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**The evolution of advertising investment during a decade of economic crisis (2007-2018).
The case of the automotive sector and its adaptation to the Internet**

***Evolución de la inversión publicitaria durante la década de crisis económica (2007-2018).
El caso del sector del automóvil y su adaptación a Internet***

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Abstract

The economic crisis and the emergence of technology - led by the Internet - has resulted in a real transformation in advertising, and in the automobile market. In recent years, the industry and, specifically, the automobile industry, has realised the power of the Internet because it is an interactive medium, affording it a major role in corporate communication strategy by enabling it to contact millions of potential customers who spend more and more time online (Armstrong, 2001). This research sought to examine, based on a content analysis, the evolution of investment in the period in question and any potential changes in advertising. The results suggest that technology has evolved in such a remarkable way as to have conditioned advertising. Specifically, the total amount of investment of the automotive industry in advertising decreased by 61% from 2007 to 2018, while Internet advertising grew by 83% over the same period (Infoadex, 2019).

Resumen

La crisis económica y la irrupción de la tecnología -liderada por el medio Internet- han provocado una auténtica transformación del sector de la publicidad y del mercado del automóvil. En los últimos años, las industrias, y más concretamente la automovilística, se han dado cuenta del poder que ejerce Internet -por tratarse de un medio interactivo-, dotándole de gran protagonismo en la estrategia de comunicación corporativa al permitirles contactar con millones de potenciales clientes que cada vez pasan más tiempo conectados (Armstrong, 2001). El objetivo de la presente investigación es examinar a partir de un análisis de contenido la evolución de la inversión en el periodo analizado y los cambios en la publicidad, si los hubiera habido. Los resultados sugieren que la tecnología ha evolucionado de una manera tan notoria que ha condicionado la publicidad. Concretamente, la cifra de inversión total de la automoción en publicidad ha descendido un 61% en el periodo que va desde el año 2007 al 2018, mientras que la publicidad en Internet ha crecido un 83% en el mismo ciclo (Infoadex, 2019).

Keywords

Advertising investment; Internet; media; automotive; technology

Palabras clave

Inversión publicitaria; Internet; medios de comunicación; automoción; tecnología

1. Introduction

The technological revolution and the transformation of the media (Scolari, 2012) have brought about constant changes in advertising communication (Del-Pino, Castelló, and Ramos-Soler, 2013), as the application of technology to the media offers possibilities for brands to adapt to new consumer demands. Thus, growing use of the Internet is displacing the contact that individuals have had with traditional media, as "they already spend more time surfing the web than watching television. In fact, reading news and watching videos are increasingly the main activities on the Internet" (Martín and Fernández, 2014: 19).

In this context, the present study analyses the evolution of advertising in Spain before and after the economic crisis that started in this country in the second half of 2008 (Dávila-Quintana and González-López-Valcárcel, 2009), focusing on the case study of the automotive sector, which represents 10% of the Spanish Gross Domestic Product. It is also one of the three sectors with the highest level of advertising investment in Spain (Infoadex, 2019), accounting for 12% in 2007 and 13% of total advertising expenditures in 2018.

1.1. The Internet, a driving force for change

Throughout history, technological development has been one of the main driving forces for change and the shaping of society. In turn, society has stimulated technological development in one direction or another according to the dominant criteria, needs, and interests of each era and social group. This is a virtuous circle involving technological and social change that several authors have cited, since technology is an integral part of human activity (Bouza, 2002; Van Eijck, and Claxton, 2009).

The rise of digital technology has led to the decline of analogue and is the result of the modernisation of society, which demands services in line with its needs and expectations. This process is influenced by purchasing power, information and technological advances. As the entire world is now digital, advertising tends to be digital as well.

Due to constant technological progress, most sectors have had to transform themselves and embrace change, as they can no longer continue with the values and ways of working that existed prior to the technological revolution (Linz, Riechman, and Sempere, 2007). The automotive world has undergone major changes as well (Mitchell, Hainley, and Burns, 2010; Aoyama, 2012; Buckl, Camek, Kainz, Simon, Mercep, Stähle, and Knoll, 2012). As in other fields, technology has erupted in the automotive industry, providing advanced functionalities: GPS navigation, speed control, lane keeping assist, and even voice assistance, such as that which is available on smartphones. These advances have led to a change in habits and paradigms of consumption and, as a result, the emergence of concepts such as connected vehicles, electrification, automated driving systems, the introduction of new materials and techniques, and changes in the concept of mobility.

The explosion and growth of the Internet in recent years has contributed to these changes in the media sector, producing a widespread, alarming loss of revenue from advertising, especially in the print media (newspapers, magazines and supplements), and cinema as well.

For many authors, the Internet has become the most important communication channel of our time, or the new metamedium, to which the rest of the media will have to adapt (Okazaki, 2002). This digital medium is much more than technology. "It is a means of communication, interaction, and social organisation" (Castells, 2000: 1). Researchers at the University of Granada and Rice University have shown that the impact of the Internet on the evolution of advertising investment in the media over the last decade has been much greater than the influence of the 2008 economic crisis (Del-Barrio-García, Kamakura, and Luque-Martínez, 2019).

Television has long been considered the main communication channel, yet it has started to lose its ability to influence the population. Consequently, the advertising and media paradigm has evolved and is changing the ways people consume, and is also transforming "the massiveness that traditional media previously achieved" (Martín and Fernández, 2014: 20).

1.2. The transformation of advertising

Advertising contributes directly and plays a leading role in institutionalising the everyday life of social groups, representing a documentary source by reflecting social reality at every moment (Moreno and Molina, 2012; Ruiz and Sánchez, 2019). However, like any other source, it does not reflect true reality because it is not transparent, but instead is a distorted cultural mirror, as established by the researcher Pollay (1986) in his time. This metaphor implies that advertising reflects only certain attitudes, behaviours, and values, which are those that serve the interests of the advertiser. Despite this situation, and beyond its commercial purpose, advertising also transfers symbolic brand meaning to the consumer with the city as its main setting (García-Martín, 2020).

With the onset of the global financial crisis in Spain, since the end of 2008 the advertising sector has suffered a sharp decline in investment figures. The economic recession has been the cause of many problems within the industry. For Rodríguez (1994: 105), "the transformation of advertising must be analysed by considering three aspects: 1) the economic crisis in general, and of companies in particular; 2) the crisis of the advertising system itself in terms of effectiveness; and 3) the crisis of social and cultural values represented by advertising".

Before the crisis, specifically during the years of economic prosperity, advertising budgets grew to a large extent, creating the myth of advertising as being all-powerful (León, 1994). Once economic instability began, budgets were reduced and agencies suffered the most damage. Some authors have stated that "the crisis of the advertising system is basically the crisis of advertising agencies and, ultimately, of the concept of advertising they represent" (Caro, 1994: 97).

Subsequently, with the appearance of extensive television offerings, the saturation and fragmentation of audiences began along with an evolution in consumption habits and a loss of effectiveness on the part of advertising, and the result has been the advertising crisis (Baraybar-Fernández, Baños-González, Barquero-Pérez, Goya-Esteban, and de-la-Morena-Gómez, 2017). The consequences of this paradigmatic transformation are the decline of television and the press, the growth of cinema and radio, and the expansion of advertising through the Internet, especially in social networks, which have experienced an upward trend in terms of investment for a number of years, especially in Spain in 2018. Likewise, investment in branded content and influencers has grown considerably as well (Infoadex, 2019).

In addition to the aforementioned economic and advertising crisis, there has been a significant change in the value models reflected in advertising discourse. Advertising communication partly consists of inducing the audience to desire products offered on the market by means of symbolic representations of goods, services or ideas. The personal values of car buyers that relate to product attributes are hedonism or personal pleasure and design, as well as a concern for safety and the search for protective features (Pimenta and Piato, 2016). If anything, the relevance of advertising values in this sector have increased due to empirical evidence that shows that the gap between perceived and objective quality has decreased over the last two decades (Akdeniz and Calantone, 2017). Moreover, the use of unrealistic images, which are sometimes used in car advertising, increases uncertainty in evaluating the product and imagining its use (Kim, Choi, and Wakslak, 2019).

Representations are constantly being renewed (Benavides, 2012), as these values change over time. With the Covid-19 health crisis, brands are currently shifting toward an emphasis on conscious consumerism, and focusing on environmental sustainability in their communications (González, Lecumberri, and Gaspar, 2020).

A complex combination of values has been built around the automobile, led by design, price, technology, ecology and safety. New values are emerging as well, such as well-being and health, as a result of the current health crisis. Introduction of the ecological concept in car advertising, described as eco-fashion (Diez-Arroyo, 2018), contrasts with the low level of energy efficiency of the products of most advertisers, despite appropriating the existing social concern about the deterioration of the environment (Chen, 2016). The consequence is a low presence of best practice in the automotive advertising sector in Spain (Pedros-Pérez, Martínez-Jiménez, and Aparicio-Martínez, 2019).

As a consequence of all these various factors, the automotive industry has been forced to digitise its communication strategy and, consequently, the figures have been increasing. Advertising developed on the Internet shows significant differences compared to advertising created for other media, one of which is interactivity, (Yoon and Kim, 2001). Internet advertising has been labelled as *electronic advertising* (Hawkins, Gausen, and Stromman, 2012). Moreover, according to authors Blázquez, Molina, Esteban, and Martín-Consuegra (2008), its purpose is not only to advertise and distribute messages, but "it must also facilitate customer relations, the creation of cyber branding, provide consumer services, generate electronic sales of goods and services, and send direct and interactive marketing messages" (2008:161).

While it is true that consumers do not buy cars online, 86% of them search on the Internet for information about the brand or its models, features and prices before visiting a dealership (IAB Spain, 2019), so the digitisation of advertising communication for car brands should already be contemplating all phases of the purchase process.

2. Methodology

The overall objective of this research is to analyse the evolution of advertising investment in Spain, in general, and in the automotive industry, in particular.

The specific objectives are as follows:

- Determine how advertising investment has evolved before and after the economic crisis.
- Identify the importance of the Internet in advertising investment as a whole in order to establish the impact of technology on automotive advertising.
- Analyse the content of digital advertising in the automotive sector.
- This study is based on the following hypotheses:
 - H1. There is a direct relationship between the economic crisis and investment.
 - H2. The Internet has been the most heavily used medium by automotive brands during and after the crisis. The restoration of advertising investment has occurred thanks to the Internet.
 - H3. Internet advertising has changed over the last 10 years as a result of technology.

This research has used a methodology that is both quantitative and qualitative. Content analysis was carried out through a comparative study of advertising during the period examined (2007-2018), in addition to the use of the information extracted from Infoadex (the largest database in the advertising sector) with its Info Io tool based on data related to investment, insertions and occupancy.

Firstly, a data collection from the automotive sector was carried out in order to identify the recent history of advertising investment. In all the searches, net investment figures were used, which Infoadex calls: "INV_EST_IAD_€", as this is a more realistic amount and closer to the figure for the purchase of the space.

Secondly, a qualitative analysis of advertising was carried out, and in order to properly calculate the size of the advertising sample, the statistical algorithm known as the z-score was applied. The sample is composed of 672 adverts that appeared between 2008 and 2018. These ads were randomly selected and are representative of the automotive brands. Likewise, in choosing the sample, the proportionality criterion has been applied based on the number of adverts per four-month period, as shown in Table 1. In order for the study to be statistically representative, a confidence level of 99% and a margin of error of 5% was applied.

Table 1. Sample selection

	2008				2018			
	Total year	1st four-month period	2nd four-month period	3rd four-month period	Total year	1st four-month period	2nd four-month period	3rd four-month period
No. of adverts	1,353	338	632	393	10,959	2,688	5,115	3,156
Sample	300	75	139	86	372	91	174	107

Source: Prepared by the authors

All of these adverts were downloaded using the Infoadex Mosaic tool. After obtaining the ads, the search criteria indicated in Table 2 were followed.

Table 2. Search criteria of the adverts using the Mosaic tool

Sector	Category	Product	Advertising format
Automotive industry	Passenger cars	Car 1. Mini	Banner
		Car 2. Small	Billboard
		Car 3. Medium	Button
		Car 4. Full-size	Fat Skyscraper
		Car 5. Luxury	Full banner
		Car 6. Coupe	Gigabanner
		Car 7. Sport car	Half page filmstrip sidekick square
		Car 8. Minivan	Half banner
		Car 9. Off-road	Large rectangle
			Medium banner
			Medium rectangle
			Medium square
			Megabanner
			Other formats
			<i>Portrait</i>
			<i>Rectangle</i>
			<i>Skyscraper</i>
			<i>Small button</i>
			<i>Small skyscraper</i>
			<i>Splitscreen</i>
			<i>Square</i>
			<i>Wide skyscraper</i>

Source: Prepared by the authors based on data from Infodex (2019)

To determine the analysis parameters of the adverts, we used those that have been established previously in other studies as a reference, such as the one from Campuzano Ruiz (1992), who established four levels of analysis of a still image: technical, formal, meaning, and context; Villafañe (2006) determined analysis parameters for both a still and moving image, which is the foundation of this study; and Acal (2015) established his own model with two levels of analysis: identification and the interpretative, based on the theories of Lasswell, Durand, Ricarte, and Barthes, among others.

In order to analyse the adverts, this research has focused on the study of the three parts, or sections, that make up a still advertisement: 1) the art or image; 2) the text or copy; and 3) the most relevant advertising value conveyed.

Below is the complete sampling sheet that was used to review the adverts produced by the automotive brands on the Internet. It includes the following categories and options:

- Date of issue.
- Advertiser.

- Brand.
- Model.
- Product [passenger cars: 1 mini, 2 small, 3 medium, 4 full-size, 5 luxury, 6 coupe, 7 sport car, 8 minivan, 9 off-road].
- Banner type [flash animation, jpg, animated gif].
- Format [banner, billboard, bumper, layer, half banner, megabanner, portrait, pushdown, skyscraper, page stealer, sidekick, slider, splitscreen, and superbanner].
- Medium.
- Film frames [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15... 20].
- Dimensions [250x250, 300x250, 300x600, 468x60, 234x60, 234x90, 728x90, 900x90, 120x600, 800x600, 400x400, 900x250, 300x1050].
- Technique [photography, drawing, photography and drawing, text].
- Car [yes, no].
- Protagonist [product, brand, character].
- Shot [Close-up, Medium shot, Long shot].
- Background [neutral, city, mountains, sea, and road].
- Background colour [white, grey, black, blue, green, orange, red, yellow, purple and brown].
- Car colour [white, grey, black, blue, green, orange, red, and yellow].
- Lighting [artificial, natural, dark].
- Headline [yes, no].
- Copy [yes, no].
- Claim [yes, no].
- Logo [yes, no].
- Call to action [yes, no].
- Legal notice [yes, no].
- Value [safety, price, financing, promotion, guarantee, ecology, technology, comfort, boot space, design, consumption, power, infotainment, performance, compliance with legislation].

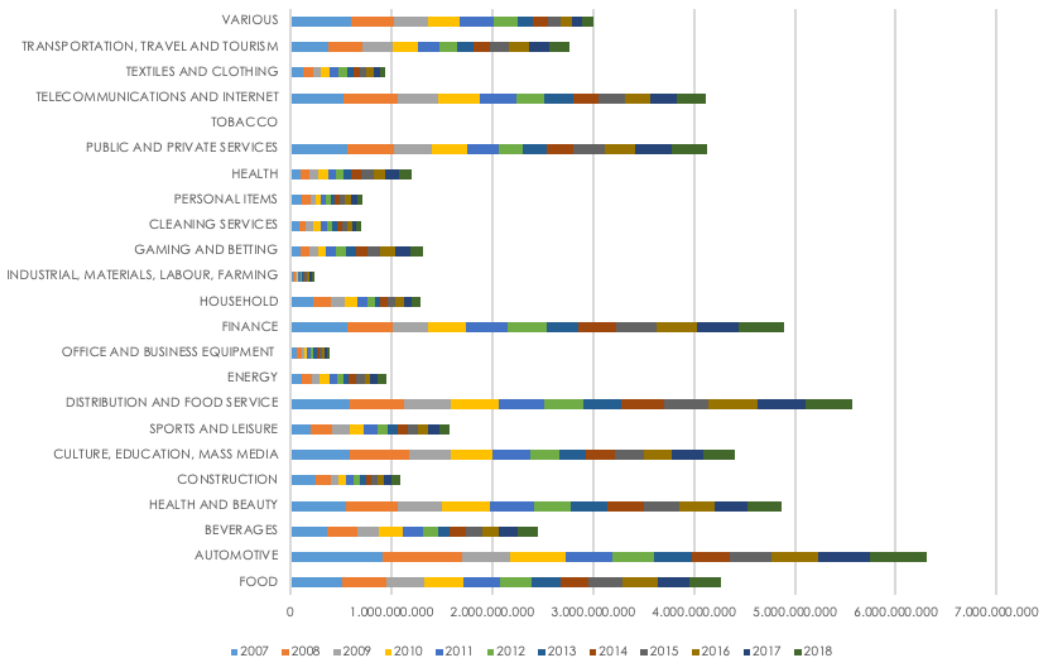
The values have been established as a result of previous fieldwork based on a sample of 150 people aged 18-60 from diverse professional sectors in Spain (engineering, computer systems, education, communication, architecture, fine arts, and university students), with a common interest, which is technology. Moreover, they were all selected through social networks and were asked to categorise a series of factors, mostly obtained from the model of Byun (2001) and López, Fernández, and Mariel (2002), in order of importance, from which fifteen were obtained. These values, which were used to categorise the advertising, were subsequently completed with the values of online advertising.

3. Results

3.1. Advertising investment

In the first general analysis by sector (Figure 1), the automotive industry was the one that invested the most in advertising from 2007 to 2012. It was followed by distribution and food service, and the health and beauty industry. From 2013 to 2016, the retail industry invested the most, with the automotive industry in second place. In 2014, it came in third place. In 2017 and 2018, automotive advertising investment figures were increasing, while total investment remained stable.

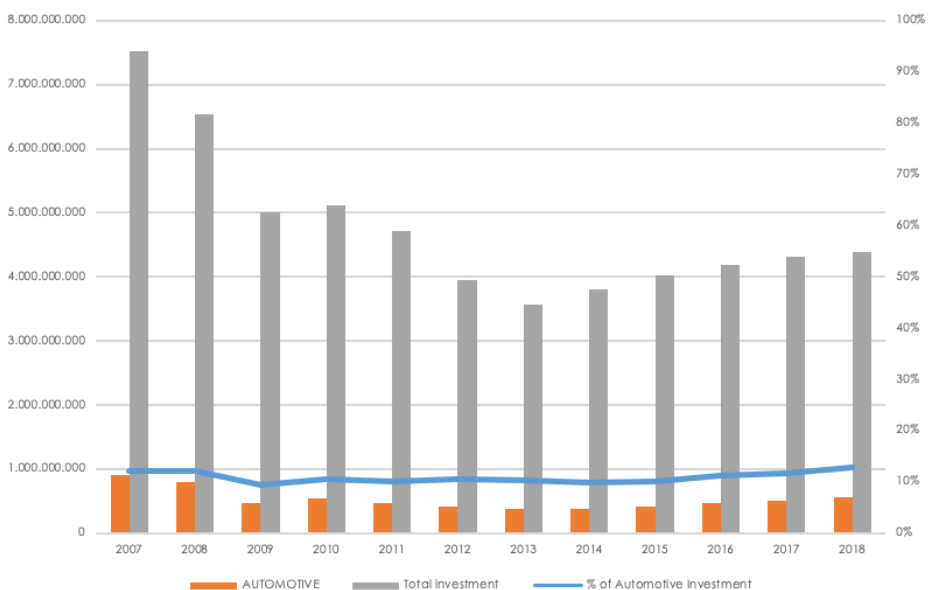
Figure 1. Advertising investment by sector



Source: Prepared by the authors based on data from Infodex (2019)

The automotive sector continues to have the highest level of investment with 10% of the total. It is therefore one of the strategic sectors in Spain. It has always been among the first few positions at the top of the rankings in terms of advertising investment and, as can be seen in Figure 2, although the total amount of advertising expenditure has fallen, advertising investment in this sector has remained stable. In other words, the percentage of the total amount of advertising investment has been similar over the last 10 years: before, during, and after the economic crisis, ranging from 10% to 13%.

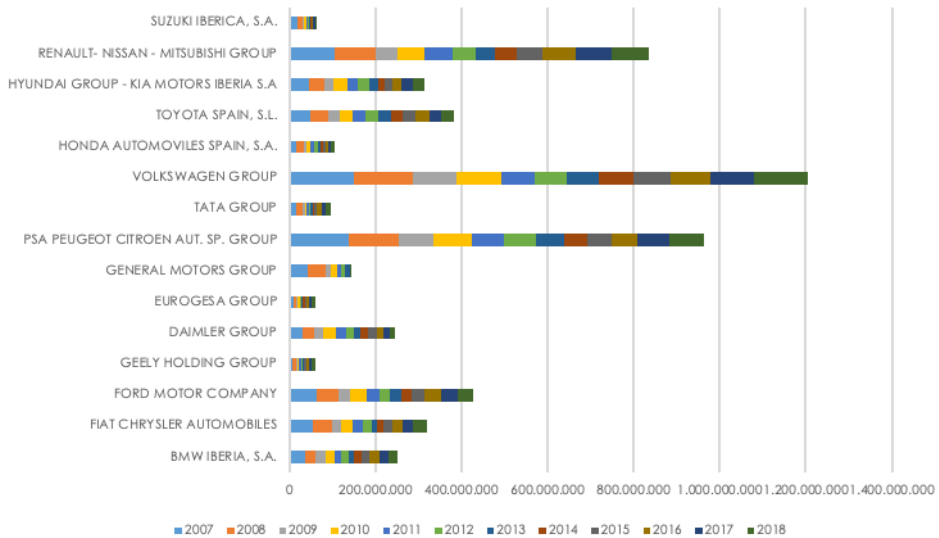
Figure 2. Advertising investment in the automotive sector as a % of the total



Source: Prepared by the authors based on data from Infodex (2019)

Regarding the analysis of advertising investment by automotive group (Figure 3), the Volkswagen group led the ranking in terms of advertising investment in Spain from 2007 to 2018, followed by the PSA group, with the Renault-Nissan-Mitsubishi group holding third place. The Volkswagen group is the one that invested the most in 2018, with a significant difference of more than 200 million euros compared to the rest of the groups.

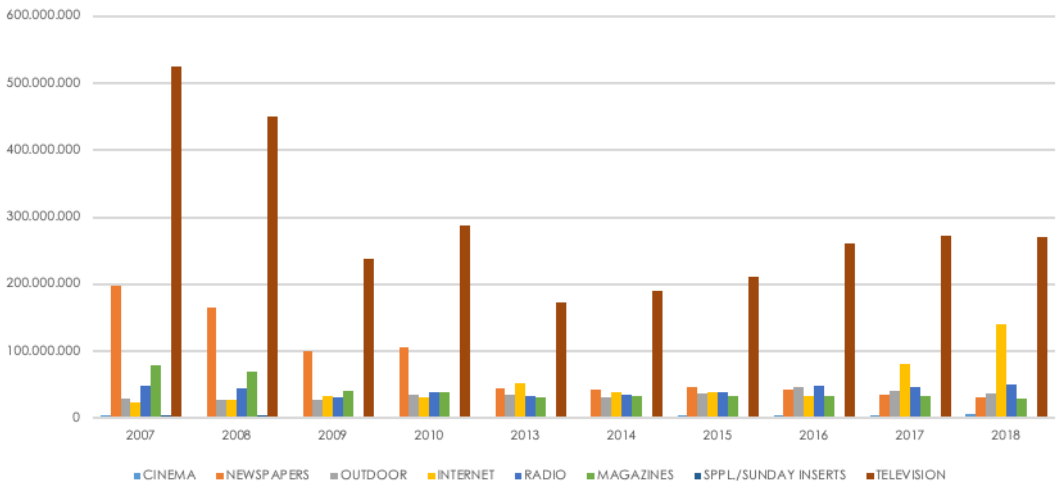
Figure 3. Advertising investment by automotive group



Source: Prepared by the authors based on data from Infoadex (2019)

As seen in Figure 4, television advertising has declined since 2008, with 2018 being the year with the highest investment on the Internet. However, during those 10 years, the Internet never overtook television, while other media such as radio, cinema and the print media maintained similar levels of investment.

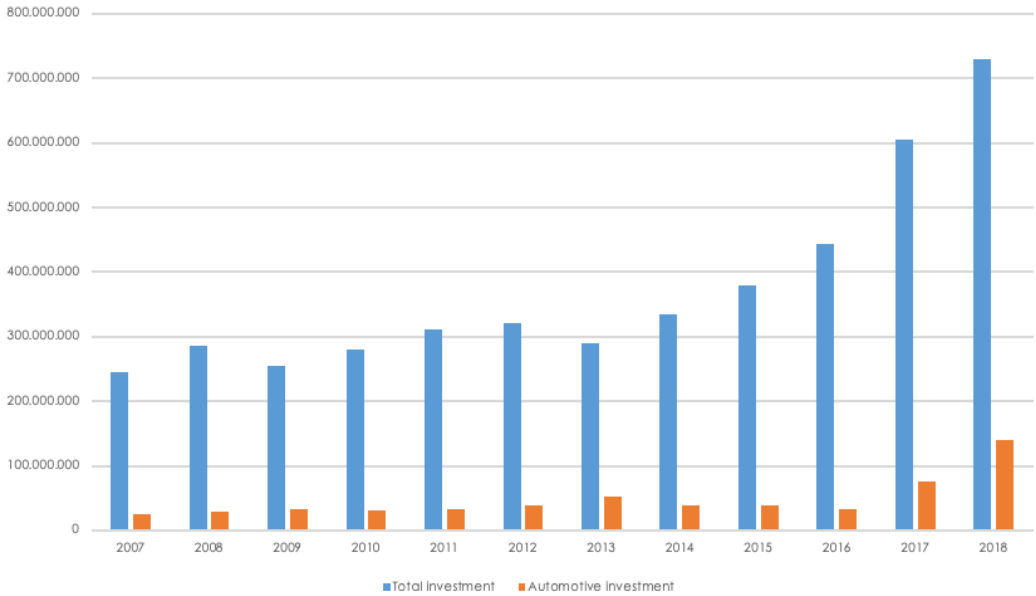
Figure 4. Investment by the automotive industry according to media type



Source: Prepared by the authors based on data from Infoadex (2019)

According to the results produced by Infoadex, advertising investment on the Internet (Figure 5) has grown by 21% since 2017 and, in the automotive market, it has increased by 75% during the same period.

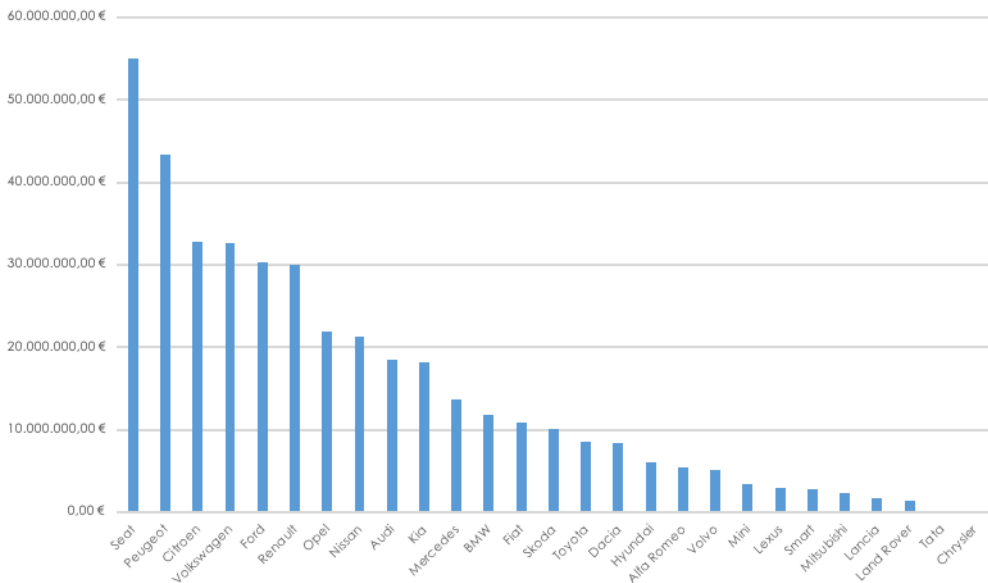
Figure 5. Comparison of advertising investment on the Internet



Source: Prepared by the authors based on data from Infoadex (2019)

The brands that invested the most on Internet from 2007 to 2018 (Figure 6) were Seat, Peugeot, Citroen, Volkswagen, Ford, Renault, Opel, Nissan, Audi, and Kia, maintaining continuity with the groups' strategies. There has been a notable upturn since 2016 with the economic recovery having been consolidated.

Figure 6. Total Internet investment by brand, 2007-2018

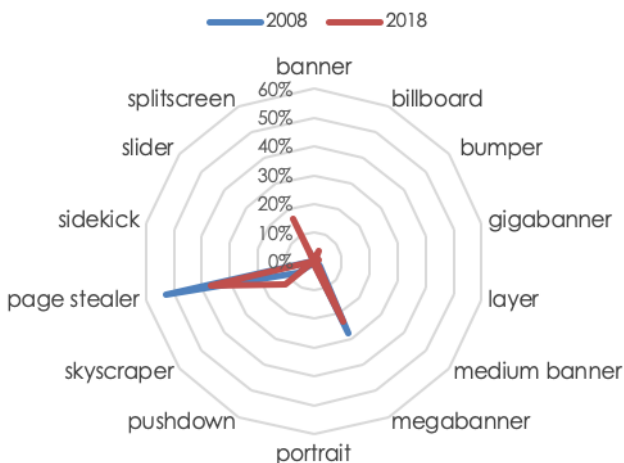


Source: Prepared by the authors based on data from Infoadex (2019)

3.2. Content analysis of the advertisements

By analysing the random sample of adverts extracted from the Infoadex Mosaic tool, one can see in Figure 7 that between 2008 and 2018, the predominant advertising format was the page stealer (53% in 2008 and 37% in 2018), followed by the megabanner (28% in 2008 and 23% in 2018), and the skyscraper (7% in 2008 and 13% in 2018). In 2018, the splitscreen (16%) and billboard (4%) also stand out.

Figure 7. Comparison according to advertising format



Source: Prepared by the authors based on data from Infodex (2019)

Figures 8 and 9 show two examples of advertisements created by the BMW car brand in 2008 and 2018, respectively, in which the evolution of media channels can be seen. The first uses a rectangular page stealer - 300x250 pixels - and the second uses the so-called splitscreen - 300x600 pixels. The car is placed in the centre in a horizontal and vertical format, with a predominantly grey colour in the advertisement that appeared in the year when the economic crisis started.

Figure 8. Page stealer created by BMW in 2008



Source: Infodex (2019)

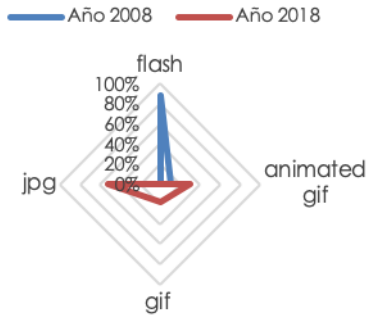
Figure 9. Splitscreen created by BMW in 2018



Source: Infodex (2019)

In terms of the technology used (Figure 10), in 2008 flash animation was predominant at 89% (compared to 0% in 2018) followed by animated gifs at 11%. In 2018, jpg predominates with 53%, followed by animated gifs (30%) and static gifs (17%).

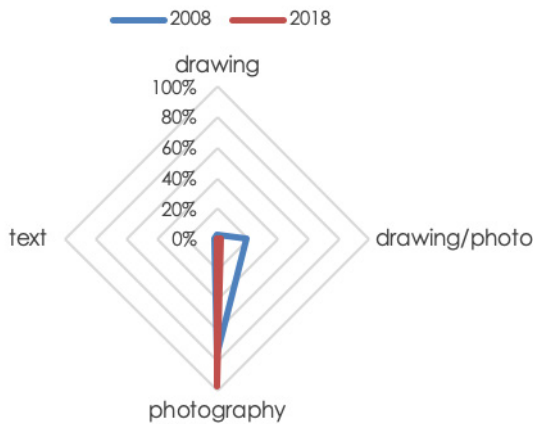
Figure 10. Comparison according to banner type



Source: Prepared by the authors based on data from Infodex (2019)

Regarding techniques employed (Figure 11), photography was the most widely used resource, both in 2008 at 76%, and in 2018 at 97%. Only 2% in 2008 and 1% in 2018 were text ads in which no image appeared.

Figure 11. Comparison according to technique

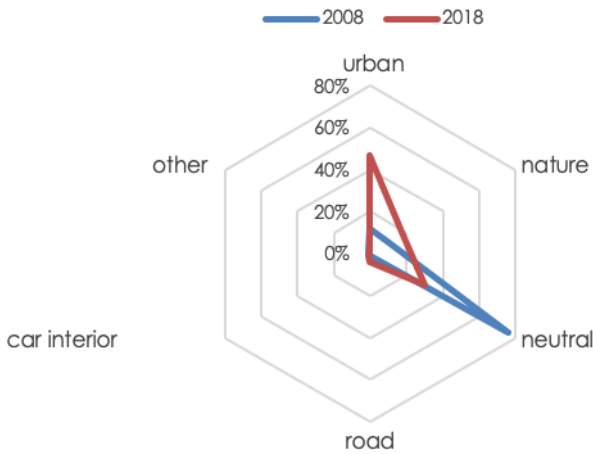


Source: Prepared by the authors based on data from Infodex (2019)

In nearly all the adverts, the narrative is characterised by the prominence of the product (88% in 2008 and 93% in 2018). In only 8% of the ads in 2008, the protagonist of the ad was the brand, compared to 6% in 2018. As for the use of a character, this appeared at the rate of 11% in 2008 and 2% in 2018. Furthermore, in only 2% of the cases in 2008 and 3% in 2018, respectively, the car does not appear in the advert. For both years, 2008 and 2018, the car is the protagonist with a presence of more than 95%.

The car is the advertised product. Consequently, it stands out the most. For this reason, the background is less important and is only used as a resource to accompany the protagonist. In 2008, the most widely used background (Figure 12) was a plain, neutral colour (a colour that serves as a backdrop in order to put more emphasis on the product), with a figure of 76%. In 2018, the background became more important and provided information about the context or setting of the car. For example, if the advertising says "master the road", the road is seen on the screen. Moreover, in 2018 an urban backdrop dominated 47% of the adverts compared to 12% in 2008. This was followed by a neutral background, with 30%, and the use of nature, which accounted for 18% in 2018 and 10% in 2008.

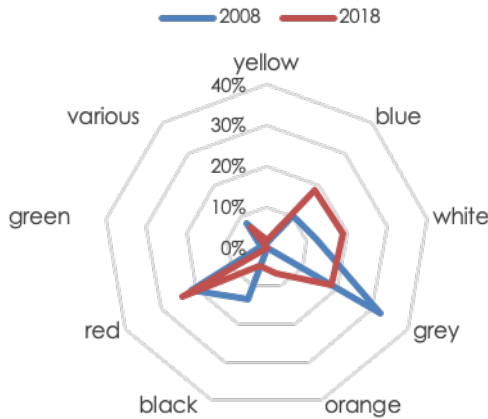
Figure 12. Comparison according to background



Source: Prepared by the authors based on data from Infodex (2019)

With regard to colour (Figure 13), both the colour of the automobile and the background were analysed. In 2008, the three most prevalent car colours used in advertisements were grey (32%), red (21%) and black (13%), which was closely followed by white (12%) and blue (10%). In 2018, by comparison, red was the most prevalent colour at 24%. Moreover, in that same year the three most commonly used car colours were red (24%), blue (19%), white (also 19%), and grey (18%).

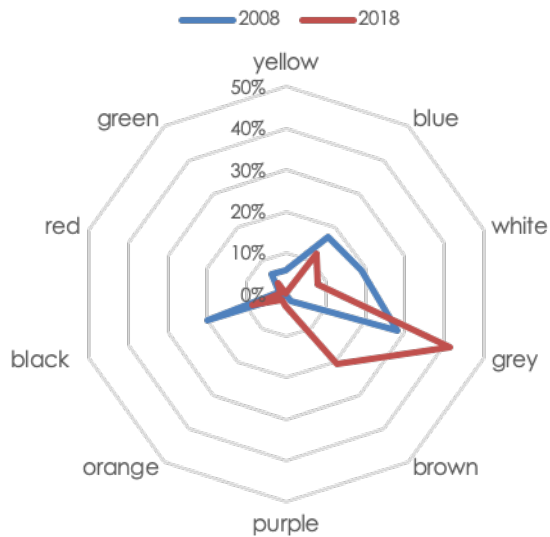
Figure 13. Comparison according to automobile colour



Source: Prepared by the authors based on data from Infodex (2019)

The background colour (Figure 14) in both 2008 and 2018 was predominantly grey, with 28% and 41% respectively, whereas in 2008 colours such as black (20%), white (19%), blue (17%), as well as yellow and green (6%) were used. In 2018, more colours were used, yet primary and secondary colours were predominant. The colours of nature stood out, especially brown (21%), blue (12%), and green (3%). White and black also had a strong presence at 8% each.

Figure 14. Comparison according to background colour



Source: Prepared by the authors based on data from Infodex (2019)

In terms of text, both in 2008 and 2018 the majority of the advertisements had headlines and copy. More specifically, in 2008 the presence of headlines was 91%, and in 2018 the figure was 89%. In 2008, copy was present in 95% of the adverts, and in 2018 this figure stood at 89%. Only 39% of the 2008 adverts and 33% of those of 2018 had a closing or claim. The logo, on the other hand, was present in 97% of the 2008 adverts and 92% of the 2018 ads. Moreover, 75% of the ads in 2008 and 78% in 2018 included a call to action. Only 18% of the 2008 banners featured a legal disclaimer, while in 2018 this figure was even lower at 10%.

4. Discussion and conclusions

Citizens are increasingly using the Internet as their main channel of consumption. As a result, advertisers have directed their advertising strategy toward this medium. Despite the fact that all the hypotheses put forward at the beginning of this research have been validated, H1 has only been partially verified in terms of the direct relationship between investment and the economic crisis. Since 2007, there has been a drop in advertising investment due to the crisis, with the worst figures in 2013. However, in 2017 and 2018, when the economy had already recovered, advertising investment still had not been restored, and remains below pre-crisis levels.

Furthermore, H2 can only be partially confirmed as well, as the Internet is the medium that has grown the most in the period analysed, especially since 2016. As a result, it can be affirmed that the recovery of advertising investment is due to the upsurge of the Internet as an advertising medium. However, the most heavily used medium employed by automotive brands, both during and after the crisis, has been television.

Even though each medium has its own unique features, and integrating all of them benefits the communication strategy, the Internet is the medium that has evolved the most and has had the strongest impact. As can be seen in the type of advertisements used, this impact is due to the fact that the Internet offers visual appeal for users and, in this way, the brand becomes interactive for its consumers as well. Moreover, digital resources are able to reach more people. Therefore, H3 can also be validated, as advertising has changed over the last 10 years as a result of technology, which has challenged traditional advertising media such as totally paper-based media like newspapers and magazines. Even though the purchase of a vehicle is a more rational decision and television is adapting, the truth is that this medium has suffered a sharp decline since 2007.

With regard to content analysis of the adverts, it can be seen that the format *par excellence*, which has been the banner, has changed in the last ten years, and other resources such as page stealers have become more heavily used. In 2018, other resources gained prominence, such as splitscreens and billboards. Similarly, there has been a shift from the expandable, floating format to video adverts, with the aim of generating more attention from the audience.

In 2008, the majority of ads were produced with flash, while in 2018 it was no longer used, and the predominant format became jpg. This is probably due to the fact that the former required the browser to incorporate specific software to visualise files created with the flash language and usually caused the web to function somewhat more slowly, as these files were heavier and took longer to load.

On the other hand, the use of images in Internet advertising is essential in order to create visual attraction with a resulting impact. In terms of advertising properties, photography was the most heavily used technique, both in 2008 and 2018. The aim is to portray the product as close to reality as possible in order to make it attractive to the user and make them want to buy it.

The product, which is the car, is the protagonist of the advert. In most of the 2008 ads, a single grey car is shown, while in 2018 it is red. The state of mind reflects the colour a person chooses. For this reason, with the onset of the financial crisis in 2008, the predominant colours used to display cars were grey, red, black, white and blue, while in 2018, red, blue, white and grey predominated. This could also be due to the impossibility of regularly changing cars. Advertisers knew that customers were not going to change cars quickly, and as a result, in 2008 they decided to use grey, which is a more neutral and rational colour, even a bit boring, yet more difficult to saturate. Consequently, this colour was more in line with communication during the crisis. On the other hand, the colour red is a more passionate, risky colour that appeals to feelings, which is why it was chosen more frequently for adverts in 2018 as a way of connecting with customers through emotion. In the 2018 ads, the car is no longer grey, and the colour varies depending on the model and segment. Sport cars and coupes are displayed with more aggressive colours, such as red or yellow. Mini-vans and off-road vehicles are depicted in white, blue and black.

In advertisements where more than one car appears, an attempt is made to increase awareness of the brand or product line. These are *branding* adverts aimed at enhancing brand recognition with less emphasis on selling a specific product. Instead, their purpose is to raise awareness of a range of cars and/or a brand. They have been in the minority, both during and after the crisis, as the main objective of these companies is to showcase specific models.

As far as the background is concerned, in 2008 most of the adverts showed a background that hardly provided any information, because it was neutral and unimportant, hence the use of plain ink. Grey, black and white predominate. In 2018, the background takes centre stage and accompanies the figure. As the trend is no longer neutral, urban and natural settings appear. Hence, the predominance of grey, brown, blue and green. In 2018, the urban landscape is characterised mainly by buildings, accounting for 47%, and the natural landscape comprises 18%, which is mainly composed of mountains, the sky and the sea. Above all, these are settings where the terrain becomes difficult and the car is the protagonist that dominates the scene. The car in 2018 is no longer shown as an isolated object in a neutral showcase where it provides no information, and the concept of mobility is emphasised by appealing to emotion: the pleasure of driving, or "feel the road". The car is an element of the environment that cares for and protects. It appears in idyllic environments, such as paradisiacal beaches and, on some occasions, the setting is shown exclusively without the car. This approach is used by brands to reflect their high level of respect that leaves no trace of an ecological footprint in its wake. This evolution is a feature related to the period of economic crisis. During the crisis, the aim was to appeal to the basic functional need of a vehicle, which is mobility, whereas after the crisis companies appealed to the pleasure experienced by consumers through the in-car experience of mobility.

Regarding the analysis of the text that appeared in the adverts, the banners analysed stand out for their interactivity and for including only a small amount of text. It is usually clear, concise and brief, highlighting the main competitive advantage of the car. The messages used are not informative, but rather the majority of them appeal to feelings and experiences in order to generate engagement.

Most include a headline and copy, as well as a button or call to action that redirects the user to the advertiser's website and highlights the brand logo, which refers to the importance of recognition and guiding the user toward the car brand that he or she should buy. Few brands include a legal disclaimer in their advertising.

One of the main conclusions obtained from this study is that technology evolved in the 10-year period from 2007 to 2018 in a way that was clearly evident. In fact, the change was so great that it influenced advertising on the Internet, moving from prominence on television to the mobile functionality of smartphones. These changes have had an impact not only on advertising and its respective investment, but also on the devices employed by users along with the style of advertisements as well.

During the period studied, it was found that advertisers made ads less intrusive and annoying, because the adverts started to have fewer frames. They also needed to adapt to the new technological channels, modifying their format size and innovating in the area of audio-visual resources in order to grab the attention of users.

The ultimate goal of all these adverts is for the customer to interact with them in order to be sent to another web page with a much larger amount of detailed information about the vehicle, the vehicle product line, or simply the brand they are trying to promote. This is the main difference between the Internet and all other traditional media, which is that the latter have a deficiency of interactivity. Consequently, the brand-customer relationship becomes one of the most valued factors in any purchasing process.

This research indicates that in situations of economic crisis, total advertising investment decreases and more is invested in the Internet. Furthermore, there is evidence of a change in advertising in which the type of technological support, as well as the structure of narratives and design, have adapted to the social context that users experience with the aim of creating a link with a potential customer, in most cases. Brands change their discourse according to the variables that emerge in society, in which purchasing power, value systems, and even common concerns are important.

In order to carry out this study, a compilation of advertisements was used, which were obtained from Infoadex through its Mosaic tool. This was the first limitation of the study, as this platform specialises in traditional advertising spaces and has gradually adapted to the Internet realm, which means that during some periods of time it does not collect all the inventory available, thereby excluding a large proportion of the adverts produced by advertisers on social networks. For future research, it would be of interest to obtain more results directly from brands, or from platforms such as Facebook and Instagram, as well as to extend the study to the values that brands display through their advertising, due to the fact that in 2008 automotive advertising placed greater importance on certain criteria and, in 2018, it emphasised others.

5. Specific contributions of each author

Contributions	Responsible party/parties
Conception and design of the study	Gema Bonales and Luis Mañas
Documentary research	Gema Bonales and Luis Mañas
Data collection	Gema Bonales and Luis Mañas
Analysis and critical interpretation of data	Gema Bonales and Luis Mañas
Review and validation of versions	Gema Bonales and Luis Mañas

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