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ON THE LONG TAIL AND THE SUPERSTAR EFFECT IN THE POP MUSIC MARKET

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Resumo

As novas tecnologias de produção e distribuição digital estão mudando o mercado da música pop. A progressiva desmaterialização dos processos inerentes, conduz a um efeito novo de desenvolvimento de nichos de mercado, cuja procura agregada consegue agora competir com os tradicionais “greatest hits”, naquilo que Anderson designa de Cauda Longa. Este fenómeno é concomitante com a existência de um “superstar effect” que leva a que um reduzido número de “grandes estrelas” tenha níveis de rendimento elevadíssimos. Este efeito, tipo “the winner takes it all”, é especialmente visível no reforço actual da importância da música ao vivo.

O objectivo da comunicação é entrar neste debate, reportar e discutir as evidências empíricas de um e outro fenómenos e projectar os efeitos que terão no re-desenho do mercado e na própria Política Cultural.

Abstract

New technologies of digital distribution are changing the pop music market. Logistic Economics states that stores only stock the likely hits because shelf space is limited and expensive. But, online retailers can stock virtually everything. The new distribution mechanisms, from digital downloading to peer-to-peer markets, can give place to an immense offer of niche products that outnumber the traditional hits. Without constraints of physical shelf space, the de-materialization of music is creating a long tail of marginal non-hits. The aggregate demand of these non-hits gives birth to important and valorized niches of pop-rock songs and memorabilia. This is what Anderson calls the “Long Tail” of the rock demand curve. The potential aggregate size of the small markets in the pop-rock “marginal” areas may rival, in terms of total sales values, with the big hits.

Many researchers in the Sociology of Culture and in Cultural Economics became intrigued with Anderson’s theory of niches because it confronted the conventional wisdom that the vast majority of sales are earned by a small number of artists. Rosen (1981) described the so-called “superstar effect” in a certain kind of markets where there is a concentration of output among a few individuals driving to very large rewards at the top. In fact, the literature includes several studies in pop music and other cultural products and services that sustain the “superstar” effect. “The winner takes it all” effect persists in the renewed impact of live music in the outcomes of the big stars. Our proposal is to enter this debate, reporting and surveying the empirical evidence of those issues.

Palavras-chave: Cauda Longa, Efeito Superstar; Musica Pop; Teoria Bowie; Chris Anderson

Keywords: Long Tail; Superstar effect; Pop Music; Bowie Theory; Chris Anderson

1. The Long Tail

In the middle of the last decade, the editor of the magazine *Wired*, Chris Anderson (2003), put the question: "What caused a generation of the industry's best consumers of pop-rock music to abandon the record store?" The answer of the great multinational labels was the expected: All screamed that the piracy was the fundamental reason. Napster and other on-line networks of shared music-files had permitted a special paper to the underground economy of stolen music, determining the physical death of CD.

This allegation was right, in a certain measure. At the time, there were perceived about 10 million of users of shared music file and the number would still rise in the subsequent years. But the explanation was not complete. As Chris Anderson noticed, the answer also had to do with the spectacular development of the new technologies of music distribution and their effects. The on-line distribution didn't just allow moving away the teenagers from the registration boxes of record sales stores. At the same time, this new digital form of distribution offered a diversity of unprecedented alternative choices, in terms of the musical products that the young people could hear.

How could this be explained? In the traditional Economics of Distribution and Logistics, a central idea is that, in the stores, there is just a limited set of selling goods (the greatest hits and bestsellers) because the space for exhibition in the shelves is limited and expensive. But, the "on-line" retailers (like the iTunes or Amazon) can constitute stocks of, virtually, everything. The new distribution mechanisms, from *digital downloading* to *markets peer-to-peer*, can guarantee place for an immense supply of products of very special niches that may overcome the traditional hits or bestsellers in several magnitude of order. "On-line", the production and distribution costs are reduced as the result of the simplification of the processes of organization, stock accommodation and product presentation to the consumer. The shortage of the exhibition space is no more a limitation and without the logistic embarrassments of the available physical space in the shelves and exhibitors, some products and services, usually seen as marginal, can be as attractive economically as the "mainstream" ones.

Therefore, today we can find thousands of niches of pop-rock products (songs and memorabilia) and an infinite number of marginal literatures that, traditionally, were neglected in favor of the great successes and bestsellers, those that occupied the shelves and exhibitors of larger visibility. What is interesting is that they sell!!! And, what is more curious, is that the sales of these niches are, sometimes, practically equivalent, in terms of value, to the "greatest hits". That's what Anderson designates as the "Long Tail" of the demand curve of pop-rock music, a concept that we can generalize for other goods and cultural services. The "long tail" means that the potential of aggregate demand from the marginal markets of the pop-rock culture (that, individually, are not profitable in the market of traditional scrap) can, with on-line distribution, compete with the great successes. The distribution and inventory costs of businesses successfully applying this strategy, allow them to realize significant profit out of selling small volumes of hard-to-find items to many customers, instead of only selling large volumes of a reduced number of popular items. The total sales of this large number of "non-hit items" correspond to the *Long Tail*. The feature is also known as *heavy tails* or *power-law tails*.

The tradition of logistic empirical studies pointed out the so-called "rule of 80/20". This result means that about 20% of the products of the companies correspond to about 80% of the sales invoices. So, given a large enough availability of choice and a large population of customers, the selection and buying pattern of the population results in a "Pareto distribution". This suggests that a market with a high freedom of choice will create a certain degree of inequality by favoring the upper 20% of the items ("hits" or "head") against the other 80% ("long tail, non-hits"). This is known as the "Pareto principle" or "80-20 rule". As a rule of thumb, for such population distributions the majority of occurrences are accounted by the first 20% of items in the distribution. In the case of a bookstore, such is to say that Harry Potter last adventure goes, potentially, selling so much, that its weight in the global sales-value is vastly relevant. Consequently, given the limited physical space of exhibition in the bookstore, the book will occupy the part of lion of the exhibitors.

With the advent of *net* and digital distribution, everything changes. A virtual bookstore possesses a shelf (theoretically) infinite. Its limitation is the own amount of offered titles, not the physical space. While a good American bookstore has on average, according to Anderson, about 100 thousand books, Amazon holds about 3,7 million different books. In this case, the selling value of marginal literature, for there of the best-sellers, acts about of $\frac{1}{4}$ of the incomes, proving, at this level, the predictions of the Theory of the Long Tail

2. The Evidence: “Goodbye Pareto Principle, Hello Long Tail”

Anderson uses the expression *long tail* to describe music consumption in certain niches markets that are highly skewed. Pitt (2010) noted that this work of Anderson came out just as the wave of mergers and acquisitions in music publishing and deregulation in TV and radio were sweeping the industry and a lot of potential investors were interested in maximizing the economic value of copyrights assets of music publishers' catalogs. The comeback of older recording artists, in the form of new records (and, especially, concerts); the new edition of old records; the “sampling” of old hits by Hip Hop and Rap artists (and the consequent credits on old “stars”); all came in the same sense. Music executives began looking at Anderson ideas as a new means of valuation of “evergreen” catalogs and obscure forgotten gems.

The studies of Anderson and Shirky (2003) highlighted special cases in which we were able to modify the underlying relationships and evaluate the impact on the frequency of events. In those cases, the infrequent, low-amplitude (or low-revenue) events — the long tail, represented here by the portion of the curve to the right of the 20th percentile — can become the largest area. This suggests that a variation of one mechanism or relationship (in our example, the internet access and the effects on the storage/distribution costs) can significantly shift the frequency of occurrence of certain events in the distribution. In the context of pop rock music, that means that products in low demand (that have a low sales volume) can collectively make up a market share that rivals or exceeds the relatively few current hits, bestsellers and blockbusters, if the store or distribution channel is large enough. So, he can say: "Goodbye Pareto Principle, Hello Long Tail".

Anderson also cited earlier research by Brynjolfsson, Hu and Smith (2003). They used a log-linear curve to describe the relationship between Amazon.com's sales and sales ranking and they found that a large proportion of Amazon's book sales come from obscure books that were not available in brick-and-mortar stores. An Amazon employee described the Long Tail as follows: "We sold more books today that didn't sell at all yesterday than we sold today of all the books that did sell yesterday". Then, they quantified the potential value of the Long Tail to consumers and showed that, while most of the discussion about the value of the Internet to consumers had revolved around lower prices, the fundamental issue should rest on the evaluation of consumer benefits. They stressed that the consumer surplus from access to increased product variety in online book stores was ten times larger than their benefit from access to lower prices online. Thus, the primary value of the internet to consumers came from releasing new sources of value by providing access to products in the Long Tail.

In another paper, Brynjolfsson, Hu and Simester (2007) investigated how demand-side factors contributed to long tail phenomenon and modeled how a reduction in search costs affected the concentration in product sales. They found that internet purchases made by consumers with prior internet experience were more skewed toward obscure products, compared with consumers who had no such experience.

Also, in a more recent study, Brynjolfsson, Hu and Smith (2010) found that the Long Tail had grown longer over time, with niche books accounting for a larger share of total sales. Their analyses suggested that, by 2008, niche books accounted for 36.7% of Amazon's sales and the consumer surplus generated by niche books had increased at least five fold, from 2000 to 2008.

This analysis reveals that the Long Tail has possible implications for Culture Economics and Cultural Policy. Where the opportunity cost of storage and distribution is high, only the most popular products are sold. But where the Long Tail works, the tastes of the minorities become available and individuals are presented with a wider bundle of choices. The Long Tail presents opportunities for various suppliers to introduce products in the niche category and these encourage the diversification of products. These niche products open opportunities for suppliers while concomitantly satisfying the demands of many individuals. In situations

where popularity is currently determined by the lowest common denominator, a Long Tail model may lead to an improvement in a society's level of culture. The opportunities that arise because of the Long Tail, greatly affect society's cultures because suppliers have unlimited capabilities due to infinite storage and demands that were unable to be met prior to the Long Tail become realized. In the end, the conventional profit-making business model may cease to exist; instead, people tend to come up with products for other reasons, like individual expression, rather than monetary benefit. In this way, the Long Tail opens up a large space for creativity and cultural diversity (Coelho, 2013).

3. The Superstar Effect

Of course, there has been some margin for criticism. Elberse, (2008) calls the Long Tail theory into question, citing sales data which shows that the *Web* magnifies the importance of blockbuster hits. Anderson responded praising Elberse for the academic rigor with which she explores the issue, but drawing a distinction between their respective interpretations of where the "head" and "tail" begin: Elberse defines head and tail using percentages, while Anderson uses absolute numbers.

That was not the only one. In fact, many economists in Cultural Economics became intrigued with this Anderson theory of niches because it confronted the conventional wisdom that the vast majority of sales are earned by a small number of artists. Rosen (1981) has described the so-called "superstar effect" in a certain kind of markets where there is a concentration of output among a few individuals, driving to very large rewards at the top. That idea is most conform to the Pareto principle. For the case of music, Rosen defined "the phenomenon of Superstars, wherein relatively small numbers of people earn enormous amounts of money and dominate activities in which they engage". He also pointed that "the market for classical music has never been larger than it is now, yet the number of full soloists on any given instrument is also on the order of only a few hundred. (...) Performers of first rank comprise a limited handful out of these small totals and have large incomes. There are also known to be substantial differences in income between them and those in the second rank, even though most consumers would have difficulty detecting more than minor differences in a "blind" hearing".

This last statement is very interesting. An economist would say that the superstar player has a much higher marginal benefit than an ordinary player. Rosen therefore observes that "small differences in talent at the top of the distribution will translate into large differences in revenue". Generally, the marginal benefit of goods decreases with every additional unit. This explains the Goosens' first law of diminishing marginal utility. But the superstars provide the critical tipping point, in terms of potential performance, that would mark a team out from its competitors. Therefore, the marginal utility for the team becomes very high and for the superstar higher than that of any of his team mates, and the salary reflects this premium. That means we have something like a "winner takes it all" (famous ABBA song title) effect.

The literature includes several studies that sustain the "superstar" effect:

- Connolly and Krueger (2005) found that "superstars" received the lion's share of live concerts revenue.
- Walls (2005) found that the motion picture market has a "winner takes it all" property where a small proportion of successful films earn the majority of box-office revenue. Furthermore, the average return on films is dominated by extreme events, namely those films that integrate the longer upper tail of distribution returns.
- Giles (2007) found that some popular tunes are dramatically more successful than others. Even in the selection of tunes that went to the top, there are substantial differences, so the income in music industry is highly skewed and asymmetrical.
- Pitt, (2010b), in a study about royalty incomes of the so-called "performing rights organizations", stands that there is little evidence of smaller niche dominating or replacing the superstars.

Note that there are important Psychological theories trying also to explain this phenomenon and calling attention to the necessity of a real multi-disciplinary analysis. According to Roger Caillois, "superstars" are

not by accident a conspicuous phenomenon. Superstars are created by the interplay between “mass media, free enterprise, and competition” and are produced by a mixture of effort and chance. In his words, the “superstar has extraordinary natural talent augmented by an even more extraordinary perseverance and drive”. In the case of performative arts, relative small differences are “of decisive importance for winning or losing” and it is here that chance plays a role. Caillouis notes that the role of chance in superstardom is paradoxical, given that the West is such a “predominantly meritocratic society,” which valorizes the role of work, competition, activity and determination. In fact, superstars cannot merely be successful at some activity; they must also be richly rewarded. This material reward of the superstar is a necessary ingredient of the star system. It’s crucial for the identification of the public with the star. The “excellence” of the private life and superstars’ extravagant incomes play an important psychological “compensating mechanism” role for the public. We all want to believe that it’s only a question of luck; of course we all have the merit.

4. Live Music and “Bowie Theory”

Note also that the introduction of these new technologies in music distribution has multiple impacts. Another important feature of this newly ambient in the pop music market refers to the referred more significant importance of live music. Since the start of the 80s the superstar effect has become larger in terms of “superstardom” concerts. In the USA, in 1982, the top 1% received 26% of concert revenue; by 2003, this value raised to 56%. Prices of concert rise more than the inflation. From 1996 to 2003, prices raised almost 9% per year as against an inflation medium rate of 2,3%.

So, nowadays, this idea of Superstar effect is especially reflected in the analysis of concert revenues from the top stars in pop music. Concerts relate two central aspects of cultural consumption: the specific characteristics of cultural products and the presence of new technologies. In this sense, Grant and Wood, (2004) define a cultural product as something that is experienced rather than conventionally consumed. Cultural products are short-lived, with each copyrighted title having a “brief moment in the sun”. Within weeks, the demand can fall sharply and the consumer can move to another product. But evergreen catalogs can also become popular again and generate a new interest. And now, that most music we listen is pre-recorded, the world best performers are literally everywhere and seeing them in concert is a unique and most desirable experience.

Alan Krueger’s (2005) studies in the field of popular music, based on data from *Pollstar* database, describe the developments in the concert industry from 1981 to 2003, in the USA. The results indicate that the top 5% of revenue generators took in 62% of concert revenue, in 1982, and 84%, in 2003, as demand for superstars performers increased. In his research, Krueger also found that concerts became a much bigger source of income for major-league stars than CD sales. Analysis of the top-35 earners of income, in 2002, indicated that only 4 made more money from recordings than live concerts. The other 31, as a whole, had an income that touring exceed records sales in a ratio of 7,5 to one.

The explanation of this situation has his roots on the so-called “Bowie Theory”. Professor Krueger argues that before the advent of illegal downloads, artists had an incentive to under-price their concerts, because bigger audiences translated into higher record sales. But now, the link between the two products has been severed, meaning that performers and their managers need to make more money from concerts and feel less constrained in setting high ticket prices. This tendency was spotted by David Bowie. In one edition of June, 2002, of the *New York Times*, Bowie said that “music itself is going to become like running water or electricity” and advised his fellows performers: “You’d better be prepared for doing a lot of touring because that’s really the only unique situation that’s going to be left”.

In this context it’s also interesting to note that the biggest concert draws tend to be performers such as Bowie, Rolling Stones, U2, Paul Mc Cartney, Madonna, etc. Many of those artists latest albums are often greeted with some indifference, but the gigs are really impressive in terms of dates, number of sold tickets, spectacular-dimension of the shows (stage paraphernalia, lights, music dancers), and, of course, revenues.

Final Remark

Concluding: it seems doubtful that we are facing the real “fall of the hit parade”. In fact, at least in the area of live shows, the superstar effect still stands. But, at the same time, the growth of niches in the actual pop music industry has some evidence. In this sense, Anderson is right. A characteristic of this new market is the extraordinary development of different genres in pop-rock music and the immense capacity of the composers and performers to make mixtures and “to destroy the old to get something new”. In fact, this capacity of “recycling” is one of the most interesting aspects of this new phase in the development of the market, at least in terms of creativity.

This phenomenon of dematerialization of the music, and of other cultural goods, puts a series of new problems that the Policy of Culture must attend. All can constitute interesting routes for further research. One important issue is the subject of the property rights of the creative (composers and performers). The possibility of file-sharing in a "free-riding" logic (namely, in the situation of illegal downloads) introduces a series of important concerns. Especially: To what extent the logic of the "free riders" is not incompatible with the necessary economic incentives that are due to the activity of creation and their practitioners? If bands rarely receive much income from record sales will they seek other means to distribute their music? Knowing that internet lowers the cost of band promotion, how will the internet development change the pop rock music market? Will the start-up bands have more capacity of bargain with the record companies, now that they can make directly their promotion in the net? What are the effects of this dematerialization process in terms of property concentration in the market? We have seen a lot of mergers between the great labels in the market. Will this process continue? What are the impacts in terms of diversity of choices for the consumers? And what are the effects on new publics' conquest? Is the technological change going to re-shape the market? How?

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