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Analysis of the evolution and current situation of the legal offers of digital content in Spain

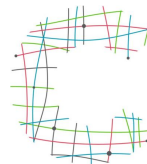
A Report on the Digital Content Industry in 2013

PROFESSOR DR. FRANCESCO D. SANDULLI

INFORMATION SOCIETY CHAIR

UNIVERSITY COMPLUTENSE OF MADRID





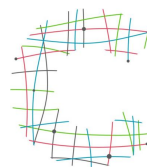
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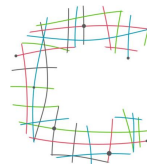
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Madrid, May 2014



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EXECUTIVE SUMMARY

In the last five years, the digital content industry in Spain has grown by 50%, whereas the physical content industry has decreased by 20%. Nevertheless, the physical industry still accounts for the biggest part of the total market sales.

In terms of total revenue, the book industry is the one that obtains the highest results in the digital arena, with a total of 74 million euros in digital sales in 2012. However, this amount represents only a 4% of its total market share. In contrast, the music industry has been more successful in transitioning to the digital world, where sales in 2013 accounted for 40% of the revenues of the whole music industry. As for video and videogames, they gained 14¹ and 26 million euros respectively in 2012, with these figures representing a 5% and a 6% of their total revenue.²

Digital music

In the digital music industry, business models are quickly evolving. The market has gone from song downloads and mobile products (such as ringtones) in its initial stages to the current consolidation of the subscription business model. Music subscription revenues in Spain doubled in the last year, representing 42% of the total revenue in the digital music market. Music downloads account for 27% of the market, and ad-supported streaming models, for another 23%.

Similarly to other digital music markets in Europe, the Spanish market is highly concentrated. Spotify, Deezer or Xbox Music lead the market for streaming and Amazon, iTunes and Google Play concentrate most of the revenues for music downloads. Local businesses have therefore become increasingly innovative in order to compete.

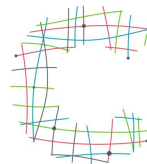
Digital video

Spain is the sixth largest digital video market in Europe by revenues and providers, even though digital video sales represent only a small 5% share in the Spanish video market. Pay per View (PPV) models –such as the iTunes Movie Store– seem to attract better interest amongst Spanish consumers, especially in the case of movie rentals. They account for almost 50% of the revenues in the digital video market, whereas subscription models generate a limited 17% of all digital sales.

While the level of illegal digital video consumption is still high, data suggests that the demand for digital video content will increase in the future, as the willingness to pay for Premium content is higher in Spain than in other countries. In addition, the positive evolution of digital video legal platforms shows the viability of these businesses in Spain. From just one platform in 2005 (Imagenio), Spaniards enjoy now the offers of a total of 17 platforms.

¹ This figure (14 million euros) only includes digital video sales and rentals, as well as streaming services, but not the subscription to cable or satellite providers.

² Data obtained from Promusicae, International Video Federation, Adese and FGEE.



Digital videogames

As for the digital videogames market, Spain has one of the lowest rates of internet users playing videogames in Europe. However, apps and online videogames are more popular in Spain than in many other European countries. Therefore, videogames in Spain are becoming increasingly mobile centered.

Although the general demand in Spain for videogames is close to the demand in the rest of Europe, the proportion of paid videogame players is the lowest in Europe. Only 4% of Internet users in Spain paid for games' apps, while 5% of these users paid for online games.

A positive story in this subsector is developing in the production side, where a number of local businesses are thriving thanks, in part, to the global concentrated distribution.

Digital publishing

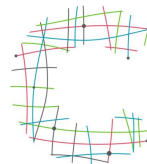
The majority of books are still edited in paper in Spain (55%), and less than half of the offer is edited in digital format (45%). As for the platform in which digital books are being consumed, there is still a strong orientation towards computers, with 49% of books being read in that format. Most of the books read in computers are educational publications, and only around 20% are novels. Book sales for e-readers are gaining strength (38%), whereas book sales for mobiles and tablets represent a 7% of the total digital sales.

Despite the online digital book demand is not well developed in Spain, the number of legal e-book providers has increased in recent years, as well as the variety of business models. There is a strong presence of Spanish players, especially online publishing companies. A few retailers tried to enter this market, among them Casa del Libro, Fnac and El Corte Ingles, which deployed a strategy supported by their own e-reader devices.

1. INTRODUCTION: THE DIGITAL CONTENT INDUSTRY IN SPAIN

The provision of digital content to final consumers is composed of four main activities – creation, distribution, aggregation and consumption. With the reduction of entry barriers into the digital content industry, related industries are fighting for its space in the most critical of the four activities – content aggregation. In particular the device manufacturers are being successful in penetrating that market by transforming the demand of their customers for digital devices into demand for digital content.

In the light of the prospects within the digital content industry, also other industry is attempting to penetrate this market. In the last six years, the digital content industry in Spain grew by 150% while the physical content industry decreased by 20%. Thereof, the music industry experienced the largest shift with 40% of the revenues coming out of digital sales.



1.1. Economic Definition and Scope of the Digital Content Industry

The Digital Content Industry (hereinafter DCI) is characterized by rapid development and change. In order to understand how the DCI could evolve in the near future, we need to look first at the factors shaping this new industry. Transformations both on the demand and on the supply side have pushed the Telecommunications, Internet, Media and Entertainment (TIME) industries into a period of great flux. Incumbents and start-ups leverage on high rates of information technology adoption, on an increasingly mobile society, on lower barriers to entry and on reduced operating costs in order to cross the TIME industries' boundaries in the search for great value propositions and sustainable competitive advantages.

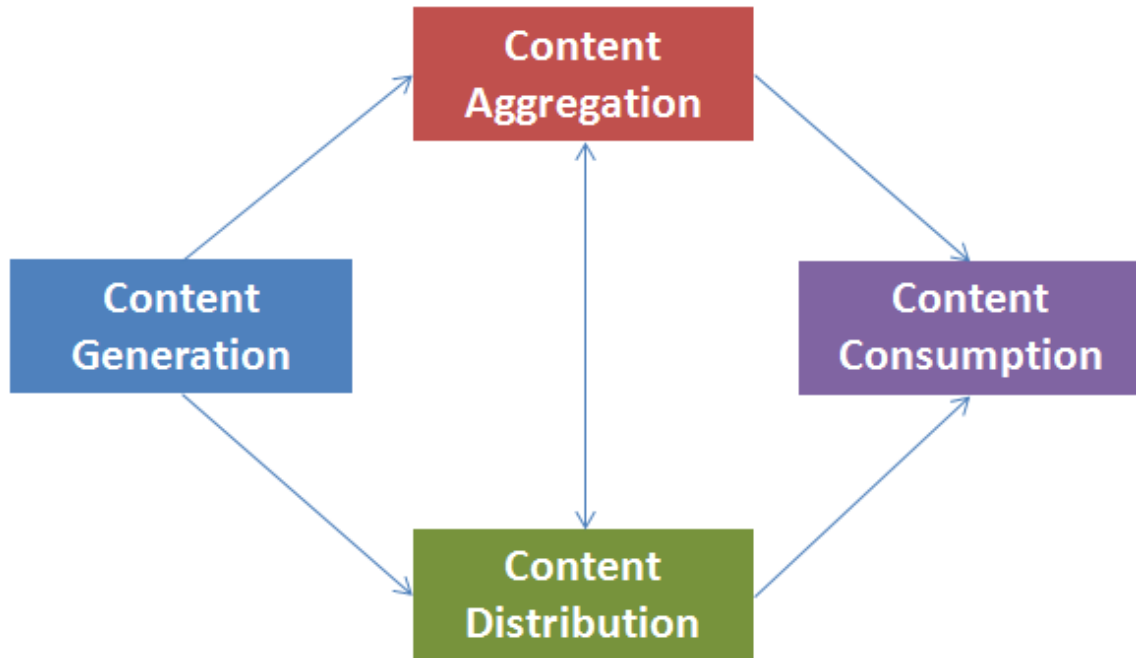
The provision of digital content to final consumers is composed of four main activities:

- creation
- distribution
- aggregation
- consumption

While creation and consumption are clearly set at the two ends of the digital content value chain, either distribution or aggregation can precede content consumption (Figure 1). Traditionally, the boundaries between the activities are not always clearly cut. Over time there have been numerous initiatives of vertical integration and disintegration. However, the digitization of content has both produced a significant reduction of the entry barriers for firms in adjacent industries - such as telecommunication operators, media firms or Internet platforms – as well as changed the value and nature of the resources on which competitive strategy is supported.

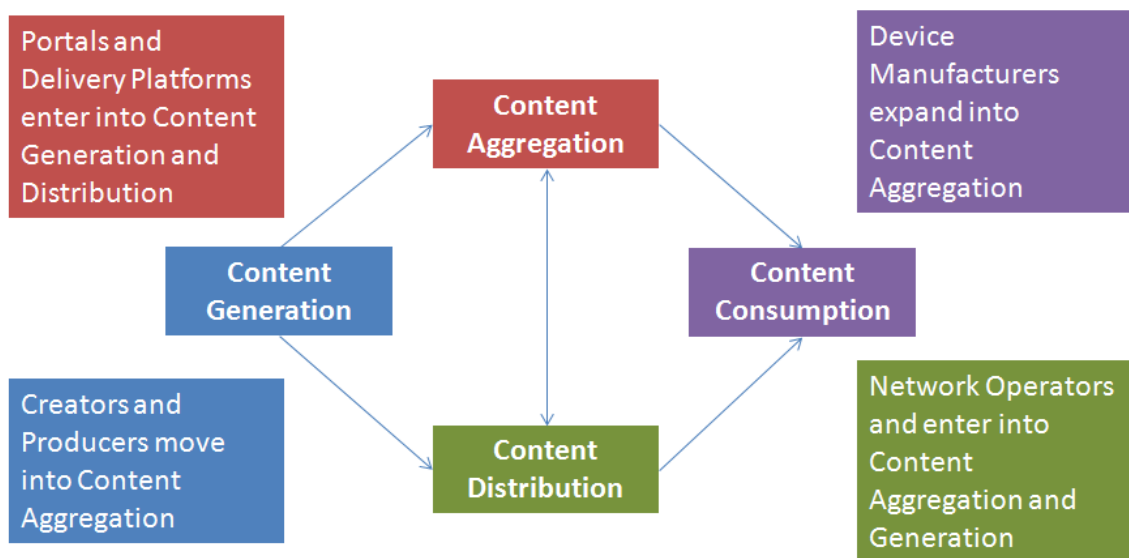
After the digital technology revolution, lower production and distribution costs turned obsolete the traditional business models based on economies of scale in content production and horizontal differentiation in the distribution and consumption activities. The industry had to learn new paradigms based on distributed creation and especially on efficient distribution and network effects. For this reason, a large number of strategies are trying to conquest the most critical activity in the new value chain: content aggregation (Figure 2). As an example, everyone's aspiration is to take the place of iTunes, Steam, Netflix, Deezer, Spotify or Amazon, which were the companies revolutionizing content aggregation.

FIGURE 1: DIGITAL CONTENT BASIC VALUE CHAIN

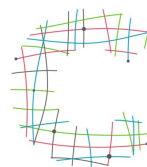


SOURCE: OWN ELABORATION

FIGURE 2: THE QUEST FOR DIGITAL CONTENT AGGREGATION



SOURCE: OWN ELABORATION



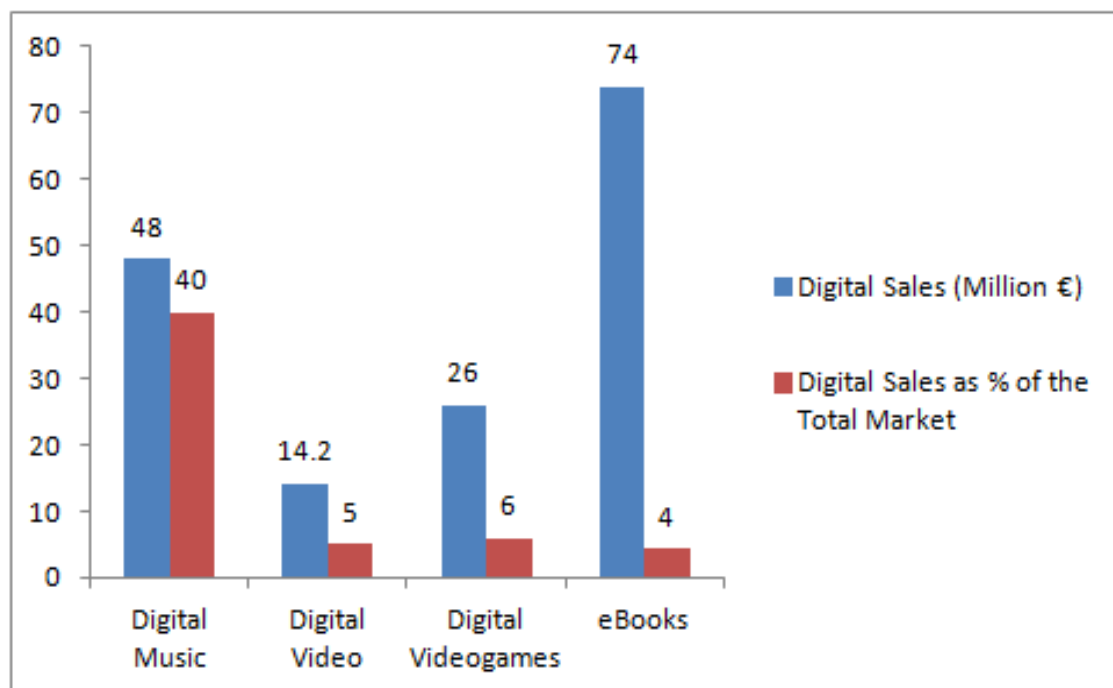
In the quest for digital content aggregation, firms at the end of the digital content value chain had a more favorable starting point. Firms such as devices' manufacturers already had an end customers' base of digital content, which made it easier for them to achieve larger network effects. It is not by chance that devices manufacturers like Apple with its triad (iPod-iPhone-iPad), Amazon with Kindle, or Microsoft with Xbox have taken the lead in content aggregation. Their challenge was to transform the demand for digital devices into demand for digital content. Non-device manufacturer players with large user bases - such as telecom operators like Telefonica or internet platforms like Google, Tuenti or Facebook - have tried to transform its user base into digital content consumers, but with less success than the device manufacturers. In fact, some of these players such as Tuenti or Google are experiencing difficulties in the digital content industry. Finally, traditional industry players have also tried to play their role in content aggregation by transforming offline clients into online clients. The result of this process is not always satisfying, due to the large differences in consumption experiences and quality perceptions between the online and offline worlds, to the rigidity of business models and due to cost structures designed for the offline business.

In this emerging sector of digital content lie many opportunities for entrepreneurs as confirmed by the stories of firms such as Deezer, Netflix, Kongregate, Tusjuegos or Wuaki. Part of this study is dedicated to making some of these existing entrepreneurs more visible in Spain and to provide some useful information for those individuals who are interested in launching a business initiative in the digital content industry.

For that purpose, it is necessary to define the scope of digital content in this report. Due to the increasing blurring of the boundaries between the sectors involved in the TIME industry, different studies have adopted different definitions of what is the digital content industry. In order to keep focused, this report follows a narrow approach defining the digital content industry as a set of activities related to the supply of digital content to end consumers. While there are different types of digital content, this report focuses on those with higher potential impact on the entertainment industry: music, video, videogames and books.

In 2012, the digital music, video, videogames and book industries in Spain generated revenues of € 161 million. It is a modest figure when taking into account that all the industries of music, video, videogames and books generated more than € 3 billion. However, the future of digital industries is more promising than the future of the traditional offline counterparts. In the last five years, the digital content industry in Spain has grown by 50%, while the physical content has been reduced by 20%. In terms of total revenue, the e-book market is the largest digital content market in Spain. However, the music industry suffered a deeper digital transformation given the fact that digital sales account for more than 40% of the revenues of the whole music industry.

FIGURE 3: DIGITAL SALES IN SPAIN BY INDUSTRY (€ MILLION) AND DIGITAL SALES AS % OF THE TOTAL MARKET, 2011 *



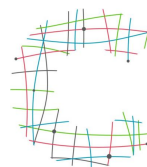
*Data from Digital Music has been updated to 2013 data.

SOURCE: OWN ELABORATION FROM PROMUSICAE, INTERNATIONAL VIDEO FEDERATION, ADESE, FGEE (2013)

2. DIGITAL AUDIOVISUAL CONTENT

Spain has experienced a stronger transformation from the physical to digital content industry than global developments, as in particular for music there has been a harsh drop of physical purchase. There is also a higher consumption rate of free digital content than in other markets. The movie market lags behind the music market due to the later start the legal supply by four years.

The music market in Spain is critically attempting to compensate from its losses in physical sales by the gain of digital markets. The total market has lost by 40%, only gaining 1 euro in digital revenue by 5 euros lost in physical revenue, however, the trend is improving. Willingness to pay for digital music is still below 50% of the internet users, while the willingness to pay for downloads is higher than for streaming. The core population segment willing to pay for digital music is below 30 years of age, while the segment of people aged between 30 and 44, representing 53% of total income, have the lowest willingness to pay for digital music.



While the markets are growing, authors are not yet profiting much from the revenues with an amount of 400,000 euros only paid to intellectual property right holders in 2012.

Videogame players among internet users have a much lower proportion in Spain than within other European countries, in particular the players paying for the games. Within this segment, videogames on mobile devices and online are ahead in the trend.

2.1. Digital audiovisual content

2.1.1 Evolution and socio-demographic analysis of the demand

As commented above, the music and video industries suffered a deep digital transformation. While the digital transformation of these industries is a global phenomenon, the Spanish market has some individual peculiarities such as a relatively harsher drop in physical sales, especially for music, and a higher consumption rate of free digital content.

Official data from the Instituto Nacional de Estadística (National Institute of Statistics) shows that almost 11 million internet users, 50% of the Spanish internet population, have played or downloaded digital audiovisual content in 2012.

This large percentage of users is driving up the sales of digital content. In 2011, nearly 1.000.000 Spanish consumers paid for downloading digital music or video (Figure 4). This population represents more than 12% of the online buyers in Spain. The trend is positive, since the number of buyers of digital music and videos increased by 120% in only four years.

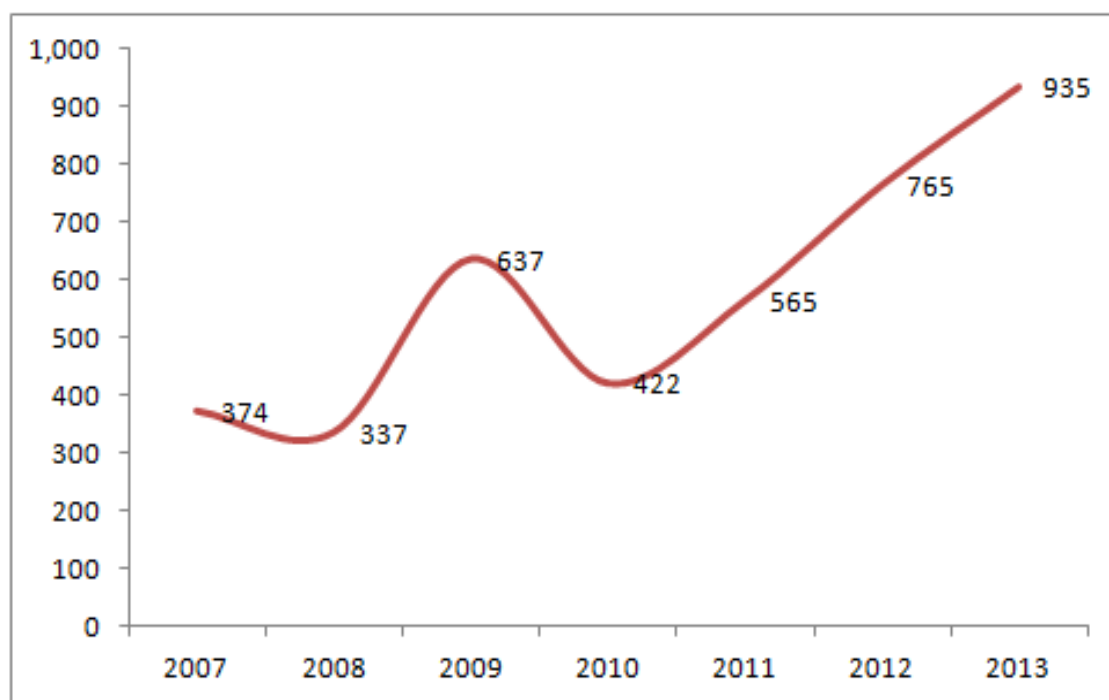
In 2012, one third of the internet users in Spain downloaded and/or played digital content using a smart mobile device such as a smartphone or a tablet PCs. Nearly 420.000 people paid for digital content consumed with mobile devices. Hence, the conversion rate for mobile users is 10%. Thus, the mobile market seems to be promising for future entrepreneurs.

Within the group of buyers of digital content, most bought digital music and a much smaller fraction bought digital videos. According to the Spanish Ministry of Culture, 0.5% of the internet users paid for downloading online videos in 2011, while 2% paid for downloading music. One of the main reasons for these differences between the music and movie markets is the earlier start of the legal supply of online music in Spain. In fact - like in the rest of the world - limited bandwidth in Spain made pioneering stores of internet audiovisual content to focus on selling music rather than video. In Spain, the first digital stores, such as iTunes or the Spanish ventures Puretunes or Weblisten3, started in 2003, while the first stores selling digital movies did not take up

³ These early business models had to struggle with high regulatory uncertainties. For instance, Puretunes only survived two months because the firm set up a flat rate based supply of music, but had to pay to the RIAA a compensation of US\$ 10 million for property rights infringement.

their activities until 2007, with the creation of the start-up videoclub.com and Filmtech, a project developed by the Producers' Collective Rights Management Organization "EGEDA".

FIGURE 4: INTERNET BUYERS OF MUSIC AND VIDEOS (IN THOUSAND)

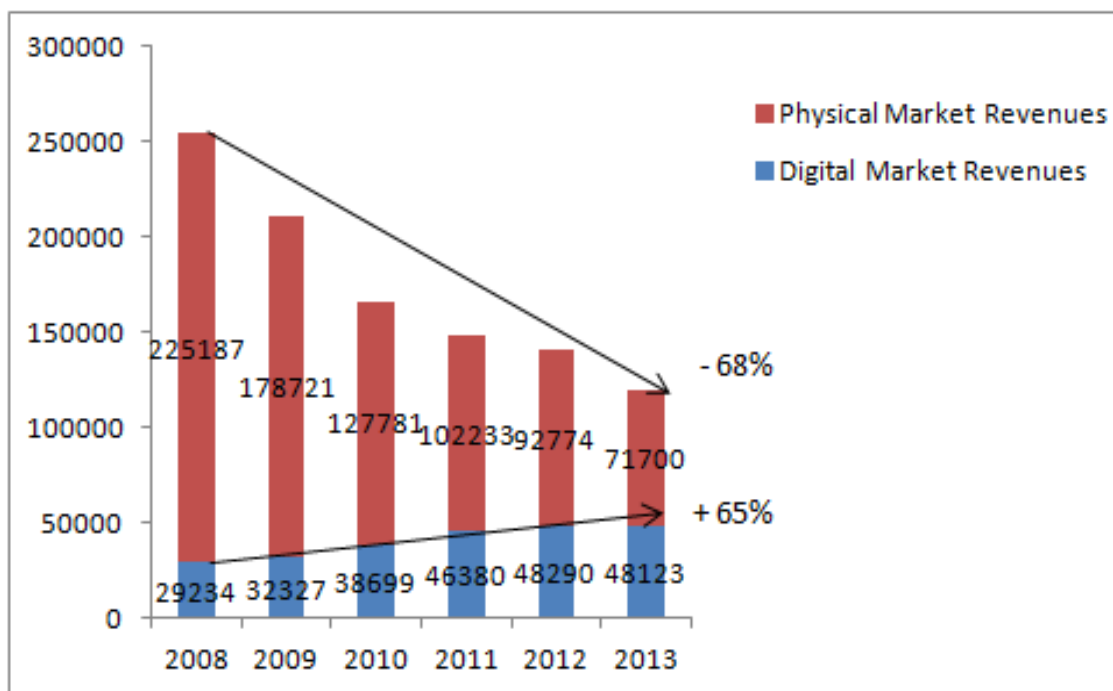


SOURCE: OWN ELABORATION FROM INE (2013)

The total music market in Spain has critically shrunk by 52% between 2008 and 2013 (Figure 5). Industry blamed piracy and economic recession to have triggered this setback in demand. Revenues from sales of music in physical format plunged by almost 60% during these six years. However, sales of digital music kept increasing despite the recession and the piracy. Sales in digital format climbed by 65% to nearly € 50 million in 2012.

The industry is trying to compensate the lower revenue from sales in physical format with new revenues sources linked to the digital format, although this substitution is taking longer than expected. Between 2008 and 2011 in Spain, for every euro music firms gained yearly in digital revenue, they lost € 8 on the physical market. However, this ratio has been steadily diminishing since 2008, when € 11 were lost on the physical market per euro obtained from digital sales.

FIGURE 5: MUSIC AND SALES IN SPAIN (IN € 000), PHYSICAL VS DIGITAL MARKETS 2008-2012



SOURCE: OWN ELABORATION FROM PROMUSICAE (2014)

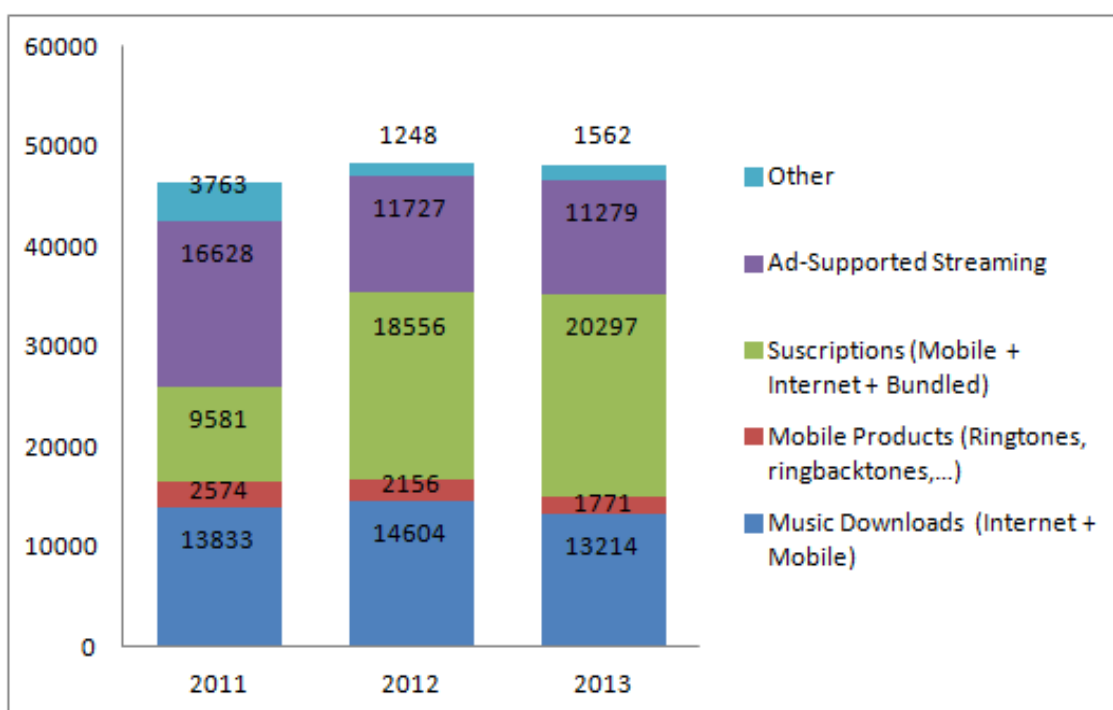
A second interesting leverage for the future music industry is the increasing purchasing intensity of Spanish Internet users. The percentage of population listening to recorded music has remained stable over the last years. Between online and offline buyers of music, online music buyers tend to be larger consumers of music. Their consumption ratio doubles the one of offline consumers. While the number of internet users paying for music is still modest, the online sales have doubled from 2007 to 2011. According to the Spanish Ministry of Culture, while in 2007 the average internet consumer bought 40 singles per quarter, in 2011 this figure rose to 88 singles per quarter. However, the same data also shows a substitution effect between single and LPs formats. In fact, Spanish online consumers reduced their consumption of LPs from 11 downloads per quarter in 2007 to 8 downloads per quarter in 2011. Now the challenge is to find business models to monetize this strong latent demand.

In the new digital music industry, business models are quickly evolving. In the early developments of the digital music market in Spain, song downloads, basically from iTunes, and mobile products such as ringtones were the most successful products. The revenues from these traditional business models have been relatively stable in the last two years. Recently, streaming services such as Spotify or Deezer have experienced higher growth rates, obtaining more than € 30 million in 2012. Part of this growth is explained by changes in the business model of streaming services. Music in streaming services such as Spotify has reoriented their revenue models from ad-supported

models towards Premium services. Consequently, music subscription revenues in Spain doubled in the last year (Figure 6).

Similarly to other digital music markets in Europe, the Spanish market is highly concentrated. Spotify, Deezer or Xbox Music lead the market for streaming and Amazon, iTunes and Google Play concentrate most of the revenues for music downloads. This growing market share of the large streaming players has led to a decline of other players. To give some examples, online radios such as Last.fm or Rockola.fm or local streaming services such as Biit were forced to cease their Spanish operations in 2012.

FIGURE 6: BREAKDOWN OF DIGITAL MUSIC SALES IN SPAIN BY REVENUE MODEL (IN € 000), 2011-2013

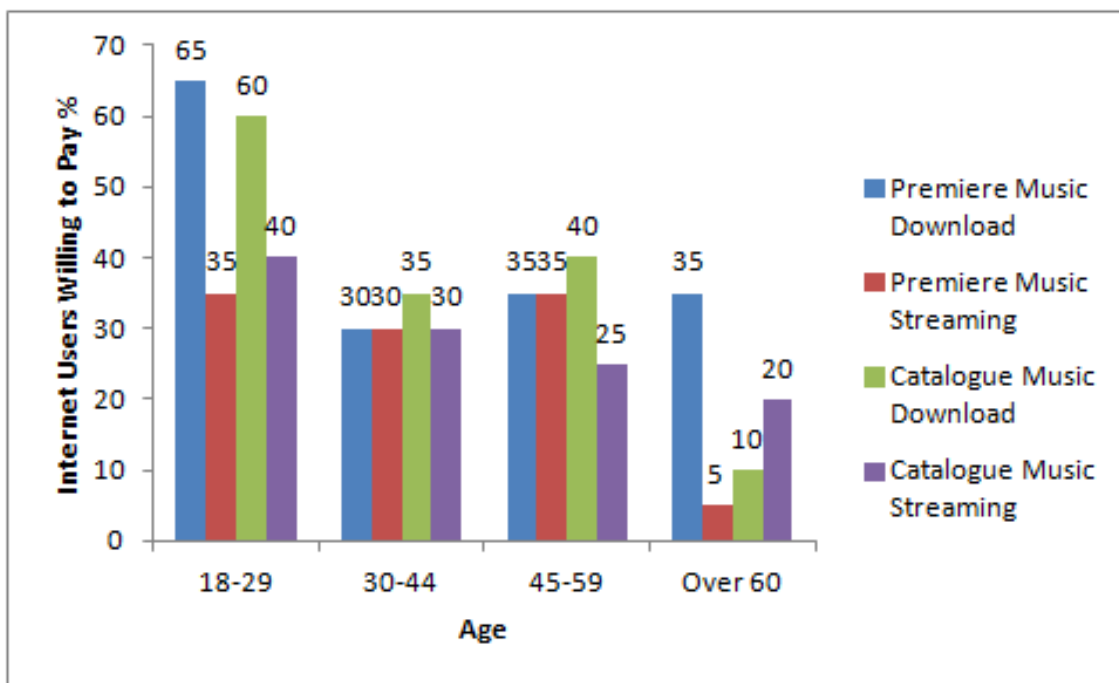


SOURCE: OWN ELABORATION FROM PROMUSICAE (2014)

The understanding of the willingness to pay for digital content may provide some clues on the future developments of the market. The population willing to pay for digital music is still below 50% of the internet users. Not surprisingly, willingness to pay for digital music is extremely heterogeneous, depending on the formats and user demographics (Figure 7).

In general terms, Spanish Internet users are more willing to pay for music downloads than for streaming, which may be explained by the stronger perception of permanent possession associated with downloads.

FIGURE 7: PROPORTION OF INTERNET USERS WILLING TO PAY FOR DIGITAL MUSIC IN SPAIN, BY AGE, DISTRIBUTION FORMAT AND NOVELTY, 2011

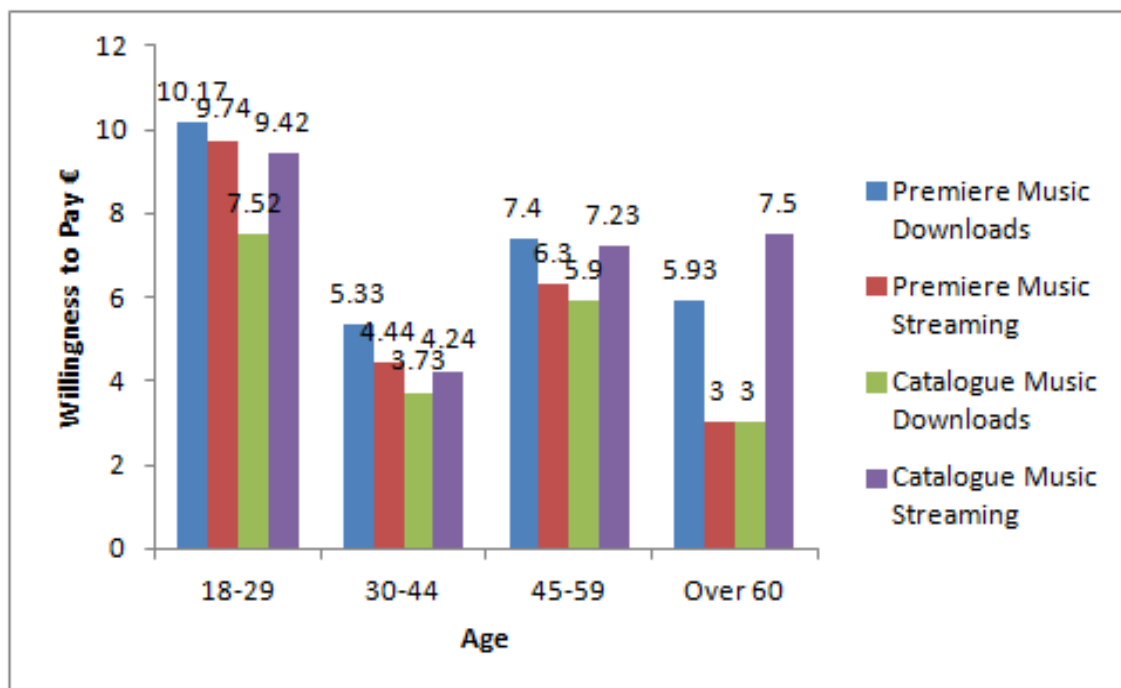


SOURCE: OWN ELABORATION FROM ICLAVES (2012)

The segment of internet users willing to pay for digital music consists mostly of people below the age of 30 years (Figure 8). Unfortunately, this segment represents only 20% of the total income of internet users in Spain. Consequently - if consumption demographics do not change - the future growth potential of the digital music market remains limited.

The demographic analysis also reveals that the segment of people between 30 and 44 years of age, a segment of population that represents 53% of the total income of internet users in Spain, has the lowest proportion of internet users buying digital music. Therefore, the industry and new start-ups should take into account the nature of this critical market segment when defining their future business plans. The value perceived by Spanish internet users also depends on the combination of music novelty and business model configuration. While Spanish consumers pay more for downloading the newest songs, they will generally rather pay for older music in streaming than in downloads.

FIGURE 8: WILLINGNESS TO PAY FOR DIGITAL MUSIC IN SPAIN (€), BY AGE, DISTRIBUTION FORMAT AND NOVELTY, 2011



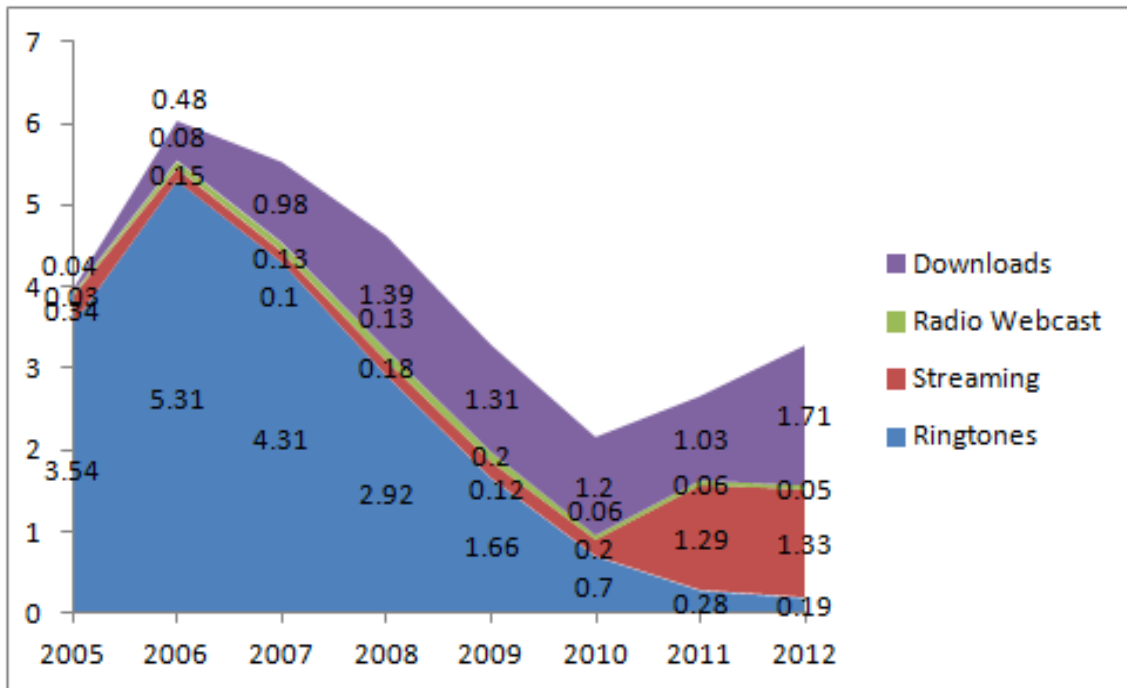
SOURCE: OWN ELABORATION FROM ICLAVES (2012)

Spanish Collective Rights Management Organizations (CRMO) needed some time to adapt to the new digital landscape. In the early days of the digital transformation of the music industry, CRMOs collected a significant amount of revenues produced by property rights associated to mobile phone ringtones. In 2006, the revenues from ringtones digital rights were more than € 5 million. However, business models and consumption habits in this industry evolved and in 2011 the contribution of ringtones to the revenues of intellectual property right holders has almost disappeared, accounting for merely € 191.000. The diminishing contribution of ringtones explains the strong reduction in mechanical reproduction right revenues in the Spanish digital market (Figure 9).

The last two years have seen the rapid growth of the compensation for intellectual property rights paid by streaming service providers. The reason for this growth could be based on two agreements between the Spanish CMO Sociedad General de Autores y Editores (SGAE) and Spotify and Youtube. Revenues from downloads are following a diminishing trend, with the exception of year 2012, when iTunes paid for the digital rights compensation pending from previous years.

Regarding the impact of digital markets on new talent, it is interesting to notice that - according to the IFPI data - Spain is one of the few countries in the world where local music content has a larger share, namely 80%, of the digital market.

FIGURE 9: BREAKDOWN OF MECHANICAL REPRODUCTION RIGHTS REVENUES FROM DIGITAL MUSIC MARKETS (IN € MILLION), 2006-2012



SOURCE: OWN ELABORATION FROM SGAE (2013)

While the digital music market is following a promising growing path, the digital video market in Spain is still incipient. According to Comscore, the number of online video consumers in Spain has remained stable at around 20 million over the last years. However, online video consumption from mobile devices has tripled in the last year from three to nine million of unique watchers.

Similarly to the rest of Europe, Youtube is the most popular Internet video site in Spain (Table 1). A significant number of sites breaching intellectual property rights such as Series Yonkis, Peliculas Yonkis, Series Pepito, DivXOnline, or Now Video are also present in the list of most popular sites for watching or downloading videos.

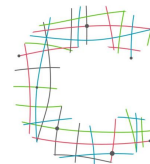


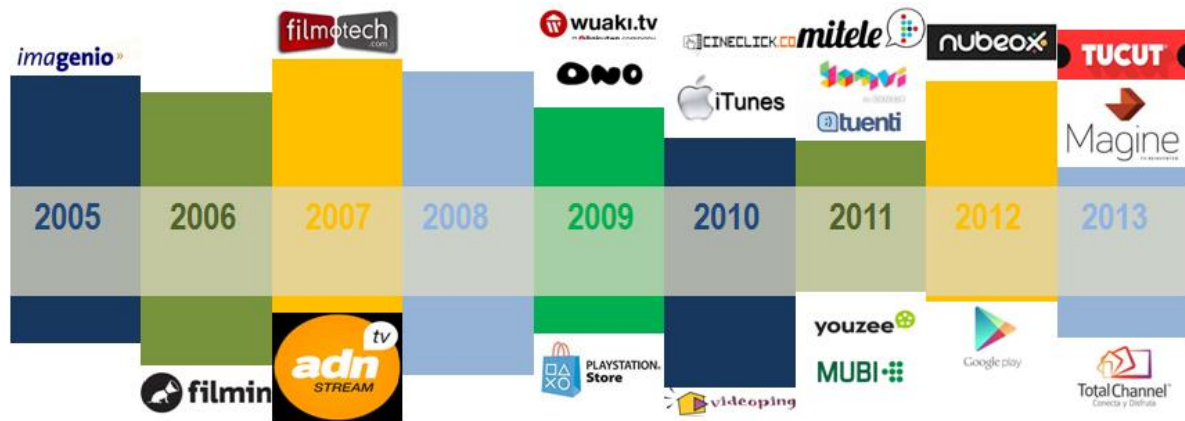
TABLE 1: TOP 10 INTERNET SITES BY UNIQUE VISITORS, MARCH 2013

1	YouTube
2	Series Yonkis
3	Vimeo
4	Peliculas Yonkis
5	Rojadirecta
6	Dailymotion
7	Now Video
8	Impactante TV
9	Series Pepito
10	DivXOnline

SOURCE: NIELSEN (2012)

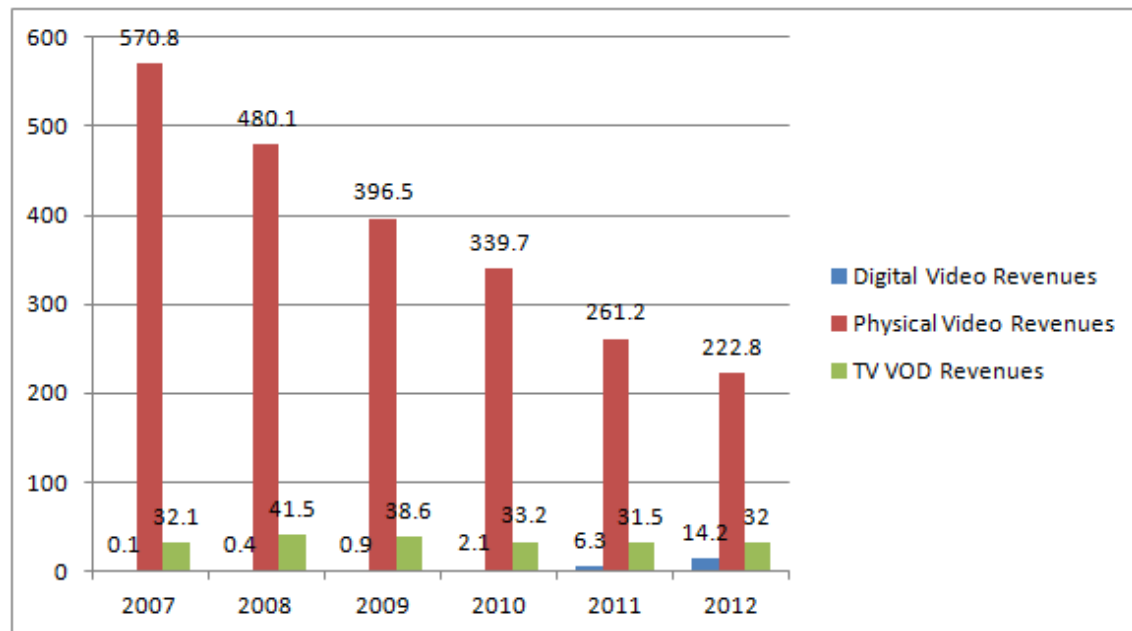
In terms of revenue, digital video still has a small 5% share in the Spanish video market. However, revenues from digital video sales have experienced an unprecedented growth of 700% in the last three years (Figure 11). This growth is attracting several new players into the market (Figure 10). Spain is the sixth largest digital video market in Europe by revenues and providers (Figure 12). While Pay per View (PPV) models such as the iTunes Movie Store seem to attract some interest of Spanish consumers, especially in the case of movie rentals, subscription models generate a limited 17% portion of total digital sales (Figure 13). Average consumption of digital movies has remained relatively stable in the last four years at high levels. Digital video consumers in Spain paid for downloading 8 movies/ year in 2011, while in 2007 they paid for downloading 9 movies/ year. This stability at high levels of consumption suggests that the demand for digital video mainly consists of early adopters.

FIGURE 10: EVOLUTION OF THE LEGAL OFFER OF ONLINE VIDEO IN SPAIN 2005-2013



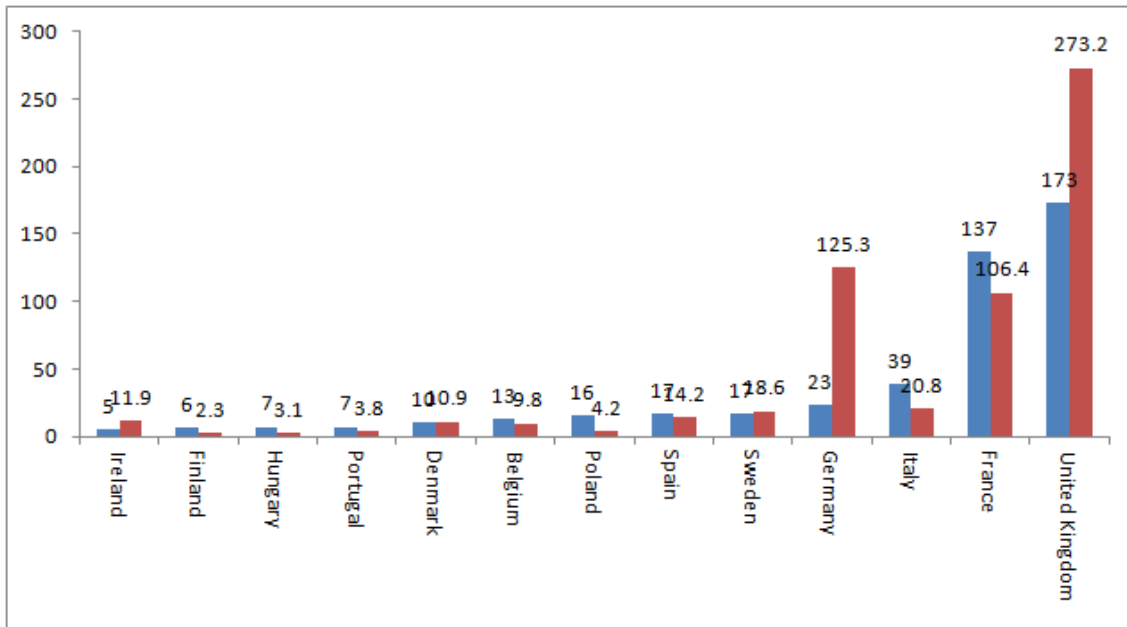
SOURCE: OWN ELABORATION

FIGURE 11: REVENUES IN THE VIDEO MARKET IN SPAIN (IN € MILLION), 2007-2012



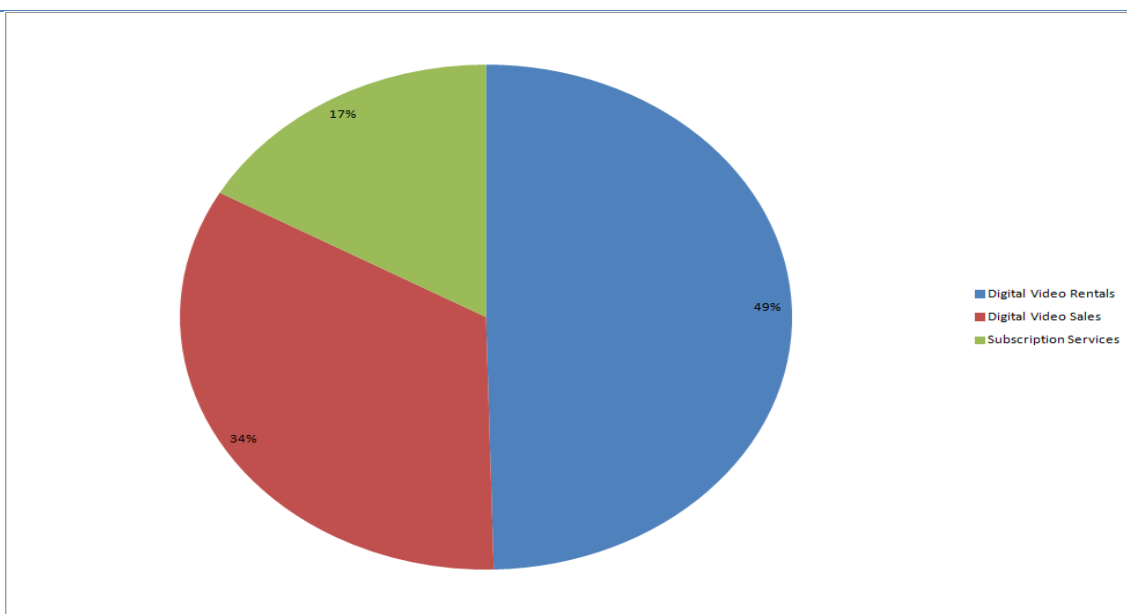
SOURCE: OWN ELABORATION FROM INTERNATIONAL VIDEO FEDERATION (2013)

FIGURE 12: REVENUES IN THE DIGITAL VIDEO MARKET IN EUROPE AND NUMBER OF VOD PROVIDERS, 2012

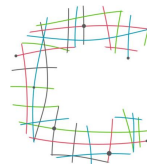


SOURCE: OWN ELABORATION FROM INTERNATIONAL VIDEO FEDERATION (2013) AND ENDERS ANALYSIS (2013)

FIGURE 13: REVENUES IN THE DIGITAL VIDEO MARKET IN SPAIN BY BUSINESS MODEL, 2012



SOURCE: OWN ELABORATION FROM SCREEN DIGEST (2013)



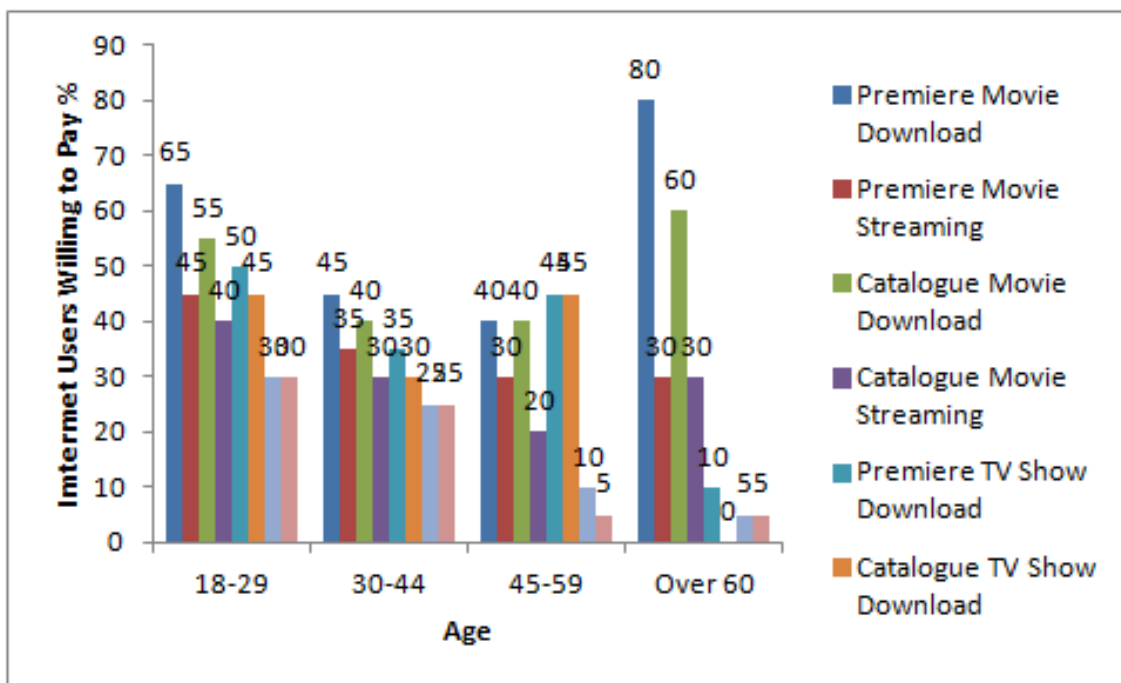
Low revenue levels of subscription models have raised several doubts on the maturity of the Spanish digital video market and provoked the exit of some significant players such as Vodafone, Jazztel⁴, Tuenti or Youzee. On the other hand, ad-supported digital video business models such as those of Youtube or Vimeo seem to be more successful. In 2012, ads in video streaming accounted for € 68 million, representing 7.9% of the total Investment in Internet and a yearly growth of 75%.

Authors are not receiving much from these revenues yet. Despite growing 400% in the last year, according to the SGAE digital video content reported only € 400.000 to intellectual property rights holders in 2012. Spanish CRMOs seem to adapt slowly to the new rules of digital video markets. For instance, EGEDA, the CRMO for movie producers, agreed with Youtube the use of Google's Content ID Management system for Spanish movies only in July 2013.

Similarly to the music market, the proportion of Spanish Internet users willing to pay is much higher for movie download than for movie streaming (Figure 14). The number of Internet users willing to pay as well as the price they would pay for video content is higher for premier movies than for catalogue movies (Figure 15). This finding is a call for rethinking the current structure of distribution windows in the industry. Willingness to pay for TV Shows is really low in Spain and almost inexistent for Internet users older than 45 years of age.

⁴ Jazztel and Vodafone discontinued their own VOD service Jazztelia and outsourced it through Cinesa VOD service Yomvi.

FIGURE 14: PROPORTION OF INTERNET USERS WILLING TO PAY FOR DIGITAL VIDEO IN SPAIN, BY AGE, DISTRIBUTION FORMAT AND NOVELTY, 2011



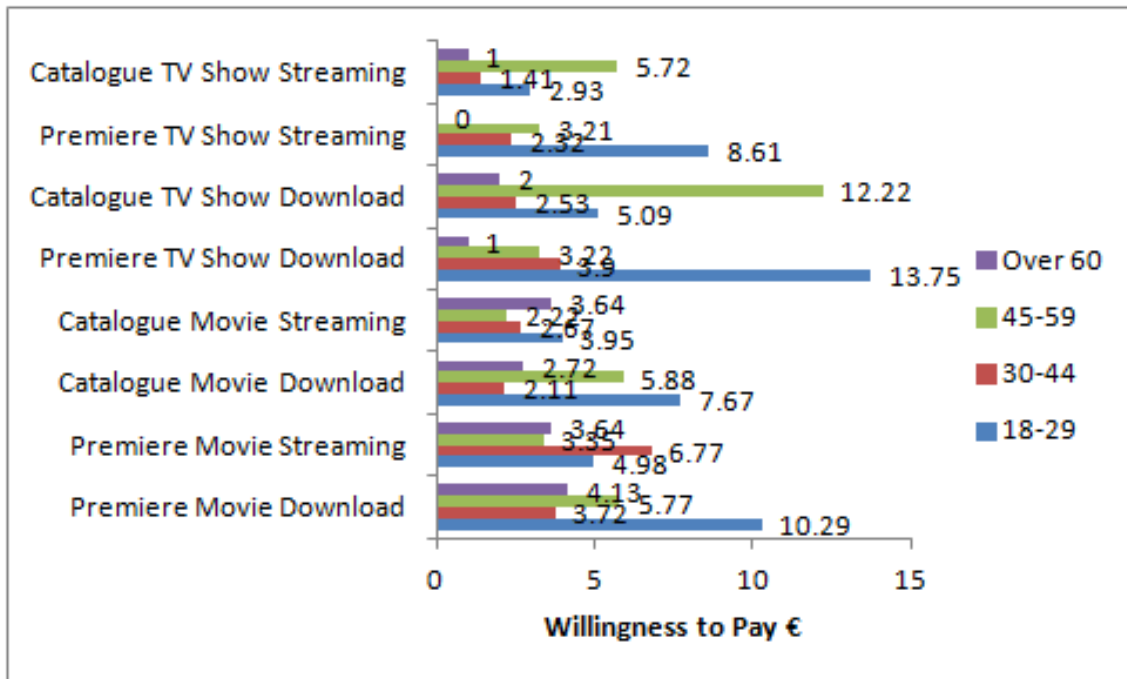
SOURCE: OWN ELABORATION FROM ICLAVES (2012)

While the proportion of older Internet users willing to pay for downloading movies is really high, reflecting high transaction costs related to Movie Theaters attendance or Video Rentals, the price they are willing to pay is low, suggesting that the substitution rate between digital video consumption and other video content such as free TV may be really high in Spain.

Probably, one of the problems of the subscription business model in Spain is that the current price for the digital movie subscription services in Spain is higher than the price consumers are willing to pay for them. For instance, the prices of monthly subscription services for Wuaki Premium Service and for Filmtech doubles and triples, respectively, the willingness to pay for streaming catalogue ⁵movies.

⁵ Catalogue movies are defined as those movies being shown more than 4-5 months in movie theaters.

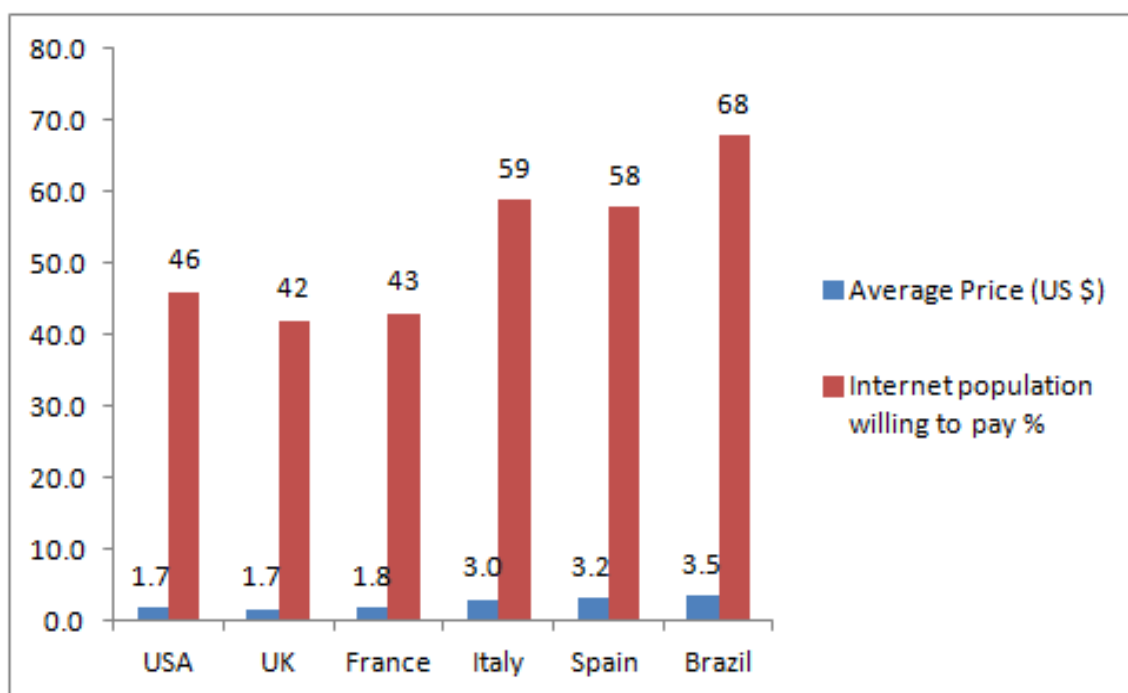
FIGURE 15: WILLINGNESS TO PAY FOR DIGITAL VIDEO IN SPAIN, (€), BY AGE, DISTRIBUTION FORMAT AND NOVELTY, 2011



SOURCE: OWN ELABORATION FROM ICLAVES (2012)

Despite the lack of current demand, data suggests that in future the demand may increase. Firstly, the level of free digital video consumption is high. Secondly, willingness to pay for premium video content is relatively high in Spain compared to other countries. According to the Accenture Video Solutions Survey 2013, both the proportion of Spanish consumers willing to pay for a future premium service on Youtube as well as the amount they would pay for this service are higher than in other more developed online movie markets (Figure 15).

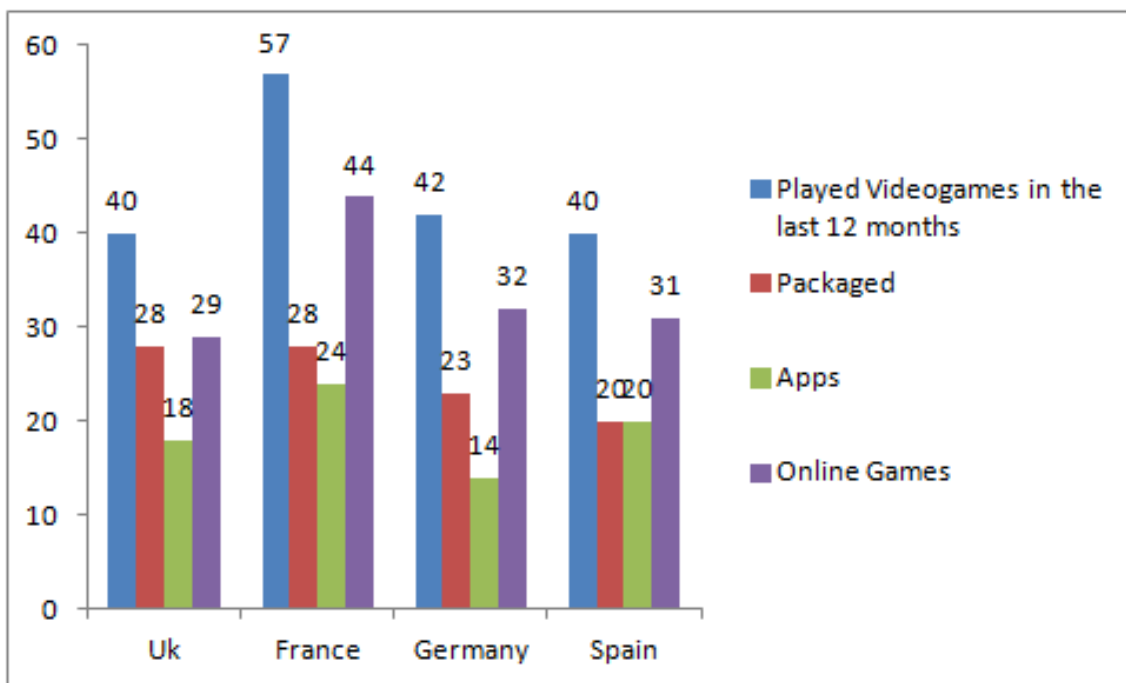
FIGURE 16: WILLINGNESS TO PAY FOR A PREMIUM SERVICE ON YOUTUBE, AVERAGE PRICE FOR A MONTHLY SUBSCRIPTION IN US\$ AND PROPORTION OF INTERNET POPULATION WILLING TO PAY FOR THAT SERVICE



SOURCE: OWN ELABORATION FROM ACCENTURE (2013)

The digital videogames' market is worth more than € 25 million in Spain. Being the first industry to start the transition towards digital business models, the videogame demand is larger for digital than for physical formats (Figure 17). Spain, the United Kingdom and Portugal have the lowest proportion of internet users playing videogames. However, apps and online videogames are in relation more popular in Spain than in many other European countries.

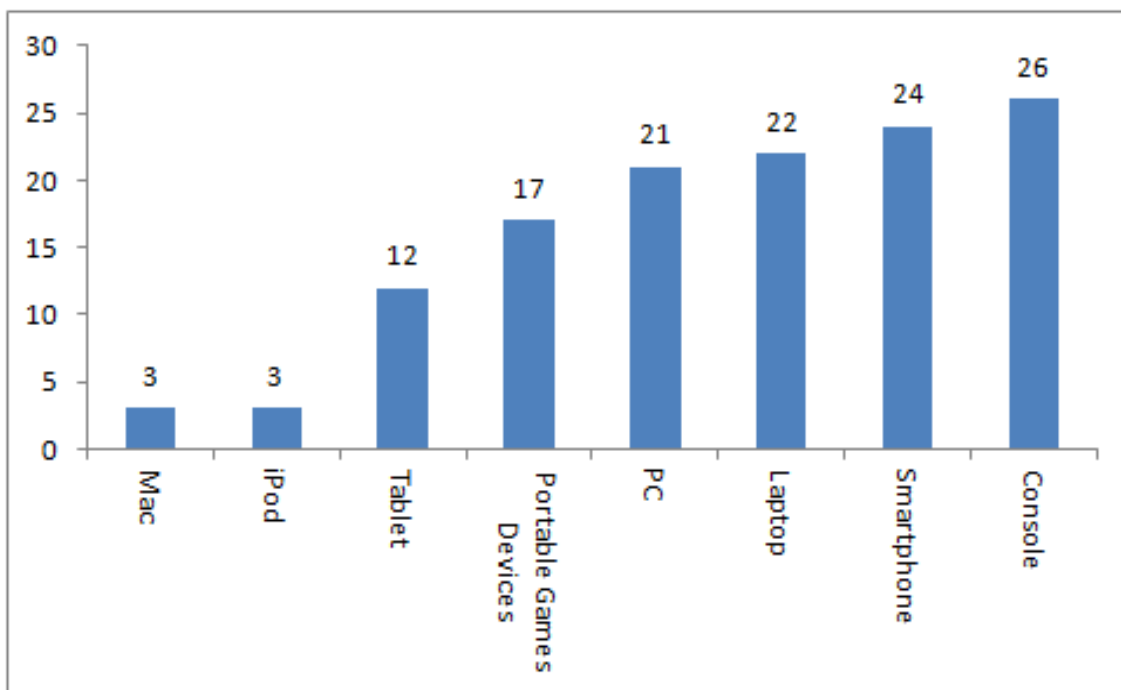
FIGURE 17: PERCENTAGE OF INTERNET USERS THAT PLAYED VIDEOGAMES IN THE LAST 11 MONTHS IN EUROPE (AS OF NOVEMBER 2012), BY FORMAT AND COUNTRY



SOURCE: OWN ELABORATION FROM INTERACTIVE SOFTWARE FEDERATION OF EUROPE (2013)

In fact, videogames in Spain are becoming increasingly mobile centered. Compared to the rest of Europe, Spanish consumers are heavy users of mobile phones and portable games devices. In contrast, the number of players using computers to play is relatively lower (Figure 18).

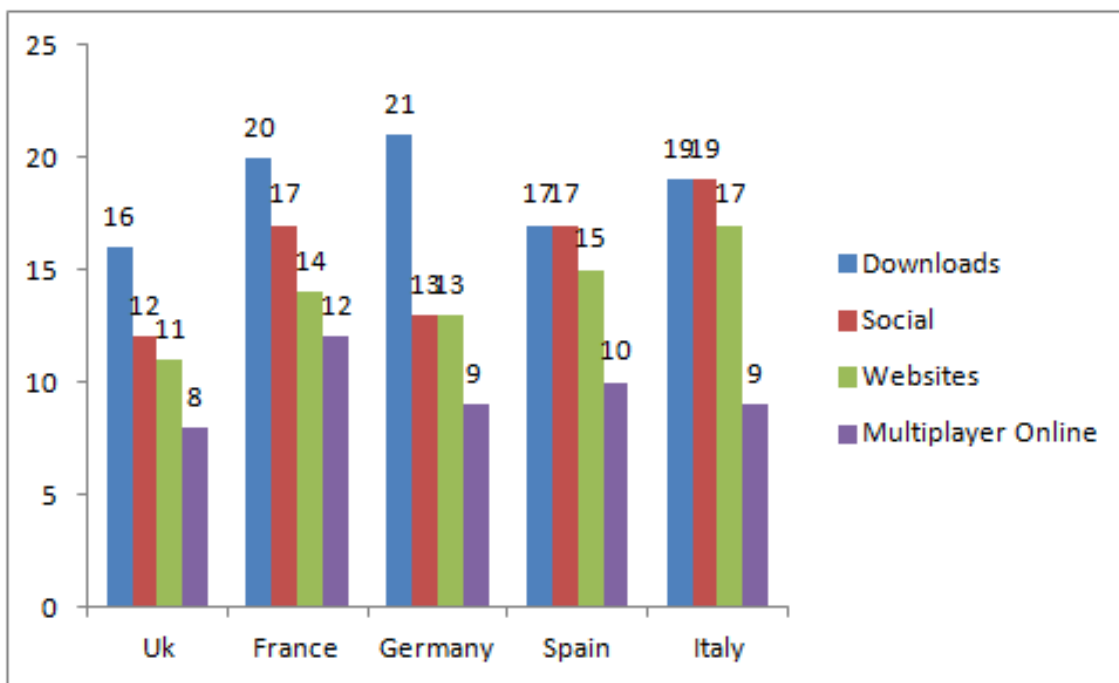
FIGURE 18: PERCENTAGE OF INTERNET USERS THAT PLAYED VIDEOGAMES IN SPAIN, BY DEVICE



SOURCE: OWN ELABORATION FROM ADESE (2013)

Playing videogames in Spain has a strong social component. In fact, online social games are relatively more popular than in other countries (Figure 19) and especially among women. The proportion of Spanish joint videogame playing is 59%. At European levels, this rate is very high, only paired by Poland and The Netherlands.

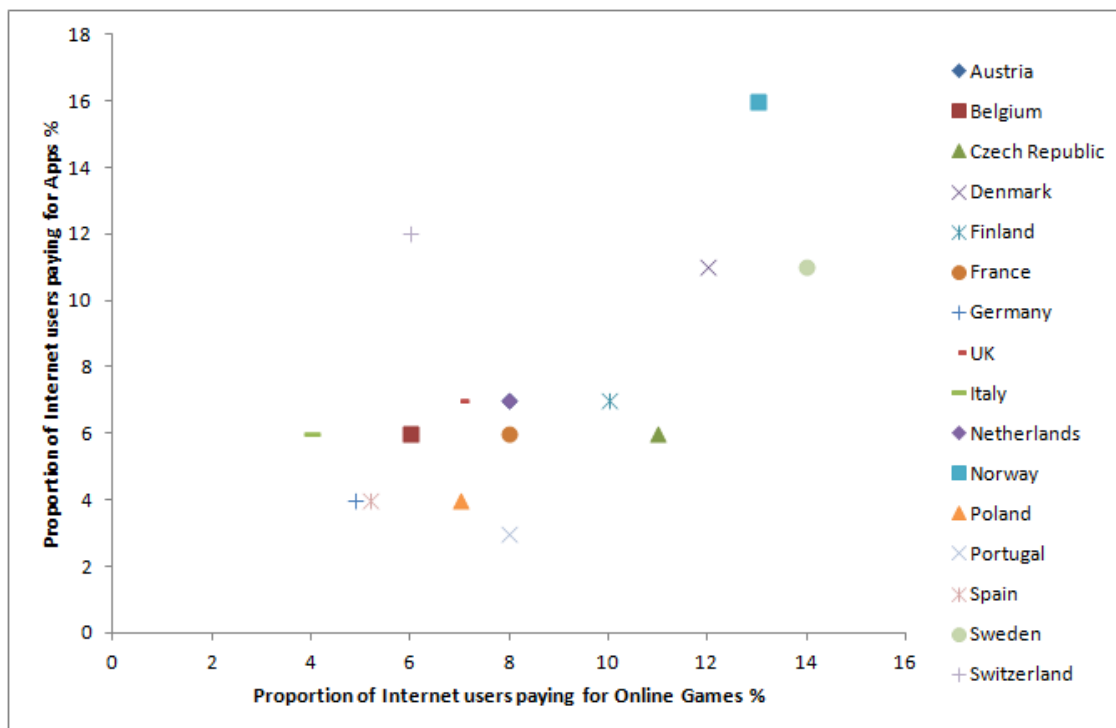
FIGURE 19: PERCENTAGE OF INTERNET USERS THAT PLAYED ONLINE VIDEOGAMES IN SPAIN, BY TYPE OF GAMES



SOURCE: OWN ELABORATION FROM INTERACTIVE SOFTWARE FEDERATION OF EUROPE (2013)

Although the demand for videogames is close to the demand in the rest of Europe, the proportion of paid videogame players is the lowest in Europe (Figure 20). Paid apps generated nearly € 4 million in revenues, that is 1% of the total videogame market in Spain, and online games nearly € 21 million, 5% of the revenues of the whole market. Only 4% of Internet users in Spain paid for games' apps, while 5% of these users paid for online games (Figure 21). In Europe, only Internet users in Germany and Portugal have such a low rate. On average, Spanish users spend more than twice the time playing online videogames than playing downloaded apps. In fact, 38% of the total time was devoted to play videogames in general, while 16% of the total time devoted to play apps.

FIGURE 20: PERCENTAGE OF INTERNET USERS PAYING FOR APPS AND ONLINE GAMES, BY COUNTRY 2011

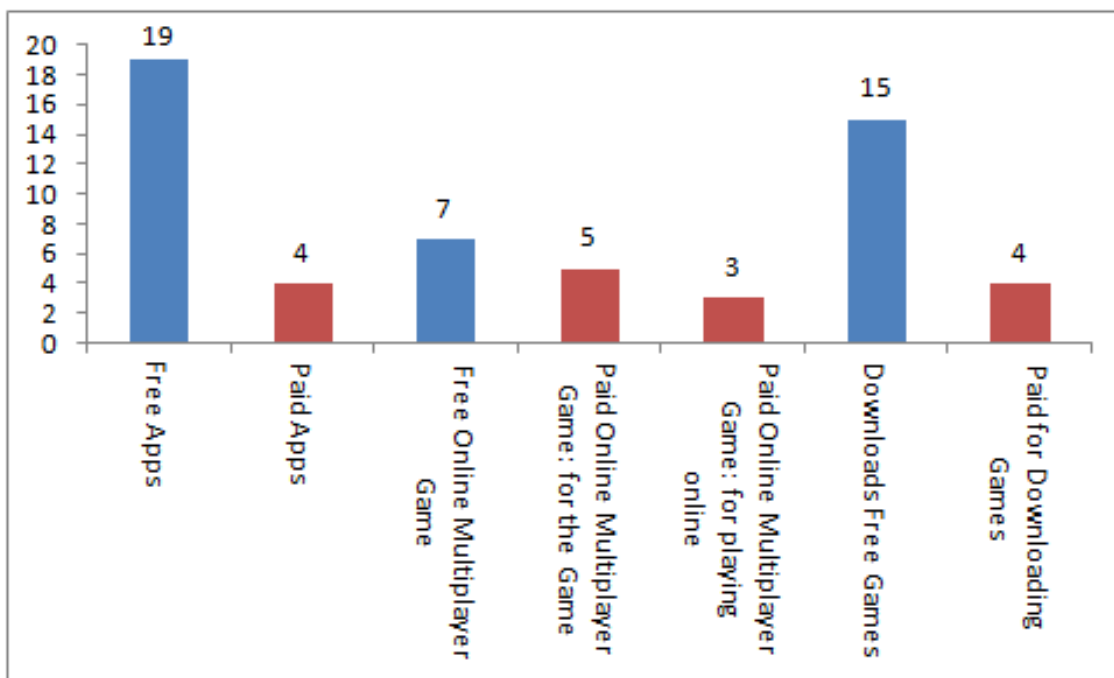


SOURCE: OWN ELABORATION FROM INTERACTIVE SOFTWARE FEDERATION OF EUROPE (2013)

There are some encouraging market opportunities. For instance, within the category of multiplayer games, the proportion of paying videogame players is high (Figure 21).

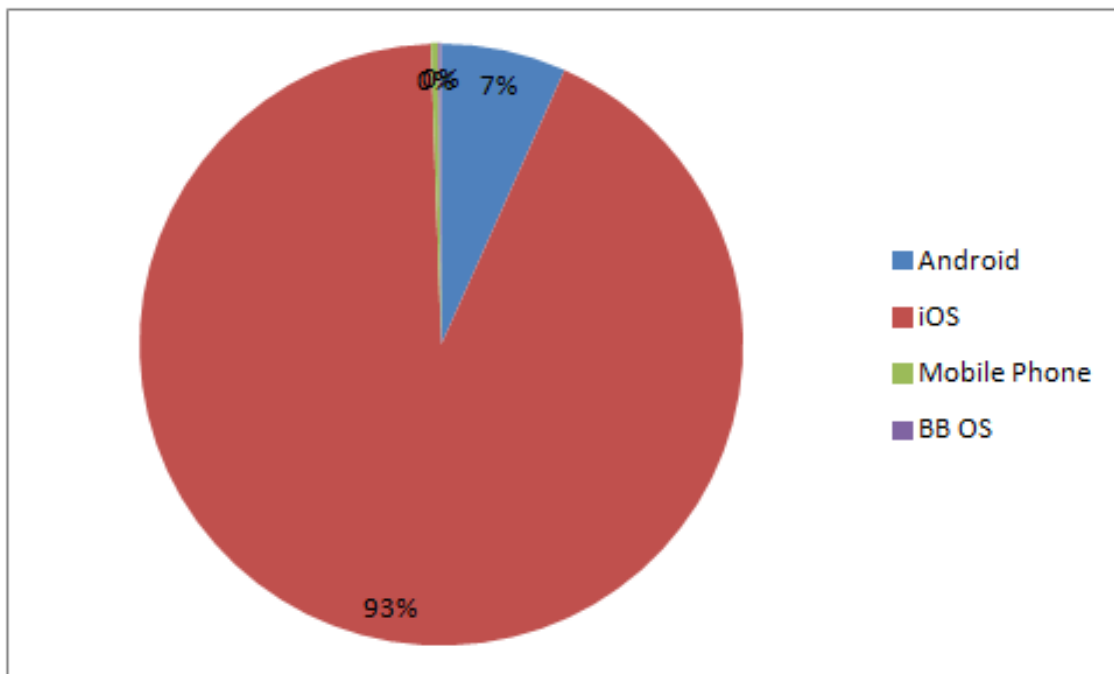
Additionally, developing games for iOS seems to be more profitable than for any other mobile operating system in Spain, assuming that users of iOS mobile devices seem to have a higher propensity to pay for the apps they download. In 2012, 5.1 million paid apps have been downloaded in Spain, on average 35,000 per month. Thereof Apple's operating system has more than 90% of the market share (Figure 22). In contrast, free or ad-based games should be focusing on Android devices with 77% of the market share of free apps.

FIGURE 21: PERCENTAGE OF INTERNET USERS PAYING FOR PLAYING DIGITAL VIDEOGAMES, BY TYPE OF GAMES



SOURCE: OWN ELABORATION FROM ADESE (2013)

FIGURE 22: PAID APPS MARKET IN SPAIN⁶, BY OPERATING SYSTEM



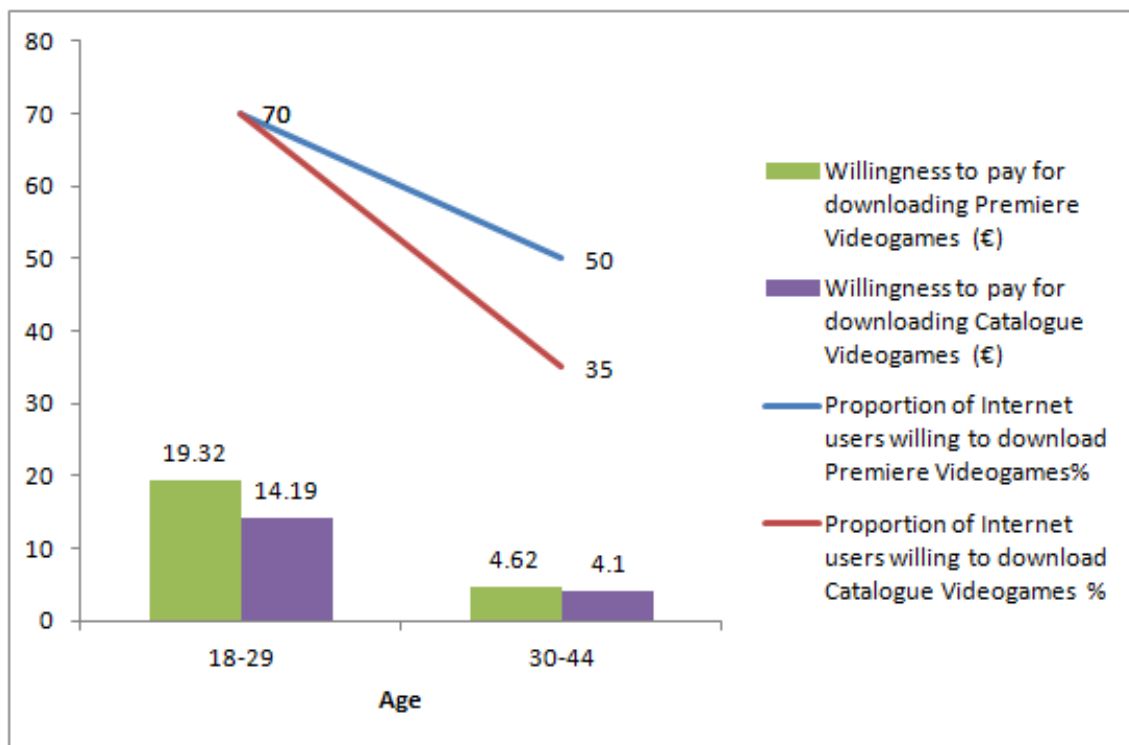
SOURCE: OWN ELABORATION FROM APPDATE (2013)

Similarly to digital video and music markets, younger consumers are more willing to pay for digital videogames (Figure 23). Surprisingly, for this segment of population the proportion of Internet users willing to pay does not depend on the novelty of the videogame. However, the differences between premiere and catalogue⁷ prices these young consumers will pay are quite significant, above 20%. Videogame players older than 30 years of age have a much lower propensity to pay, especially for catalogue videogames, and they are only willing to pay much less. Therefore, as already commented for the market of music and digital video, it seems essential for the videogames industry in Spain to ignite and increase the willingness to pay for digital content by this segment of population.

⁶ Including all kind of apps, not only videogames.

⁷ Catalogue videogames are defined as videogames being more than four months in the market.

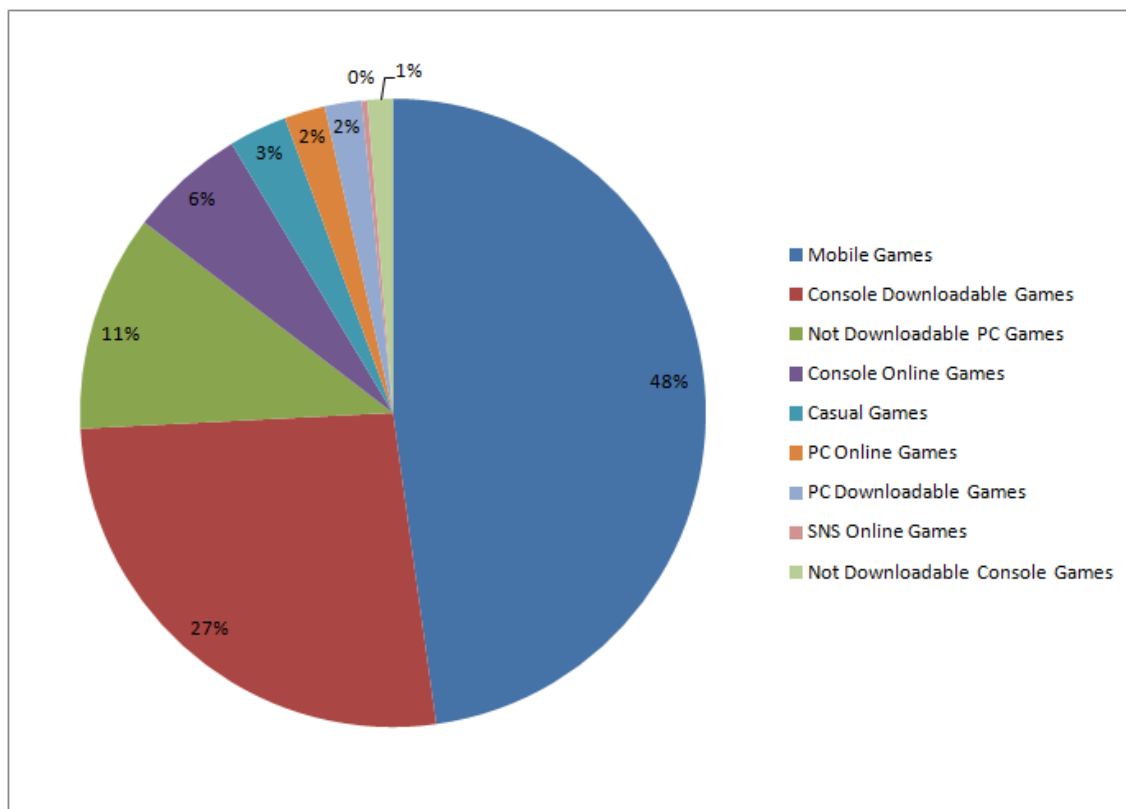
FIGURE 23: PROPORTION OF INTERNET USERS WILLING TO PAY (€) AND WILLINGNESS TO PAY FOR DOWNLOADING VIDEOGAMES, BY VIDEOGAME NOVELTY AND CONSUMER AGE



SOURCE: OWN ELABORATION FROM ICLAVES (2012)

The videogame software industry in Spain is very small in size producing a total revenue of € 111 million in 2011. Nevertheless, this industry has two interesting characteristics. Firstly, it has a significant exposure to international markets, with more than 70% of the revenues being originated abroad. Secondly, the industry has focused on the apps and mobile gaming segments, which account for more than 50% of the industry turnover (Figure 24).

FIGURE 24: REVENUES OF THE VIDEOGAME DEVELOPMENT INDUSTRY IN SPAIN IN 2011, BY VIDEOGAME FORMAT

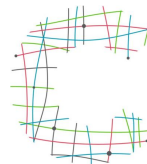


SOURCE: OWN ELABORATION FROM AMETIC (2012)

2.1.1 Analysis of the legal offer of audiovisual content

2.1.2.1 Music Providers

Consumers have many digital music service providers. Most of them are international firms providing their services also in Spain. Traditionally, international providers of digital music launch their services in Spain slightly later than starting operations in their home countries. There are some large world providers, such as Pandora, which are still not present in the Spanish Market. Most firms (with some exceptions such as Twitter's music service #Music) follow four different types of revenue models on the Spanish music market: ad-supported free streaming services, pay per use downloads, subscription based downloads and subscription based streaming. The pay per use streaming revenue model is less common. Moreover, if users wish to have access to multiplatform consumption experience there is an extra charge. In some cases, providers limit the device compatibility (e.g. Microsoft Xbox does not support iOS or Android). Some of the music providers such as 2u.fm, senzari or Twitter are merely distributors since they do not aggregate content. The most relevant providers are:



7Digital

www.7digital.com

7Digital is a global open digital content platform founded by HMV Group in the United Kingdom. It provides consumers, partners and developers with open access to an extensive international catalogue with over 23 million tracks. Its business model works through a website, mobile applications and the cloud locker technology. Consumers can download just one single or a complete album, to have the purchased content available at any time through the cloud locker.

Furthermore, with the 7digital API (Application Programming Interface), which is a license of 7digital's technology and its music catalogue, developers and partners can create new music websites, applications and devices, or integrate music into existing services.

Amazon MP3

<http://www.amazon.es/b?ie=UTF8&node=1748200031>

The retail giant Amazon also has an online music shop. It works through a cloud locker, the called Amazon Cloud Player, so the songs purchased are stored in the cloud, being available from several devices (mobile phones, tablets, e-books, PCs...). The store provides free digital content and paid downloads for single or complete albums. Prices for one song goes from 0.69€ up to 1.38€, while album prices go from 1.38€ to 9.99€.

Beatport

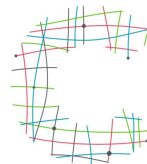
<http://www.beatport.com/>

Beatport is the largest music store for DJs in the world. Each week, its music collection is refreshed with hundreds of tracks by the world's top dance music artists. It offers music in premium digital formats and provides unique music discovery tools created for and by DJs. Hence, it lets the DJs distribute their projects by an invitation to upload their content. Moreover, Beatport offers software to make mixing audio and create new compositions.

Blinko

<http://www.blinko.es/>

Blinko is a Spanish downloading platform of digital content for mobile phones where users can find tones, tunes and songs. Consumers should subscribe to Blinko, so they get an account linked to their mobile phone numbers. Each time consumers download a content from the website, it directly goes to their phones. The website also provides consumers with videogames, videos, and other applications.



Deezer

<http://www.deezer.com/es/>

Deezer is an international website of music streaming. It allows users to listen, create their own playlists, share and discover music with unlimited access to its catalogue -25 millions of tracks on any device. Deezer provides three ways of subscriptions: Discoveries, Deezer Premium, and Deezer Premium+. Through Discoveries, users can register for free, but the service is ad-supported and only allows web access. Deezer Premium only supports web access, but without advertisements and unlimited access paying 4.99 €/month. Deezer Premium+ is the gold subscription with a price of 9.99 €/month, without advertisement, leaving users an unlimited access from web and mobile phones.

Emusic

<http://www.emusic.com/home/home.html>

Emusic is an American discovery-and-downloading music service. By signing up, users find and download the music which is available anywhere and synchronized with iTunes and Windows Media Player.

It has two ways of service: On the one hand, customers can purchase à la carte music at any time. On the other hand, users can become an Emusic member to save 25-50% on music, with most tracks priced at just \$0.49 each. Discounts vary according to the plan users choose, starting at \$11.99 per month, and adjusting the plan to get more or fewer downloads per month at any time.

Google Play

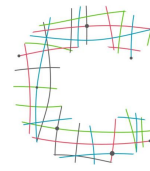
<https://play.google.com/store?hl=es>

The Google Store also has a service for music. This service provides users with a space in the cloud to store music and files, and with a software application for mobile phones, PCs, and web, which allows accessing, downloading, managing and playing the music. Consumers can purchase just one track –from 0.69€- or a complete album – from 4.99€-. Furthermore, Google offers the possibility to try the Google Play Music Premium service for free for one month, and one specific song free each week.

iTunes

<http://www.apple.com/es/itunes/>

iTunes Store is the digital store created by Apple, with a section for music. First, consumers need to download the iTunes software to then be able to purchase music. Hence, iTunes is not just a music player; it is also a virtual store where users can buy a single track or a complete album. iTunes allows to import other digital contents and create users' own playlists.



Los40.com

<http://www.los40.com/>

Los40.com is a Spanish music service linked to the most popular radio channel among young Spanish people. Hence, net surfers can listen to the radio online or they can listen to a song during 30 seconds. It is tied to Muzu or Youtube to watch videos, and also links to iTunes.

Magnatune

<http://magnatune.com/>

Magnatune is a music downloading service developed by the record label Magnatune. Its business model is focused on people who listen to music in the background or fans of music with little radio airplay or major record distribution. It has a fairly large audience.

Magnatune provides free and paid content. For free, users can listen to radios stations or music, save their favorite songs and artists, build a collection or preview music. By payment of the subscription \$15 per month, members can download music without any limits. For commercial purposes such as trade shows, advertising and web sites, Magnatune offers sub-licensed music priced from \$150 to \$5000 depending on length and type of use.

MediaMarkt

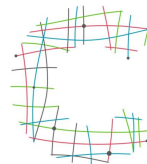
<http://musica.mediemarkt.es/servlets/2452328105705Dispatch/49/jspforward?file=../index.jsp>

The German electronic supplier, MediaMarkt, also provides digital music content through its website. Consumers can download single tracks from 0.99€ to 1.29€ or albums from 1.89€ to 16.99€.

Movistar

<http://emocion.movistar.es/emocionweb/music.jsp>

The telecommunications operator Movistar provides consumers a downloading music service through the Movistar Emotion website. Hence, consumers can either, pay for tracks and download them on a PC or on a mobile phone, or they can choose the subscription flat rate of 5.99€ per month and download as many tracks as they like. It has a catalogue with more than 1 million songs. Furthermore, Movistar Emotion offers ringtones or waiting tunes for mobile phones, for which the average price is 2.00€.



Music-unlimited

<http://www.sonyentertainmentnetwork.com/es-es/music-unlimited/por-que-music-unlimited/>

Music-unlimited is the online subscription music service offered by the Sony Entertainment Network. It provides a large number of tracks without advertisements that can be listened to from mobile phones, PCs, tablets, TVs, videogame consoles. Users can listen to the predetermined channels or create their playlist. With the premium service, the complete Music-unlimited library could be accessed and listen to at any time. Consumers can enjoy a free trial of the Premium service during a month.

Muzu.tv

<http://www.muzu.tv/es/>

Muzu.tv is an online music TV website where users can watch video clips of their favorite artists and groups for free. Similarly to Youtube, its business model is based on advertising. Other websites, such as, los40.com, have a direct link to muzu.tv, so their video clips can be reproduced through other platforms.

Napster

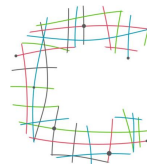
<http://es.napster.com/start>

Napster is a music streaming service owned by the Rhapsody Company. With a subscription of 9.95€ per month, it lets users listen to music from any device, even off-line. It also provides playlists and radio systems with a catalogue of 20 millions tracks. As a result of the partnership with Vodafone Music, Vodafone provides its music services through Napster, so Vodafone users have a discount in the subscription, paying 7€ per month.

Nokia-Music

<http://music.nokia.com/es/es>

The Finnish telephone company, Nokia, provides a music service in three different ways. Mix radio is a free streaming service, without subscriptions and advertising, which only works on Nokia Lumia smartphones. Users can listen to the predetermined radio channels or create their own channels. Nokia-Music+ allows users to download songs and channels to listen to without connection, by paying a monthly fee. Also, if users have a Wi-Fi connection, they can listen to high quality music from the website, mobile phone or laptop. Finally, users can purchase any track through the PC and Mac application in the Nokia-Music store.



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Orange

<http://www.orangemusicstore.com.do/>

The telecommunications company Orange has a music store where Orange customers can download single tracks to any platform (PCs, Mobile). Purchases are charged in the mobile phone bill.

Rara.com

<https://www.rara.com/>

Rara.com offers unlimited access on demand to more than 17 million tracks without advertisements. The subscription charge amounts to 0.99€ per month for the first three months, 4.99€ per month after that time. Users can listen to their favorite songs or playlists created by the firm, and share with friends through social networks. In addition, users can get the application for PCs, tablets and Android smartphones from 1.99€ per month.

Rdio

<http://www.rdio.com/>

Rdio is a multiplatform online digital music service that lets users listen to ad-free songs. It is a streaming service with a catalogue of 20 million songs. Moreover, users can create their own playlists and music can be shared via Facebook or Twitter.

There are two types of subscriptions, the web service and the unlimited service. The web service, with a price of 4.99€ per month, allows unlimited music streaming on the web. The unlimited service is 9.99€ per month allowing music streaming on the web and mobile as well as devices such as Sonos and Roku.

Samsung Music Hub

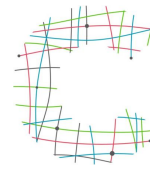
<http://www.eu.musichub.com/music/home>

Music Hub is a music streaming service by Samsung. Users can browse Samsung's catalogue and listen to 30-second free previews for all songs. By subscribing to Music Hub Premium 9.99€ per month, they can upload their personal music collection to the cloud, stream full-length songs from the Music Hub catalog, and listen to radio.

Spotify

<https://www.spotify.com/es/>

Spotify is the one of the largest providers of music streaming services. It is a multiplatform service depending on the subscription. There are three kinds of subscriptions, the free, the unlimited and the premium. The free version is ad-supported and only works on computers. The unlimited subscription costs 4.99€ per



month and users can listen to ad-free unlimited songs on computers. For 9.99€ per month, the premium version allows users to listen to ad-free music everywhere from any device and even off-line.

Tuenti Music

<https://www.tuenti.com/?m=Login>

Telefonica's social network Tuenti has signed an agreement with Sony Music Spain to provide music in streaming by the 'Tuenti pages' from a catalogue of main Spanish and international artists. It upgrades daily and allows users to listen to 98% of the Spanish music catalogue.

Wala

<http://www.wala.es/>

Wala is a mobile centered Spanish subscription service from Buongiorno. Users can download multimedia content – tunes, tones, real songs - compatible with wap technology. The cost is 0.36€ per SMS, with a maximum of 21.78€/month. They offer the chance to subscribe to Motime, so users can download any digital content, without limits.

Xbox-Music

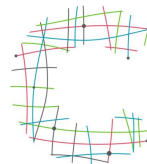
<http://www.xbox.com/es-ES/music>

Xbox-Music is the music service provided by Microsoft. It offers an ad-supported free subscription for Xbox devices with the limit of 10 hours/month of free streaming. For 9.99\$/month Microsoft offers a premium service, Xbox Music Pass, which provides ad-free unlimited music access from any device with the exception of Android and iOS Mobile Devices. Music can be stored in a cloud locker.

Yes.fm

<http://www.yes.fm/>

Yes.fm is an online radio service provided by the Spanish Prisa Group. The free service allows users to listen unlimitedly to any radio created by artists, yes.fm or users; so users can create their own radios with a minimum of 60 tracks and no including more than 4 songs of an artist. The subscription service lets users listen to music from the catalog in an unlimited way. There are four options to subscribe. The basic plus service costs 1.99€ per month and it is a non-interactive webcasting. Premium PC is music on demand service, for which the price is 4.99€ per month and music can be listened to on PCs or Macs. Premium Mobile provides music for mobiles, iPod Touch and tablets and its price is 5.99€ per month. Premium Plus includes the PC and Mobile services and the subscription costs 9.99€ per month.



YouTube

<http://www.youtube.com/?gl=ES&hl=es>

YouTube is the largest ad-supported video streaming service in Spain. YouTube is paying the labels and the song writers a percentage of the revenue from advertising attached to videos.

2.1.2.2 Video Providers

The supply of digital video is more limited in Spain than music, reflecting that it is still an incipient market. Differently from the music industry, the digital video market has a strong presence of Spanish providers. Some large international providers such as Netflix or Amazon are not operating in Spain yet. The most common revenue model is video rental, while video downloads are more scarce. There is no discrimination between platforms and consumers do not need to pay for multiplatform access. There are price difference strategies based on the novelty and typology of video content. The size of the catalogue offered is still limited for most of the players and the novelty is questionable even for premiere movies. This problem does not fulfill the expectations of Spanish consumers and may explain the weak demand. There is a strong presence of telecommunications operators and TV companies. The most relevant providers are:

ADNStream

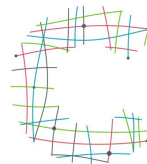
<http://www.adnstream.com/>

ADNStream is a multiplatform audiovisual streaming service offering different video categories from movies, series and cartoons to documentaries, TV Shows and cooking channels. The revenue model is based on a 24 hours rental of the content. Furthermore, there are three different channels to subscribe to in a premium way. Brb play offers 25 series in English and Spanish. The so-called adn películas provides old and new movies with a price of less than 1.5€ each. Finally, the Motion-Kids TV is thought for the youngest public and it offers cartoons and children's movies.

Cineclick

<http://cineclick.com/>

Cineclick is a pioneering video streaming service offering both a pay per view and a subscription model. The price of the 24 hours rental is 0.99€ per movie. The Cineclub subscription option costs 9.95€ per month and it lets users watch all the movies tagged as Cineclub anywhere and at any time, without advertisements.



Filmin

<https://www.filmin.es/>

Filmin is a Spanish video streaming service that offers movies, series and shorts, with a total of more than 4000 titles. It gets sponsorships by Spanish independent movie companies. Users can rent movies for 71 hours and 0.95€. It also offers subscription services. The premium subscription costs 8€ per month or 70€ per year but does not allow the watching of premiere movies. Filmin premium+ subscription adds 3 vouchers per month to watch premiere movies and costs 15€ per month, 30€ per three months, 55€ per six months or 110€ per year. Finally, Filmin offers the purchase of vouchers for premiere movies, with a price of 14€ per five premiers, or 50€ per twenty premiers. These vouchers do not expire and are cumulative and can be bought without the need for a subscription.

Filmotech

<http://www.filmotech.com/V2/ES/iniciofx.asp>

Filmotech is a Spanish video streaming service. It combines a 48 hours rental service with a subscription service. The rental service allows watching premium content such as new films (less than two years old) or movies not shown in movie theaters. The subscription service offers unlimited consumption of more than 1000 movies during the subscription period.

Google Play

<https://play.google.com/store/movies?hl=es>

Google Play provides a 48 hours video streaming rental service but also allows downloading some movies from 1.99€ to 13.99€ per download.

iTunes Store

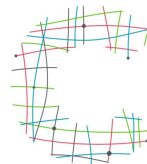
<http://www.apple.com/es/itunes/>

The catalogue of iTunes Store also has movies. There are more than 65,000 titles for rental and download. These movies are compatible with any device. iTunes software is needed to manage the downloads.

Jazztel

http://www.jazzbox.es/jazzbox_de_jazztel

The telecommunications operator Jazztel and Canal+ offer a video on demand service through the Jazzbox service. This service provides access to Canal+ box-office for premium content and more than 400 channels, including films, TV shows, documentaries and concerts, thanks to Canal+ and Yomvi. Each week Yomvi updates its content, including 100 new titles. Jazzbox works through the ADSL line and users pay a monthly subscription fee depending on the numbers of channels contracted.



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Mitele

<http://www.mitele.es/>

Mitele is an audiovisual content platform owned by Mediaset España. Users may watch TV shows from the TV channels of this firm (Telecinco, Cuatro, la Siete, Boing, Divinity, FDF...). It also provides a pay per view video streaming service for premium content. Prices depend on the payment method (e.g. premieres cost 1.45€ paying by SMS or mobile phone, and 1.21€ by paying through the bill of the telecommunications provider).

Mivideoclub.com

http://www.mivideoclub.com/vod_novedades.asp

The Spanish website provides a video streaming 24 hours rental service. Users can rent over 200 movies from 0.99€ to 2.99€ each. Series have not been included in the catalogue yet.

Movistar

<http://www.movistar.es/particulares/television/#>

The telecommunications operator Movistar provides a video streaming rental service. Prices depend on content. Series cost from 0.99€ to 1.99€, documentaries between 0.49€ and 0.99€, catalogue movies 1.50€, premium premieres 4€, premieres 3€, HD movies 4€, adults' movies 5€, and concerts 3€.

Furthermore, Movistar offers Movistar TV, a subscription service with a wide variety of channels -77 channels-, including series, sports, films, cartoons..., for which the basic price is 18.15€ per month. There are promotions to add the football channel to the Movistar TV service.

Mubi

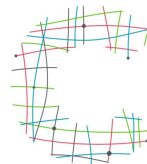
<http://mubi.com/>

Mubi is an online film website that integrates elements of social networking with video streaming. It offers independent, international and classic movies. Users pay for watching an individual film in streaming, for which the price is 2.99€ per film. The firm also offers a subscription service for 7.99€ per month.

Nubeox

<http://www.nubeox.com/>

Nubeox is a multiplatform video streaming rental service owned by Grupo Planeta and Antena 3. There are more than 2,000 titles released at the same time as DVDs. The firm offers 48 hours rental from 0.99€. In addition, Nubeox offers the Club



Nubeox subscription. It costs 10€ per year and users can consume that money in any rental they like.

ONO Video club

<http://www.ono.es/productos/television/videoclub/>

The telecommunication operator ONO provides a video streaming service. It offers more than 1,500 titles for free, including movies, TV shows, documentaries, concerts, cartoons, shorts. Users can rent premieres for 3€, catalogue movies for 1€, HD premieres for 4€, 3D premieres for 7€ and adults premieres for 7€ for 48 hours.

Orange TV

<http://tv.orange.es/>

The telecommunications operator Orange offers a TV service that consists of TV channels and a video club service. There are more than 30 channels to enjoy TV shows, cartoons and international channels. The video streaming rental service goes from 2€ to 4€.

PlayStation Store

<http://videostore.es.playstation.com/>

PlayStation users may buy and rent digital movies using this service. Video streaming rentals start at 1.99€, while movie downloads start at 7.99€. In addition, PlayStation Store provides a TV service where consumers can rent or buy popular TV shows. Most of them are available in SD and HD, with a price from 1.99€ per episode.

Terra TV

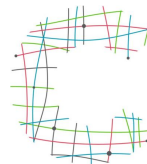
<http://www.terra.tv/>

Terra offers an ad-supported free video streaming service to over 40 thematic channels, including news, sports, entertainment, investments, body and beauty.

Wuaki.tv

<https://es.wuaki.tv/>

Recently acquired by the large Japanese corporation Rakuten, the Spanish start-up Wuaki.tv is a cloud based multiplatform video streaming service providing video rentals and downloads. Rentals start at 0.99€ while downloads start at 14€. Some movies are free. Users can also buy entire seasons of TV shows, not only single episodes. The firm also offers for 4.99€/month Plan Premium service which does not allow the consumption of premieres.



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Xbox Video

<http://www.xbox.com/es-ES/Video?xr=shellnav>

Xbox Video provides both video rentals and downloads for more than 150,000 movies and series. Users can buy the TV seasonal ticket implying that new TV show episodes will be automatically included in the users' collection, saving between 20-50% compared to the purchase of individual episodes.

Yomvi

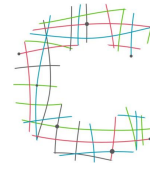
<http://www.plus.es/canalplusyomvi/>

Yomvi is the video streaming service promoted by Canal+ and supported by Cinesa, the Movie Theater Giant. The service is multiplatform and provides more than 2,000 titles, including video on demand rental. It is a service especially designed for Canal+ customers.

YouTube

<https://www.youtube.com/?gl=ES&tab=w1>

YouTube is the largest video streaming provider. It combines the ad-supported free streaming business model with a video service from 1.99€ to 13.99€, where also some movies are for free. Users can subscribe to a channel within a huge range, including romantic, drama, horror, science fiction and sports.



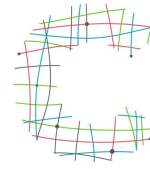
2.1.2.3 Spanish Digital Audiovisual Entrepreneurs

Hiveplay

<http://www.hiveplay.com/>

Hiveplay is a Spanish start-up created in 2012. It was founded by Luis J. Álvarez (CEO), Jorge Pozuelo, Ignacio Casado, María García and Jaime Castro. The main value proposition of the firm is to develop technology that will let customers vote the next song from a given playlist they would like to listen to in a pub, disco, bar or restaurant. In this way, Hiveplay provides the opportunity to connect bars and restaurants with consumers. These businesses only need to install a music player in their PCs, while consumers need to download an app in their mobile phones. It is like 'having a gramophone in my Smartphone'. In order to reduce costs, Hiveplay has created 10 playlists instead of letting the customers create their own playlist. However, bars can customize own playlists.

The revenue model is based on a subscription service of 15 €/per month. Consumers can vote for the next song they wish to listen to in the premise. The payment platform is still unresolved and it needs further development. Currently, the main challenge for the company is the high cost of intellectual property rights. The firm has currently signed 40 contracts, however it is being more difficult than expected to attract more business. The company has not found any -financial support, and may close at the end of 2013.



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La Cupula Music

<http://www.lacupulamusic.com/>

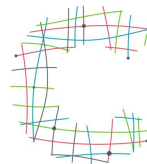
La Cupula Music was created in 2005 by José Luis Zagazeta and Maarten Van Wijck with three other developers. Its pioneering business model in Spain and Latin America consists of distributing music to digital stores. In the early days, La Cupula had to rely on external technology. However, the company decided to develop their own technology to reinforce their value proposition. Their digital distribution platform is interconnected with several content aggregators such as Amazon, Spotify, iTunes, Google Play, Movistar or Grooveshark. Through La Cupula, any music artist or small record company can auto-distribute its creations through these large aggregators in 24 hours. The system performs a quality check to distribute only content with the minimum quality standards required by the digital stores. Additionally, the company has developed some services to help the artists in promoting their work. The firm has a team specialized in digital marketing and social networks which focus on raising the number of fans and track reproductions. The firm also manages ad campaigns and produces all the merchandising required.

It was a pioneering firm in cloud computing adoption in Spain. In fact, the firm has a strong innovation culture. The strategy is based on a principle called 'launch and learn', which is a cyclical process that lasts six months. Each six months, they review new processes, structures and developments in order to adapt them.

LogyWave

<http://www.logymatick.com/>

LogyWave is an innovative service where musicians and DJs connect directly even though they are not in the same place. It will lead composers to be connected worldwide and to be more creative. The founders of the company, Javier Peña and Jorge Herrera, are two Spanish entrepreneurs with a new vision on how to compose music. The aim of their company is to create a simplified interface for collaborative performances. The technology is based on a special board and a camera web. The camera reads the information on the board and creates a file. Then, a projector draws the graphic part of the object and other components give sound effects. As the product is programmed with a file transfer protocol, two users can create music together from different places.



Filmin

<https://www.filmin.es/>

Filmin was born in 2007 as a video streaming service provider. Currently, the owners are Alta Films, Avalon, Cameo, El Deseo, Golem, Tornasol, Wanda and Versus; and the strategic partners are Vostok –expert in usability-, CRIN –expert in promotions-, and Marta Carrasco –marketing Director at Cameo-. The catalogue is focused on Spanish independent movie companies. Movies are offered in original version with Spanish subtitles, and in Spanish language, and they can only be viewed from Spain due to legal requirements.

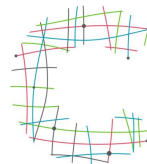
The business model is based on a streaming service requiring an internet connection to view, either on a pay per view basis or under a subscription model, the content which is stored in the cloud. Subscription service is the main source of income. Each month its website receives 700,000 visits and nearly 140,000 movies are seen by the users. Comparing to September 2012, revenues grew by 26%. The revenue growth has been quite recent, since in 2010 gross sales hardly reached € 100,000€. In 2012, revenues multiplied by five. The forecast for 2013 is for a revenue of € 2.1 million. Future plans include international expansion into Latin American countries such as Colombia, Mexico or Argentina.

Pypna

<http://www.pypna.com/>

Pypna, created by the producer Pablo Pinilla and Lara, and headquartered in Córdoba, Spain, is a platform to promote and produce artists and their work. It has created the so-called crowdvisit model. Artists win awards for the number of visits they get for their videos. Awards are designed to promote the professional career of the artist. For instance, an artist with a video accounting for 50,000 visits/year win a free recording service in a professional studio for that song, with 150,000 visits/year the artists win a professional video clip recording, and with 750,000 visits/year, they get an extended play recording for their songs and 500 copies.

To participate, music artists only have to register in the Pypna website, fill out their personal details and upload a video of their song. Pypna will keep the song on the database for one year, and will pay for the awards and promote artists in social network sites. Any kind of music artist is welcome.



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Márgenes

<http://www.margenes.org/>

Márgenes is a platform that delivers access to movies and other content related to Spanish indie or emerging directors. There is a combination of paid and free movies. Moreover, it promotes an online festival, which is a link between creators, producers, distributors, programmers and cultural institutes, boosting the organization of films, workshops and formative activities.

KANDOR Graphics

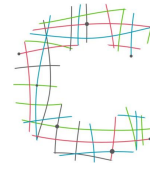
<http://www.kandorgraphics.com/>

KANDOR Graphics is an animation company created by Antonio Banderas (producer), Manuel Sicilia (head creator), Juan Molina (head studio) and Marcelino Almansa (president). The firm currently has 121 employees and focuses on shorts and feature films for the entertainment sector. Its more relevant projects have been “Justin and the valor sword”, “The Lady and the Reaper” and “The incriminating heart”.

La Panda Productions

<http://www.lapandaproductions.com/home/home.html>

La Panda Productions is a producer headquartered in Los Angeles and formed by 11 Spanish professionals from the audiovisual sector: Jon Aguirresarobe, Elisa Lleras, Elia Urquiza, Julia Fontana, David Martin, Pablo Gomez, Maria Aceves, Guillermo Escalona, Jana Diaz, Carlos Marques and Pau Brunet. The firm was created in 2011 and had an unexpected success. Its business model is similar to a cooperative since they work as 11 partners that bring external projects that they produce or develop as service providers or producers. Hence, the firm offers a production and a consulting service including development -translation and adaptation of plots, sales consultancy service and budget elaboration adapted to American accounting-, production, post, and distribution. From a creative content point of view, the firm has produced two fiction productions, a short film and a feature film in co-production with Spain, called “10,000 Km” and “Inside the box”. Currently, the firm is working on another full-length film. They have also produced some video clips for the music group The controversy as well as some ad spots. The firm specialized in productions with micro budgets –less than \$250,000- and in productions between 1 and 4 millions of dollars.



Teku Studios

<http://www.tekustudios.com/>

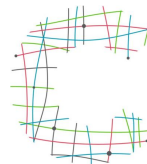
Teku Studios is an independent videogame developer established in Teruel in 2012. The firm was created by José A. Gutiérrez, Miguel Vallés, Elena Benedí, Iker Mateo, Juan diego Alegre and Pascual Gállegos. The company creates digital videogames for PCs and consoles. The creation process combines traditional and artistic techniques, such as watercolors, collages or acrylics with new technologies. The videogames are sold through the firm's website, the Xbox and Playstation stores or through platforms, such as Steam, Desura, GoG, Humble Bundle.

The company started to grow after a crowdfunding campaign in Kickstarter where the firm obtained \$52,300 and created a community of players. Lately, the firm was accepted as Wii U developer, selling in Steam. Their next project is 'Candle', an adventure videogame which will be sold DRM-free. The firm expects to hire 10 or 15 people and to expand into Asian markets.

Bitoon

<http://www.bitoon.com/digital/>

Bitoon was established by Fernando Piquer and David Cantolla aiming to develop free multiplayer games and online communities. The business model is based on Free2Play: the firm makes money charging for certain in-game items (like powerful bonuses which are usually available for real money only) or integrating advertisements into the game. Its first videogame was "*Basket Dudes*", winning the best online videogame in the world at GameLab. In 2012, they launched "*Mixta Fighter*", a detailed advergaming, which won the gold medal as the best action advergaming and the silver medal as social media by Inspirational.



Digital Legends

<http://www.digital-legends.com/>

Digital Legends Entertainment (DLE), based in Barcelona, is one of the world's leading high-end mobile game developers. The company designs videogames for smart phones, tablets and connected TVs across all operating systems powered by its proprietary, Karisma Technology. Among its customers, it can be mentioned on iOS, Disney Mobile –*Split Second*-, Electronic Arts –*Battlefield Bad Company 2*- or on the UK's Natural Motion –*Icebreaker Hockey*-. The firm was founded by video industry veterans who were key members of the Severance/Blade the Edge of Darkness video game developed on PC. The studio team members have collectively released over 10 million units on current generation platforms. The company's track record includes the distinction of becoming a First Party Developer for Nokia since 2004, and nominations from 1up.com as the "Best E3 Mobile Game" and from the Academy of Interactive Arts and Sciences' "Best Cell Game of the Year". It has also has been the winner of "Excellence in 3D" by the International Mobile Gaming Awards (IMGA) in 2007 and it includes other nominations for "Best Mobile Game" and "Best Technology", "Best Developer Company" by Mobile Entertainment Industry Awards in 2008 and "Best Gameplay" nominee by IMGA in 2009.

Mercury Steam

http://company.mercurysteam.com/html/?language_code=en

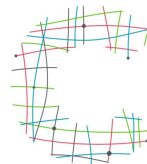
The Madrid based Mercury Steam was founded by Enric Álvarez in 2001 and has become one of the best videogame developers in the world. The firm's first steps were very difficult and it was close to shut down. Despite the positive comments by reviewers, its first production, Scrapland, did not work since costs were much higher than the incomes produced by the 80,000 copies sold. Its main success has been to develop the Castlevania videogame with Konami since 2007. This partnership allowed them to triple the size of the firm, reaching almost 100 employees.

2.2 DIGITAL PUBLISHING

2.2.1 Evolution and socio-demographic analysis of the demand

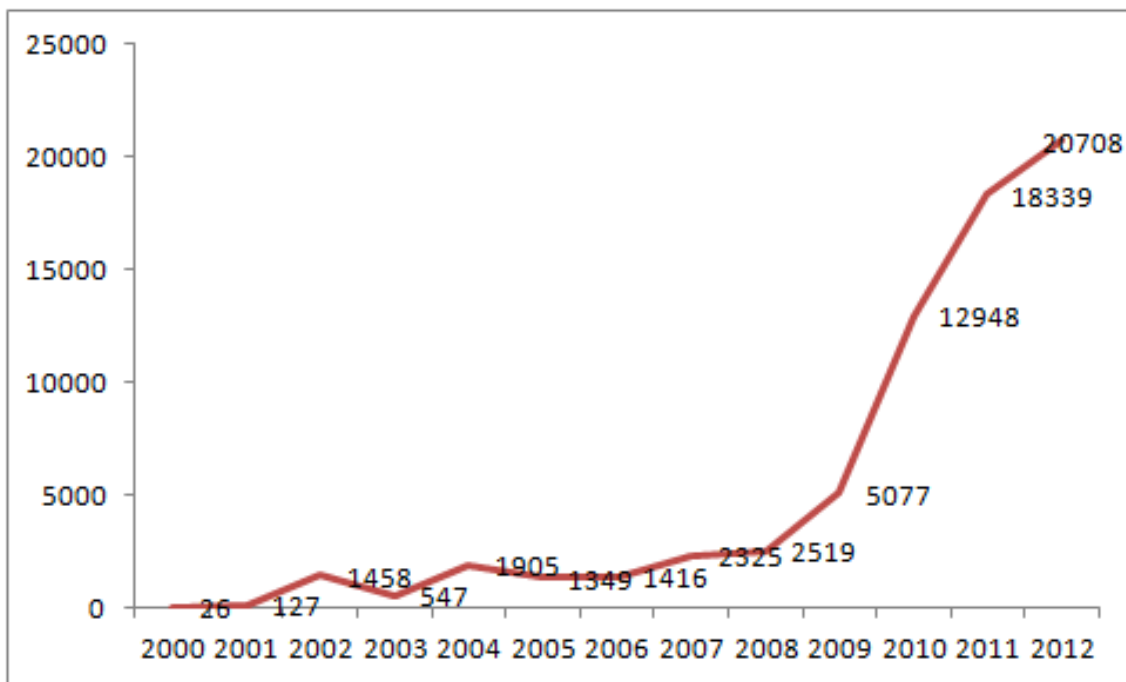
The digital publishing industry is in an intermediate stage of the digital transformation process. While the number of e-books published has increased consistently over time, high piracy levels in Spain have made it difficult for local businesses to successfully thrive in the market.

In 2012, more than 20,000 e-books were published in Spain (Figure 25). Although the first e-books were published in 2000, most of the digital transformation happened between 2009 and 2012. Despite the fast growth in these last years, the transformation



is in the early stages, since the current number of e-books merely represents 20% of the books published in Spain.

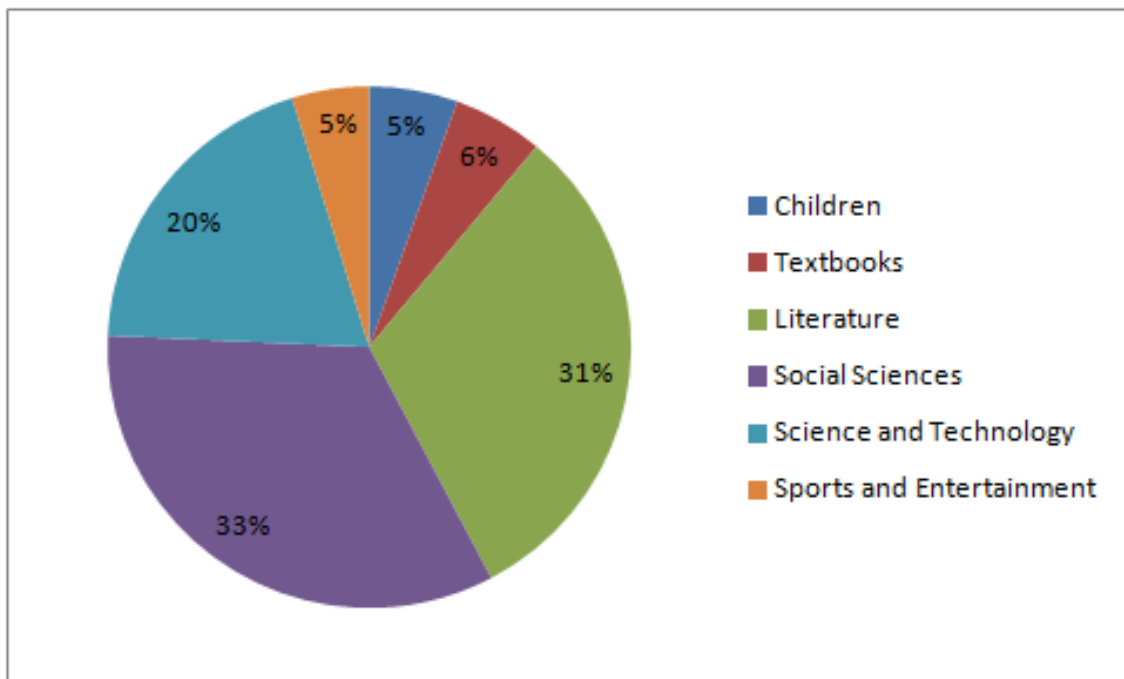
FIGURE 25: NUMBER OF EBOOKS EDITED IN SPAIN, 2000-2011



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2013)

Since the first e-books appeared in Spain, most e-books fell into the social sciences category (Figure 26). Children and literature e-books are experiencing a notable growth in most recent times. By contrast, business perspectives for electronic textbooks are not promising since the proportion of electronic textbooks published in Spain is surprisingly low compared to other countries and additionally it is getting lower since 2008.

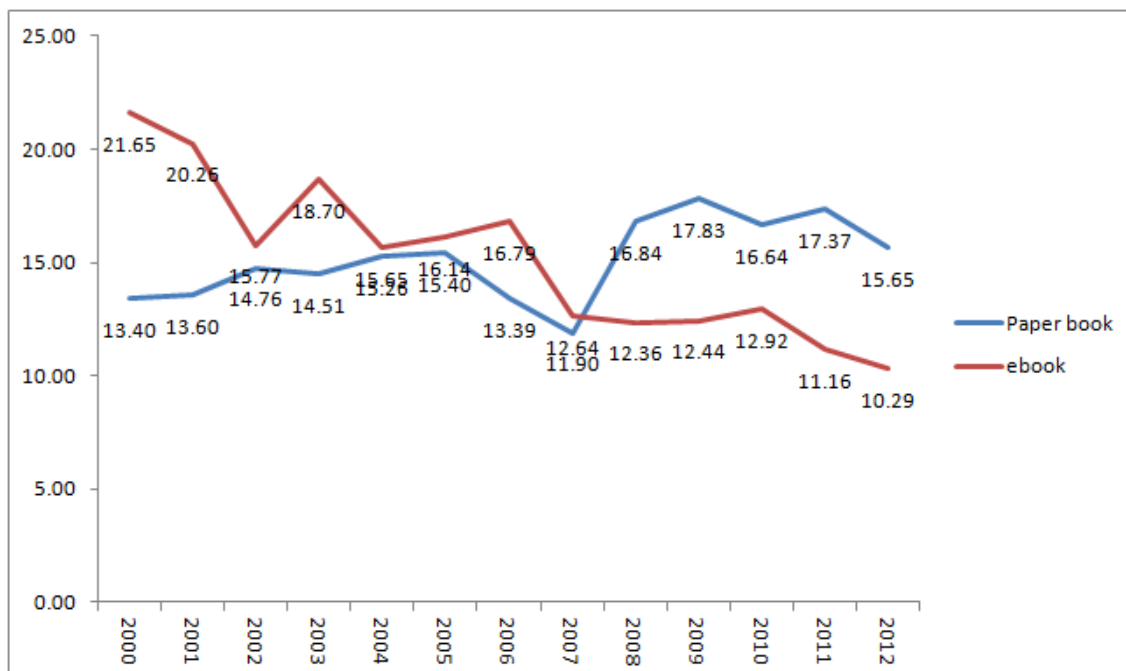
FIGURE 26: EBOOKS EDITED IN SPAIN IN 2012, % BY GENRE



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2013)

One of the fears of the book industry in Spain was that e-books would unleash a price war. This fear has only partly come true. While the average price of e-books has steadily diminished in the last years, this trend has not appeared in the paper book market yet (Figure 27). It is also interesting to notice that the price decline has been following a repetitive pattern, combining longer periods of stable e-book prices (2002-2006 and 2007-2010) with shorter periods of sharp price declines (2000-2002; 2006-2007; 2010-2012). Probably, the last period of price decline reflects the effect by the Amazon competition, since the online store started operations in Spain in the middle of 2009. The 50% e-book price reduction between 2000 and 2011 is not only explained by harsh competition but also by the changing nature of the e-book. As explained above, first e-books were primarily science books, which had higher average prices than literature or children books representing almost 40% of e-book publishing today.

FIGURE 27: EVOLUTION OF THE AVERAGE PRICES OF PAPER BOOKS AND EBOOKS IN SPAIN, 2000-2012



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2013)

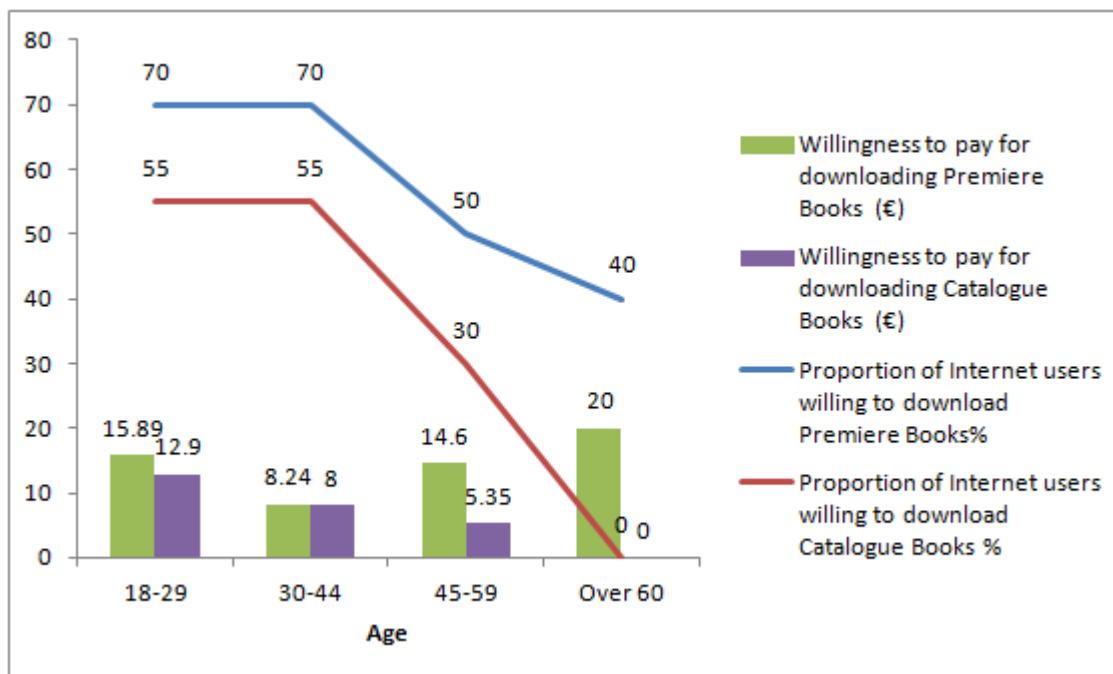
The demand for e-books in Spain does not match the supply yet. According to the Federación de Gremios de Editores de España, only 6.3% of the Spanish population had read a digital book. More positive data shows that e-book readers read more books in general (16 books per year, out of which 50% are e-books) than non e-book readers (10 books per year).

One third of e-book readers and approximately 2% of the population paid for some of the books they download. However, even the paying consumers only paid for 45% of the e-books they obtained. This customer base generated digital sales for € 74 million in 2012. From these sales, almost € 40 million are economy and lay text and databases, while € 21 million are related to textbook sales.

Similarly to other digital content, the data also shows that younger readers are more willing and are willing to pay more for e-books (Figure 28). New books may enjoy a higher price compared with catalogue books⁸, which have a low value for consumers over 60 years of age. Similarly to video or music, the baby boom generation in Spain, people between 30 and 44 years old, belong to the segment of the population with the lowest propensity to pay for e-books.

⁸ Catalogue books are defined as books being sold for more than four months in the market.

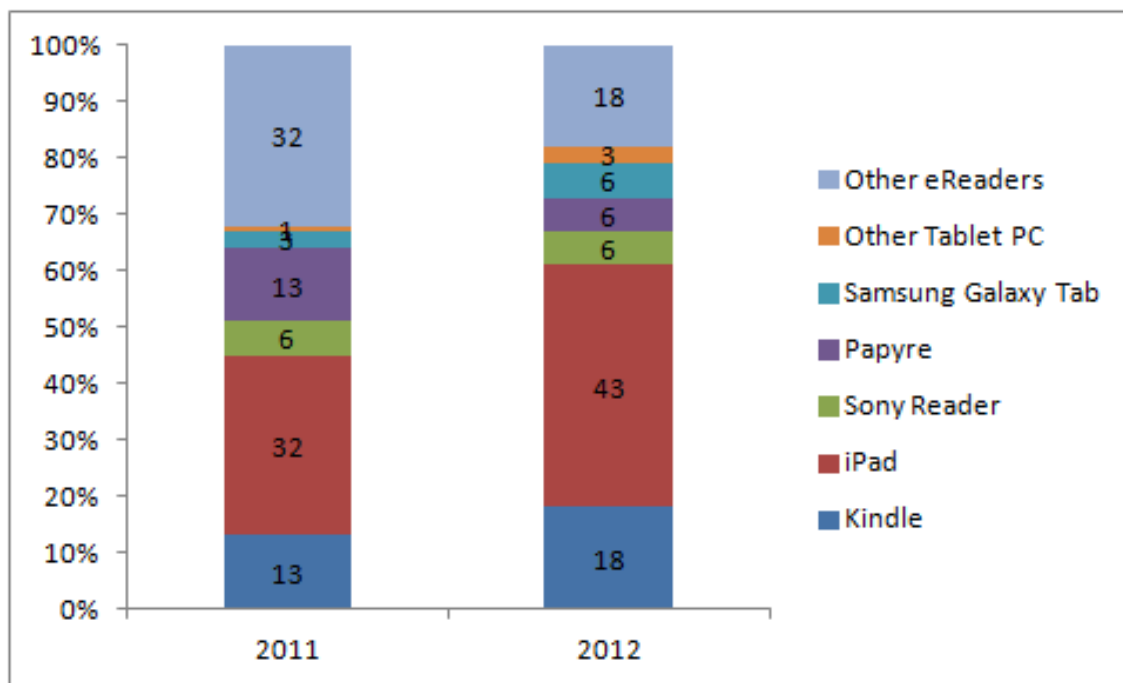
FIGURE 28: EVOLUTION OF THE AVERAGE PRICES OF PAPER BOOKS AND EBOOKS IN SPAIN, 2000-2012



SOURCE: OWN ELABORATION FROM ICLAVES (2012)

9.7% of the Spanish population has an e-book reader or a tablet. With the exception of Apple, some players have tried to follow the “razors and blades strategy” implemented by Amazon in the online book industry. This strategy consists of firms selling e-book readers devices such as Kindle at a loss, with the hope of making money delivering content to consumers. In Spain some players have adopted this strategy. Casadellibro.com launched the Tagus Tablet, Fnac the Fnac e-reader and El Corte Inglés the Inves-Book. The success of these initiatives has been limited as Spanish consumers prefer Amazon's or Apple's Devices. In only one year, from 2011 to 2012, the market share of the demand for alternative devices (e-books or tablets not from other producers than Amazon or Apple) went down by 35%. Foreign producers of these devices are absorbing most of the market. In the last year, Apple's iPad market share grew by 28%, Amazon's Kindle 38% and Samsung's Galaxy Tab 100% (Figure 29).

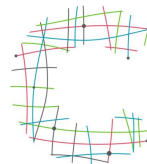
FIGURE 29: EVOLUTION OF THE MARKET SHARE OF TABLETS AND EREADERS IN SPAIN. 2011- 2012.



SOURCE: OWN ELABORATION FROM FEDERACIÓN DE GREMIOS DE EDITORES DE ESPAÑA (2013)

2.2.2 Analysis of the legal offer of digital publishing

Although the online digital book demand is not well developed in Spain, in the last years, the number of e-books providers has increased, as well as the variety of business models. There is a strong presence of Spanish players, especially online publishing companies. Few retailers tried to enter the market, among them Casa del Libro, Fnac and El Corte Ingles, which deployed a strategy supported by their own e-reader devices. Most firms have developed a pay per use revenue model based on downloads. Few firms have combined the pay per use revenue model with cloud based online reading. Subscription models and ad-supported free e-books are also rare. One of the main discussions in the industry was related to the use of DRM systems for e-books. Compared to music or videos, this industry has a relatively high number of firms believing that DRM systems deter the legal demand for books while they are not efficient means to deter piracy. Consequently, some firms decided to provide e-books without any DRM protection. Finally, the big three publisher firms in Spain plus four other publishers conceived of the platform Libranda as a way to spearhead the distribution of digital editions for books published in Spain. Libranda has focused more on the online distribution of physical books, as a competitor to Amazon. The main e-book suppliers in Spain are:



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24Symbols

<http://www.24symbols.com/>

24Symbols is a cloud-based provider of e-books following a subscription model. The catalogue has more than 15,000 titles, including novels, essays, poems, business books. Users can share their interests and opinions and follow other readers.

The website offers two services: an ad-supported free online access to some books and a premium service paying a subscription fee to get unlimited and ad-free access to the whole catalogue. Prices range from 5€ per month for yearly subscriptions to 9€ per month for monthly subscriptions.

Alfaguara Digital

<http://www.alfaguara.com/es/digital/>

The book publishing company Alfaguara has developed a digital store to promote literature reading across the world. It offers a catalogue with more than 100 books written by Latin American writers that are only present in digital format. Their e-book price range spreads from 4.99€ to 9.99€. The firm also distributes its books through the online stores Amazon, Apple, El Corte Ingles, Librandia and Fnac.

Amabook España

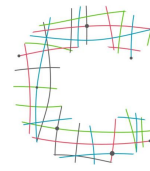
<http://www.amabook.es/>

Amabook offers eBooks to download or to read through an advanced technology of cloud based reading. It has a catalogue with more than 1,000 digital titles of different categories, including literature, science fiction, economy, children's books. Prices go from 2.99€ to 9€. Users can make use of an own lecturer spot where they can store and download the purchased books.

Amazon

<http://www.amazon.es/>

The leading online retailer Amazon provides an e-book distribution service for its e-reading device, Kindle and other devices, such as iPhone, iPad, Android Phones, Mac or Windows Computers. Kindle price goes from 79€ and Amazon offers a huge e-book catalogue with more than 1 million titles and more than 1,400 classic e-books for free. Besides, there are more than 8,000 books for less than 5.99€. The service Kindle Flash lets users read a daily e-book with an 80% of discount. Users can download or read book fragments before buying the entire work.



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Barnes & Noble

<http://www.barnesandnoble.com/>

Similar to Amazon, Barnes & Nobles offers more than 1 million titles and has developed its own e-reader device: Nook.

Blio

<https://www.blio.com/blio/screens/homepage.jsp>

Blio is a free-to-download e-reader software platform supported by Windows or Android. On the website, readers can purchase a huge catalogue of e-books for less than \$5. Books are classified in sections, such as romance, kids and teens, science fiction, mystery, cooking, business, biographies and fictions.

Casa del Libro

<http://www.casadellibro.com/ebooks>

The largest Spanish offline bookstore Casa del Libro has its own online bookstore. The catalogue offers more than 50,000 titles arranged by categories. E-books' prices start at 0.99€, with some titles given away for free. The firm has developed its own e-reader device, Tagus, as well as their own DRM system. The firm combines two revenue models, e-book downloads in Tagus devices and cloud based online reading for other mobile devices.

CIMOC

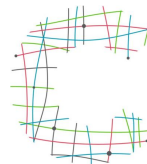
<http://www.cimoc.com/>

CIMOC is a store specialized in selling comics online. It is a cloud-based service allowing online reading. The application is compatible with the main platforms – iOS, Android and PC. Comic prices start at 1.59€, with some comics being given away for free.

CONLICENCIA.COM

<http://www.conlicencia.com/>

CONLICENCIA.COM is the digital licensing platform from the Spanish CMRO Centro Español de Derechos Reprográficos (CEDRO, Spanish Reproduction Rights Centre). The platform grants the right to reuse the content from books, journals and newspapers. Current content includes more than 20 million protected works. Licenses will be granted either through a pay per-use model and also a yearly flat rate.



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Digitalia

<http://www.digitaliapublishing.com/>

Digitalia is a Hispanic e-books' and electronic journals' database, where users can find access to high quality contents in Spanish. It offers a large number of titles from prestigious Spanish and Latin American publishing companies, as well as, thematic journals. It is specialized in social science, humanities, and science books. The business model works by payment for each title downloaded.

Edi.cat

<http://edi.cat/>

Edi.cat is one of the pioneers in editing and publishing digital books in Spain. The firm was created by independent editors and is the largest online store books in Catalan language. Through the website, users can purchase e-books and e-readers, and it works with a revenue model based on payment per use. The firm employs the adobe DRM system for its books.

El Corte Inglés

<http://ebooks.elcorteingles.es/>

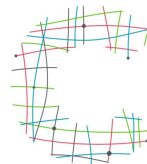
The popular Spanish department store El Corte Inglés has an online store where consumers can buy digital books for PC or mobile devices. It is a pay-per-title downloading service. There are some Harlequin offers from 0.99€ and free trial offers, and the downloading time is between 1 and 35 minutes, depending on the connection speed and the size of the file.

From the El Corte Inglés online store, consumers can also purchase an e-reader. Inves is the e-reader supplied by the electronic brand of El Corte Inglés, but other brands are also sold.

ENDEBATE

<http://endebate.com/>

ENDEBATE provides a digital collection of essays with less than 10,000 words. It is an initiative that brings famous authors and prestigious experts to talk about current topics. Each essay costs 1.59€, and the application for iPad is free to download. This platform was created by Random House Mondadori.



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e-libro

<http://www.e-libro.net/>

e-libro offers complete texts, professorship texts, books, journals, scientific research and PhD thesis of all the categories and from more than 200 editing companies. The current catalogue is composed of 61,608 titles. It offers digital downloading of contents in different devices compatible with Adobe Digital Editions and borrowing for 14 days. Prices depend on the kind and size of the library, college or university.

Fnac

<http://ebooks.fnac.es/>

Fnac sells e-books, as well as its Fnac e-reader. Nevertheless, its e-books can also be read in other devices, such as iPad, iPhone or Android tablet thank to free reading applications. Its business model relies on a payment per use system. Books are classified by category and price, so users can buy books from less than 2€, less than 5€ or less than 10€.

Google Play

<https://play.google.com/store/books>

Google provides a digital book service through its online store. Users can read the book online or download it –although this option is not available for all titles. It works with mobile devices – tablets, smartphones - and PCs. It has a very large catalogue in several languages, with many e-books given away for free.

Grammata

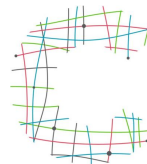
<http://grammata.es/>

Grammata is an online store where consumers can purchase e-books and the Grammate e-reader: Papyres. It has more than 50,000 titles. Digital books are classified by price, so there are e-books for less than 5€, less than 10€, and less than 15€.

iBooks Store

<https://itunes.apple.com/es/app/ibooks/id364709193?mt=8>

It is a digital book distributor service provided by Apple iTunes. iBooks lets users download and read books easily on iPad or iPhone. The digital books' catalogue is very comprehensive, some books are given away for free.



Kobo

<http://www.kobobooks.es/>

Kobo is a digital reading service owned by Rakuten, the leading Japanese e-Commerce company. It has been expanded across more than 190 countries and offers one of the largest catalogues in the world, with more than 3.5 million e-books, newspaper and journals. It has developed reading applications for iPad, iPhone, Android and Windows, and it also provides its own e-reader, such as Kobo Touch and Kobo Vox. The business model is based on a website, from which users can purchase e-books or download them. They are available for any device thanks to existing applications. There are e-books for less than 5€ and some free e-books.

Koomic

<https://www.koomic.com/>

Koomic is a Spanish platform specialized in digital comics. On the website, consumers will find a huge selection of digital comics in Spanish language that they can enjoy from a PC or a mobile device – iPad, iPhone, iPod, iTouch and soon Android. It offers an online library, meaning it is an online viewing, not downloading service. The payment system works through a pre-paid card with a value of 10€ or 20€, which can be acquired in traditional stores. Customers can also pay directly, and there are some free digital comics. Moreover, the firm is trying to create a social network where users can find people with similar interest.

Leer-e

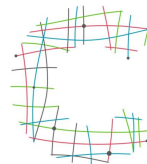
<http://www.leer-e.es/>

Leer-e is a Spanish platform specialized in digital books. Indeed, it offers a digital collection called Ibuku, which recovers unpublished and rare titles. Users can purchase e-books as well as e-readers. The revenue model is based on downloads. Prices vary from 0.49€ to 302.50€ and there are about 20 titles for free. Digital content is compatible with most devices.

Librosinlibro.es

<http://www.librosinlibro.es/>

Librosinlibro.es is a platform to market digital contents. It has been created by independent editors and booksellers, and with the help of authors and readers. It works with a downloading and pay-per-title service. Prices start at 3.54€.



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Megustaleer

<http://www.megustaleer.com/>

Megustaleer is owned by Random House Mondadori, a leading editing and publishing company. The platform Megustaleer has been created to distribute digital content of its own label as well as other labels. It is based on a downloading system and prices start at 0.49€.

Nubico

<http://www.nubico.es>

Nubico, formerly Booquo, is a website created and developed by the Readers Association, trying to create a community and a cultural forum. Its business model is mainly based on a subscription model for 8.99€/month. Users can access through any PC or Android or Apple tablet or smartphone, with a maximum of five devices by user, so it allows the use of the platform in a familiar way. This access goes via the internet and the personal library is stored in the cloud. E-books can also be downloaded to be read offline.

Onlania.com

<http://www.onlania.com/>

Spanish firm focused on the distribution of digital contents related to e-books and e-readers. It has a catalogue with thousands of titles. It offers a downloading service, so once consumers have chosen the e-book, the firm sends an email with a link to the consumer to download the e-book. Onlania.com tries to promote the lecture, so it offers 77 e-books for free, and several promotions, such as e-books for less than 1€, less than 3€, or less than 6€, although premiere books are more expensive.

Sigueleyendo

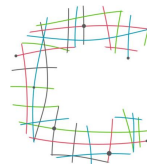
<http://www.sigueleyendo.es/>

It is a platform created for and by authors and readers. It publishes digital books to promote the distribution and the access to culture. It offers e-books from its own library, BICHOS, with a price of 1€. With the purchase of the e-book, a link comes up to download the e-book with ePub format, compatible with most devices.

Tiendadelebook

<http://www.tiendadelebook.com/>

It is an online bookstore, in which consumers can buy e-books as well as e-readers and other accessories. It is based on a downloading system, so customers will access their purchases through a link to download the e-books. There are some free e-books and prices go from 1.99€, offering a discount of 5% for novelties.



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Todoebook

<http://www.todoebook.com/>

It is one of the main platforms of Spanish e-books and the first offering e-books in Europe. It offers a huge catalogue, including novels, business, travel, psychology and poetry. All purchased or free downloaded e-books are stored in the users' e-library – a cloud locker. Furthermore, it provides a distribution service to editors.

Trabe

<http://www.trabe.org/>

Trabe is an online digital bookshop, specialized in Asturian language books. It works with a downloading system and e-books have an ePub format.

VNet Librerías

<http://www.vnetlibrerias.com/>

VNet has been created by Vision Net. VNet is a platform of electronic commerce to distribute digital publications, as well as productions on demand. The digital contents are saved in PDF, ePub, mp3 o mp4 formats – it also sells audio-books. The platform in addition provides an online rental service for 21 days from 1.50€.

Waterstones

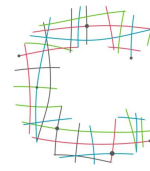
<http://www.waterstones.com/waterstonesweb/browse/ebooks/4294964587/>

Waterstones is a British bookseller company. Its catalogue has more than 240,000 titles. Its business model is based on a downloading system. E-books can be read in most of the e-readers (except Kindle), smartphones and tablets.

ZonaEbooks.com

<http://www.zona ebooks.com/>

ZonaEbooks is the online bookstore by the Edhasa publishing group, which represents an open platform which can be used by other editors. It offers a wide catalogue classified by multiple categories, such as science fiction, sports, law, comics, business, religion, politics, romance.



2.2.2.1 Spanish Digital Publishing Entrepreneurs

Bq

<http://www.bqreaders.com/>

Bq is a Spanish manufacturer of e-readers, tablets and smartphones. Its first product was the bq e-reader. The firm was founded in 2008 by the board of directors of the firm StarTic Innovation and Antonio Quirós, the CEO of the publishing firm Luarna. The company started selling e-readers, and then expanded into tablets and Smartphones. In only two years revenues increased eightfold reaching € 40 million. Products are designed in Spain, but manufactured in China and Taiwan. The firm started its expansion in foreign markets like Portugal, Argentina and Uruguay. The main goal for the next years is to expand into most European countries.

Hispabooks

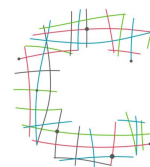
<http://www.hispabooks.com/>

Hisabooks was founded in Madrid in October 2011 by Ana Pérez Galván and Gregorio Doval, two highly committed editors with years of experience in the publishing industry. Hisabooks sells contemporary Spanish fiction books, which are translated into English. The company sells to bookstores worldwide, but mainly in English speaking countries, such as the USA, the UK, Canada and Australia. The business model combines digital books with paper books. Paperback format is sold on demand. Books are only printed if there is enough demand. Digital books are sold through distributor platforms such as Amazon. In the future, the company expects to develop their own e-commerce platform.

VisualMANIAC

<http://visualmaniac.com/>

VisualMANIAC is a digital bookstore specialized in cultural visual publications. The firm sells art, architecture, design and photography digital books and journals. The company was created by Joaquín González, Álvaro de Andrés, Teresa de Andrés, Cristina Álvarez, Carol Smith, and Elia Maqueda. Currently, the catalogue has 500 titles. The platform is cloud based and allows customers to buy, rent or read books. The firm publishes their own digital journal, visualMAG, with book recommendations and articles related with visual arts.



3. PEST ANALYSIS OF THE DIGITAL CONTENT INDUSTRY IN SPAIN

Consumption of digital content behaves in reverse to income assuming they are seen as inferior goods. As income goes up, consumption of digital content goes down and vice-versa. This implies that economic operators in the area should be looking at ways of improving the perceived quality of digital content.

Purchase of digital content is more common in densely populated areas than in the sparsely populated ones. This is related to the lower investments of infrastructure in these areas rather than with the demand by the population, which is similar in urban and rural areas.

One critical point in the Spanish society seems to be the willingness by the population to pay for content in general – physical and digital - which has decreased substantially with the internet supply of free content.

In general, since the start of the recession, the world has seen a technological boom with the digital world becoming smarter and more mobile. Consumption, but also purchases, of digital content have generally increased.

3.1 Political and regulatory environment of the digital content industry in Spain and its impact on the market

3.1.1 Tax policies

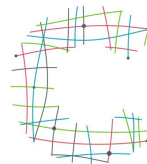
3.1.1 IP policies

3.2. Economic environment and consumer habits of digital content

3.2.1 Digital content as inferior goods?

The analysis of the relationship between demand for digital content and income shows an interesting pattern.

During the period 2004-2010 the GDP per capita at market prices increased by 15%, while the proportion of Spanish internet users playing or downloading any kind of digital content diminished by 8%. On the other hand, during the period 2010-2012, the GDP per capita went down by 2%, while the demand for digital content increased by 14%. This initial evidence points out that digital content behaves as inferior goods, however further research would be needed further. Some former academic research pointed in the same direction supporting the hypothesis of digital content as inferior good. Inferior goods have a negative income elasticity, which implies that as income increases, their consumption decreases. Sandulli and Martin-Barbero (2008) found that digital music



plays the role of an inferior good within the leisure basket of Spanish consumers⁹. News online follow a similar pattern: the analysis of Pew Research Center survey data on online news consumption in the United States shows that as income increases, consumption of online news decreases, other things being equal. Therefore, online news is an inferior good among users (Chyi and Yang, 2009).¹⁰ A potential explanation to this phenomenon has been advanced by Renwick (2012), who suggests that the lower perceived quality of online content compared to offline content may explain why consumers reduce their consumption of these low quality goods such as digital content when their income increases, since they can afford higher quality goods¹¹. This same phenomenon has already been observed in cultural industries by Jozefowicz et al., (2008) who found that the different quality perceived by users regarding VHS and DVD rentals provoked VHS rentals to be an inferior good, while DVD rentals had a very large positive income elasticity, implying DVD rentals were in fact a luxury good¹².

Analyzing the different age groups of the Spanish population it is possible to observe that with the exception of older consumers, people with larger income per capita tend to have lower willingness to pay for digital content (Figure 30). Moreover, as predicted by the academic literature, the relationship between willingness to pay and income seems to be moderated by content perceived quality. If quality is measured by novelty, the intragroup differences in terms of willingness to pay are larger for catalogue content than for premiere content. This evidence points out the fact that lack of perceived quality of digital content may be explaining the low willingness to pay for digital content in Spain.

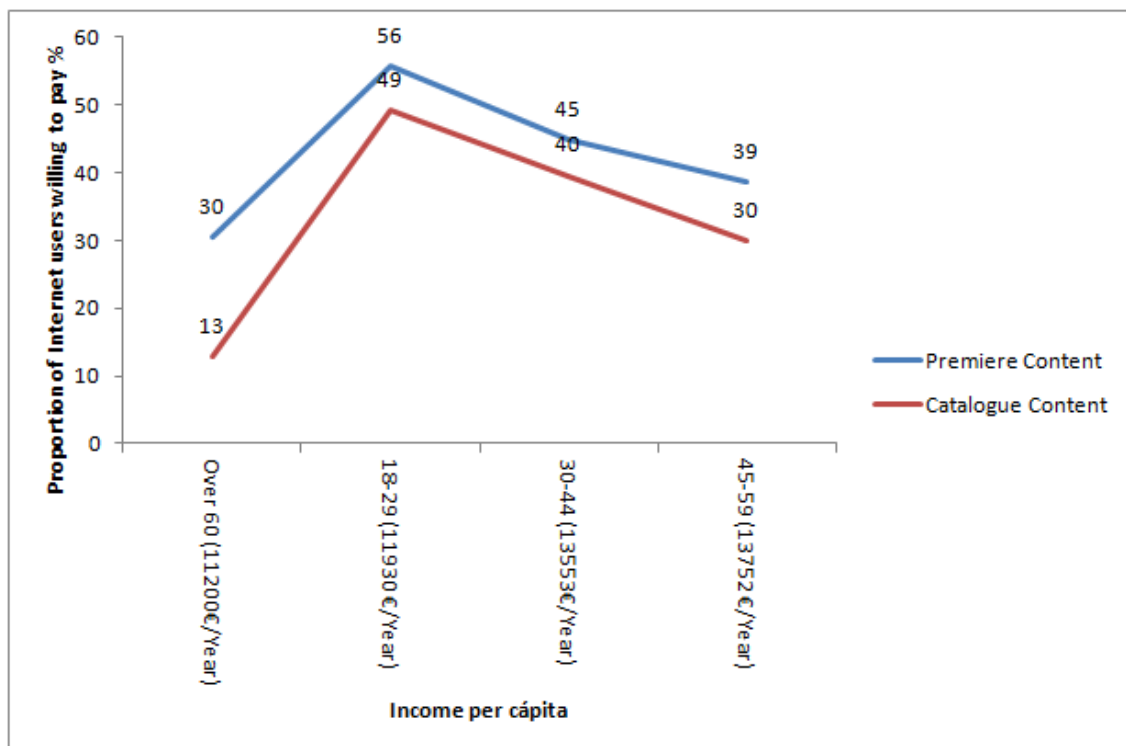
⁹ Sandulli, F. D., & Martín-Barbero, S. (2008). 99 Cents per Song: A Fair Price for Digital Music? The Effects of Music Industry Strategies to Raise the Willingness to Pay by P2P Users. *Journal of Website Promotion*, 2(3-4), 3-15. Bellemare, M., & Holmberg, A. (2010). The determinants of music piracy in a sample of college students. Available at SSRN 1481272.

¹⁰ Chyi, H. I., & Yang, M. J. (2009). Is online news an inferior good? Examining the economic nature of online news among users. *Journalism & Mass Communication Quarterly*, 86(3), 594-612.

¹¹ Renwick, D. D. (2012). Three of a kind: how young adults engage with print, online and mobile platforms (Doctoral dissertation, University of Missouri).

¹² Jozefowicz, J. J., Kelley, J. M., & Brewer, S. M. (2008). New release: An empirical analysis of VHS/DVD rental success. *Atlantic Economic Journal*, 36(2), 139-151.

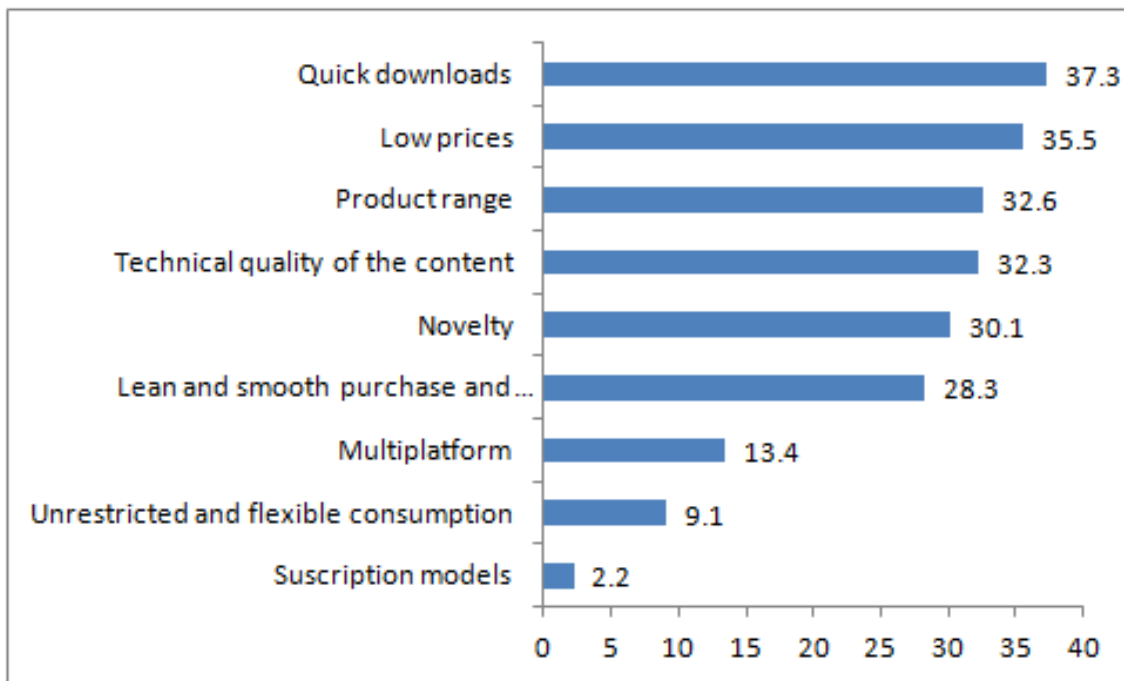
FIGURE 30: INCOME PER CÁPITA OF AGE GROUPS AND WILLINGNESS TO PAY FOR DIGITAL CONTENT, BY NOVELTY.



SOURCE: OWN ELABORATION FROM ICLAVES (2012)

Therefore, players in Spanish digital markets need to find out new ways to improve the perceived quality of the consumption experience related to content. Some consumer surveys reveal that the most valuable characteristics of digital content in Spain are related to the technical performance of the consumption process (speed and quality of accessing digital content), the product range and novelty as well as price (Figure 31). This last point is not surprising as, in general, online consumers perceive lower value from the digital experience compared to the physical experiences such as going to concerts or movie theaters or possessing content in physical format. Moreover, they find little differentiation between paid and free content consumption experiences. Therefore, they will pay less for it and price will have a strong impact in their purchasing decisions.

FIGURE 31: MOST VALUABLE CHARACTERISTICS OF DIGITAL CONTENT CONSUMPTION EXPERIENCE, % OF INTERNET USERS.



SOURCE: ICLAVES (2012)

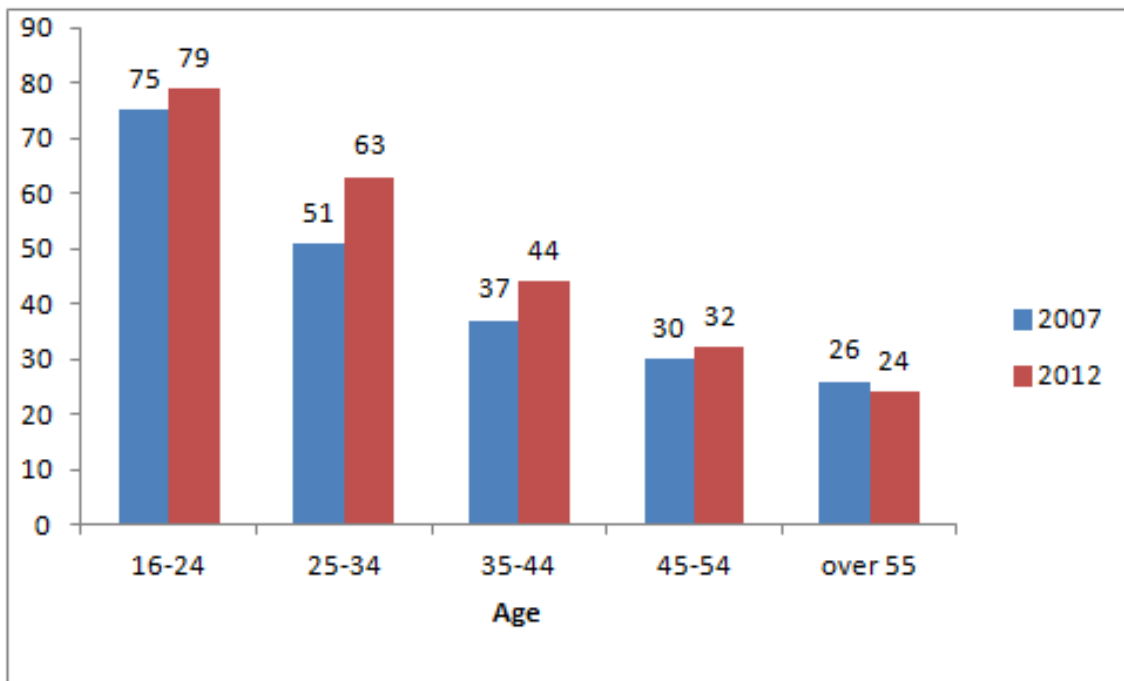
3.3 Social environment and consumer habits of digital content

3.3.1 Has the consumer of digital content changed?

The profile of the average consumer of digital content has remained unchanged in Spain for the last years. This profile is a male below 34 years of age living in densely populated areas and living in a household belonging to the third or fourth income quartile.

Despite this stability, there are some interesting changes that need to be analyzed. The average age of the consumer of digital content is increasing. Between 2007 and 2011 consumers between 25 and 44 years of age experienced the largest growth in terms of demand for digital content. By contrast, the proportion of digital consumers over 55 years of age has diminished over the last five years (Figure 32). This reduction may be explained by the fact that these internet users employ the internet for basic activities such as electronic mail or internet browsing without having the skills required for electronic commerce or digital content consumption.

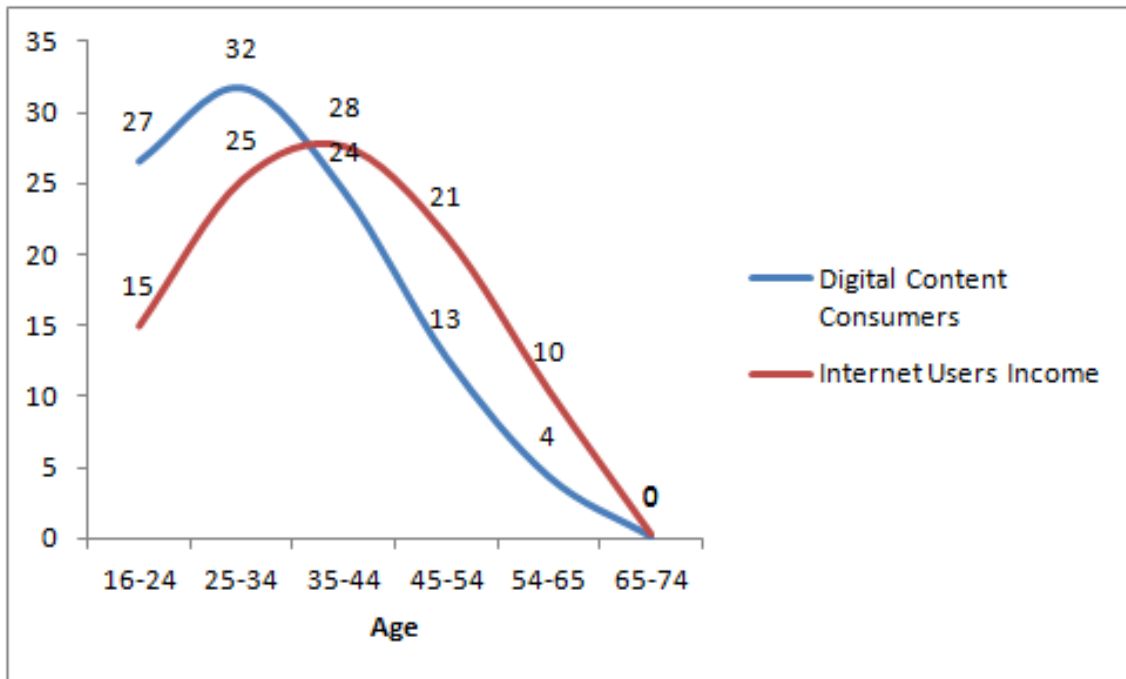
FIGURE 32: PROPORTION OF INTERNET USERS DOWNLOADING/PLAYING MUSIC, VIDEOS, IMAGES ON THE INTERNET, 2008-2011 AGE DEMOGRAPHIC BREAKDOWN.



SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

The distribution of digital content consumers is skewed in terms of age and income (Figure 33). Low income internet users, mainly younger individuals, are over-represented in the population of digital content consumers, while higher income internet users, medium-age individuals, are under-represented. Fortunately, internet users with higher income are the demographic segment which is growing faster in terms of demand for digital content. Therefore, in future, the distribution of digital consumers will be less skewed in terms of income and the potential economic size of digital markets will be larger.

FIGURE 33: DIGITAL CONTENT DEMAND AND INTERNET USER INCOME DISTRIBUTION IN SPAIN.



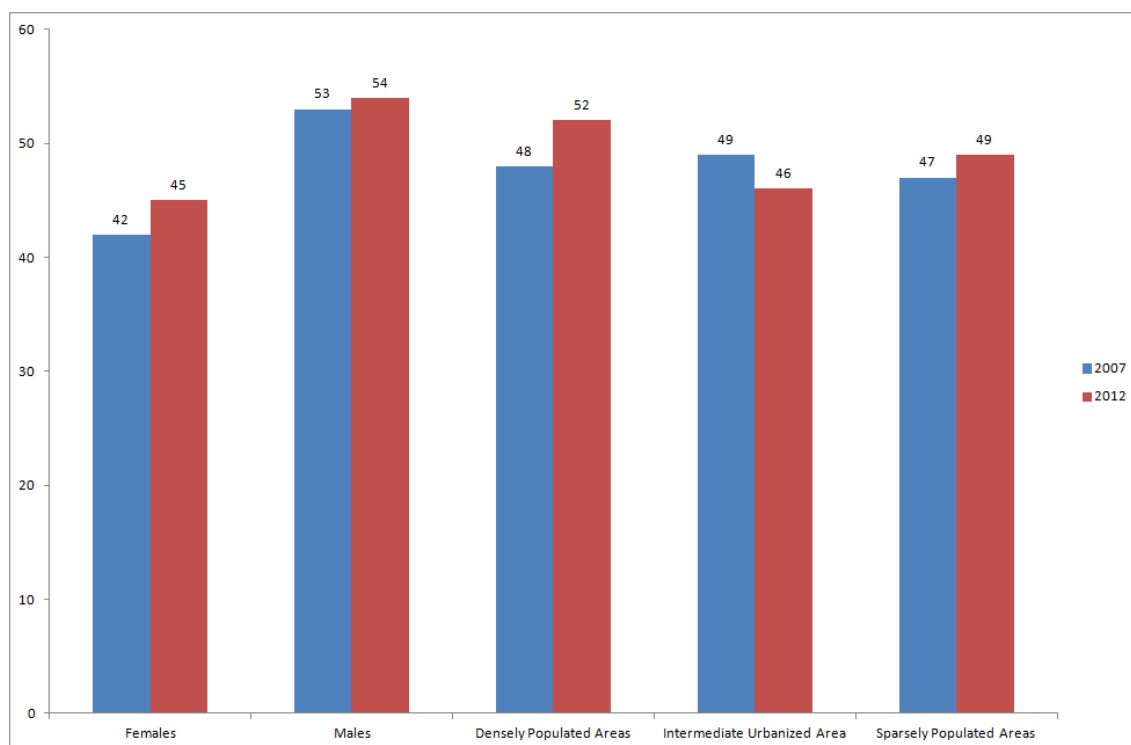
SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

The differences between male and female consumers in terms of demand for digital music, books and video consumption are narrowing in Spain (Figure 34). The disparity is still significantly large for videogames, with the exception of social videogames.

In areas with low population density in Spain bandwidth is less available. The reason is the under-investment by Spanish telecommunications operators in these areas due to low profitability in terms of returns to capital expenses on infrastructure. Therefore, Internet users in these areas may experience some difficulties accessing digital content. However, the empirical evidence shows that densely and sparsely populated areas have similar demand for digital content. However, recent deployments of Next Generation Networks (FTTH and 4G) in urban areas may be increasing the demand more in urban than in rural areas.

Surprisingly, the demand for digital content in intermediate urbanized areas was lower in 2011 than in 2007. However, the relatively high levels of demand for digital content in these areas in 2007 may suggest that the population were early adopters of the Internet and consequently had high Internet skills. At the same time, users in areas with low density of population with a demand for digital kept growing.

FIGURE 34: PROPORTION OF INTERNET USERS DOWNLOADING/PLAYING MUSIC, VIDEOS, IMAGES ON THE INTERNET, 2008-2011 GENDER AND HABITAT BREAKDOWN.

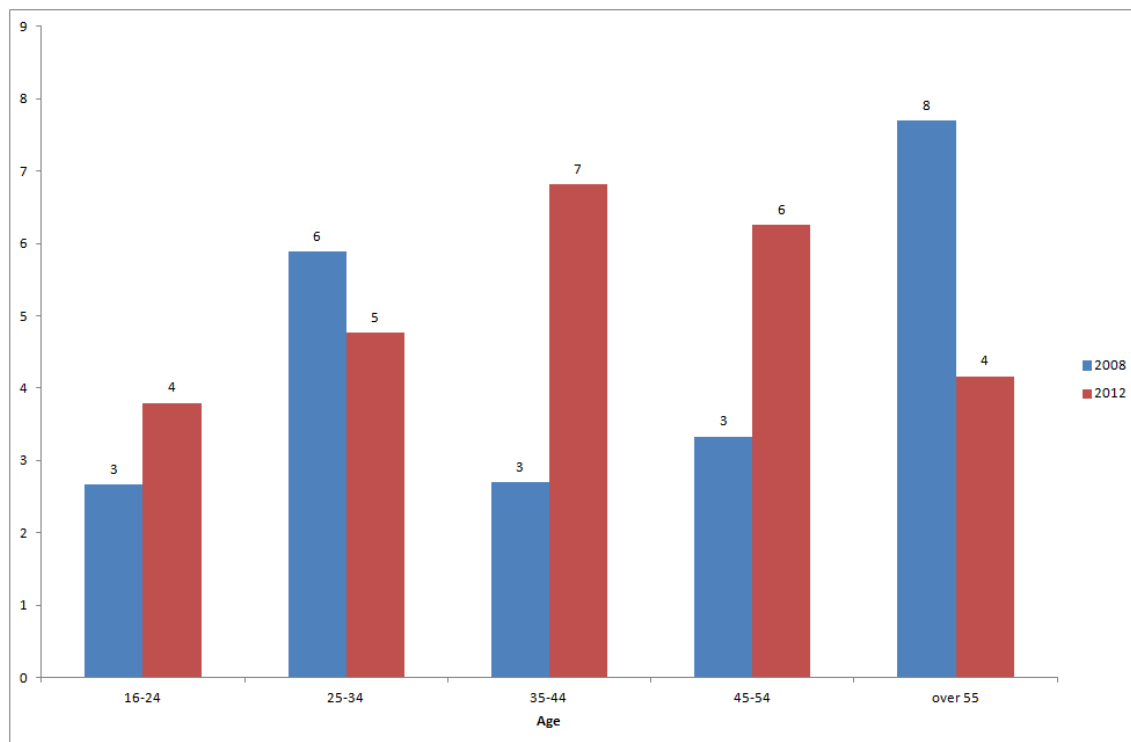


SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

The proportion of consumers paying for digital content has increased over the last five years, especially for users between 35 and 54 years of age (Figure 35). This segment of population doubled their likelihood to pay. This growth could be perfectly explained by the inferior good hypothesis. In fact, these users have experienced how their high income levels diminished during the recession, which made them substitute expensive leisure activities for digital content¹³ because of economic constraints. By contrast, the proportion of payers among people between 25 and 34 has diminished. This segment of population experienced the highest growth of digital content consumption in the last five years. Therefore, most of the new consumers of digital content within this age group is not paying for it. The proportion of payers among individuals over 55 years of age has suffered a 50% sharp decline. In this case, the lack of internet skills is probably explaining this sharp drop.

¹³ It is interesting to notice that in Spain the average consumption per capita on leisure activities has remained stable for the last 10 years at a level of € 500/year. What has changed with the great recession is the composition of that leisure basket.

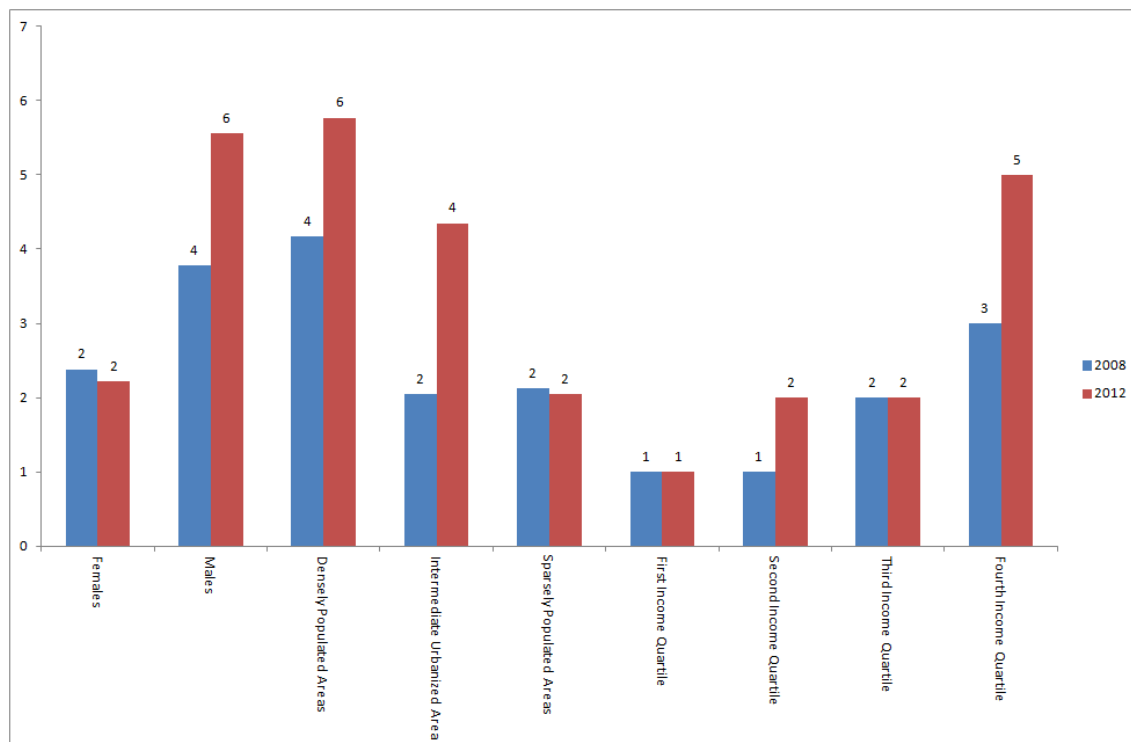
FIGURE 36: PROPORTION OF CONSUMERS OF DIGITAL CONTENT THAT PAY FOR IT, 2008-2011 AGE DEMOGRAPHIC BREAKDOWN.



SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

The proportion of payers has increased significantly in areas with intermediate and high levels of population density (Figure 37). As commented above, in these areas the average connection speed has increased considerably over the last five years. Since for Spanish consumers technical performance is one of the most important reasons for paying for digital content, increased bandwidth may have improved the perceived quality of digital content and therefore the willingness to pay for it. Similarly to people between 35 and 54 years of age, the inferior good hypothesis may explain why the proportion of payers has increased radically for the individuals living in households belonging to the fourth quartile of income.

FIGURE 37: PROPORTION OF CONSUMERS OF DIGITAL CONTENT THAT PAY FOR IT, 2008-2011 GENDER AND HABITAT BREAKDOWN.



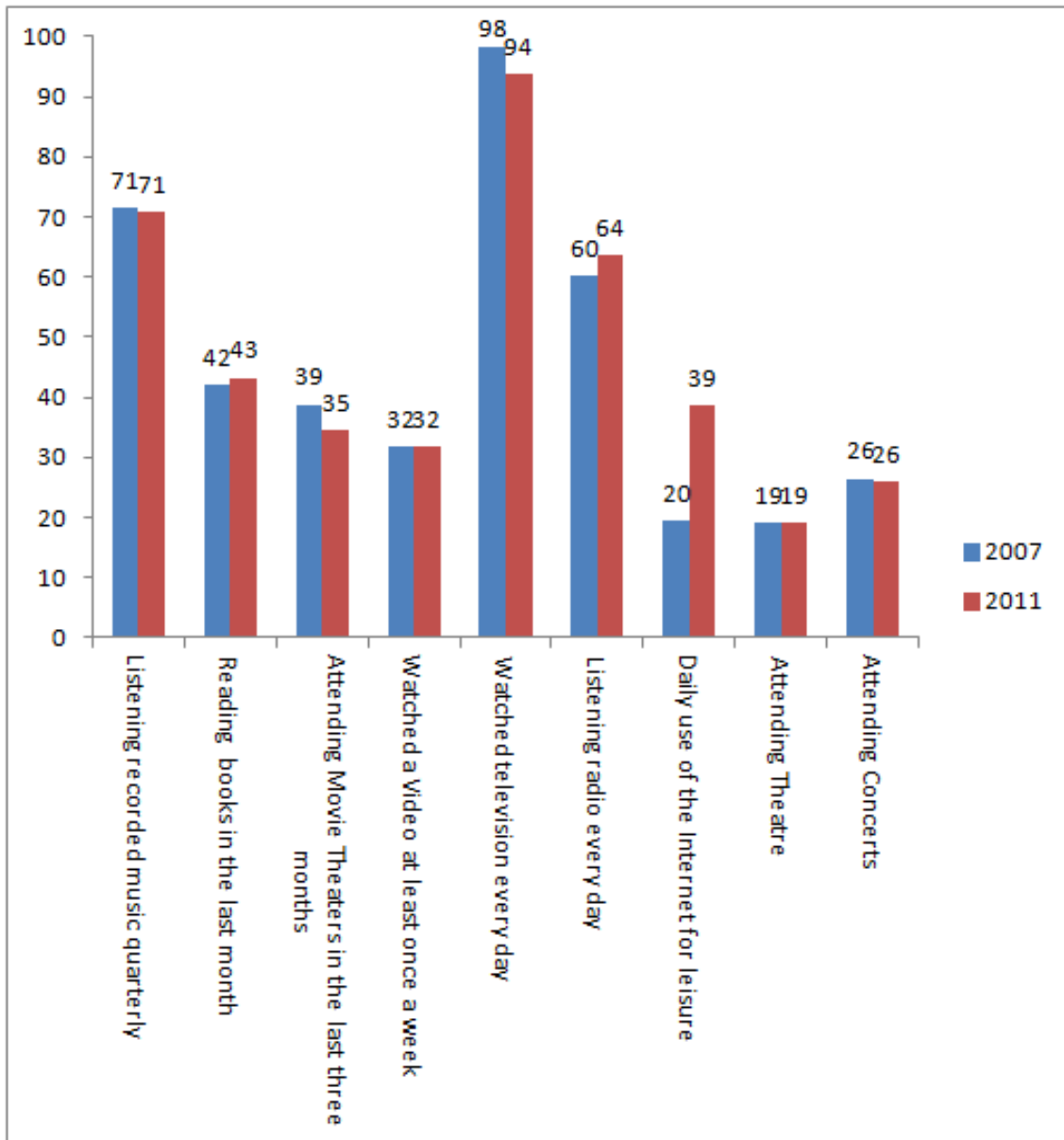
SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

3.3.2 Perceptions of digital consumption vs. traditional consumption: the substitution effect

Over the last five years, the structure of the demand for entertainment has remained basically unchanged in Spain. The most significant change was the strong growth of Internet based entertainment. In fact, the population consuming their entertainment time browsing the internet has doubled in four years. The only entertainment activities with a diminishing demand are watching television¹⁴ and attending movie theaters (Figure 38). However, these reductions have not been sufficiently large to suggest the existence of substitution effects.

¹⁴ It is important to mention that while the population watching TV every day has diminished, the average time spent watching TV has increased from 162.5 minutes/day to 168.1 minutes/day.

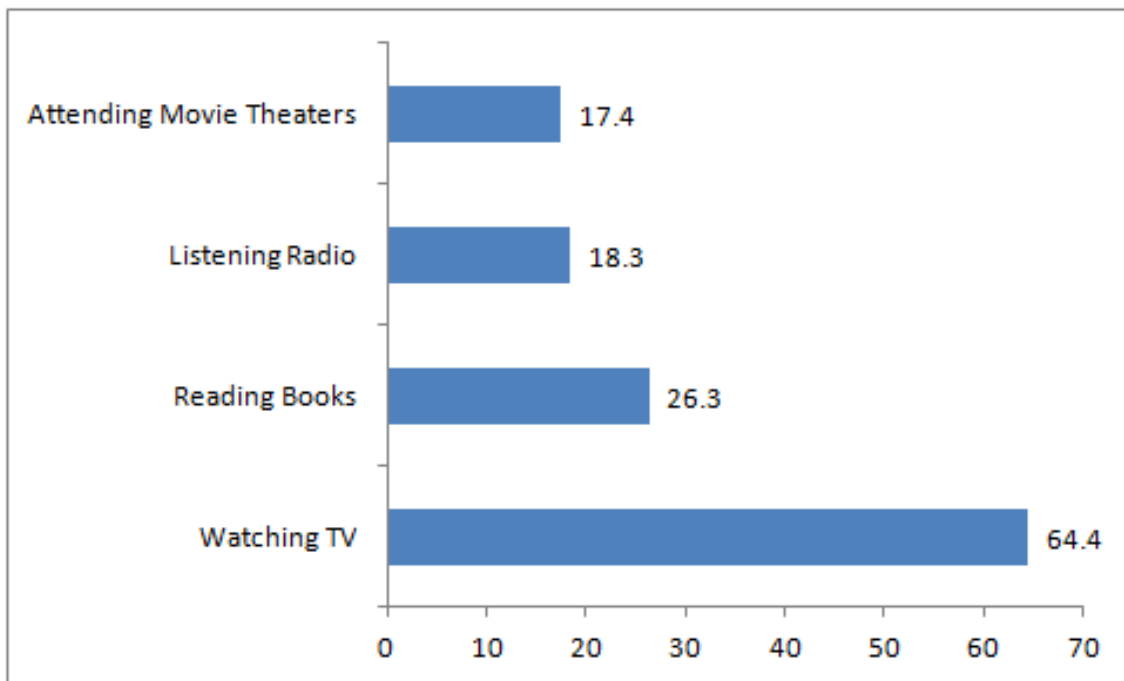
FIGURE 39: PROPORTION OF THE SPANISH POPULATION DOING LEISURE ACTIVITIES, 2007-2011.



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

Only for TV and movie theaters, the internet may have had some noticeable impact on lower audiences (Figure 40). However the demand for books and radio is not suffering from the internet. Overall, it seems that the internet is a complement and not a substitute for traditional leisure activities.

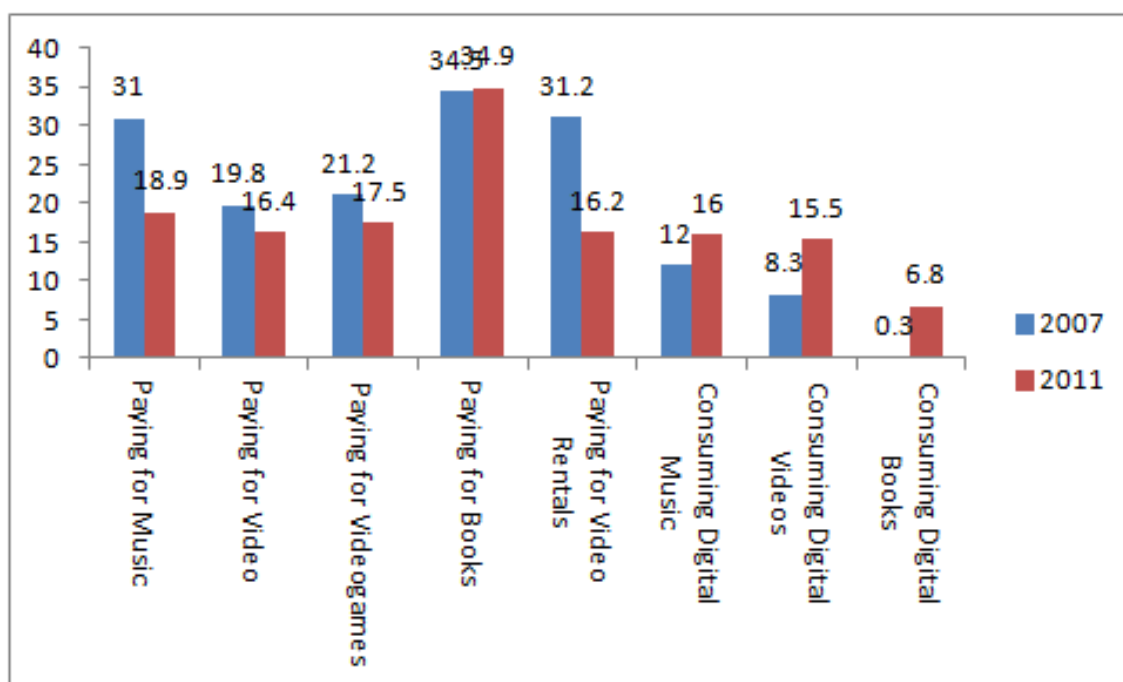
FIGURE 40: PROPORTION OF THE SPANISH INTERNET USERS REDUCING THE TIME THEY DEVOTE TO OTHER ENTERTAINMENT ACTIVITIES.



SOURCE: OWN ELABORATION FROM AIMC (2013)

Although the demand for content in general seems to be unchanged, the demand for paid content seems to be seriously affected by the internet. In fact, the proportion of Spaniards purchasing music, videos, videogames or renting videos is diminishing in Spain (Figure 41). The reduction in the number of people paying for music or renting videos has been significant. The number of people buying videos or videogames has also diminished, moderately, while the people buying books has increased. However, the increase in the population of digital consumers is not large enough to compensate for the smaller demand.

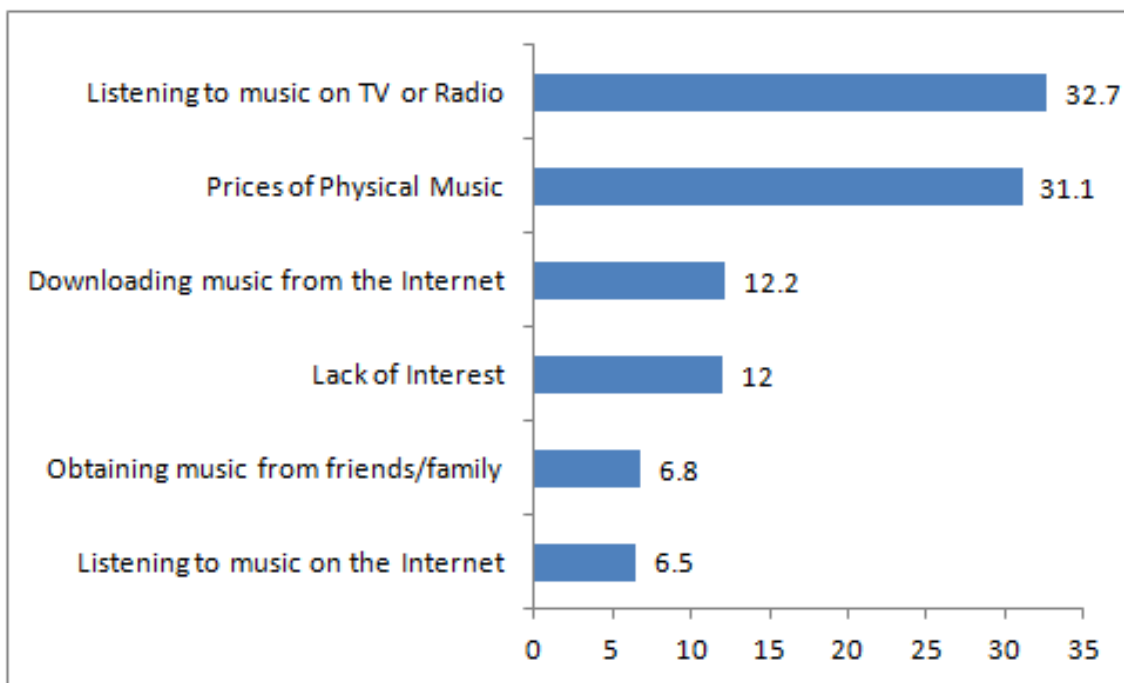
FIGURE 41: POPULATION PURCHASING MUSIC, VIDEO, VIDEOGAMES AND BOOKS, RENTING VIDEOS OR PLAYING/DOWNLOADING ONLINE MUSIC, VIDEO OR BOOKS (EITHER PAYING OR FOR FREE), % OF THE TOTAL POPULATION 2007-2011



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

Despite the fact that different opinions suggest that internet access to free digital content may explain why revenue falls in the Spanish music industry, users' opinions suggest that channel cannibalization and low value for money are at least as relevant in explaining the music market trend (Figure 42). For instance, music demand may be suffering by the fact that radio demand has increased by 7%, while the minutes spent watching television by increased almost 5%. Furthermore, the average prices of music in physical format have suffered relatively low adjustments, 11% reduction for the period 2007-2012, compared for instance to price adjustments in the video industry, 26% for the same period of time. Moreover, there are new sources of revenue associated to free access to digital content such as Youtube ads, which may partly compensate losses from lower direct sales. In fact, while music sales diminished by 42% between 2008 and 2011, the turnover of the whole music industry in Spain only dropped by 9% during the same period.

FIGURE 42: MAIN REASONS FOR BUYING LESS MUSIC IN PHYSICAL FORMAT, % OF THE TOTAL POPULATION 2011

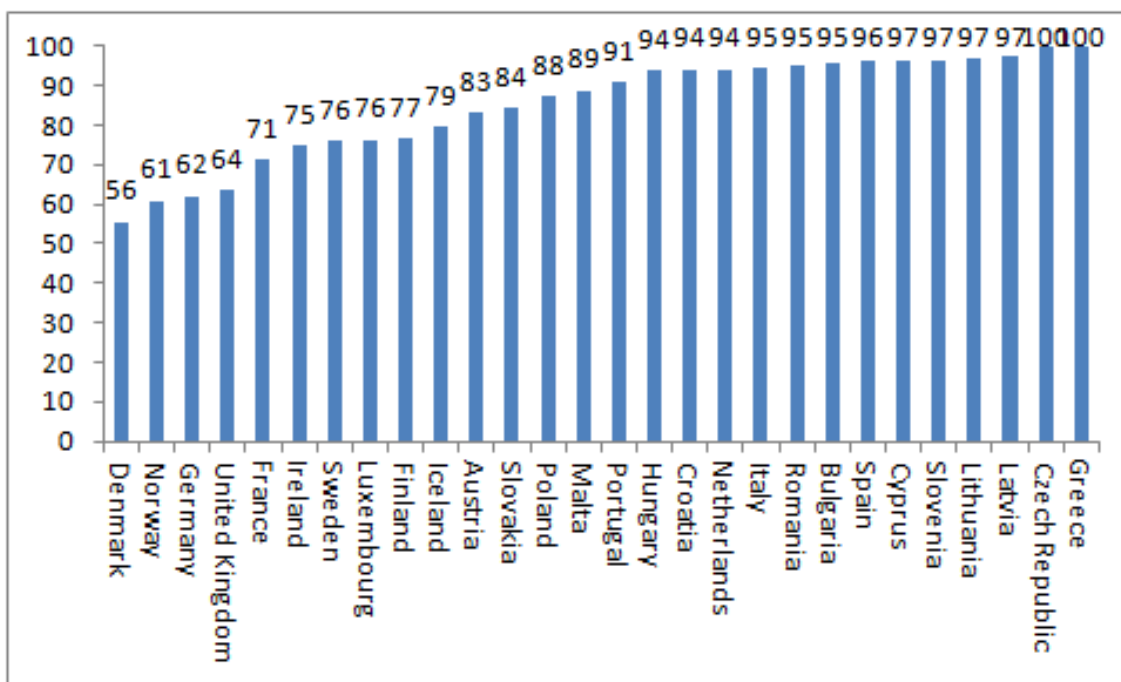


SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

3.3.3 Attitudes regarding the illegal consumption of digital content

Most of the Spanish consumers do not pay for digital content. However and contrastingly to some opinions, Spain is not different in this aspect. In fact, there are European countries like Greece, the Czech Republic or the Baltic Countries with a lower proportion of consumers paying for digital content (Figure 43). Other large markets such as Italy or The Netherlands have a similar proportion of consumers paying for digital content. What confirms that the problem is at least similar across Europe is the fact that even in those countries with large proportions of payers, the number of users playing or downloading music, videos or images for free is still larger than the number of buyers.

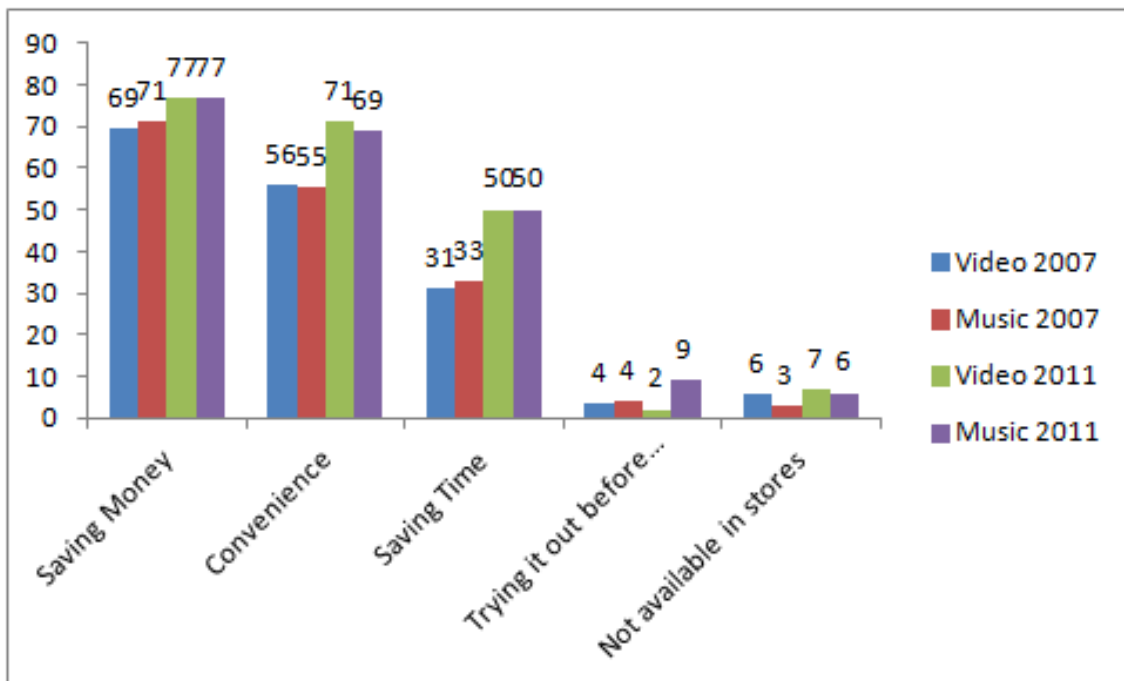
FIGURE 43: RATIO BETWEEN POPULATION CONSUMING DIGITAL CONTENT (MUSIC, VIDEO AND IMAGES) FOR FREE AND POPULATION CONSUMING PAYING FOR IT, 2010 BY COUNTRY



SOURCE: OWN ELABORATION FROM EUROSTAT (2013)

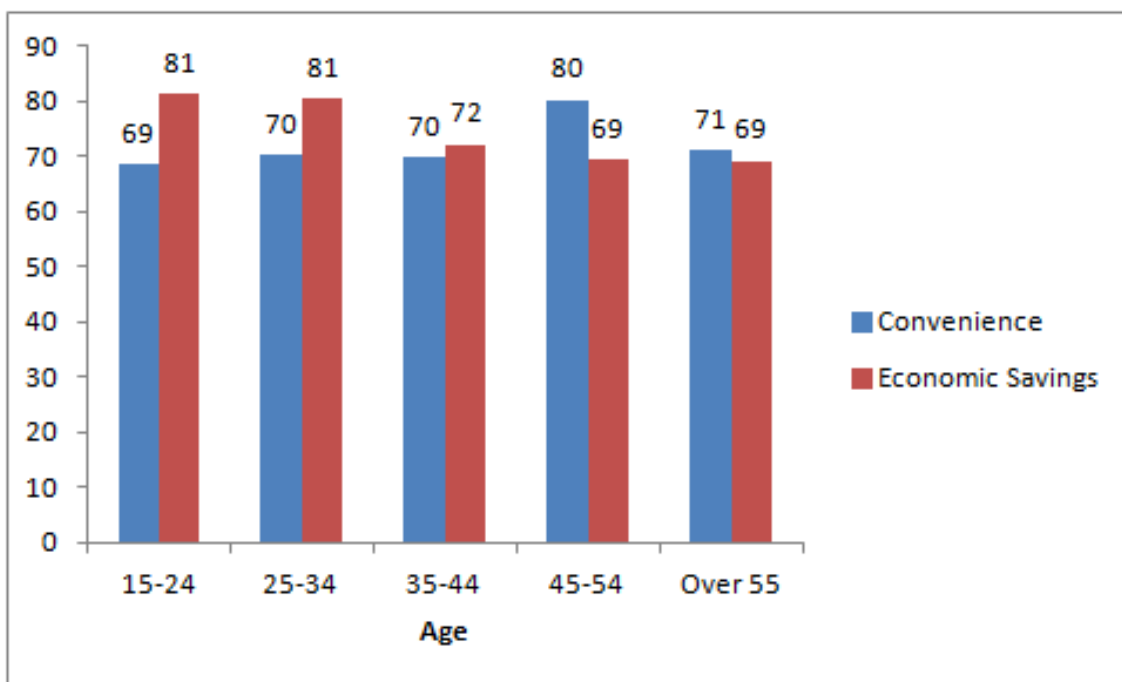
Saving money is the main reason for not paying for digital content in Spain (Figure 44). However, saving time and transaction costs in general also play a relevant role in the consumption of free content. In fact, the impact of transaction cost variables has grown significantly since 2007. In addition, there are some segments of the population in Spain, for which transaction cost savings are more important than saving (Figure 45). This relevance of transaction costs combined with the impact of technical quality of the consumption experience discussed above suggests that there may be a latent market for those business models with a value proposition strongly focused on easy, quick, simple and smooth transactions. On the other hand, the narrowness of the catalogue of many suppliers of digital content is not so important for Spanish consumers, suggesting that there exist players offering a sufficiently wide catalogue. For Spanish consumers over 45 years of age this motivation increases in importance, revealing a potential niche opportunity.

FIGURE 44: MOTIVATIONS FOR FREE CONSUMPTION OF DIGITAL CONTENT, 2007-2011
% OF POPULATION DOWNLOADING MUSIC OR VIDEO FOR FREE IN SPAIN



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

FIGURE 45: CONVENIENCE VS PRICE MOTIVATIONS FOR FREE CONSUMPTION OF DIGITAL CONTENT, 2011 % OF POPULATION DOWNLOADING VIDEO FOR FREE IN SPAIN, BREAKDOWN BY AGE



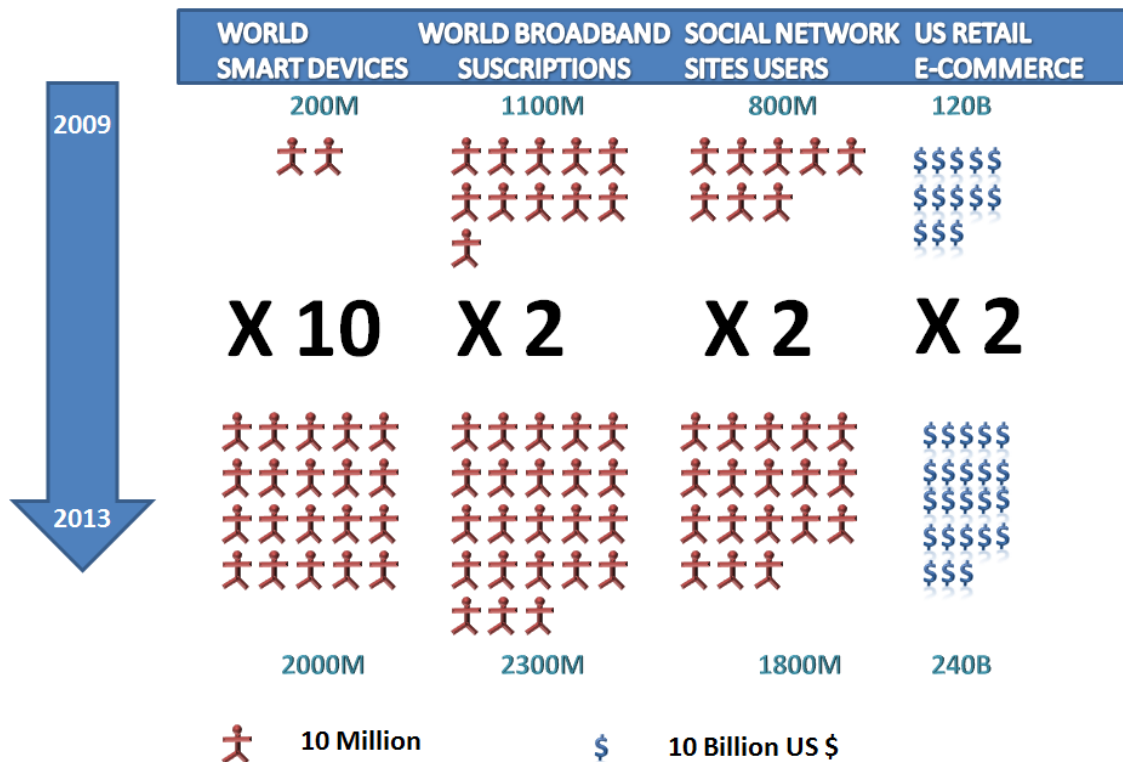
SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

3.4 Support of the technology environment to the consumption of digital content

3.4.1 ICT capacity of the Spanish consumer

The aftermath of the Great Recession has seen a global technological boom (Figure 46). Global adoption rates of broadband technologies and social networks doubled between 2009 and 2013. However what is more relevant is that the digital world is getting smarter and it is becoming increasingly mobile. In fact, over the last four years smart mobile technologies and markets reached the tipping point beyond the early adopters stage and started an exponential growth that caused a tenfold increase in the number of smart mobile devices.

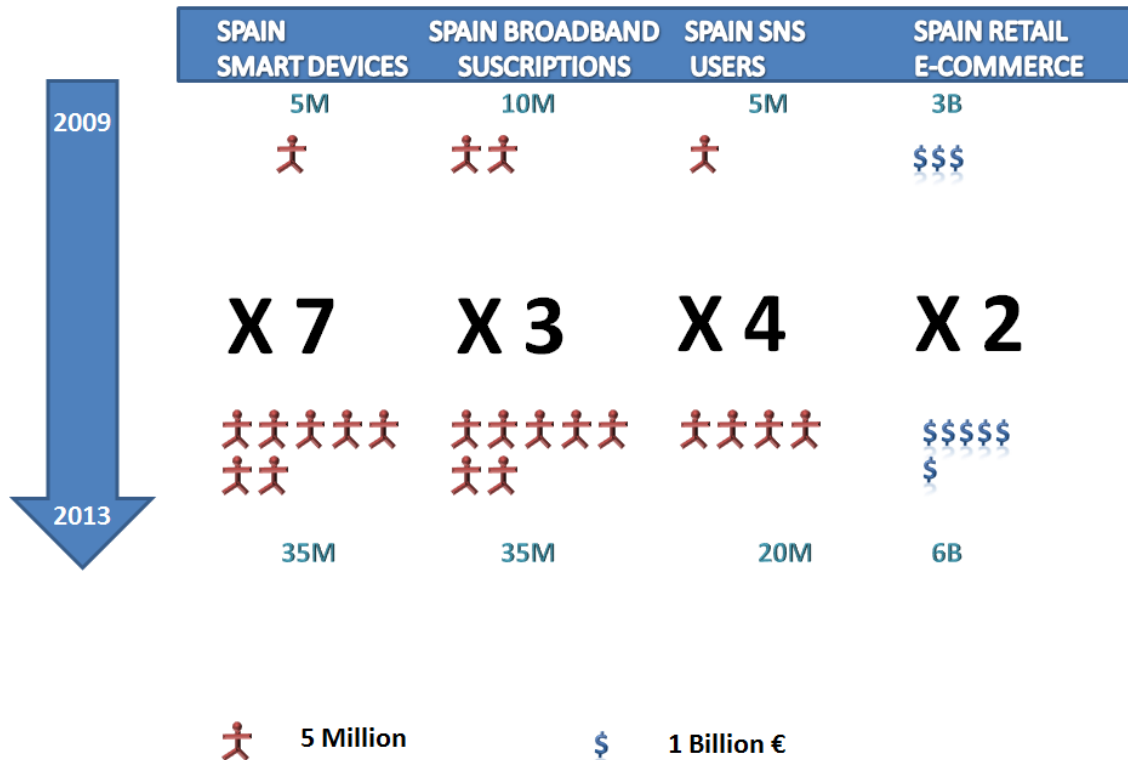
FIGURE 46: WORLD INFORMATION SOCIETY GROWTH BETWEEN 2009 AND 2013.



SOURCE: OWN ELABORATION FROM FUNDACIÓN ORANGE EESPAÑA 2013 (2013)

Also Spain has been hit by this wave. The terminal subsidy strategy of telecommunication operators in Spain lead to early adoption of the smart mobile revolution and a high penetration rate of smartphones. Spain was lagging behind some other developed countries in terms of penetration of social network sites and broadband technologies. However, the country has been trying to close this gap between 2009 and 2013, experiencing relatively high growth rates for these technologies (Figure 47). A remarkably positive fact is that - despite the deep local economic recession - retail e-commerce revenues have doubled in the last four years, suggesting that a large share of consumption is migrating to digital channels in Spain.

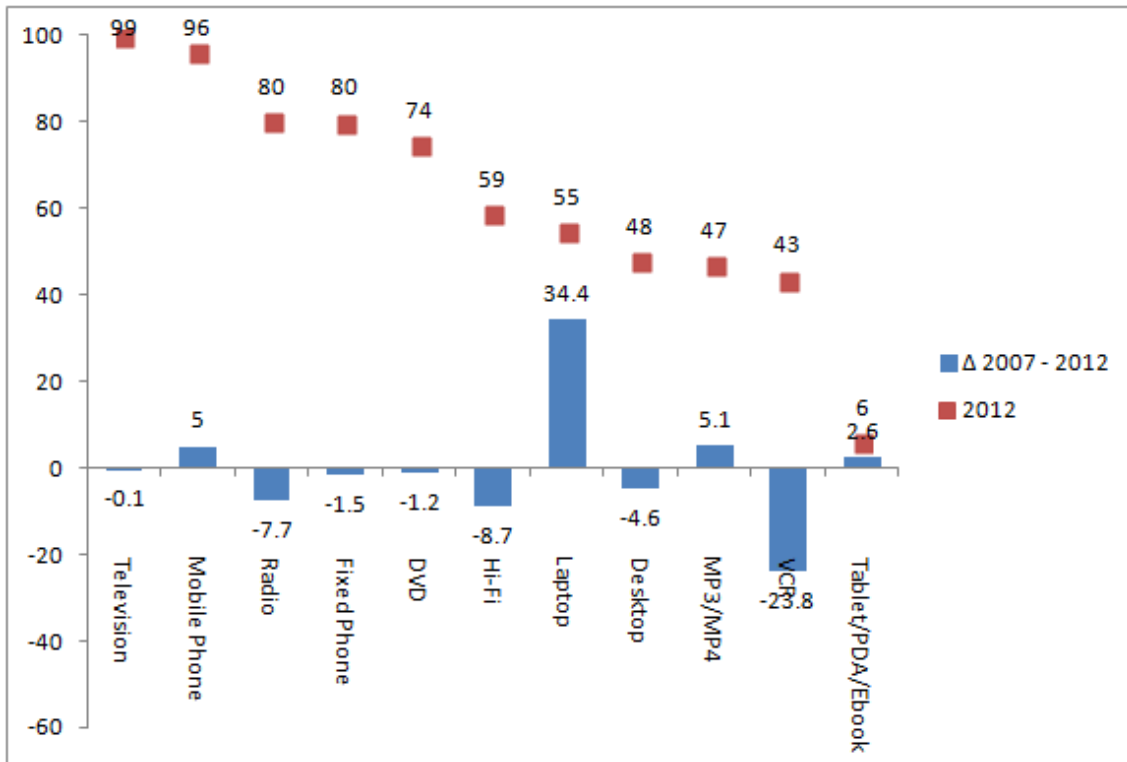
FIGURE 47: SPAIN INFORMATION SOCIETY GROWTH BETWEEN 2009 AND 2013.



SOURCE: OWN ELABORATION FROM FUNDACIÓN ORANGE EESPAÑA 2013 (2013)

The evolution of the technological devices available confirms that the mobile revolution is also taking place in Spain. The proportion of fixed devices in Spanish household diminished consistently across all categories from television to radio, desktops or VCRs. In contrast, all the categories of mobile devices, from MP3 players to Tablets or Laptops, increased their presence (Figure 48). This transformation is shaping a future where digital content experiences must be adapted to the specific nature of a mobile infrastructure. Television and Mobile Phones are almost universal in Spain. Even if some analysts suggest that the future of TV content delivery is the Internet, currently the diffusion of Smart TV devices in Spain is limited to nearly 1 million households. Regarding smart mobile devices, according to Comscore data, the penetration in Spain is slightly above 65%. Android based smartphones account for 60% on the Spanish market, with a yearly growth of 86%, mainly at the cost of Symbian and Black Berry operating systems. The penetration rate of iOS in Spain (10%) is much lower than in US (40%), UK (30%), France (20%) or Italy (20%). This low rate may have some business implications as we have seen above that willingness to pay for digital content is much higher for iOS than for Android users.

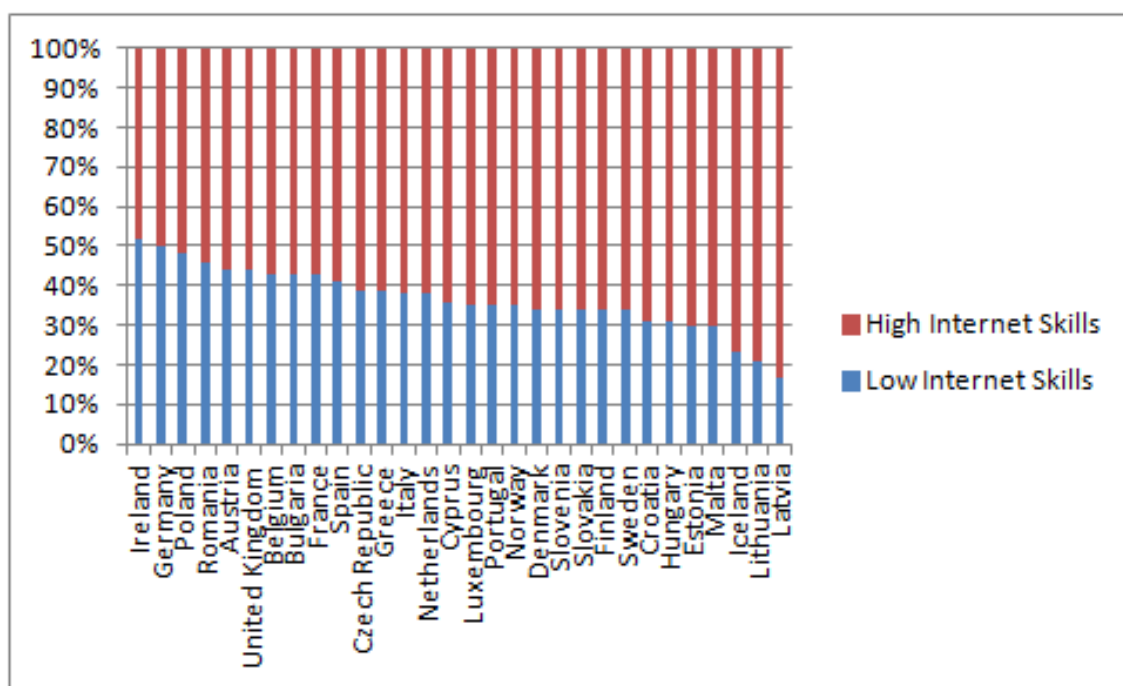
FIGURE 48: TECHNOLOGICAL DEVICES AVAILABLE IN SPANISH HOUSEHOLDS, 2007-2011 % OF HOUSEHOLDS



SOURCE: OWN ELABORATION FROM INSTITUTO NACIONAL DE ESTADÍSTICA (2012)

As discussed throughout this report, the consumption experience is extremely important for the success of digital content suppliers. Individual technological skills have a great influence on the perceived quality of this experience. Since internet users are heterogeneous in terms of skills, firms should adapt the experiences they provide to the specific characteristics of their target market. In this sense, Spanish users have relatively low internet skills (Figure 49). Only 60% of Spanish internet users have medium or high internet skills. Furthermore, there are groups of the population where internet skills are even more scarce. For instance, only 40% of internet users over 45 years of age have at least medium internet skills, while this proportion is limited to 50% of the internet users living in sparsely populated areas. Firms in this industry must be aware that such a large proportion of the internet users have low internet skills and therefore it could be important to find ways to simplify the digital content consumption experience.

FIGURE 49: INTERNET SKILLS IN EUROPE, 2011 % OF INTERNET USERS WITH LOW VS HIGH INTERNET SKILLS



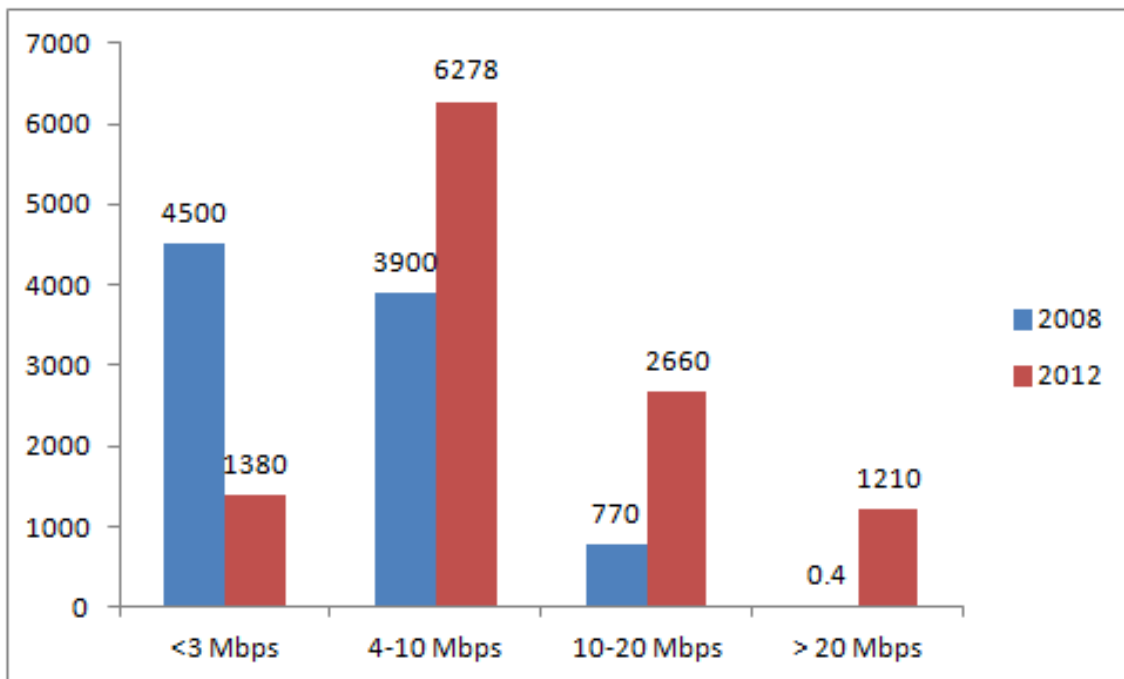
SOURCE: OWN ELABORATION FROM EUROSTAT (2012)

3.4.2 Access costs and availability

The success of digital industries highly depend on the capacity of telecommunications infrastructures. Until relatively recent times, this infrastructure in Spain was not completely satisfying neither for pioneers providing digital content or the consumers of this content. This problem may explain to some extent the slow development of the digital content market in Spain. However, pushed by the public effort of the Plan Avanza, current infrastructures are much better and provide sufficient bandwidth at reasonable costs (Figure 50).

Although late, digital markets may benefit by the fact that Spanish telecommunications operators have started to deploy 4G and FTTH networks, especially in urban areas. It is important to remark that a large number of internet users living in rural areas still have limited access to bandwidth technologies. For instance, in Spanish towns with more than 10.000 inhabitants' bandwidth penetration is 247 lines/1000 people, while in towns smaller than 10.0000 habitants this rate is 180 lines/1000 people. In these areas, digital content distributed through mobile networks also encounter the barrier that 3.5G penetration reaches only 7 lines/1000 people, while in more populated areas this rate is eight times higher.

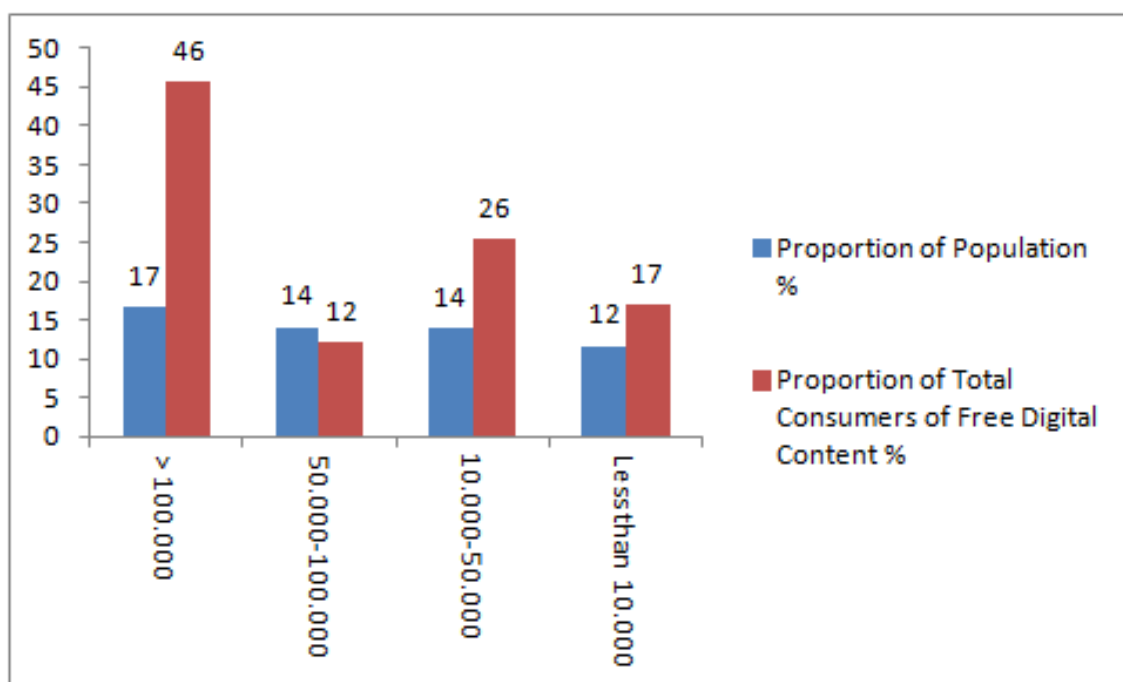
FIGURE 50: BANDWIDTH LINES (IN 000) IN SPAIN, 2011 BREAKDOWN BY SPEED



SOURCE: OWN ELABORATION FROM SETSI (2013)

Probably for the limited rural bandwidth, the analysis of the geographical distribution of consumers of digital content shows that almost 50% of these consumers live in highly populated areas (Figure 51), while the smallest towns have the lowest rate of digital content consumers. The most populated regions in Spain, Madrid, Andalucía and Catalonia concentrate more than 50% of the consumers of digital content.

FIGURE 51: GEOGRAPHICAL DISTRIBUTION OF FREE DIGITAL CONTENT CONSUMERS IN SPAIN, 2011 % OF TOTAL CONSUMERS OF FREE DIGITAL CONTENT AND % OF THE TOTAL POPULATION



SOURCE: OWN ELABORATION FROM MINISTRY OF EDUCATION AND CULTURE (2012)

The access costs to telecommunications services have been stable over the last decade, with the exception of 2012. The lower prices in 2011 may be explained by the growing market share of virtual mobile operators and the new bundling strategies of large operators bundling mobile and fixed telecommunications services (Figure 52). The drop in telecommunications prices means good news for the digital content market, since the overall cost of digital content will be lower.

Moreover, mobile data traffic is becoming a major revenue source for telecommunications operators in Spain. According to the Spanish Telecommunications Services Regulator, data services revenues accounted for 11.4% of the total industry turnover. Therefore, telecommunications business models based on data traffic hinge largely upon large economies of scales, in the near future operators may utterly reduce prices to increase data traffic in their networks. This scenario will be extremely positive for digital content providers who may find in the telecommunication operators good allies.

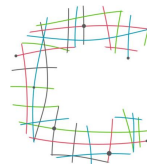
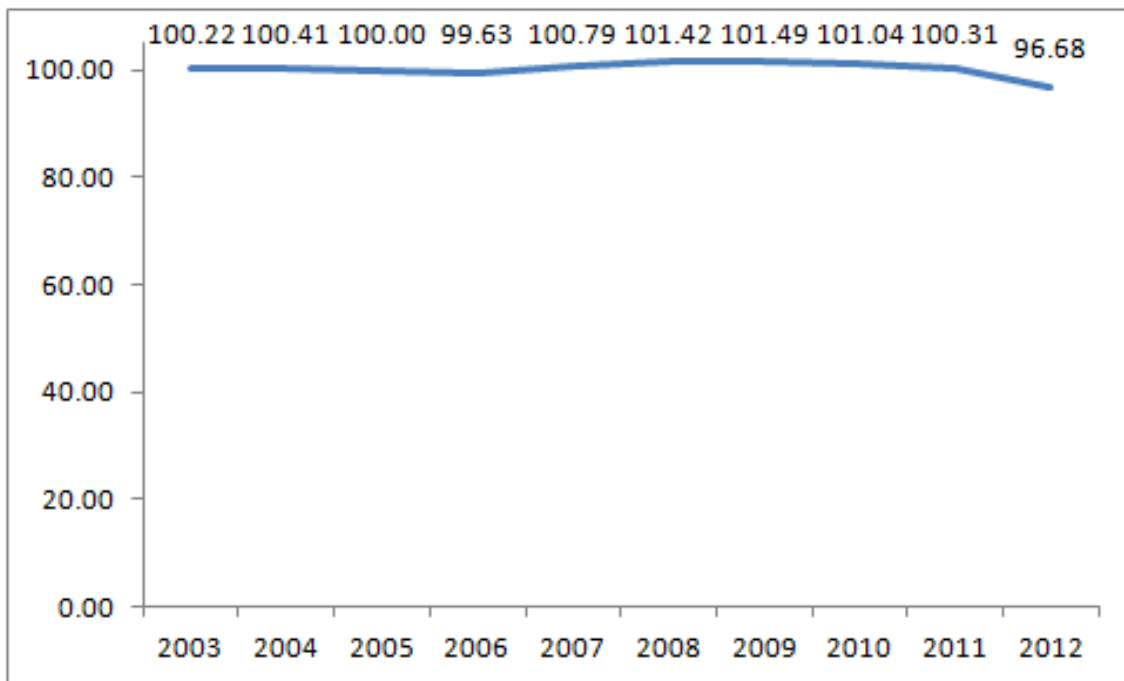


FIGURE 52: HARMONISED INDICES OF CONSUMER PRICES OF TELECOMMUNICATIONS SERVICES IN SPAIN, 2003-2012, (2005 = 100).



SOURCE: OWN ELABORATION FROM EUROSTAT (2013)