

# Confronting the Mass Market: Thomas Edison and the Entertainment Phonograph

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Between 1880 and 1910 the phonograph became a mass-marketed consumer product. During the late 1870s Thomas Edison's tinfoil phonograph was a curiosity of little practical value. By the first decade of the 20th century the phonograph, as well as musical records on both cylinder and disc formats were widely available to consumers. Americans purchased over half a million talking machines and over 27 million records in 1914, and this number continued to rise until 1929.

Although Thomas Edison played an important role in the technical development of the phonograph and his firm was a leading producer between 1896 and 1908, he experienced a number of problems in marketing his talking machines and records between 1909 and 1929 -- problems that led to the failure of his business. During this period Edison was a market follower in the industry, surpassed by the Victor Talking Machine Company and challenged by such other competitors as the Columbia Phonograph Company and Brunswick-Balke-Callender. In 1919 Edison produced only 7.2% of the phonographs and 11.3% of the records manufactured in the United States [4]. By the end of the 1920s his company controlled only 2% of the record market [5]. As one Edison dealer lamented in 1926, "instead of the Edison being the most popular machine it is one of the least popular. The Edison, the original, the Daddy of them all should not take second place for any of them" [7].

This paper examines the reasons for the failure of the Edison entertainment phonograph business. The traditional explanation for Edison's commercial failures maintains that he was a poor business manager. This view was initially expressed by Henry Ford, who called Edison "the world's greatest inventor and worst businessman," and has subsequently influenced a number of assessments of Edison's business abilities [18]. This interpretation was often asserted, however, without the benefit of detailed research on Edison's commercial enterprises. This is particularly true for the phonograph industry, which has received little attention from business historians.

While the development of the phonograph business is a complex story involving a variety of broad economic, technical, marketing and cultural forces, specific decisions made by Edison and his competitors were also critical factors. At issue here is not whether Edison was a good or bad manager, but how he

responded to the problems of designing and marketing sound-recording technology within a rapidly changing competitive environment. In order to explain Edison's problems in the phonograph business, this paper examines the technical and marketing strategies he employed and compares those strategies with the approach of his more successful competitor, the Victor Talking Machine Company. As this paper argues, Edison's strategies were ill-suited for an emerging mass consumer market.

### Mass Marketing the Phonograph, 1888-1907

Edison's first attempt to market the cylinder phonograph during the late 1880s and early 1890s was unsuccessful. In 1888 the North American Phonograph Company was created in order to lease the Edison phonograph and a rival cylinder machine called the graphophone for use as commercial dictating machines. The North American company, however, failed to develop a market for dictating machines because of a variety of technical and marketing problems. The failure of the dictating machine along with the popularity of coin-operated amusement phonographs in public places convinced Edison and his associates to develop a home entertainment talking machine [1, pp. 78-87]. By the late 1890s Edison had designed a simpler, spring-driven phonograph; developed procedures for manufacturing pre-recorded musical cylinders on a large scale; and organized a new firm, the National Phonograph Company, to market these machines and records. The lower cost of these machines, combined with an improving economy enabled the National company and its principle cylinder competitor, the Columbia Phonograph Company to dramatically increase sales. By 1904 the National company had sold over 113,000 machines and seven million records [Table 1].

**Table 1. Phonographs Manufactured by the National Phonograph Co., 1896-1904**

Date	Spring Motor	Electric Motor	Total
3/1896-2/1897	774	465	1,239
3/1897-2/1898	4,905	260	5,165
3/1898-2/1899	13,833	422	14,255
3/1899-2/1900	45,827	270	46,097
3/1900-2/1901	41,850	44	41,894
3/1901-2/1902	41,315	66	41,381
3/1902-2/1903	79,980	277	80,257
3/1903-2/1904	112,049	1,102	113,151
<b>Total</b>	<b>340,533</b>	<b>2,906</b>	<b>343,439</b>

Source: Appellant's Brief, *New York Phonograph Co. v. National Phonograph Co.*, United States Circuit Court, Court of Appeals, Second Circuit, November 14, 1905, p. 218.

Edison's National Phonograph Company was able to dominate the phonograph business in the early 1900s, but its position was challenged by Eldridge Johnson's Victor Talking Machine Company. Johnson, a Camden, New Jersey, machinist, began making spring motors in 1896 for the gramophone, a disc talking machine invented by Emile Berliner in 1887. During the late 1890s Johnson manufactured gramophones for the Berliner company and developed an improved disc recording process. Through a series of complex legal maneuvers Johnson obtained control of the Berliner patents and organized the Victor company in October 1901 to market his own line of disc machines and records [2, pp. 17-35].

Sales of Victor gramophones grew slowly at first, but Johnson introduced a number of technical and design changes that helped increase his share of the talking machine market. In 1903 he designed a new tone arm, which improved the acoustic quality of his machines [20, p. 135]. In 1906 he unveiled a new disc machine called the Victrola, which featured an enclosed speaker horn in a handsome wood cabinet [2, p. 61]. The result, according to an early phonograph historian, "was to make the phonograph for the first time a piece of furniture." [17, p. 6]. In 1901 Victor sold approximately 7600 machines. By 1907 the company had sold over 98,000 machines [Table 2].

**Table 2. Records Manufactured by the National Phonograph Co., 1896-1904**

3/1896-2/1897	0
3/1897-2/1898	87,690
3/1898-2/1899	428,310
3/1899-2/1900	1,886,137
3/1900-2/1901	2,080,132
3/1901-2/1902	1,976,645
3/1902-2/1903	4,382,802
3/1903-2/1904	7,633,142
<b>Total</b>	<b>18,474,858</b>

Source: Appellant's Brief, *New York Phonograph Co. v. National Phonograph Co.*, United States Circuit Court, Court of Appeals, Second Circuit, November 14, 1905, p. 219.

The impressive growth enjoyed by the phonograph industry since 1901 ended abruptly in 1907 because of the Banker's Panic. As a result of the panic, Edison suffered a 30% drop in sales in 1908, while Victor's sales declined by almost 40%. Both companies recovered from the economic depression, but Victor grew back at a much faster rate, and surpassed Edison's sales in 1909. Edison did not reach his pre-1907 level until 1916, when the value of Victor's sales was over three times as high as Edison's [Table 3].

**Table 3. Sales of Victor Recording Machines, 1901-1915**

Year	Horn Type Phonograph	Cabinet Victrolas
1901	7,650	--
1902	42,110	--
1903	40,601	--
1904	47,074	--
1905	65,591	--
1906	76,036	506
1907	98,686	3,559
1908	45,473	4,317
1909	56,147	11,764
1910	73,049	21,508
1911	31,106	41,956
1912	21,009	49,224
1913	18,435	115,342
1914	6,179	121,288
1915	3,949	188,725

Source: B.L. Aldridge, *The Victor Talking Machine Company*, (RCA, 1964), Appendix IV.

What caused this change in the relative positions of the Edison and Victor companies? Given his first entrant advantages, why was Edison surpassed by the Victor company? One possible explanation for this change are price differences between Edison and Victor products. Although more detailed information about phonograph and record prices and how they changed over time is required, there is evidence suggesting that Victor and other talking machine producers were able to lower the prices of their products at a much faster rate than Edison. As Andre Millard has argued in his study of Edison's West Orange laboratory, "lowering the costs of production had become essential in the phonograph business because [the Edison company] faced competition that invariably undersold it" [1, p. 200].

Price competition provides only part of the explanation for Edison's problems in the talking machine business. Victor's ability to surpass Edison can also be attributed to several technical and design advantages of its products as well as a marketing strategy consisting of three important elements. Victor machines

were more appealing to consumers because their enclosed horns eliminated the need for awkward exposed horns and because they came encased in attractive wood cabinets. Victor disc records were more durable and easier to store and maintain than Edison cylinder records and they could also be played longer, from four to seven minutes, allowing Victor to record music that would not fit on the two minute Edison cylinder.

These product advantages complemented Victor's highly effective marketing strategy. The first element of this strategy was what company historian B.L. Aldridge called a "heavy-handed advertising policy" [2, p. 49]. Victor spent up to 8.2% of its annual sales on mass circulation newspaper and magazine promotions. The company relied on these ads not only to promote its own products, but to create general consumer demand for the phonograph as a form of domestic entertainment. The second component of the Victor strategy was a close relationship with its jobbers and dealers. Victor dealers were expected to generate a minimum annual sales of \$300. In return, they were given valuable support services, including sales training, printed promotional material and subsidies for local advertising [2, p. 49]. The third feature of the Victor strategy was a record catalogue featuring famous artists. Victor's Red Seal records included such celebrities as Adelina Patti, Dame Nellie Melba, and Enrico Caruso, who signed an exclusive recording contract with Victor in January 1904 [2, pp. 51-55]. This marketing strategy enabled Victor to become the predominant talking machine producer between 1909 and 1929.

### **Edison's Response to Victor, 1909-1929**

Edison's response to the marketing of the phonograph in the early 20th century, as well as his efforts to compete with Victor were shaped by his experiences as an inventor of producer technologies during the 1870s and 1880s. Many of the technologies Edison either invented or helped improve in this period, such as the stock ticker, printing telegraph and multiplex telegraph were producer goods designed to increase the capacity and reliability of the nation's telecommunications systems. Edison spent much of this time identifying and solving the technical problems of highly specialized corporate markets, which expected him to deliver efficient, practical and reliable machines. Edison's ability to work closely with his corporate clients, his reputation as a technical problem solver and the high quality of his inventions were critical for his success in this producer goods market.

This approach to innovation continued to shape Edison's response to the development of consumer technologies during the early 20th century. It determined his decisions about product development as well as the creation and implementation of his marketing strategies. Edison's reliance on technical superiority, a key element of his strategy in early producer markets, influenced Edison's approach to record formats. Victor's success in marketing the disc record suggested that the cylinder would become outmoded. Consumers seemed to prefer the convenience and longer recording time of the disc. Although Edison had experimented with the disc format in the late 1870s, he concentrated on developing the cylinder because he believed that it was technically superior.

In order to compete with the longer playing Victor disc, Edison introduced a new four minute cylinder record called the Amberol in 1908 [1, p. 211]. The new Amberol record helped increase Edison's record sales, but it did not threaten the

market position of the Victor disc. As a result, Edison's business managers convinced him to enter the disc trade. Between 1909 and 1915 the Edison laboratory developed a disc record and machine to compete with Victor. The result of this campaign was a disc player featuring a diamond-pointed reproducer and a condensite record called the Diamond Disc. Despite evidence that consumers preferred the disc format, Edison continued to improve the cylinder. In 1912 he introduced the Blue Amberol, a celluloid cylinder record that produced a higher quality sound than earlier wax records [1, pp. 206-216]. With the introduction of the Diamond Disc and Blue Amberol, Edison became the only major talking machine producer to offer both cylinder and disc formats. The decision to market both formats reflected a compromise -- an attempt to resolve the tension between Edison's business managers, who wanted a disc to compete with Victor, and Edison, who believed in the superior technical quality of the cylinder.

Edison's emphasis on technical perfection also influenced the development of his record catalogue. While Eldridge Johnson recognized the promotional value of famous artists, Edison refused to put celebrities on his records. "We care nothing for the reputation of the artists singers or instrumentalists," Edison proclaimed in a 1912 memorandum. "All that we desire is that the voice shall be as perfect as possible" [3]. Edison believed that high recording standards would sell more records than well-known artists. "It is not our intention to feature artists or sell the records by using the artists name," Edison wrote, "we intend to rely entirely upon the tone and high quality of the voice" [3]. Edison believed that the famous artists recorded by Victor did not necessarily have the best recording voices, and that the reputations of many of these artists was based on their acting ability or stage presence. For Edison, promoting records by celebrity artists constituted "fakery in music" because consumers could not always discriminate between singers of reputation or talent. As he told one correspondent in 1913, "I myself have refused to be a party to this fakery press agency work" [23].

While it is difficult to quantify the impact of this strategy, there is anecdotal evidence suggesting that it affected record sales. A number of Edison dealers complained about the lack of recognizable Edison artists. As one dealer asked the company in 1923, "where do you expect to be in ten years without an artist of reputation" [8]. Another dealer claimed in 1927 that he had been unable to sell any Edison records the previous six months and that he had to provide his Edison owners with special attachments so that they could listen to the records of other manufacturers [9].

Because of the difficulty of finding artists who could meet Edison's technical standards, the company tended to use the same artists repeatedly. As a result, Edison records not only lacked "star" appeal, they also lacked different musical styles and interpretations. Edison dealers understood that consumers wanted more than just technical perfection. According to one dealer, "it would seem to me that if your company would take on a new singer occasionally, or a new orchestra, it would help matters. You must realize that the owner of an Edison instrument does not want all of his songs, or practically all of them, sung by the same singer" [22]. Another dealer complained that "no one listening to a dance record gives a darn whether a second clarinet is heard or not. If the public cared anything for absolute perfect recording where every instrument is heard, the Victor would have been out of business long ago" [10]. As company vice president Arthur Walsh noted in

1927, “artists names was probably the best piece of sales promotion work for the Victor company that could have been put over” [5].

The same reliance on technical quality that shaped Edison's product development decisions also influenced his marketing strategies. Edison believed that once a potential customer had an opportunity to hear the superior tones of his machines and records, he would choose it over competing products. The central goal of Edison's marketing plans, therefore, was to bring as many customers as possible into direct contact with his products. “Hearing the tone of the Edison,” the company argued, “creates the desire to own one and produces a natural comparison in the hearts of everyone hearing the instrument and any needle talking machine they every hear.” The efforts to demonstrate the technical quality of Edison phonographs to consumers are reminiscent of the close relationship Edison had established with his corporate clients in the late 19th century.

A number of plans were developed to accomplish this goal. Edison's dealers were encouraged to stage demonstrations or recitals in their showrooms. One type of staged event was the Turn Table Comparison, which enabled customers to compare the Diamond Disc with competing talking machines. In order to demonstrate the quality of the Edison record, the company sponsored a series of events called Tone Tests, which featured comparisons between live Edison artists and their records played on Edison machines. The objective of these Tone Tests was to demonstrate that Edison records were so precise and realistic that they could not be distinguished from the live performance [22]. Edison recording artist Marie Rappold held one of the first Tone Tests in April 1916 at Carnegie Hall, and hundreds of similar tests were conducted throughout the World War I period [14, pp. 146-147].

The Tone Tests were replaced in the early 1920s with other marketing schemes. One of these plans utilized door-to-door canvassers, who left phonographs and a selection of records in homes for up to three days. The canvasser would then return to close the sale. Another scheme, the “Sub-Dealer Plan,” involved the placement of phonographs in barber shops, ice cream parlors and other retail establishments. The proprietors of these stores were expected to demonstrate the phonograph and send the names of prospective buyers to the local Edison dealer. These marketing plans seemed to work when they were tried on a limited experimental basis, usually in the area near Edison's laboratory, but in order for them to be effective against Victor they had to be implemented on a national scale. Unfortunately, Edison did not have the resources to organize and manage large-scale canvassing plans.

Edison spent less money on mass circulation advertising than Victor and other competitors because print ads could not convey the same message about the quality of Edison phonographs as live demonstrations. According to Arthur Walsh, “Mr. Edison argues that the superior tonal qualities of the Edison when heard far outweighs the printed advertising of any strongest competitor.” The Edison company did advertise in newspapers and magazines, but these ads were designed to promote Tone Tests and other demonstrations. The lack of advertising was a source of contention between the company and its dealers. As one dealer complained, “it has been a long time since we have seen an Edison advertisement . . . that I have forgotten what they look like . . . there is no danger of anyone forgetting what a Victor advertisement looks like or a Brunswick or a Columbia for

the reason that you can scarcely pick up any of our best magazines but, the very beautiful colored artistic advertisements of these companies stare you in the face.”

The quantity of advertising was not the only problem. Many dealers complained about the lack of artistic quality of Edison ads and other printed material issued by the company. This point is illustrated by dealer comparisons between the Victor and Edison record catalogues. According to a Massachusetts dealer writing in 1916, the Victor record list came with a portrait and brief biography of each Victor artist, and was attractively arranged and printed. It was, according to the dealer, “more than a work of art, it is a work of science -- psychological science.” The Edison catalogue, in contrast, was merely an alphabetical list of Edison records in minute type. As the dealer noted, “it is businesslike in the discarded meaning of the term . . . it is absolutely without art or science or imagination” [16]. A similar point was made in 1923 by Harold Brainerd, an Edison customer who wanted Edison to print pictures of his artists. “They may seem trivialities or luxuries,” Brainerd noted, “but they are the things on which great successes like the Victor’s have been built” [17].

## Conclusion

In *New and Improved* Richard Tedlow has argued that “the long-term success of the large firm has been determined by its ability to manage both internal and external change over time” [11, p. 19]. This point applies to Edison’s experience with the phonograph. By designing an entertainment phonograph and lowering the cost of machines and records in the 1890s Edison did much to create the phonograph industry, but he eventually failed because he based his marketing decisions on a set of ideas and assumptions that did not apply to a consumer market. Edison’s ability to design efficient and reliable technologies served him well in his late 19th century producer market, but it was not enough to succeed in a market where consumers expected more than just technical perfection.

The Victor Talking Machine Company, in contrast, was able to dominate the phonograph industry because Eldridge Johnson implemented marketing strategies that were suited for a mass consumer market. Johnson appreciated the value of sustained mass circulation advertising in order to reach large numbers of consumers, and he understood the importance of providing support for his network of jobbers and dealers. Johnson also recognized that celebrity recordings would help promote record sales. As Andre Millard has noted, “many people bought Victor phonographs because they wanted to hear the famous singers who recorded on Victor records, and many deserted the [Edison ] phonograph to gain access to Victor’s library” [1, p. 220].

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