

Customer Data-driven Business Models: A Case Study in the Retail Industry

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Abstract: In today's data era, the retail industry has increased the possibility of acquisition of a large volume of customer data, becoming more achievable its monetization. This paper develops a literature research and an empirical study identifying the different strategies that organizations perform and their instantiation by a concrete retailer. In each of these strategies, there have been identified the reasons for the case study to implement them as well as the specific instantiation performed. The research enriches the literature twofold; (1) by adding the Retail Media strategy as an indirect customer data monetization strategy; (2) by identifying relevant elements of the investment-cost-revenue structure for the different customer data monetization strategies.

1 INTRODUCTION

In recent years, companies are beginning to investigate the possibility of exploiting their data to improve their operating accounts (Parvinen et al., 2020). In fact, numerous authors point out that in 2016, 30% of businesses worldwide begun to carry out data exploitation (Moore, 2015).

The retail industry in Spain is no stranger to the changes that are taking place at a global and sectoral level in terms of data exploitation (Teijelo, 2019). Nowadays, the Spanish retail market is very competitive (Teijelo, 2019). The existing pressure due to the price war in the sector, coupled with the heavy investments being made to gain or at least not lose market share, have caused a significant drop in profitability, forcing retailers to a permanent innovation on the search of different alternatives to generate new revenue streams (Forrester, 2019). However, a report made in 2019 shows that only 15% of retailers globally were able to use insights to generate new revenue through data monetization (Forrester, 2019). Aspects such as the management of the data sale price strategies are activities that are currently quite unknown by companies, since until now the data has not had a relevant strategic value and, therefore, there was no express concern about it (Castellano and López, 2020).

The literature to date has largely focused on theoretical and descriptive studies about the terms

data monetization (Gartner, 2020; Shukla and Dubey, 2014), monetization strategies and models (Laney et al., 2015; Moore, 2015; Walker, 2015; Woerner and Wixom, 2015). However, how organizations design their cost and revenue structure for monetizing customer data directly and indirectly has attracted less attention in the academic literature. The few studies that do discuss the issue (Brinch, 2018; Najjar and Kettinger, 2017; Yu and Zhang, 2017) operate at the conceptual level or do not focus on the monetization of customer data.

Therefore, in this paper we focus on better understanding possible data-driven business models that retail companies can use to obtain new revenue. To do so, we study the different strategies in which retail organizations monetize customer data. Our interest lies in the reasoning companies apply when choosing from different monetization business models and how they have designed their cost and revenue structure.

To do so, an empirical study has been carried out in one of the most important commercial distribution companies for consumer goods and services in Spain, which has its headquarters in the Basque Country, Spain (hereinafter referred to as the *Retail-Business*).

The organization of the paper is as follows: Section 2 overviews the identified scientific literature about data monetization, its strategies and revenue and cost structure; Section 3 describes the methodological approach followed; Section 4

presents the results of the study; Section 5 discusses de results, and; Section 6 details the conclusions.

2 LITERATURE REVIEW

The trend towards digitization, the emergence of new and improved technologies (e.g. Internet of Things, big data, cloud computing, data analytics, ...) and factors such as increased connectivity and user mobility have risen the possibility of obtaining a significant amount of quality data, connected in real time and available at any time (Brown et al., 2012; Manyika et al., 2011; Spijker, 2014; Yousif, 2015).

Thomas and Leiponen (2016) point out that data ecosystems will profoundly disrupt businesses in nearly every consumer-centric industry. Other authors recognise the potentially broad impact of big data across multiple industries (Chen et al., 2012; Mayer-Schönberger and Cukier, 2013).

In particular, in the retail industry, due to the characteristics of organisations and their consumer orientation, a large volume of heterogeneous customer data is collected. This volume of data implies deeper knowledge and detailed information on the individual-customer level, e.g. what do they consume, how and where do they do it, when do they do it, with whom do they consume, etc. (Dekimpe, 2020; Erevelles et al., 2016; Hofacker et al., 2016). Therefore, the use of big data technologies is core for the management of this large amount of data, as it allows companies to achieve greater transparency, more possibilities for collaboration, better personalisation of products/services and more evidence-based management (Brown et al., 2012; Manyika et al., 2011; McAfee and Brynjolfsson, 2012).

It is also worth mentioning that technological progress has drastically reduced the cost of data acquisition and storage (Carrière-Swallow and Haksar, 2019; Liu and Chen, 2015), ensuring that the variety of data is not the bottleneck for data exploitation (Spijker, 2014).

Moreover, Carrière-Swallow and Haksar (2019) and Najjar and Kettinger (2017) argue that the change in business environment has been driven not only by the vast amount of data, but also by advances in analytical techniques enabling more advanced processing to analyse in real time the value from the available data. In addition, the increased capabilities for analysing, exploiting and sharing data have made possible new strategies to monetize data (Najjar and Kettinger, 2017; Parmar et al., 2014).

It is true that the concept of reusing, sharing and exchanging data is not new (Moore, 2015; Parmar et al., 2014). However, a critical analysis of the scientific literature on data monetization shows that there is a lack of specificity in its definition (Woerner and Wixom, 2015). Some authors mention that data monetization is a value creation process (Najjar and Kettinger, 2017; Prakash, 2014; Shukla and Dubey, 2014) which improves the competitiveness and differentiation of the organization (Mohasseb, 2014). Likewise, many academics agree that data monetization is the process of using data to obtain quantifiable economic benefits, either through internal use of data (indirect data monetization) or external use of data (direct data monetization) (Gartner, 2020; Wixom and Ross, 2017).

To take advantage of data monetization, companies should create and develop new appropriate data-driven business models, adopting and designing different strategies to create additional value (Hartmann et al., 2016). According to some authors, companies can pursue, at the same time, more than one strategy when monetizing data (Laney et al., 2015). However, in practice, the adoption of each strategy requires specific organizational changes and specific data and technology management upgrades. Therefore, some authors propose to identify the most viable opportunity and start from there (Wixom and Ross, 2017).

In the scientific literature, different classifications and types of customer data monetization strategies can be identified depending on the authors (Laney et al., 2015; Walker, 2015; Wixom and Ross, 2017; Woerner and Wixom, 2015), but all of them have the same approach, which is reflected in the study carried out by Gartner (Moore, 2015). In this study two types of strategies can be differentiated:

- **Direct data monetization:** This strategy occurs when the company sells or exchanges the customer data, giving third-party companies access to this asset in exchange of a price agreed between the parties (Moore, 2015). The main objective of this strategy is to obtain new revenue streams from selling raw or processed data (Moore, 2015).
- **Indirect data monetization:** In this case, the company uses its own customer data internally, to improve processes, efficiency, decision-making, or even offer new products or services to consumers (Moore, 2015). Therefore, in this case, the data itself may not be sold, but the main objective of this strategy is still to obtain new revenue from internal data processing in order to reduce costs and increase revenues through selling

new products and services (Wells and Chiang, 2017).

When an organization monetizes customer data directly, it must be decided to what extent the data will be transformed through analytics, how the data will be visualised, distributed, and to whom (Laney et al., 2015). The methods of direct data monetization include:

- **Sale or exchange of raw data:** The most direct way to monetize data is to sell it (Spijker, 2014). Under this strategy, companies such as PatientsLikeMe sell their data to suppliers (PatientsLikeMe, 2019). Other companies from different sectors, such as telecommunications (Vodafone and Telefónica) or automotive (Toyota) are beginning to explore the sale of data to third-party companies, both to companies from different sectors and to advanced service companies which are specialized in combining and analysis of data from multiple sources (Lewis and Mckone, 2016; Thomas and Leiponen, 2016).
- **Sale or exchange analysed data:** Although the previous option is usually the first approach of companies in the direct monetization of data, once they mature their analytics competencies, most of the companies evolve to this second option in order to develop a more valuable proposition (Spijker, 2014; Thomas and Leiponen, 2016). Companies like Tesco, Kroger, etc. are nowadays carrying out this type of strategy (Dunnhumby, 2019). Normally, under this option, companies do not usually provide access to the data to all data consumers, or at least not in the same way (Najjar and Kettinger, 2017).

Regarding the indirect monetization, the important aspect of this type of monetization is to measure the accrued economic revenue, since without this measurement, it is difficult, at best, to say that the customer data is really being monetized (Laney et al., 2015). The methods of indirect monetizing include:

- **Maintain data ownership:** In this case, data is used to increase the quality of decision-making and efficiency and improve operational processes and customer experience (Laney et al., 2015; Walker, 2015). The main objective of this strategy is to reduce costs (Wells and Chiang, 2017). Companies such as Tesco, Carrefour, Kroger, Amazon are carrying out this type of strategy (Dunnhumby, 2019; Rus, 2020; Using Beacons, 2015).
- **Use of data for the prescription of third-party products/services:** This typology consists of

companies taking advantage of customer knowledge and segmentation capacity to offer consumers new products/services, not included in the core business, which are operated by third-parties. Thanks to this relationship, between the company and the third-party, the client gets product/service which are improved compared to those offered on the market (e.g. price offers, features), the third-party accesses a new market with high precision and the company can get fees for the transactions that are carried out (Laney et al., 2015; Walker, 2015). For example, Carrefour is working with this type of strategy (Carrefour, 2021).

- **Information-based products or services:** This typology is also known as data-wrapping, which consists of incorporating customer data-based information into the current products or services, or develop new products/services, to increase customer loyalty (Wixom and Ross, 2017). For example, BBVA offers its customers a personalized financial health tool that is integrated into its app (Wixom et al., 2020). The servitization phenomenon is also included in this typology (Opresnik and Taisch, 2015).

The results from direct and indirect data monetization stem from a clear data monetization strategy, combined with the investments that an organization has to make in terms of data management (Wixom and Ross, 2017). The investments made to enable data monetization must be balanced with respect to the expected revenue generation, because, otherwise, data monetization business models would not be economically a viable option. Therefore, the development of a data monetization strategy, in part, depends on the current technological (e.g. hardware, software, and networking capabilities) and analytical (e.g. mathematical and business analytical knowledge and skills of the employees) situation in the organization (Najjar and Kettinger, 2017). For some organizations data monetization does not suppose huge investments as they already have the necessary technological capabilities, and may only require reallocation of current workers and talent acquisition (e.g. data managers, data scientists, quality specialists, technical engineers, analysts, statisticians) (Hanafizadeh and Harati Nik, 2020; Opher et al., 2016). Moreover, the investments may vary depending on the chosen strategy (Yu and Zhang, 2017).

Additionally, when an organization implements a data monetization strategy, different variable costs are generated (Mohasseb, 2014; Yu and Zhang,

2017). These costs correspond to the process that a company must follow throughout the lifecycle of the data, i.e. data generation, data acquisition, data storage, data pre-processing, data analysis and data visualization (Faroukhi et al., 2020b; Li and Raghunathan, 2014).

The technical and analytical capabilities needed will depend on the strategy or strategies that the company wants to follow, since depending on it the process would be different (see Figure 1), and also the cost that it has to be assumed (Najjar and Kettinger, 2017). Indeed, if the company wants to monetize raw data, it does not necessarily need any processing tools, thus only data acquisition and storage infrastructures is needed (Faroukhi et al., 2020a). In general, higher-quality data implies more data processing and higher costs (Yu and Zhang, 2017).

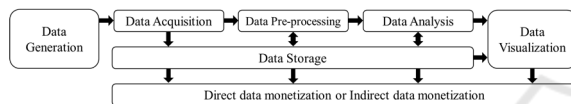


Figure 1: Lifecycle of data for its monetization according to Faroukhi, El Alaoui, Gahi, and Amine (2020a).

In addition to this costs, depending on the company situation or chosen strategy, other costs may arise, such as subcontracting of companies specialized in data management, cost for preparing contracts and NDAs with suppliers and third-parties (Najjar and Kettinger, 2017).

According to the revenue, as mentioned before, the main objective of data monetization is to obtain new revenues. In the case of the direct data monetization, different price models are established, e.g. freemium models (data consumers have limited access to data for free and pay for the premium services), packaging models (data consumers buy a certain amount of data at a fixed price), pay-per-use models (data consumers pay for data services based on their usage), flat-fee models (data consumers pay a subscription fee in return for access to data services), two-part-tariff models (data consumers pay a fixed basic fee that becomes supplemented by an additional fee when their usage exceeds some predefined quota) (Hartmann et al., 2016; Yu and Zhang, 2017). However, there are some common weaknesses in existing data-pricing mechanisms, since there is a lack of a standardized pricing model (Yu and Zhang, 2017).

As for the indirect data monetization, the revenue generated is usually not so evident, since it is not normally perceived directly (Laney et al., 2015). Moreover, the existing literature mentions that by using this kind of strategy an organization can obtain

indirect revenue by improvements in customer experience and loyalty, processes, efficiency, decision making (Brinch, 2018; Woerner and Wixom, 2015), but does not establish how an organization can measure the revenue obtained due to the indirect data monetization.

3 METHODOLOGY

3.1 Research Approach

Research on data monetization and data-driven business models has primarily appeared as conceptual papers (Moore, 2015; Prakash, 2014; Shukla and Dubey, 2014; Wixom, 2014; Woerner and Wixom, 2015), single-case studies (Najjar and Kettinger, 2017) and multiple-case studies (Parvinen et al., 2020). Even so, to date, there are few scientific studies on business models from the perspective of consumer data monetization in the retail industry (Moore, 2015; Parvinen et al., 2020; Walker, 2015) and none identified by the authors in the Basque Country (where the headquarters of the retail under investigation is located). Additionally, there is a lack of scientific literature regarding the revenue and cost structure of these models (Brinch, 2018; Najjar and Kettinger, 2017; Yu and Zhang, 2017). Thus, in order to develop an empirically more comprehensive perspective on this new phenomenon, this research has adopted a qualitative research approach. Given its exploratory nature, qualitative methods allows an in-depth study in a real and concrete and tangible context on a specific place (Maxwell, 2005). In this study, it has been combined indirect analysis of internal and external documentary evidence as well as direct semi-structured interviews techniques to provide a wide-ranging view of data monetization practices in the retail industry (Maxwell, 2005).

To achieve this purpose, it has been performed an investigation in the context of a case study within a retail company, enabling the analysis and understanding of the relevant factors that take part in the monetization of customer data.

3.2 Data Collection

For data collection, a triangulation methodology has been used to increase the credibility and validity of the research findings (Eisenhardt, 1989).

On the one hand, both internal and external documents have been analysed. Regarding the internal documents such as reports, studies and files of the organization (e.g. web pages, presentations and

images) have been examined. Regarding the external ones, specialized publications and reports have been analysed.

On the other hand, to go more deeply in the empirical investigation, there have been conducted 11 semi-structured interviews with directors of Digital Transformation and Innovation, Data Office, Marketing and Customer areas, and with the six managers of the projects identified in the case study. The sample was defined based on selective or intentional sampling (Schatzman and Strauss, 1973), covering key managers in relation to business models transformation, digital transformation, data monetization and marketing management, in order to gather a broad range of business perspectives.

The interviews followed a semi-structured guideline that included the following topics:

- Data culture in the *Retail-Business*.
- Data monetization strategies currently carried out in the *Retail-Business*; reasons and description.
- Revenue and cost structure of the implemented models.
- Data monetization strategies not carried out in the *Retail-Business*: reasons.

The interviews were documented by audio-recording after obtaining participants' consent to collect and recording.

3.3 Data Analysis

The analysis started as soon as the first research evidence emerges; documents and interviews. This phase consists on the registration and classification of the evidences that have been obtained from the multiple sources in a database of the case.

For the categorization of all the evidences, Atlas tool was used to codify and categorize the large volume of written materials and interviews transcriptions, as well as to identify patterns. The data was categorized into the main four topics established in the interview guide.

4 RESULTS

Under the digital plan of the *Retail-Business*, since 2017 the Digital Transformation and Innovation area have been exploring different alternatives for generating new revenue streams based on the exploitation of customer data. In this way, the first steps in the development of new business models are being carried out.

Moreover, due to the interest in understanding how to extract value from data, the need for data governance, and becoming a data-driven organization, the *Retail-Business* has a Data Office area and a Customer area. Specifically, in these two areas are carried out the exploration and implementation of the different monetization models. Additionally, the Management Board is firmly committed to developing these types of models and, therefore, has provided resources (e.g. people, budget) to the projects. Likewise, the *Retail-Business* points out the importance of experimentation, through piloting specific use cases. In other words, it emphasizes that before start making large investments in technology, processes, and personnel, prototypes of use cases must be progressively launched and validated.

The utilization of data as an asset to generate new revenue is not new for the *Retail-Business*, however, there is still a long way to go to establish new business models that can extract the maximum benefit from customer data. The following points detail which of the direct and indirect consumer data monetization strategies, identified in the literature, are being carried out in the *Retail-Business* and which are not, in addition to specifying the cost and revenue structure of each of them.

4.1 Direct Data Monetization

4.1.1 Sale of Raw and Analysed Data to Suppliers

According to the sale of raw and analysed data to suppliers, the *Retail-Business* started commercialize a collaborative platform in 2019, where information about customers' consumption patterns is offered to suppliers. Through this platform, suppliers benefit by being able to make more accurate demand predictions based on the analysis of customer data, and, therefore, the *Retail-Business* sales have also increased. Moreover, this service allows the *Retail-Business* to develop a collaborative commercial strategy with suppliers by sharing knowledge and advancing together in the management of clients, with the aim of improve customer experience.

The service is offered though a subscription plan, distinguished in two different levels of data granularity and reporting capability:

- Basic level: Aimed at unusual suppliers or those with less information analysis capabilities. There is offered basic information to know the diagnosis situation of the brand by product category and clients.

- Premium level: Aimed at suppliers that have incorporated the use of information in their decision making. They are offered complete and detailed analyses with data up to the store level and the possibility of customer segmentation, identifying growth opportunities in the *Retail-Business*.

In order to carry out this model, an initial investment was made in terms of the design and development of the platform. On the one hand, the hardware infrastructure was prepared to accommodate the installation and integration of the software. On the other hand, work was done on the installation of the software, which is made up of several software packages in charge of satisfying different functions such as data acquisition, automatic exportation, preparation, storage, and aggregation. Likewise, it was necessary to invest in the design and development of predictive models and dashboards with relevant indicators that facilitate descriptive analysis. All this was carried out with the collaboration of an expert company in Artificial Intelligence. Concerning the current costs, they come from preparing contracts and NDAs, personnel cost (audit and monitoring of the project) and the subcontracting of the expert company in Artificial Intelligence for the technical and analytical tasks e.g. preparation of the data infrastructure, predictive analytics and visualization. Regarding the current direct revenues, they are obtained by charging providers for the annual subscription to the platform. For the subscription plan it has been established a tiered pricing model, which consist on differentiating the price depending on the contracted service, i.e. basic level (cheaper) or premium level (more expensive). In addition, this model has led to growth in the *Retail-Business* annual retail sales.

4.1.2 Sale of Raw and Analysed Data to Third-parties

Regarding the sale of raw and analysed data to third-parties, currently, the *Retail-Business* avoids selling customer data to companies from other sectors or advanced service companies, in order to protect this valuable assets, as well as due to security and privacy concerns and potential reputational risks.

4.2 Indirect Data Monetization

4.2.1 Maintain Data Ownership

Regarding this strategy, the *Retail-Business* is carrying out two principal projects. One of them has

the aim of creating a personalized omni-channel relationship with the customer, developing a global view of the customer throughout the customer journey. The *Retail-Business* wants to interact with customers in a personalized and seamless way across channels to offer relevant customer purchase experience and thus increase the annual sales. This project is currently in a discovery phase, with a company specialized in customer data science, so the costs and revenues of this model are yet to be estimated. The technological base that the *Retail-Business* currently has to carry out this strategy is not suitable, thus the initial investment in technology and systems seems to be relevant.

The other project consists of improving the efficiently the cashiers planning, predicting the number of open cash registers needed in the store at any time. The objective of this strategy is to improve the efficiency of the point of sale processes. In order to make these predictions, the variables used in advanced analytics are e.g. purchase receipts, number and types of purchases made by customers by time slot. This model is being carried out internally without the collaboration of third-parties, so the associated costs are both technical and analytical, assuming the costs of acquisition, processing, storage, analysis and visualization of data. In terms of revenue, no direct or indirect revenue are associated with it, but thanks to a better planning of the need of cashiers at any time, personal costs are expected to be reduced.

4.2.2 Use of Data for the Prescription of Third-party Services

Considering the use of data for the prescription of third-party services, the *Retail-Business* since 2021 is taking advantage of its knowledge about its customers and its segmentation capability, reaching an alliance with a telecommunication company to offer to the customer members services operated by the third-party. This model is based on a win-win-win principle, where:

- Customers get telecommunication service with price advantages regarding those offered on the market.
- The telecommunication company accesses to a new market of potential customers with high precision.
- The *Retail-Business* obtains new revenues and offers services that are not currently covered in the company core business.

It must be taken into account that in no case the *Retail-Business* provides the raw data of customers to the third-party, but rather it gives access to the telecommunication company to a new market. Specifically, based on the target audience that the company is looking for, the *Retail-Business* identifies in its database the customers who belong to this target and contact them to ask if they would be interested in being contacted by the telecommunication company to obtain the services cheaper than on the market. In the case that the client is interested, the person is put in contact automatically with the telecommunication company. Therefore, the retailer works as a market broker for leads generation.

Regarding the cost structure, the *Retail-Business* must assume, on the one hand, the technical costs of data acquisition, storage and processing, in order to identify possible potential customers taking into account the target audience of the telecommunication company. On the other hand, it has internal personnel costs for data management and project monitoring, in addition to the costs of preparing the contract and NDA with the telecommunication company. Lastly, it also bears the cost of launching the offer and the recurring communications. Concerning the revenues, the telecommunication company pays to the *Retail-Business* a fixed income for each lead converted into client, an annual fixed income for advertising and a recurring commission which is calculated based on the invoice generated by the client. One part of this commission is deposited directly in the *Retail-Business* and the other part is added to the loyalty card of the customer, considering indirect revenue for the *Retail-Business*. This action increases customer loyalty.

4.2.3 Information-based Services

According to the information-based services strategy, the *Retail-Business* has a program launched in 2017 with the main objective of increase customer loyalty by offering them a free balanced diet personalized plan. Moreover, through this program the *Retail-Business* wants to enhance the differentiation of the brand and reinforce the positioning as a company that helps customers lead a healthier life. Customers of the *Retail-Business* can register on the website to access the program and become members to obtain their personalized nutritional diagnosis.

The program compares the purchases made by the consumer with the nutritional criteria recommended by the scientific community. As a result, the program generates a monthly report, which consists of a nutritional diagnosis taking into account the products

purchased by the client during the last three months. For the diagnosis, the composition of the household (i.e. number of members, adults and children) and the frequency of meals at home are taken into account. Likewise, the members are able to see, in a visual and understandable way, the evolution of their diet over time and compare their results with the average of the consumers participating in the program.

In this way, consumers are able to know what their nutritional profile is and improve their habits towards healthier eating. Along with this assessment, there are also provided other resources such as nutritional experts' consultations, healthy recipes, product promotions and nutritional information based on the conclusions of the diagnosis.

In 2016, in order to carry out this program, an initial investment was made in terms of the design and development of the service, accomplished with an information technology and analytic services company, with which the program is currently being developed. In terms of associated costs, the main cost is the subcontracting of the information technology and analytic services company. Currently, this company makes the nutritional reports that are sent monthly to the members. In order to make this possible, the company has access to the database of customers subscribed to the program. Likewise, the program has internal personnel costs, both for monitoring the program and for the nutrition part e.g. recipes, nutritional consultations. However, at present, the objective of the program is not to obtain new revenue, but rather to position the brand in the awareness of food health. That is why the service offered to the customers is free. Therefore, direct revenue is not imputed to this model, but indirect revenue through increased sales of healthy products is assigned.

4.3 Retail Media

The *Retail-Business* is also, since 2020, carrying out the strategy known as Retail Media. This strategy consists of selling advertising spaces to brands taking advantage of all the retailer's points of contact with the consumer, exploiting the retail's analytical and personalization capabilities. In other words, it is about generating a new model equivalent to developing a media agency, which exploits utterly the retailer's both online (e.g. e-commerce, web, app, newsletter) and offline (e.g. store, magazine, discount vouchers) channels.

This strategy is based on a win-win-win principle, where:

- Customers receive relevant and personalized communications, improving their shopping experience.
- Brands get the chance of advertising their products near the point of sale, which makes it easier for consumers to convert. Moreover, they have the possibility of carrying out integrated and personalized campaigns thanks to the reports that the retailer provides to the brands. These reports visually show campaigns’ performance, interest levels, shoppers’ satisfaction, and customers’ spending.
- The *Retail-Business* obtains additional revenue and increased sales thanks to the commercialization of the advertising spaces that exist in the different channels, e.g. in the e-commerce, web, and app (sponsored products, banners, order of prioritization of products, brand suggestion in the search engine), in the newsletters (banners) in the stores (stoppers, cards media, advertising stickers, alarms media, doors media) and in the magazine (full pages, advertorials).

Today, the *Retail-Business* has a relevant Retail Media business. However, although certain internal coordination is carried out when selling advertising spaces, there is not a centralized strategy. Coming to carry out the current media commercialization management in silos and without having the focus on the needs of each client. Which leads to inconsistencies between channels, generating a high risk of a disjointed customer experience. In order to deal with these gaps, the *Retail-Business* is considering reaching an alliance with a customer data science company expert in the Retail Media strategy.

Regarding the current cost structure, since most of the sales of spaces are currently made with direct

agreements with the brands, without automation, the main cost to be assumed by the *Retail-Business* is the cost of the commercials and the preparation of contracts and NDAs. Concerning the revenues, they come from the sale of advertising spaces to the brands. In addition, this model generates an increase in annual retail sales.

5 DISCUSSION

According to the results obtained, it has been confirmed that the *Retail-Business* has been exploring, for some years now, the different strategies identified in the literature review in order to generate new revenue streams through the exploitation of customer data. This is mainly due to the fact that the *Retail-Business* encourages data-driven business models and, mostly because the Management Board of the organization supports data monetization strategies with enabling resources.

In addition, a new indirect monetization strategy for customer data, which does not appear in the scientific literature analysed, has been identified, i.e. the Retail Media strategy.

As observed in the results, the main reasons to implement one or another monetization model vary depending on the chosen strategy (see Table 1).

The *Retail-Business* studied has moved and continues moving step by step throughout the implementation of different consumer data monetization strategies, experimenting with new models and improving the implemented ones. By doing so, the organization is developing the required capabilities to innovate in the implementation of different monetization strategies.

Table 1: The relationship between strategies and the reasons for implementing a monetization model.

	Direct Data Monetization	Indirect Data Monetization			
	Sale of raw and analysed data to suppliers	Maintain data ownership	Use of data for the prescription of third-party services	Information-based service	Retail Media
Obtain direct revenue	X		X		X
Obtain indirect revenue	X	X	X	X	X
Reduce costs		X			
Improve customer purchase experience	X	X			X
Improve efficiency		X			
Offer services that are not covered in the core business			X		
Reinforce brand positioning				X	
Increase customer loyalty			X	X	

Also, the *Retail-Business* shows concerns in relation to data privacy and security, which is why it moves with caution in strategies where the data is sold directly to third-parties.

Moreover, it has been observed that, currently, the organization does not have the necessary technical and analytical capabilities internally and therefore often subcontracts or collaborates with companies specialized in data management, to scale without significant capital investment.

6 CONCLUSIONS

This research is focus on better understanding the possible business models that retail companies can implement to obtain new revenue streams monetizing customer data, both directly and indirectly.

A literature research and an empirical study have been developed identifying the different strategies that organizations perform and their instantiation by a concrete retailer. In each of the strategies, there have been identified the reasons for the case study to implement them as well as the specific instantiation performed.

Moreover, the research has identified the Retail Media strategy as an indirect customer data monetization strategy to be added in the literature.

Finally, the research enriches the current literature by identifying relevant elements of the investment-cost-revenue structure for the different customer data monetization strategies identified. This preliminary analysis will be further developed in future research, following a quantitative approach, in order to make an in depth analysis of their economic viability and profitability.

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