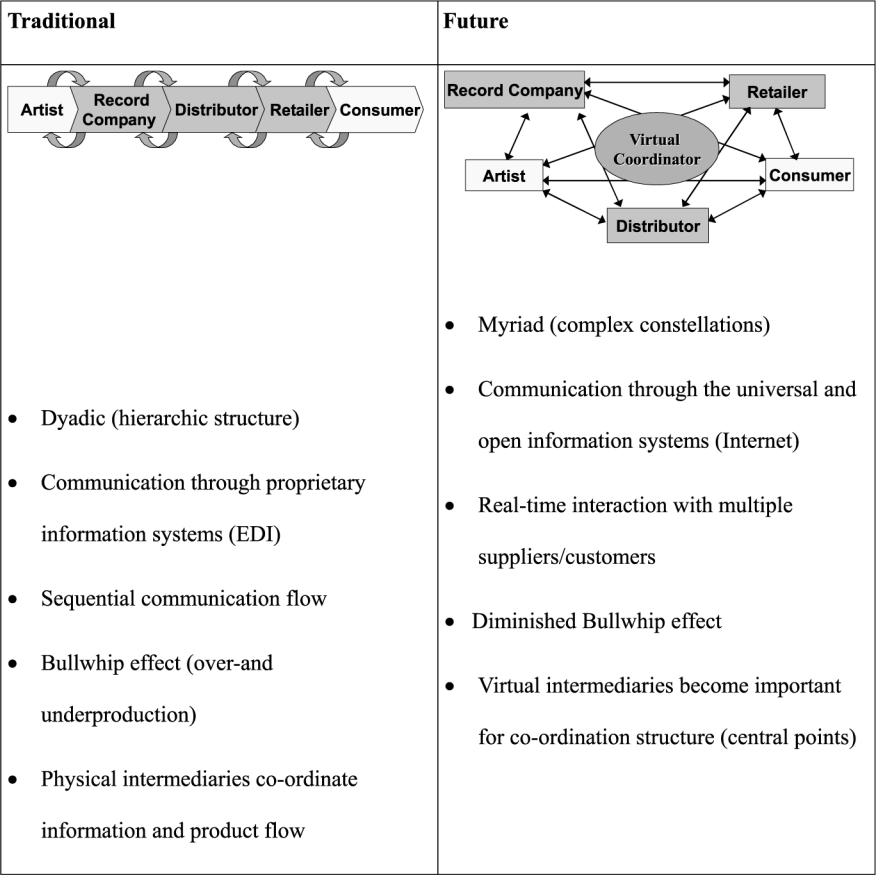
The co-ordination structure

Lee *et al.* (1997) argue that one of the most important mechanisms for co-ordination in the supply chain is the flow of information. Co-ordination occurs through the communication of orders for goods and services, feedback on stock levels and demand for particular products and services (Hardaker and Graham, 2001). The most important type of information is orders, as these initiate concrete action. However, Lee *et al.* (1997) argue that information transferred in the form of "orders" tends to give an unreliable and distorted picture of demand in the supply chain leading to the so called "bullwhip" effect. The term bullwhip effect refers to the magnification of demand variability as orders move up the supply chain. This effect is a consequence of the sequential, primarily one-to-one, i.e. dyadic, communication and co-ordination structure inherent in the supply chain. The result is that small fluctuations in demand lower down the supply chain can be misinterpreted and lead to large and costly fluctuations in production higher up the supply chain. Hardaker and Graham (2001) argue that this effect could be avoided if alternative, network-based communication and co-ordination paths were designed and implemented in a supply chain.

The traditional co-ordination structure

Co-ordination in the music supply chain occurs through a very hierarchical structure and is primarily dyadic (see Figure 4), as illustrated for example by the communication of orders for goods between record companies, distributors, and retailers (Hardaker and Graham, 2001). One example of an inter-organisational information and communication system is electronic data interchange (EDI). With EDI, two companies are able to communicate and exchange information between their organisations more speedily and at much lower cost than with a paper-based system. In addition, point of sale (POS) scanning systems, introduced in the 1990s, allow for more accurate tracking of record store inventory. These technological advances lowered the distortion effect and increased efficiency in the traditional music supply

Figure 4.
The co-ordination
structure



chain. Nevertheless, the traditional dyadic relationships are still maintained, EDI and POS are not universally used, and even where they are used, they do not always eliminate supply chain distortions.

The Internet co-ordination structure

Over half the respondents ($n = 8$) believed that the traditional co-ordination structures and systems would need to be altered substantially, in order to support the information necessary to manage the sale of digital music. The emergence of Internet-based network technologies are allowing music industry bodies to operate in a virtual environment and deal with multiple suppliers and customers (see Figure 4). However, conducting business over the Internet has introduced a new challenge. As product offers increase there is an increasing need for virtual navigators that provide ways and platforms for parties to find each other. To reach out to the digital consumer, music companies and artists will have to build relationships with these online platforms (Poel and Rutten, 2000). Virtual navigators, i.e. any kind of service that guides organisations and individuals to the information they require, will quickly replace the co-ordination

role of traditional intermediaries in virtual marketplaces. Results of this include the reduction in the number of physical intermediaries between the artist and the consumer, the outsourcing of activities by the major labels, and the re-organisation of functions such as A&R and marketing to increase the flexibility to react rapidly to market changes and new business opportunities.

Interviewees ($n = 14$) felt that the most vital elements in these new network structures are the Internet portals, such as Amazon and CDnow, which allow the major labels to co-ordinate their activity with consumers' requirements. The role of traditional intermediaries, e.g. physical retailers, is diminishing and the Internet has become the dominant infrastructure in the music industry for conducting business electronically. Communication and co-ordination in the music industry will no longer be hierarchical and dyadic, as everybody can communicate with everybody. Artists as well as record companies have started to interact with consumers directly through the Internet. As one executive stated, the Internet has not only extended the reach of information but also the richness:

I think it [new technology] has made our jobs much easier. A couple of years ago it wasn't really possible when you talked to people on the phone to give them a visual idea what you were talking about, it wasn't really good for imaging. You could not really describe the look and the voice of an artist. Now with the Internet we can e-mail a picture and even a song snippet. It helps imaging the artist a lot more.

Most interviewees from record companies also agree that since using the Internet they more often seek help from external companies to perform activities:

Instead of hiring experts we will increasingly establish relationships with independently working business partners.

Therefore, what is clear from the interviews with music industry executives is that the virtual marketplace has become widely accepted for music sales and distribution, although it is not clear if physical products will completely disappear. However, what is less clear is the role that the major labels will play in future. This will be discussed in the next section of this article.

The Internet and the music industry: labels, artists and consumers

As a means of transforming the supply chain for the purchasing and delivery of products and services, the Internet is becoming, and in some industries has already become, a dominant force (Hardaker and Graham, 2001). As the above discussion shows, the ability of the Internet to remove cost-adding activities while retaining those that add value is enormous. Nor is it just an issue of cost: the Internet also significantly increases the speed and convenience of doing business, and it allows consumers much greater access to products and services than ever before. Even distance is no longer the obstacle that it once was, especially in those industries supplying information-based products. However, it does not necessarily follow that those who have been the dominant forces in traditional supply chains will remain so in the virtual era. The record labels have been the dominant forces in the supply chain for music for most of the last 100 years. Their preferred option for the virtual music chain is for them to remain as the intermediary between artists and consumers, retaining control over the artists who create the music, and distributing music digitally through the Internet on a subscription basis. For the labels, this would have the benefit of eliminating

cost-adding activities, such as CD production and music shops, while still allowing them to retain control over value-adding activities and so ensuring they continue to receive the lion's share of the profits.

The emergence of peer-to-peer file-sharing technology, however, challenges the dominance of the major record labels. As Hammersley (2002, p. 4) observed: "For something that sounds like so much technology jargon and hype, peer-to-peer technology (P2P) is the fastest growing idea in the history of computing." P2P is available to anyone and everyone on the Internet. It is now possible for anyone to swap music files with anyone else in the world without any payment either to the record labels or to the recording artists. The labels are responding in two ways. First, as discussed in the previous section they are attempting, with partners, to establish their own subscription services where, for a small fee, consumers can download music. The second response is to use the law to threaten and prosecute organisations who facilitate illegal downloading and individuals who carry out such activities (Teather, 2003). The executives we interviewed all hoped that the subscription service approach would allow the labels to continue to be the dominant force in the music industry. However, when questioned on their companies' ability to eliminate or reduce piracy, a different picture emerged. The following are typical comments:

... a lot of people are getting music for free.

People don't have to buy CDs because they can download them for free. But that means that a lot of people in the music industry will lose their jobs.

... you will always have the person who downloads.

I think everybody's sales have decreased because of [piracy].

Right now I don't see any effective means to really stop piracy.

You cannot stop piracy.

... it's already common. ... People get it for free on the Internet, they don't need to buy it.

As the following quotation shows, piracy is not just restricted to individuals downloading music for their own pleasure:

In my old office on 23rd street I came downstairs one day and there was a guy selling CDs. He said he'd got the new Janet Jackson if I wanted to buy the album. I was so surprised because this album was not even out yet. We had only promotional copies. And he was selling the copy right in front of the office building of her label. When Bruce Springsteen was recording "The Rise" they had so much security just to keep the people from pirating the album before it even came out.

For the major record labels who dominate the music industry, piracy is a life and death issue. Their profits come from their ability to control the supply chain for music from artist to consumer. If consumers can download for free, if pirates can copy CDs and sell them on the street, the day of the major labels is effectively over because they cannot recover the costs of developing and promoting artists and recording their music. However, this need not be the case for the artists themselves; only a very few make any money out of selling records, and even for them 85-90 per cent of the revenue goes to their record labels. It would be possible for these artists to sell their own music directly

through their Web site. Even if the overall revenue from their music dropped by 90 per cent, they would still receive as much money as before. However, it is perhaps the music consumer who most benefits from the advent of the Internet. More easily and often earlier than in the past. Even if they pay for legal downloads through a subscription service, these appear to be cheaper than in the past. If they choose to download illegally, they get the music for free. Therefore, it is not just the structure of the music supply chain which is being transformed, but the balance of power in the industry. The major labels are losing some, or even most, of their influence, the artists have alternatives to signing with the major labels, and the consumer appears to have more choice at less cost.

Conclusions

Our research and this paper have sought to examine how the music industry supply chain is being transformed by the Internet. The Internet, coupled with the production of music in digital format and the advent of file downloading and swapping, is clearly having a major impact on the music industry. For over 50 years, the major labels have dominated the creation, distribution and consumption of music, but the Internet appears to be changing this. More and more business is being carried out electronically and music is being distributed electronically. There is a tendency to talk of “bricks and clicks” when discussing the impact of the Internet; it appears that in terms of music distribution, clicks rather than bricks will dominate in future.

Over the years, the major labels have invested large amounts in bricks in order to control the distribution of music, e.g. EMI's purchase of the Virgin Megastores. However, if the future lies with the electronic distribution of music, such investments and the dominance they allowed the major labels, will disappear. As our interviewees acknowledged, the era of physically distributing physical products such as CDs appears to be coming to a close. Therefore, old business partners from the age of bricks are being replaced by new ones who can live in the age of clicks. Consequently, the structure of the music industry supply chain is changing from a relatively linear and fixed structure, based on long-term relationships, to a more flexible, network structure where the partners are likely to change more frequently. Though the major labels still appear to prefer longer-term relationships, the likelihood is that in a fast-moving market where consumer tastes are constantly changing, these will be difficult to sustain.

The replacement of a vertically-integrated supply chain with a more dynamic and flexible network structure is also likely to reduce the power of the major labels as they will no longer be able to own and control the main distribution channels. The Internet as a distribution mechanism for music is open to anyone to use, whether smaller labels or artists. Similarly, the ability of consumers to find and obtain music by searching the Internet and sharing with other searchers reduces the influence of music promotion mechanisms such as MTV, which tended to be dominated by the major labels. However, perhaps the biggest threat to the dominance of the “big five” is Internet piracy. If consumers can download music for free, why should they pay for it? It is the ability of the major record labels to sign up artists, control distribution and obtain payment which has given them their dominant position. If they can no longer obtain payment for their activities, the whole edifice will collapse.

Therefore, as can be seen, the Internet is transforming the music industry supply chain. Some of the changes taking place, such as the electronic distribution of music, are established and will continue. Others, such as piracy, and artists bypassing the record labels and marketing their own music, are still in their infancy and their impact is less clear. Nevertheless, what we can see is that power is shifting from the major labels to both artists and consumers. Though, as our interviewees maintained, the major labels think they will be able to hang on to their dominant position, none of them could say how this would be done. The Internet is here to stay; what the major labels have yet to demonstrate is that they can use it to dominate the industry as they have in the past.

Notes

1. The project is entitled "Supply chain management across the Internet". Code: PP129117. It is an EU Leonardo da Vinci pilot project running from April 2001-April 2004. The total grant value is £672,715. The aim of the research is to assist the EU in supporting the development of small- to medium-sized enterprises in the EU.
2. The QCM analyses data in a sequential manner in which each type of code builds on the patterns and links established by the previous lower level coding. The lowest level of code is the descriptive "open" level, followed by "axial" coding and finally, the highest level of synthesis and interpretation which is the "selective" code.

References

- Burnes, B. (2004), *Managing Change*, 4th ed., FT/Prentice Hall, Harlow.
- Denzin, N.K. and Lincoln, Y.S. (Eds) (1998), *Strategies for Qualitative Inquiry*, Sage, London.
- Evans, P.B. and Wurster, T.S. (1997), "Strategy and the new economics of information", *Harvard Business Review*, September-October, pp. 69-82.
- Friedrich, J. (1990), *Methoden Empirischer Sozialforschung*, 14th ed., Westdeutscher Verlag, Opladen.
- Gadde, L.-E. and Hakansson, H. (1993), *Professional Purchasing*, Routledge, London.
- Gillett, C. (1996), *The Sound of the City: The Rise of Rock & Roll*, 3rd ed., Souvenir Press, London.
- Graham, G., Hardaker, G. and Burnes, B. (2002), "The peer-to-peer revolution: how the Internet is transforming the supply chain for music", *International Journal of New Product Development and Innovation Management*, June/July, pp. 115-23.
- Hammersley, B. (2002), "Working the Web: P2P technology", *The Guardian Online*, 7 March, p. 4.
- Handfield, R.B. and Nichols, E.L. (1998), *Introduction to Supply Chain Management*, Prentice-Hall, Englewood Cliffs, NJ.
- Hardaker, G. and Graham, G. (2001), *Wired Marketing: Energizing Business for e-Commerce*, John Wiley & Sons, Chichester.
- Harland, C.M. (1996), "Supply chain management: relationships, chains and networks", *British Journal of Management*, Vol. 7 March.
- Ince, J.F. (2000), "VerticalNet is Building B-to-B communities with functionality", *Upside*, Vol. 12 No. 8, p. 146.
- Kasaras, K. (2001), "Music in the free age of distribution: MP3 and society", available at: www.firstmonday.dk/issues/issue7_1/kasaras/index.html (accessed 3 March 2003).

-
- Lambert, D.M., Emmelhainz, M.A. and Gardner, J.T. (1996), "Developing and implementing supply chain partnerships", *International Journal of Logistics Management*, Vol. 7 No. 2, pp. 1-16.
- Lee, H.L., Padmananhan, V. and Whang, S. (1997), "Information distortion in a supply chain: the bullwhip effect", *Management Science*, Vol. 43 No. 3, pp. 546-58.
- Lin, F., Tan, G.W. and Shaw, M.J. (1998), "Multi-agent enterprise modelling", *Journal of Organisational Computing and Electronic Commerce*, Vol. 9 No. 1, pp. 7-32.
- Lowe, A. (1991), "The qualitative coding matrix: a new approach to improving the rigour of phenomenological research in services marketing", paper presented at the Institute d'Administration des Entreprises, University d'Aix Marseilles, June.
- MacQuarrie, R., Gu, Y., Guerra, E., Corredor, N. and Hill, W. (2000), "Music CD industry", available at: www.soc.duke.edu/~s142tml/main.html (accessed 15 December 2002).
- McBurney, D.H. (1994), *Research Methods*, Brooks/ Cole Publishing Company, Pacific Grove, CA.
- Markus, L.M., Manville, B. and Agres, C.E. (2000), "What makes virtual organisations work? Lessons from the open-source world", *Sloan Management Review*, Fall, pp. 13-26.
- Parikh, M. (1999), "The music industry in the digital world: waves of changes", available at: www.ite.poly.edu/htmls/musicwave01.htm (accessed 25 March 2003).
- Poel, M. and Rutten, P. (2000), "Impact and perspectives of electronic commerce: the music industry in The Netherlands", available at: www.oecd.org/pdf/M00027000/M00027095.pdf (accessed 9 March 2003).
- Porter, M. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, The Free Press, New York, NY.
- Porter, M. (2001), "Strategy and the Internet", *Harvard Business Review*, March, pp. 63-78.
- Reece, D. (2004), "An industry poleaxed by power of the Net", *The Independent*, 31 March, p. 40.
- Robson, C. (1993), *Real World Research*, Blackwell, Oxford.
- Sviokla, J.J. and Rayport, F.J. (1995), "Exploiting the virtual value chain", *Harvard Business Review*, November-December, pp. 75-85.
- Tapscott, D., Ticoll, D. and Lowy, A. (2000), *Digital Capital: Harnessing the Power of Business Webs*, Harvard Business School Press, Boston, MA.
- Teather, D. (2003), "US labels to sue individuals for net music piracy", *The Guardian*, 26 June, p. 13.
- Thompson, J.D. (1967), *Organizations in Action*, McGraw-Hill Book Company, New York, NY.
- Webactive (2004), "Legal music downloads", *Webactive*, No. 34, pp. 14-21, Cover Story.
- Yin, R.K. (2003), *Case Study Research: Design and Method*, Sage, London.