ADAPTING TO TECHNOLOGICAL CHANGES IN THE MUSIC BUSINESS

The Case of the British Music Industry and New Record Formats in the 1950s

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Abstract

Technological changes have had a major impact on music industries across all areas of business, ranging from production to distribution. When looking at the history of emerging music industries, it is evident that those who have effectively adapted to new technological changes have been able to achieve significant and meaningful success. This is clearly the case with the British music industry during the emergence of rock and roll from the 1950s to the 1960s.

This paper examines how EMI, the leading British music company, responded to changes in record formats in the 1950s. A form of new technological development at the time, the transformation from shellac to vinyl records facilitated the wider consumption of music. Initially reluctant to adapt to this new change, EMI soon found itself in an uncompetitive position. However, once the company's management recognized the benefits, it rapidly transformed its approach which helped it to achieve unparalleled success and become an established leader in the music industry.

Keywords

EMI; music industry; record formats; rock and roll; technological change

About the Author

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The role of technology in the development of music industries around the world has often been overlooked among studies of the music business. Instead, approaches that focus on cultural or artistic variables tend to be favored as explainers for success. This is certainly the case for the rise of the British music industry in the 1960s. In examining its emergence, analysis has either looked at the music's impact on society (Simonelli), the effect of society on the artists and their sound (Bennett et al.), or a mix of both (Keightley, "Reconsidering"). While such explanations are important in understanding the characteristics of successful music industries, they fail to provide sufficient explanation on why some develop in the way they do, particularly in respect of the period in time they appear.

Among the few studies that have looked at the role of technology, many have explored the impact of digitization. Notable in this respect is the Korean music industry or K-pop, whose active embrace of digital music helped it to enjoy global success and recognition (Messerlin and Shin; Parc and Kawashima). While it is an important lesson for many other budding music industries around the world, there are still detractors who may argue that the Korean case is a one-off. Although digital music is a recent phenomenon, the characteristics are the same as with the entry of any new technology in the music industry.

In this regard, examples from the past can clearly highlight that successful music industries are those able to adapt effectively to new technology. The rise of the British music industry in the 1960s is one case that supports this hypothesis. Its rise and global success closely mirror the Korean music industry. A careful analysis of how British bands came to dominate the US charts in the early 1960s will serve to support previous studies on how digitization was a key component in K-pop's success. For the British music industry, it was the adoption of new record formats that had a major impact.

The change in record formats from shellac to vinyl discs had a significant effect on the US music industry, specifically in the way songs were produced. While the US industry adapted quickly, this transformation was not so straightforward for companies in other countries. Notably, those in the United Kingdom were reluctant. However, when they did switch to new record formats, they were able to enhance the competitiveness of their music industry. No longer reliant upon the domestic market, these music companies could expand abroad and penetrate other markets around the world. It is interesting to note that these British music companies did not see music sales as a core component of their business in the 1950s, yet this perception had changed by the 1960s.

A key example and the focus of this study is the British music company, Electric and Musical Industries (EMI), who were initially opposed to the new vinyl format

and insisted on releasing their music on shellac. Faced with losing their competitive advantage, EMI had to change its stance and embrace the new record formats.

This paper seeks to explore how EMI responded to the changes in record formats in the 1950s and the consequence this had on the growth of the British music industry. Given that EMI was resistant to change, it will attempt to understand why this was the case and how the company changed its approach as well as the way in which it benefited from the new technology. There are three main sections in this paper. The first covers the literature on the topic, the second details the response of EMI to new record formats, and the third outlines the impact this had on the British music industry. Finally, the conclusion summarizes the main points of this paper and considers their implications for music industries today.

I. LITERATURE REVIEW

The impact of technology on the music industry has been the subject of several important studies. Peterson and Berger show how the dominance of major labels in the United States declined in the 1960s as a result of new technology. They note the growing role of radio and new record formats which facilitated the rise of independent labels that challenged the market control of the majors. Gourvish and Tennent extend this analysis further to the British music industry where a similar trend was witnessed. Interestingly, Peterson and Berger point out that the American majors managed to regain their dominance again in the 1970s. This, however, did not occur in the British music industry where the majors never really regained their monopoly.

In order to accurately assess the impact of new record formats on music, it is necessary to quantify exactly which one had an effect and in what way. This will require a brief review of how new record formats emerged. Since the development of the gramophone or record player in the late nineteenth century, the 78 revolutions per minute (rpm) disc was the dominant format for recorded music. This record was made of shellac material and and usually had a ten-inch diameter in size. It had a number of serious drawbacks that induced record companies to seek a more reliable format to replace the 78 rpm. It was an enduring weakness of this format that the shellac material was too brittle. Not only was the sound quality poor but after repeated plays it would wear out and, in some cases, break.

After delays due to the Great Depression and World War Two, two new competing record formats emerged in the late 1940s as a replacement. The first new format was released in 1948 by Columbia Records; it was a twelve-inch vinyl

disc that played at 33 rpm and was known as the Long Player (LP). Nine months later, RCA-Victor put out its own rival format. This one was also on vinyl but played at 45 rpm and had a seven-inch size. Both included the new technology of microgrooves that considerably enhanced sound quality. Due to the rivalry between the two companies, both initially refused to cooperate and were locked in a fierce competition to see which one would become the dominant format. After a period known as the "battle of speeds" and with no clear winner, a compromise was reached. The 33 rpm LP would focus on the album market, while the 45 rpm would stick to singles. By 1950, both formats were common place in the music industry and the 78 rpm was no longer produced.

Despite music being released on both formats, it is very much evident that the development of the 45 rpm single was the most crucial factor in the success of pop music in the 1950s (Dawson and Propes). Richard Osbourne notes that while the LP was more for personal listening, the 45 rpm "existed in the social world." He further identifies three ways in which the technology behind the 45 rpm single was developed to enhance this experience and thus boost its popularity among a young audience. The first factor is its loud volume, making it suitable for listening in public spaces, either with jukeboxes or at discothèques. Second is its duration, that is, the music contained on the disc was usually under the three minute mark, which made it radio friendly. The third aspect is tonal spectrum, which was very much influenced by the advent of the transistor radio, and thus the 45 rpm had its distinctive loud sound (124-126). All these three elements helped build up the character of rock and roll music: loud music that was predominantly played at a venue where young people congregated. This further explains why the youth market was attracted to this music and how they would emerge as a powerful consumer group in the post-war period. Finally, the cheap cost and small size of the 45 rpm were additional factors that made it attractive to them and helped the music spread.

It is worth pointing out here that some may argue that radio actually played a more important role for rock and roll music than record formats. This point though overlooks the fact that radio became more popular as a result of the new record formats. As mentioned before, the 45 rpm single disc was perfectly suited for radio. Not only was it durable, but it had just one song per side (the single) which a radio disc jockey could play quickly without having to select a song or cue up a specific track from an LP album. Furthermore, before the new vinyl records emerged, radio had to rely upon unknown session musicians to perform music live on radio (Cloonan). With records, radio stations could play the music of established musicians who could become stars, and thus expand their music across a wider audience.

From this point, it is evident that the 45 rpm record was a crucial technological development that helped with the growth of rock and roll as well as pop music more generally. To further strengthen this approach, Porter's "diamond model" can show how those companies that adopted the 45 rpm could have enhanced their competitiveness. This model has been extensively used to explain how firms and even countries achieve competitiveness across different industries. It has also been developed further and used by Parc and Kawashima to demonstrate how the Korean and Japanese music industries confronted digitization. Here, the model is used to visualize how the British music industry confronted the new 45 rpm record format (Figure 1). As in Parc and Kawashima's framework, four critical areas are listed: technology, producers, consumers, and business context. Within each of these four categories there are two sub-headings reflecting sophistication. This model clearly shows how important the role of technology was in the growth of the British music industry across different areas of competitiveness. From this context, it would be meaningful to explore in this paper how the 45 rpm helped the British music industry grow, as well as to understand more the relationship between the industry and this new technology.

		Changes	Business Impact
Technology	Hardware	Shellac → Vinyl	 Enhancing listening experience Transition from "home" listening to public one
	Content	Distorted sound → Clear sound	 Focus on jukeboxes and radio More reliable listening experience
Producers	Basic	Classical & Jazz → Rock & Pop	Expanding market baseTap into growing youth market
	Advanced	Live Music → Recorded Music	Recorded music as promotional toolFocus on "star" musician
Consumers	Size	10-inch multiple discs → 7-inch disc	Cheap and portable singlesLightweight, transatlantic influences
	Quality	Widegroove → Microgroove	Improved quality of musicLess damage
Business context	Structure	Hierarchical → Autonomous	 Sublabels given more freedom to develop local talent Producers have more creative freedom
	Rivalry	Limited Players → Competitive Market	 Entry of U.S. subsidiaries to create more competitive market Emergence of independents

Figure 1. The Business Impact of Record Format Changes (45 rpm)

II. EMI AND NEW MUSIC FORMATS

Like other majors, EMI was not only a music company. It had a wide range of interests that included domestic appliances, entertainment systems, leisure facilities, and even defense equipment alongside its music business, which included both production and distribution. In fact, the music business in its early years was not the major source of revenue for EMI. In 1945, sales of music accounted for less than two percent of its turnover (Martland 161). Furthermore, it was wholly reliant upon key licensing deals with the two biggest companies in the United States, Columbia and RCA-Victor, which allowed it to exclusively press and distribute the most successful American music.

After its formation in 1931, EMI's first years though were not easy. The great depression of the 1930s affected the music market, and the rise of radio led to a decline in record sales. Furthermore, the outbreak of the Second World War cut off EMI's ties with its roster of European artists, who were crucial for its classical music releases. At home, the imposition of the Purchase Tax had a significant impact. In the post-war period, EMI sought to rebuild its business in a changing market just as the new record formats began to emerge in the United States.

A. EMI's Response to Record Formats

When the two rival record formats emerged in 1948, EMI's response was similar to many others in the industry: they wanted to see which one would emerge as the favorite among the listening public. However, this wait-and-see attitude soon became opposition, and EMI stood alone against the new formats. Even after RCA-Victor began pressing LPs in 1950, EMI refused to release music in either format. Reinforcing this approach, EMI's managing director Sir Ernest Fisk released a statement wherein he announced that the company would continue to use the 78 rpm as the standard format, and that it was in the public interest to do so. (Martland 154).

This statement was very symptomatic of the attitude at the time: that the 78 rpm should not be replaced. In fact, EMI executives felt they were doing a service for the current listeners who were still playing these records. The reality was different; the US market was rapidly changing and new releases were no longer being pressed on 78 rpm. As EMI refused to change, their frustrated US partners went ahead and formed their own distribution networks in the United Kingdom (Millard 91).

There are three important factors that help us understand the reluctance within EMI toward adopting the new record formats in the early years. The first is related

to radio, the second is the conditions in the domestic market at the time, and the third is competition.

1. The Radio Monopoly

Radio ownership among the public in the United Kingdom was high. By the outbreak of the Second World War, the number of those who owned radio sets stood at eighty percent (Martland 142). This was comparable with the United States, where radio ownership stood at eighty-two percent in 1940 (Department of Commerce).

Despite similarities with the United States in terms of the number of radio listeners, the way in which broadcasting was regulated was very different. First, there was strict government control on who could broadcast in the United Kingdom. From its inception in 1926, the British Broadcasting Corporation (BBC) held a monopoly which ensured that it essentially controlled what the British public heard on the airwaves. Consequently, there were no independent or commercial radio stations until the regulations changed in the 1970s.

The second was the strict quota on recorded music that was broadcasted on air known as "needletime." This protectionist measure ensured that session musicians employed by the BBC to perform music on the radio were not displaced by popular recorded music. Similar to the restrictions on commercial radio, this quota remained in place for a long time and was not lifted fully until the 1980s (Cloonan).

Taking into account these two factors, it becomes evident how music companies had to take on board this reality when producing and distributing their contents. For EMI, new record formats would not have had a great appeal for British radio, which was orientated toward live music. As mentioned before, they had to be careful about the impact sound recording had on the live performers of music, specifically session musicians who felt threatened by records. Furthermore, with no commercial or independent radio, companies like EMI found it difficult to really get their music "out" in the public sphere when the BBC showed little interest for recorded music.

This contrasts greatly with the United States where commercial radio helped the promotion and consumption of recorded music and was very much supportive of the new formats. In fact, in the UK, it was not until offshore pirate radio stations began to broadcast recorded music in the 1960s that the public actually began to hear music like rock and roll regularly on the airwaves.

2. Weak Domestic Market

Much like radio, EMI operated in a controlled market. It was one of only two record majors in the UK music market; the other was Decca. They dominated all aspects of the market, from music production to hardware manufacturing. Furthermore, companies like EMI had their own record shops like His Master's Voice (HMV) in London. The result was that these companies had an incredible influence on the music choice and consumption habits of the British public. They were also very much dependent on the domestic market and paid close attention to conditions and changes.

In this respect, it can be argued that post-war difficulties and economic hardships in the UK affected the choice of EMI to embrace the new record formats. To this end, a review in the music magazine *Melody Maker* from 1949 is revealing of the attitudes at the time, "the British companies don't intend to make a definite move in one r.p.m direction until the America 'speed struggle' has resolved itself. For another, they don't believe that the British public can afford to buy the new equipment needed to play the microgroove records" (Firth, et al. 143). Given that the "speed struggle" would be resolved by the following year, the last part of the statement provides more insight into the potential mind-set of EMI at the time. Their belief is that the British public was not yet ready for the new formats.

While it may seem clear that the above statement relates to a difficult consumer environment in post-war Britain, the reality is a little different. One could point to factors such as rationing and the Purchase Tax on "luxury goods" as restraints on the ability of consumers to buy new records or players. However, the fact is that during the war, record sales increased compared to the 1930s. This is in spite of the difficulties during the war and with the Purchase Tax at an all-time high (Martland).

In this regard, it is important to consider the way in which EMI viewed the domestic market and how it was not entirely about living standards, but also in terms of listening habits. Another perspective is that EMI believed that the new record formats did not match the interests of the British consumer. Sound recording or records were still considered a bit of a novelty item, not something for the appreciation or enjoyment of music. This perception was due to the poor quality of shellac records and their limited lifespan. The idea that records could match or recreate as closely as possible "live" music was still a difficult concept to grasp. Furthermore, and arguably the most crucial factor, EMI still considered radio as the primary listening medium.

3. Lack of Competition

Throughout the 1940s, EMI and Decca held a duopoly in the British music market. While some independent companies existed, their presence in the market was almost negligible. This market dominance would continue until the 1960s when new players entered the market and the power of independents began to increase (Gourvish and Tennent). An example of this is how up until 1952, EMI and Decca accounted for one hundred percent share of the music charts (Gourvish and Tennent 190).

Much of this dominance owed a lot to the key licensing deals that they possessed with the US majors. It was an advantage no other new entry to the market could match. Thus, with no competition, there was less incentive to adapt to any new technological changes, particularly if it came from outside.

It is interesting to note here that EMI did attempt to introduce a new music format in the 1940s but this effort failed to take off. This new technological development was related to some of its wartime work on radar, which led to the recording of sound onto tape. This was first installed in EMI's Abbey Road Studio and helped to facilitate a more effective process for producing music. Previously, musicians had to record their music directly onto a 78 rpm record in one take, but tape allowed them to record multiple times and select the best parts that could then form the song. In the early 1950s, EMI began to put out pre-recorded music on tape for consumers as a new music format. However, given the prohibitive cost of the players, EMI soon discarded this way of releasing music. However, it would though have longer reaching consequences that would shape the way music was produced and recorded (Martland).

What this example shows is that EMI was not averse to experimenting with new technology or making it available for the British public. If EMI was concerned that the average customer could not afford the new record formats, why would they then put out music on a revolutionary new format in tape that was far more expensive? Part of the answer lies in the pride held by EMI in developing the music formats. Together with the fact that it operated in a domestic market in which it faced little competition, it becomes easy for EMI to resist technological changes from abroad that it sees little value in.

B. Why EMI Changed

EMI's opposition to the new record formats would turn out to be a significant mistake at a crucial time. As it sat back, forces beyond its control would soon put the company in a very uncompetitive position. These two factors are the following: EMI's relationship with the US majors and a changing domestic market. In carefully understanding these two variables and their impact, it becomes clear why EMI would have to shift its approach toward the new record formats.

1. The Entry of US majors

As the record companies in the United State began to put out music on the new formats, they noticed that sales were increasing at a high rate. Similar to EMI and Decca, the US majors did not see the music side of their business as an important component compared to their other varied interests. However, with the post-war growth in music sales, they reassessed their strategies and began to pursue bolder efforts to expand their business (Southall). At the same time, there was growing frustration among these majors that the British companies they had licensing agreements with were still refusing to press music in the new record formats. As a result, they began to terminate these contracts and open up their own distribution networks in the British market (Millard 91; Tschmuck 112). Columbia would cease distributing its music through EMI in 1952, while in the same year RCA-Victor signed its last five-year licensing contract.

For EMI, this was a big shock; RCA-Victor's recordings alone accounted for fifty percent of its total sales (Martland 157). Its reliance on popular US releases throughout its early years had become a dependency in the post-war period when EMI was in a struggling position. It had lost its European contacts for classical music, its business in Japan had been forcibly sold off, and its roster of British performers had been called up into military service (Martland). Music from the United States was not only popular, it was the only source for "new" songs.

Having long operated in a duopoly, EMI and Decca now faced new competition. Furthermore, their resistance to the new record formats would be challenged as the US majors could then put out their music in 45 rpm or 33 rpm as they pleased.

One interesting side development to this was that as they lost their licensing deals, EMI and Decca established sublabels that sought to forge new linkages with the rising independent labels in the United States. For example, Decca's London Records had a deal with Sun Records, who were just putting out the first recordings

by Elvis Presley (Millard). Given that these independent labels had benefited from the 45 rpm, this was a way in which both EMI and Decca were indirectly achieving some success from this new technology.

Around this time, the dominance of the two majors in the British music market was challenged by not only the direct entry of US companies but also by the emergence of two new entities that sought to compete with EMI and Decca. In 1953, an electronics company named PYE acquired a small obscure label called Nixa, signaling its entrance into the music industry. Soon after, it brought the Polygon label and sought to gain licensing deals with a few independent labels in the United States. By distributing its music across a wide range of shops, PYE was able to compete enough to be considered a "major" alongside EMI and Decca by the late-1950s (Firth, et al. 145). Phillips, a Dutch record company, entered the British market and achieved a similar status to PYE. Thus, there were four majors in the UK by the end of the 1950s.

2. The Youth and the Emergence of Rock and Roll

The entry of the US majors also signified a change in the characteristic of the UK market: the emerging importance of young consumers. In December 1954, one of the first popular rock and roll songs, "Shake, Rattle and Roll" by Bill Haley, achieved position number thirteen on the New Music Express chart. This was a remarkable achievement given that it did not receive any airtime on BBC radio. The reason for its success was the fact that it was bought by young people who frequented coffee shops that had jukeboxes playing such music. These coffee shops and their jukeboxes in the 1950s were becoming important conduits for listening to new music (Millard 88).

Although this example came two years after EMI had begun to issue releases in the new record formats, it is still significant in showing the trends of the time. The case above, as with many other similar ones, would come to highlight the growing popularity of pop music (or specifically rock and roll) and the way in which record formats supported their emergence.

In this regard, there are two meaningful factors regarding the Bill Haley example that EMI would have noticed. The first was that the youth were finding ways to circumvent the dominance that the BBC and traditional record companies had on the public's choice of music. The second was that the new record formats supported this new music consumption due to the way in which the 45 rpm single could be played on jukeboxes, which were popular among young people.

Previously, EMI and Decca were dismissive of the youth market, who they regarded as unable to determine music of good taste (Millard). Part of this was influenced by the way in which EMI viewed itself as the custodian of the finest recordings of classical music, which was generally marketed to older generations. This music was synonymous with the 78 rpm while more contemporary music like rock and roll was shaped by the new record formats. Now that the youth market was becoming important and increasingly spending more money than the older generations, it was essential that EMI adapt to this reality.

III. EMI CHANGES AND THE IMPACT OF NEW RECORD FORMATS

A year after giving his statement on the new record formats, Sir Ernest Fisk stepped down from his position as managing-director of EMI in 1951. As noted above, EMI was not in a healthy state and was struggling in the tough post-war environment. It is generally recognized that the poor restructuring efforts by Fisk had weakened the company and his position was in doubt. Now facing new competition in the market from the US majors, EMI had to respond. Their first act was to reverse their opposition to the new formats and begin their production. The company would release its first 45 rpm and 33 rpm records in 1952, by which time it was already behind.

However, the situation for EMI would not improve though until the appointment of Sir Joseph Lockwood as managing director in 1954, who would go on to turn the company into the leading force in the British music industry. He was a relative outsider who had been designing and managing flour mills until he was appointed to lead EMI (Cavendish). Although he clearly had no experience of the music business, he was able to correctly recognize the difficulties and set about restructuring EMI. Part of this was to actively embrace the new record formats, but also included other efforts that would shape the music industry for its big take off in the 1960s. Given the resistance examined before, it is important then to show how the situation changed and the impact new record formats had on the music business.

A. The Response of EMI

Although EMI dominated the domestic market, this situation was slowly changing. Its lethargy to the emerging record formats and the poor post-war structuring of the company meant that EMI was losing its competitiveness. There are three key approaches that the company adopted to overcome this situation:

business restructuring, overseas expansion, and developing local talent. In all three cases, the adoption of new vinyl formats was crucial toward maintaining these strategies.

1. Business Restructuring

It has been said that the first act Sir Joseph Lockwood undertook when he became managing-director of EMI was to go to the bank and get a loan to keep the business afloat (Southall). It was the beginning of the many ways in which he would put the company back on track toward becoming a leader in the music business.

One example of this was the way in which Lockwood changed some of the monopolistic elements of the company's retail business. EMI owned the music retailer HMV, which had a key shop in central London. However, it only stocked releases from EMI's labels, not from any other rivals like Decca despite their popularity. Similarly, EMI would not distribute its records through any other store that it did not have a franchise agreement with. Lockwood changed this. He opened up more branches of HMV and permitted other labels to distribute their releases through them (Southall). Another crucial change was to allow multiple retailers in one town or region to sell their records. This had the effect of encouraging more retailers to go into the business of selling records and thus expanding the market (Martland 266).

Lockwood's overall vision was to transform EMI into an international record business. To this end, he began to discard some of the loss-making elements of the company that included the hardware manufacturing of radios, televisions, and other appliances (Martland 150). It was an area of the business that had drained resources and weakened its profits. By establishing EMI Records in the late 1950s as a body to oversee the music business, Lockwood further sought to bring it to the center of the company's efforts.

One of the main tasks for this new body was to establish subsidiaries in the United States to distribute, market, and acquire music. An example was the Stateside label that was formed in response to what Decca had previously been doing with its London Records label since the late 1950s. Set up in 1962, Stateside would sign a few rising stars in the United States that would come to greatly influence British rock and roll groups. The Isley Brothers were one of their first acts who released the popular song "Twist and Shout," which would later be covered by the Beatles (Millard 91).

2. EMI's Overseas Expansion

With the termination of its lucrative US contracts, EMI was looking at the loss of its transatlantic linkages both in bringing popular music in and exporting its developed talent back. Lockwood's solution was to undertake the ambitious purchase of one of the major US record companies which would then ensure that they had exclusive access to popular American musicians as well as a big presence in the international music market.

In 1955, EMI went ahead and purchased Capitol Records for US \$8.5 million. This was a significant move, as Capitol Records was the fourth-largest company in the United States and had a roster of big name stars including Frank Sinatra, Nat King Cole, Peggy Lee, and Dean Martin (Southall). Apart from bringing in the names and boosting sales, the acquisition helped to establish EMI as a major player in not only the United States but also around the world. Crucially though, as Capitol Records was mostly concerned with pop music, it would have brought across key knowledge on the music industry and trends in the world's leading market.

After the merger, Capitol Records experienced great success and was therefore able to incorporate some of EMI's American operations such as EMI US Ltd (Southall). This would be important later on when British bands like the Beatles would make their inroads into the US market. Interestingly, the first two releases by the Beatles were not picked up by Capitol Records when it was first offered by EMI. As a result, these two records were put out through licensing deals with two minor independent labels in the United States. It was only after the Beatles made their appearance on the Ed O'Sullivan show that Capitol Records finally agreed to put out "I want to hold your hand" as a 45 rpm single. It consequently shot up to number one on the Billboard charts (Millard).

3. Developing Local Talent

As part of the organizational shakeup of EMI, Lockwood also gave the record labels under his management more autonomy with the expressed mandate to go out and seek new talent at home. This was a crucial step toward developing the British rock and roll scene in the 1960s as these new label managers had the freedom to sign prospective performers who could compete with the stars from the United States.

With the loss of the lucrative American licensing deals and committing to the new record formats, EMI in the 1950s recruited Norrie Paramor, Wally Ridley, and George Martin to manage its HMV, Columbia, and Parlophone labels respectively. Legendary producer Norman Newell was also brought in to support them. Known as the "four musketeers," their roles went beyond simply managing and recruiting, but even included music production (Southall). George Martin crucially would be the one who picked up the Beatles for EMI on the Parlophone label and helped to produce much of their music. The others were successful in signing local singers such as Adam Faith and Cliff Richard who would achieve some of EMI's first pop hits in the 1950s (Martland). Although their international success was relatively limited, they did help pave the way for a new sound that was more rock influenced and shifted EMI's focus away from the perception that only classical music could earn money. In a sense, this reflected a new reality wherein EMI was beginning to recognize teenagers as an important market for popular music as they became economically and socially independent from their parents (Martland 231).

B. The Impact of New Record Formats

Having made its changes, EMI went on to become one of the leading music companies in the world by the 1960s. A comparison of EMI's sales figures is one way of demonstrating how large it has grown in the music industry. In 1945, its turnover was £7 million; this had increased to £82.5 million by 1961-2, with records accounting for fifty percent of this amount (Martland 161). Figure 2 demonstrates the success of Parlophone records, who went from an obscure sublabel of EMI to one of its most powerful entities and was responsible for groups like the Beatles. One can see that up until the mid-1950s, 78 rpm was the dominant format yet the number of releases were few thus revenues would be low. However, once the 45 rpm was released, there was a boom in releases reflecting the growth in rock and roll singles. Figure 1 also visualizes the importance of the key period between 1954 and 1956 when Lockwood joined and EMI purchased Capitol Records.

While there were key decisions made after the departure of Fisk, the adoption of record formats helped the company embrace a new genre of music that was more youth-orientated and transformed EMI into a business mainly focused on music. There are three ways in which the new record formats would come to support EMI's emergence in the global music industry: accessing the youth market, transatlantic influences, and the British invasion.

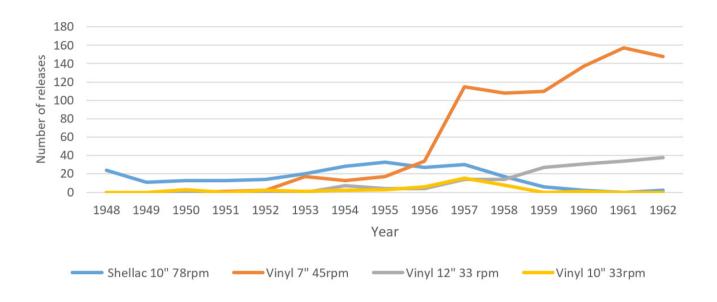


Figure 2. Record releases by Parlophone, 1948-1962

Source: Parlophone releases, Discogs

1. Tapping into the Youth Market

As mentioned before, the youth market emerged as a very powerful and dedicated force in purchasing records. The new record formats not only suited their musical preferences, but were important for the way in which they listened to music. Three venues would emerge in the 1950s that would not just define youth culture but also expand the music market and ensure the need for regular music releases. These include coffee shops, music charts, and radio.

Coffee shops were a unique institution in 1950s Britain where young people would hang out and listen to music mostly through jukeboxes, although some larger venues had live music. It is often remarked how rock and roll began in the 2i's Coffee Bar in Soho, London (Ings). This was where Britain's first rock star Tommy Steele was spotted and recruited by Decca Records in the 1950s (Frame).

In general, coffee shops relied upon jukeboxes where popular records were selected and listened to in a common space. These jukeboxes utilized the 45 rpm

record which played a single track and had a large center hole that made it easy for the mechanical arm to place it down to play. Although 78 rpm playing jukeboxes existed, the brittleness and poor sound quality meant they were not at all an effective medium for a mechanical player. They were more of a novelty item than a medium for listening to music in a public space. Interestingly, jukeboxes were in short supply in Britain during the post-war period as they were still officially banned from being imported from the United States. Domestically produced jukeboxes worked but lacked the style and quality of those from across the Atlantic (Moran). Thus, when the ban was lifted in the mid-1950s, jukeboxes flooded in and coffee shops sprung up across the country. It was arguably one of the most effective ways to disseminate music at a time when radio stations would not play any pop music.

Another interesting phenomenon to emerge in the 1950s were music charts. The 45 rpm brought about the idea of the single, which for its cheap price would spark immense interest and popularity. With an increasing number of singles by different artists, the music press put together charts that could track the most popular releases and act as a guide for the consumer (Millard). It is important to note here that many retailers at the time were shifting to self-service systems where consumers would have to choose records rather than approaching the store clerk and being provided a record to buy (Martland 266). Again, the new record formats favored this self-service system as they relied upon promotion and publicity for sales.

The importance of radio has been highlighted before. However, the new record formats helped to facilitate the rise in the disc jockey who would build a reputation on the records he curated and played for the listener's entertainment. The role of Radio Luxembourg and even US Armed Forces Network in the UK were crucial toward expanding the popularity of rock and roll (Millard). Their influences would lead to the emergence of pirate radio stations in the UK, whose broadcasts challenged the BBC's monopoly and eventually lead to establishment of BBC Radio 1 in the late 1960s, which was dedicated to a youth audience.

2. Transatlantic Influences

With a more durable design and its small size, the 45 rpm single was well suited for transportation across long distances. This meant that the youth in Britain during the 1950s were able to absorb a lot of the musical trends and emerging genres in the United States as they happened and without any third party filter. There are legendary, if not fanciful, stories of how sailors from the United States came over with records from America, which influenced bands like the Beatles (Millard 94). However, the reality was very different.

As the music market opened up more in the United Kingdom during the 1950s, a number of independent entertainment companies sprung up who managed to secure the licenses for popular American records. The development and popularity of the 45 rpm meant that there were a lot of releases to choose from in the American market. In order to save money, these small British labels often recruited local artists to cover the songs. This was an important step toward the emergence of the future British bands like the Beatles, who began their careers by covering songs from the United States (Millard). It was also a way to overcome the "needletime" quota, as session musicians at the BBC began to cover American rock and roll songs, albeit at a slower tempo. Soon enough, these labels were able to put out the original songs which helped to broaden the market. With the emergence of the jet age and the durability of the 45 rpm, an increasing number of records appeared in Britain to the extent that the original and the cover sometimes appeared in the same chart (Millard).

3. The "British Invasion"

While many British artists benefited from the 45 rpm single as the medium to provide them with influences from the United States, they also were able to take advantage of its qualities to "push" their music stateside. Had the British music industry insisted upon 78 rpm as the standard format throughout the 1950s, it would have been impossible for these performers to enjoy any success in the United States. Ironically enough, the first record ever produced by the Beatles was a 78 rpm ("Holy Grail"), but it would be the 45 rpm that would help propel them to the top of the charts. And in later years, the 33 rpm album would help them to mark their artistic credibility as musicians and spark new interest in that format (Keightley, "Long Play"). In redefining the importance and listening experience of the album, the Beatles would propel sales of albums that would soon eclipse singles.

The limitations of the 78 rpm would hinder the development of a new music scene and favored live performances by local artists. By contrast, the 45 rpm single would unleash a new approach to music that led to the creation of not only music scenes but also pop stars that turned companies like EMI into powerful global businesses. The "British Invasion" of the United States by groups like the Beatles is a good example of how a new music format or technology can boost the markets for a music industry.

IV. CONCLUSION

In a digital age where the music industry is in constant flux, it is easy to forget that previous technological changes have had an equally great impact. The change in record formats was not just about a different platform to listen to music, but an actual transformation in how music was produced, distributed, and more importantly, listened to. The 45 rpm really developed the idea of an artist producing a "hit" that would act as a promotional vehicle for their profile. While some may argue that the development of the 45 rpm was responsive to the consumer's needs (Magoun), an assessment of its characteristics actually shows that it helped shape the way in which the consumer listens to the music and thus in the process create a new genre: pop music or rock and roll (Osbourne; Dawson and Propes). The impact this development had on the British music industry was significant; sales of 45 rpms for 1962 was over fifty million units in a market valued at £20 million (Southall).

This paper has shown how EMI resisted change due to the rigid and protectionist domestic market. The opposition to the new record formats led to EMI losing its competitiveness and being in a vulnerable state when the American record companies entered the British market. Only by embracing the new record formats and using its advantages to boost their business could EMI seek to compete. Furthermore, rather than sticking to the domestic market where it faced limitations, EMI expanded abroad. First it acquired Capitol Records, and then it began to export its promising talent. The new record formats supported such a global approach by making distribution of music easier and costs cheaper.

The example of EMI and the British music industry is crucial toward showing that even when facing domination by American music, local talent can emerge and be equally successful through the use of new technology. It was not just the big companies like EMI and Decca who enjoyed success but also a number of small independent labels who had previously been pushed out of the market by the two big majors. The 45 rpm meant that more music could be put out, thus providing increased opportunities for the smaller players and enhancing cultural diversity. It is often the common story that new technology actually provides a level playing field in the music industry as seen with digitization today.

This paper provides two important implications for music industries today that are similarly confronting new technology in the shape of digitization. The first point is that even the largest companies in the music business can lose their competitiveness if they fail to identify and embrace new technological changes. Not only did this happen to EMI, but a similar case can be seen with the Japanese music industry of today (Parc and Kawashima). The second implication is that

new technology can help a music industry to grow and expand. For the British music industry, new record formats helped it to achieve success in the US market. Similarly, digitization has helped K-pop expand across the world.

Lastly, technology can have unexpected benefits that can change the direction of how music is produced. Originally, the 45 rpm was designed to play classical music across a number of discs that self-loaded onto a player, simply it was an upgraded version of the 78 rpm. However, while it failed in the classical market, its characteristics were recognized as being perfectly suited for pop music. At first, the independent labels took advantage of this and enjoyed success, then the majors embraced this music that they had previously shunned. By the 1960s, musicians were producing songs specifically suited to the 45 rpm: loud, short, and popular. It shows how technology can really shape the kind of music we listen to and enjoy.

Works Cited

- Bennett, Tony, Simon Firth, Larry Grossberg, John Shepherd, Graeme Turner. *Rock and Popular Music: Politics, Politics, Institutions.* Routledge, 1993.
- Cavendish, William. His Master's Voice: Sir Joseph Lockwood and Me. Unicorn, 2017.
- Clayson, Alan. *Beat Merchants: Origins, History, Impact and Rock Legacy of the 1960s British Pop Groups.* Blandford Press, 1996.
- Cloonan, Martin. "Negotiating Needletime: the Musicians' Union, the BBC and Record Companies, c. 1920-1990." *Social History*, vol. 41, no. 4, 2016, pp. 353–374.
- Dawson, Jim, and Steve Propes. *45rpm: the History, Heroes, and Villains of a Pop Music Revolution.* Backbeat Books, 2003.
- Department of Commerce. "Sixteenth Census of the United States: 1940. Housing: Volume II." U.S. Government Printing Office, Washington D.C., 1943. Available at https://www.census.gov/history/pdf/1940radiosets.pdf. Accessed 26 May 2018.
- Doggett, Peter. *Electric Shock: From the Gramophone to the iPhone: 125 Years of Pop Music.* Vintage, 2016.
- Firth, Simon, Matt Brennan, Martin Cloonan, and Emma Webster. *The History of Live Music in Britain, Volume I:* 1950-1967: From Dance Hall to the 100 Club. Routledge, 2013.
- Fisher, Marc. Something in the Air: Radio, Rock, and the Revolution that Shaped a Generation. Random House, 2007.
- Frame, Pete. *The Restless Generation: How Rock Music Changed the Face of 1950s Britain.* Omnibus Press, 2011.
- Gourvish, Terry, and Kevin Tennent. "Peterson and Berger Revisited: Changing Market Dominance in the British Popular Music Industry, c.1950-80." *Business History*, vol. 52, no. 2, 2010, pp. 187–206.
- Harvey, Mark. "The Rise of the LP: the Politics of Diffusion Innovation in the Recording Industry." *Business History*, vol. 58, no. 7, 2016, pp. 1095–1117.
- Hepworth, David. *Uncommon People: The Rise and Fall of the Rock Stars* 1955-1994. Black Swan, 2017.
- "Holy Grail' Beatles Record Sold for £77,500 at Auction." *BBC News.* 22 Mar. 2016, www. bbc.co.uk/news/uk-england-merseyside-35870751. Accessed 26 May 2018.
- Ings, Andrew. Rockin at the 2i's Coffee Bar. Book Guild Publishing, 2010.
- Katz, Mark. *Capturing Sound: How Technology Has Changed Music*. U of California P, 2010.
- Keightly, Keir. "Long Play: Adult-orientated Popular Music and the Temporal Logics of the Post-war Sound Recording Industry in the USA." *Media, Culture & Society*, vol. 25, no. 3, 2004, pp. 375–391.
- --. "Reconsidering Rock." *Cambridge Companion to Pop and Rock*, edited by Simon Firth, Will Straw, John Street, Cambridge UP, 2010, pp. 109–143.
- Magoun, Alexander. *Shaping the Sound of Music: The Evolution of the Phonograph Record,* 1877-1950. University of Maryland, College Park, 2000.
- Martland, Peter. Since Records Began: EMI, The First 100 Years. B.T. Batsford, 1997.

- Messerlin, Patrick, and Wonky Shin. "The K-pop Success: How Big and Why So Fast?" *Asian Journal of Social Sciences*, vol.45, no. 4-5, 2017, pp. 409–439.
- Millard, Andre. *Beatlemania: Technology, Business, and Teen Culture in Cold War America.* John Hopkins UP, 2012.
- Moran, Joe. "Defining Moment: The American Jukebox Arrives to Corrupt British Teenagers, 1955." *Financial Times*, 5 Dec. 2009, www.ft.com/content/oof29aa2-dee3-11de-adff-00144feab49a. Accessed 26 May 2018.
- Negus, Keith. Popular Music in Theory: An Introduction. Polity, 1996
- Osbourne, Richard. Vinyl: A History of the Analogue Record. Routledge, 2014.
- Parc, Jimmyn, and Nobuko Kawashima. "Wrestling or Embracing Digitization in the Music Industry: The Contrasting Business Strategies of J-Pop and K-Pop." *Kritika Kultura*, no. 30/31, 2018, pp. 23–48.
- Parlophone Releases. *Discogs*, www.discogs.com/label/2294-Parlophone?page=1&genre=A ll&limit=500&sort=year. Accessed 5 Nov. 2018.
- Peterson, Richard A., and David G. Berger. "Cycles in Symbol Production: The Case of Popular Music." *American Sociological Review*, vol. 40, no. 2, 1975, pp. 175-178.
- Porter, Michael. *The Competitive Advantage of Nations*. The Free Press, 1990.
- Simonelli, David. *Working Class Heroes: Rock Music and British Society in the 1960s and 1970s.* Lexington Books, 2012.
- Shuker, Roy. Popular Music Culture: Key Concepts. Routledge, 2011.
- Southall, Brian. *The Rise and Fall of EMI Records*. Omnibus Press, 2012.
- Tschmuck, Peter. Creativity and Innovation in the Music Industry. Springer, 2012.