

MANUEL ALEXANDRE PEREIRA MARTINS LEIRIA

**CUSTOMER LOYALTY IN NON-LIFE INSURANCE:
ANTECEDENTS, DETERMINANTS AND FUTURE DIRECTIONS**



2021

MANUEL ALEXANDRE PEREIRA MARTINS LEIRIA

**CUSTOMER LOYALTY IN NON-LIFE INSURANCE:
ANTECEDENTS, DETERMINANTS AND FUTURE DIRECTIONS**

**Doutoramento em Ciências Económicas e Empresariais
(Especialidade em Gestão)**

**Trabalho efetuado sob a orientação de:
Professor Efigénio da Luz Rebelo
Professor Nelson de Matos**



2021

**CUSTOMER LOYALTY IN NON-LIFE INSURANCE:
ANTECEDENTS, DETERMINANTS AND FUTURE DIRECTIONS**

Statement of authorship of the work

I declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are included in the listing of references included

Manuel Alexandre Pereira Martins Leiria

Copyright

Copyright © Manuel Alexandre Pereira Martins Leiria and Universidade do Algarve, 2021

The Universidade do Algarve has the right, perpetual and without geographical boundaries, to archive and make public this work through printed copies reproduced in paper or digital form, or by any other means known or to be invented, to broadcast it through scientific repositories and allow its copy and distribution with educational or research purposes, non-commercial purposes, provided that credit is given to the author and Publisher”.

Dedication

To my wife, Isabel, son and daughter, Manuel and Rita, parents, José and Helena, and my sister, Isabel.

Acknowledgements

A doctoral course is a journey that needs a lot of inspiration and support from different people. I am deeply grateful to the people that inspired and encouraged me on this journey.

My first acknowledgement is to the supervisors, Professors Efigénio Rebelo and Nelson Matos, whose encouragement, guidance and wisdom were fundamental to follow the right course of action with strength and enthusiasm.

Thank you, too, to the Research Centre for Tourism, Sustainability and Well-being (CinTurs) that received me and financially supported the linguistic revision of this thesis.

My grateful thanks go to my parents, whose incentive was decisive both to start this journey and to carry it out. And to my sister, Ana Isabel Leiria, my biggest inspiration, as a person and an academic.

Finally, thank you to my wife and children. They are my biggest motivation and my reason for moving forward with responsibility and confidence.

Resume (Portuguese)

Os seguros desempenham uma função fundamental no progresso das sociedades contemporâneas pelo seu papel catalisador no desenvolvimento de todas as restantes atividades económicas. Existe uma relação entre o desenvolvimento do setor segurador e o crescimento económico de um país que resulta, entre outros fatores, da sua intervenção enquanto gestor de riscos, investidor institucional, protetor de capital, impulsionador da inovação e facilitador da atividade creditícia. Para além disso, os seguros também são fundamentais para o bem-estar e desenvolvimento das pessoas e das famílias, por conferirem segurança e previsibilidade às suas vidas e atividades.

No entanto, existe um paradoxo que caracteriza a indústria seguradora, que é a consistente incapacidade para estabelecer relações sólidas e duradouras com os seus stakeholders. A indústria seguradora regista níveis de anulação de contratos que são significativamente superiores aos verificados em outras atividades económicas com as quais normalmente se compara. A questão é tanto mais relevante quanto a confiança constitui um fator crítico de sucesso neste negócio, na medida em que o seu objeto principal consiste na promessa de pagamento de uma compensação económica no caso de um determinado evento aleatório, devidamente tipificado, se verificar. Esta circunstância conduziu a que se considerasse, na literatura científica relativa ao estudo desta indústria, que as elevadas taxas de anulação de apólices constituem uma característica intrínseca que, a par de outros fatores, a caracteriza.

No entanto, apesar da enorme relevância desta indústria e da significativa magnitude do fenómeno do abandono dos clientes e da anulação de apólices, o tema tem sido pouco investigado, existindo muito pouca produção científica neste domínio do conhecimento. Esta tese pretende melhorar a compreensão das dinâmicas associadas à lealdade dos clientes com as suas seguradoras, contribuindo para o desenvolvimento do conhecimento científico nesta matéria através da resposta a três questões: em primeiro lugar, quais são os padrões de investigação científica predominantes no estudo do cancelamento de apólices de seguro não vida; em segundo lugar, quais os principais fatores explicativos da anulação de seguros automóvel por clientes individuais, e de que forma as companhias de seguro podem antecipar e mitigar a sua ocorrência; em terceiro lugar, como se caracterizam as principais correntes de investigação que estão a surgir no domínio da lealdade dos clientes de seguros, e quais são, atualmente, os fatores críticos de sucesso na

realização de planos para aumentar e fortalecer as relações das seguradoras com os seus clientes.

O trabalho de investigação está organizado em três artigos científicos, que estão relacionados sequencialmente.

O primeiro artigo procura caracterizar e sintetizar o conhecimento científico atual sobre o cancelamento de apólices de seguro não vida, relevando a influência dos intermediários nas decisões dos clientes. Trata-se de um tema que não tem constituído uma prioridade na investigação científica aplicada, atendendo à reduzida produção científica que lhe está associado. A metodologia de análise foi a revisão sistemática quantitativa da literatura. Este artigo demonstra que a investigação científica neste domínio está concentrada no estudo dos clientes individuais e nos seguros do ramo automóvel. Verifica-se igualmente que o método mais frequente, e adequado, para o estudo do cancelamento de produtos no setor dos seguros é a regressão logística. No que respeita às variáveis mais frequentemente utilizadas para investigar a anulação de apólices de seguro, são identificados três tipos: o perfil dos clientes, as características das apólices e o tipo de intermediário. Relativamente ao perfil dos clientes, as variáveis mais frequentemente utilizadas são a idade, o sexo, a duração temporal da ligação à seguradora e o volume de prémios pagos. No que respeita às características das apólices, o montante do prémio e a existência e valor de sinistros são variáveis consistentemente consideradas.

O segundo artigo científico procura identificar medidas que as companhias de seguro podem adotar para reduzir a anulação de apólices e, dessa forma, aumentar os índices de retenção dos clientes. Tendo em atenção o resultado da revisão da literatura realizada no primeiro artigo, esta investigação concentrou-se nos clientes individuais e no ramo automóvel. Através da aplicação da regressão logística, estabeleceu-se uma associação entre as variáveis independentes, relacionadas com o perfil dos clientes, as características das apólices e os canais de distribuição, e a variável dependente, as apólices anuladas. A amostra baseou-se num conjunto de clientes de uma das maiores seguradoras generalistas de Portugal que anularam as suas apólices de seguro durante um determinado período estabelecido para análise. Deste estudo concluiu-se que a anulação de apólices é fortemente induzida pelas táticas agressivas de aquisição de clientes que as próprias empresas de seguros adotam. Adicionalmente, identificaram-se fatores associados à anulação de apólices, como o valor total de prémios pagos pelo cliente, as apólices com prémios superiores e com sinistros recentes, a intermediação através de intermediários que são agentes, especialmente os que têm um volume de negócios inferior, ou de

distribuidores de tipo acessório, para quem a intermediação de seguros não constitui a atividade principal. Por outro lado, fatores como o pagamento das apólices através de débito direto na conta bancária do cliente e o pagamento do prémio de seguro sem fracionamento parecem contrariar a ocorrência de anulação de apólices. Este artigo também apresenta uma fórmula para determinar a probabilidade de cancelamento de uma apólice automóvel.

O terceiro artigo procura identificar as principais tendências que caracterizam a evolução da investigação sobre a lealdade dos clientes nos seguros e determinar as principais prioridades no desenvolvimento das relações com os seus clientes. O método utilizado é a investigação bibliométrica, recorrendo aos programas Vosviewer e Scimat. Esta análise demonstra a importância crescente da gestão da informação, da *data science* e da utilização de algoritmos para antecipar as decisões dos clientes.

Este trabalho de investigação é muito importante para a academia e para a indústria seguradora. Ao nível académico por permitir aprofundar o conhecimento científico numa matéria que tem sido pouco investigada e relativamente à qual existe uma premente necessidade de estabelecer uma base sólida de conhecimentos fundamentais. No que respeita à indústria seguradora, o tema assume uma enorme centralidade, tanto pelos seus impactos diretos nos resultados das empresas, como pela importância estratégica do estabelecimento de relações sólidas e duradouras com os clientes, de forma a assegurar as condições para um crescimento sustentado da atividade e orientar os recursos que têm sido aplicados em táticas agressivas de aquisição de novos clientes, para a investigação, o desenvolvimento e a inovação aplicada nesta indústria.

Abstract

Insurance is a very important industry for the development of contemporary economies and societies, characterized by a historically high level of product cancellation which generates very significant annual losses for insurance companies. Nevertheless, it has received little attention from academia, considering the scarcity of scientific publications. The aim of this thesis is to develop scientific knowledge concerning product cancellation and customer loyalty in insurance throughout three scientific articles. The first article characterizes the current state of research on cancellation of non-life insurance, identifying the most important lines of research. The second article applies the previous conclusions to a real case, demonstrating the main factors associated with product cancellation. From the analysis of the results of this study, it is observed that the profile of customers, the characteristics of policies, and the typology of intermediaries are central factors to understand the cancellation of insurance. This article also highlights the responsibility of insurance companies themselves for product cancellation, given their strategic focus on attracting new customers, relegating retention efforts to a lower priority.

In the third article, the main avenues for researching customer loyalty in insurance, and the industry challenges associated with its current and future management, are presented with an innovative application of Vosviewer and Scimat bibliometric techniques. This research highlights the strategic role of data management in companies' effective management of customers.

Globally, this thesis details the importance of reformulating processes in insurance to improve customer experiences, and the centrality of new technologies such as artificial intelligence, the Internet of Things and the deployment of analytical models, fuelled by big data, to improve customer loyalty in insurance and, consequently, to reduce insurance cancellation.

Keywords: non-life insurance, customer loyalty, customer retention; product cancellation, insurance intermediary.

General Index

Statement of authorship of the work	v
Dedication	vii
Acknowledgements	ix
Resume (Portuguese)	xi
Abstract	xv
General Index	xvii
Figures Index	xxi
Tables Index	xxiii
Abbreviations List	xxv
Chapter 1) Introduction	1
1.1) Loyalty in insurance: a systemic unsolved challenge	3
1.2) The insurance industry	5
1.3) Theme definition and relevance	10
1.4) Research questions and goals.....	18
1.4.1 Research goals.....	18
1.5) Structure and organization of the study	19
Chapter 2) Literature review	21
2.1) Customer loyalty	23
2.2) Loyalty programs	29
2.3) Loyalty in insurance	31
2.4) Distribution and intermediaries in insurance	34
Chapter 3) Non-life insurance cancellation: a systematic quantitative literature review 39	
Summary	41
3.1) Introduction	41
3.2) Method	43
3.2.1) The Systematic Quantitative Literature Review (SQLR).....	43
3.2.2) Process design.....	43
3.3) Presentation of results	48
3.3.1) Geographical spread	48
3.3.2) Dates of publication	48
3.3.3) Methodological approaches	49

3.3.4)	Issues addressed.....	51
3.4)	Analytical discussion	52
3.4.1)	Customer retention in non-life insurance.....	52
3.4.2)	Individual customers.....	53
3.4.3)	Motor insurance	53
3.4.4)	Statistical method.....	54
3.4.5)	Relevant factors to analyse customer retention	54
3.4.6)	Influence of intermediaries on customer retention	56
3.4.7)	Insurance companies' strategies	57
3.5)	Conclusion and limitations.....	58
3.5.1)	Theoretical implications	59
3.5.2)	Practical implications.....	60
3.5.3)	Limitations and suggestions for future research	61
Chapter 4)	Determinants of motor insurance cancellation: The role of intermediaries in customer decision-making.	63
	Summary	65
4.1)	Introduction.....	65
4.2)	Literature review and research hypotheses	67
4.2.1)	Importance of intermediaries for product cancellation.....	68
4.2.2)	Insurance policy premiums.....	69
4.2.3)	Existence of claims	69
4.2.4)	Payment options.....	69
4.3)	Methodology	70
4.3.1)	Data design	70
4.3.2)	Data collection	73
4.3.3)	Data analysis	73
4.4)	Results.....	79
4.5)	Discussion	86
4.6)	Conclusion and Implications.....	87
Chapter 5)	Customer loyalty in the insurance industry: A bibliometric analysis	91
	Summary	93
5.1)	Introduction.....	94
5.2)	Methodology	96
5.2.1)	Bibliometric tool.....	97
5.2.2)	The sampling process.....	98
5.3)	Results.....	100

5.3.1) Descriptive analysis	100
5.3.2) Evolutionary analysis.....	111
5.4) Discussion	117
5.5) Conclusions	118
Chapter 6) Conclusion, limitations and paths for future research	121
6.1) Conclusion.....	123
6.2) Research limitations	137
6.3) Paths for future research.....	137
References.....	139
Annexes	163
Annex 1: Largest insurance groups in european countries - Total premiums (life and non-life).....	165
Annex 2: Insurance companies in european countries	167
Annex 3: Life insurance real growth rate - OECD Members	169
Annex 4: Non-life insurance real growth rate - OECD Members	171
Annex 5: Asset allocation of domestic insurance companies - all sectors (preliminary)	173
Annex 6: Life insurance distribution channels in selected european countries (*)...	175
Annex 7: Non-life insurance distribution channels in selected european countries (*)	177

Figures Index

Figure 1.1: Topics and main objectives of the three articles	10
Figure 1.2: Three steps to analyse the concept of customer loyalty	15
Figure 2.1: Customer loyalty – Antecedents and outcomes	26
Figure 3.1: Prisma Flow Diagram of SQLR	46
Figure 3.2: Number of documents selected by year of publication	49
Figure 5.1: Number of Publications and relative weight of citations in ‘Insurance loyalty’ per year	101
Figure 5.2: Co-citation of authors	105
Figure 5.3: Co-citation of journals in ‘Insurance loyalty’	109
Figure 5.4: Map of countries with ‘Insurance Loyalty’ publications	111
Figure 5.5: Keywords co-occurrence	112
Figure 5.6: Global strategic map	113
Figure 5.7: Strategic map of 1994–2002 period	114
Figure 5.8: Strategic map of 2003–2011 period	115
Figure 5.9: Strategic map 2012–2020 period	116

Tables Index

Table 1.1: Top insurance regions by gross written premiums volume	6
Table 1.2: Gross written premiums in 2020 of insurance line business in the world	7
Table 1.3: European insurance markets with higher relative share of life, P&C and health	8
Table 1.4: European ranking of insurance groups	8
Table 1.5: Premiums, concentration and density in Portugal	9
Table 3.1: Keywords and search terms used in initial inclusion criteria	45
Table 3.2: List of documents selected	47
Table 4.1: Explanatory variables	71
Table 4.2: Description of dependent and independent variables	75
Table 4.3: Unrestricted logistic regression model estimation results	80
Table 4.4: Results of the restricted logistic regression model estimation and test of exclusion restrictions	81
Table 5.1: Most cited papers on Insurance loyalty	103
Table 5.2: The most influential publications on Insurance loyalty	107
Table 5.3: The most productive and influential countries	110

Abbreviations List

APS	Associação Portuguesa de Seguradores (Portuguese Association of Insurers)
ASF	Autoridade de Supervisão de Seguros e Fundos de Pensões (Portuguese Insurance and Pension Funds Supervisory Authority)
bps	Basis points
DLT	Distributed Ledger Technology
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
ESA	European Supervisory Authority
ESMA	European Securities and Markets Authority
EU	European Union
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GWP	Gross Written Premium
IAIS	International Association of Insurance Supervisors
IBIPS	Insurance Based Investment Products
ICT	Information and Communications Technology
IDD	Insurance Distribution Directive
IMF	International Monetary Fund
IORP	Institutions for Occupational Retirement Provision
IoT	Internet of Things
KID	Key Information Document
MTPL	motor third-party liability
NCA	National Competent Authority

Abbreviations List (cont.)

NGO	Non-governmental organisations
OECD	Organisation for Economic Co-operation and Development
P&C	Property and Casualty
PCW	Price Comparison Website
PEPP	Pan European personal pension products
PID	Product Information Document
POG	Product Oversight and Governance
pp	percentage point
PPI	Payment Protection Insurance
PRIIPS	Packaged Retail and Insurance-based Investment products
QRT	Quantitative Reporting Template
ROI	Return on Investment
SME	Small and Medium Enterprise
UBI	Usage-based insurance
UN	United Nations

Chapter 1) Introduction

Chapter 1). Introduction

1.1) Loyalty in insurance: a systemic unsolved challenge

Insurance is an activity fundamental to the progress of societies and economies, and to the wellbeing and development of people. It is a necessary precondition for many economic businesses and activities, playing a fundamental role in the economy and in the routine life of modern societies (Liedtke, 2007).

A well-organized insurance sector is a crucial vector catalyst for the socioeconomic development of a country or a region (Hadhek, 2014). Studies have clearly established a correlation between the development of insurance business and economic growth (Avram, Nguyen and Skully, 2010; Han, Li, Moshirian and Tian, 2010; Ojo, 2012; Hadhek, 2014; Swiss Re Institute, 2018), mainly as a risk management provider and as an institutional investor (Krivokapic, Njegomir and Stojic, 2017), but also as capital protector, innovation catalyst and credit facilitator (Weisbart, 2018).

Paradoxically, despite the importance of this industry to individual people, companies and even nations, the sector in general, and firms in particular, have not been able to effectively retain customers and establish and maintain long-lasting relationships with them, as demonstrated in previous studies (e.g. Guillen, Parner, Densgsoe and Perez-Marin, 2003; Brockett, Golden, Estany, Nielsen, Parner and Perez-Marin, 2008; Cohen and Siegelman, 2010). This industry has been characterized by low levels of customer retention (Verhoef and Donkers, 2005) and loyalty, and high churn rates (Dominique-Ferreira, Vasconcelos, and Proença, 2016). Moreover, insurance customers have a less negative attitude towards switching providers than in other industries (Gamble, Juliusson and Gärling, 2009). As such, losing and gaining customers through brand switching is a major, well-founded concern for insurance firms (Brockett *et al.*, 2008).

Although insurance companies do not generally reveal their retention rates, the fact is the rates are rather low in this industry (Verhoef and Donkers, 2005). In some studies, it is estimated that 26 per cent to 31 per cent of insurance customers switch their insurance provider every year (Mirzamohammadi and Hamid, 2019), while others studies refer to values between 21 per cent (Fu and Wang, 2015) and 24 per cent (Frees, Bolancé, Estany

and Valdez, 2018). An important finding in this study is the fact that customer retention is low in the insurance sector compared with other industries, and it also has a tendency to continue to decrease, mainly due to competitive factors such as the number of insurance companies acting in more diversified markets (de la Llave, López and Angulo, 2019) and the increasing availability of low-cost policies (Brophy, 2015).

Hence, customer loyalty is a main challenge (Guillen *et al.*, 2009) and a priority (Bolancé, Estany and Padilla-Barreto, 2016) for most insurance companies, because product cancellation directly affects their profitability (Verhoef and Commandeur, 2001; Ascarza, Neslin, Netzer, Anderson, Fader, Gupta, Hardie, Lemmens, Libai, Neal and Provost, 2018). Retention drives a firm's profitability and value (Ascarza *et al.*, 2018). Several studies have demonstrated over the years the impact of customer retention on lifetime value (Gupta, Lehmann and Stuart, 2004; Venkatesan and Kumar, 2004), and on the firm's equity value (Verhoef and Commandeur, 2001). Therefore, a small increase in retention can have a major impact on the profitability of organizations (e.g. Reichheld, 1996; Gupta, Lehmann and Stuart, 2004).

The financial services industry, for example, has acknowledged the importance of understanding consumers' motivations and attitudes towards financial products (Steinhart and Mazursky, 2010). The low frequency of contact in insurance business between customers and companies, compared to industries like banking, significantly increases the difficulty of anticipating and preventing the loss of customers in the insurance industry (Paredes, 2018).

In effect, past empirical studies addressing customer loyalty to insurance products have shown its growth in terms of importance for the economy, but also in terms of the challenge managers and firms face with the increased market competitiveness. Customer loyalty to insurance products remains crucial in terms of both importance and challenge, but it remains poorly understood (Taylor, 2016).

The criticalness of this issue also derives from the collective loss of effectiveness of traditional methodologies to retain customers—based either on loyalty programmes that offer incentives for consumers to stay connected to the firms and their brands, or on coercive strategies to lock in customers—as drivers of long-term brand loyalty (Edelman and Singer, 2015). In the insurance industry, loyalty has been managed as a trade-off between the price of an insurance risk and its cancellation probability, considering that the two variables tend to be directly associated: the higher the price of the risk, the higher the probability of its cancellation (Frees, Bolancé, Estany and Valdez, 2018).

The strategies deployed by insurance companies, prioritizing the acquisition of customers instead of their retention and frequently deploying tactics based on aggressive sales promotions in order to increase short-term sales volumes (Gamble, Juliusson and Gärling, 2009; Gelder, Broström and Bengtsson, 2018), have contributed to increase customer sensitivity to price and destroy loyalty to firms (Verhoef and Lemon, 2013). The negative impacts of sales promotions on loyalty tend to produce lasting effects because the customers acquired through attractive pricing offers are more vulnerable to defecting when they receive attractive offers from competitors (Verhoef and Donkers, 2005). Price incentives are perhaps effective in the short run, but they are easily copied by the competition and imbue the customer with a cherry-picking mindset (Ascarza *et al.*, 2018). This practice creates a setting where customers who frequently change their insurance provider and insurance policy pay lower premiums (Gelder, Broström and Bengtsson, 2018). Annual renewal itself can erode any early signs of loyalty, as it focuses the consumer's attention on price (Robson, 2015).

1.2) The insurance industry

The importance of the insurance business can be measured in terms of its direct economic impact on the society. The global volume of gross written premiums in 2020 was 5,406,858 million euros (Table 1.1). North America is the largest insurance market in terms of premiums, and the region with the highest density and concentration. The Chinese market has a low concentration and density, but a high growth rate compared with the other major regions.

Table 1.1. Top insurance regions by volume of gross written premiums

Region (2020)	Premium volume (millions EUR)	Change (%)	Share of world market (%)	Insurance concentration (premiums as % of GDP)	Insurance density (premiums per capita in EUR)
World	5,406,858	-1.3	100	7	696
US and Canada	2,299,673	0.9	43	12	6,252
EU	974,716	-5.2	18	7	2,008
China	564,052	3.6	10	5	391
Japan	356,732	-3.0	7	8	2,821

Source: Aizpún, Dai and Lechner (2020)

Insurance companies are a major investor in economies. In Europe in 2019, the volume of assets under insurance sector management that were invested in the economy was €10.433.000 million, representing 59 per cent of Europe's gross domestic product (GDP) (Insurance Europe, 2020). A very significant share of insurers' investment portfolios (42%) is government and corporate bonds (Insurance Europe, 2020).

Direct employment in the 3,960 European insurance companies has been growing: in 2019, there were 945,000 employees (Insurance Europe, 2020). But there are also a lot of indirect employees in this industry. The people that work in activities involved in the insurance value chain, such as agents, brokers, financial intermediaries and other service companies, are probably double the number working in insurance companies (Liedtke, 2007).

The line of business split into life and non-life gross written premiums is presented in Table 1.2.

Table 1.2. Gross written premiums (2020) of insurance line business in the world

Line of business	EUR billions	%	Line of business	EUR billions	%
Non-life	2,041	46	Life	2,425	54
Motor	667	33	Saving	2,141	88
Accident and health	654	32	Risk	284	12
Property	344	17			
Liability	155	8			
Marine	29	1			
Agriculture	29	1			
Credit	22	1			
Engineering	20	1			
Other	122	6			

Source: Aizpún, Dai and Lechner (2020)

Life business represents a higher proportion of world insurance premiums than non-life business. Saving is the most relevant business line, accounting for 48 per cent of the business. In non-life, motor has the highest volume of premiums, accounting for one third of the business.

In Europe, the British market is the biggest for life, non-life and total volume of premiums. In the European Union, the French market is the biggest for life and total volume. In Property and Casualty insurance (P&C) and health, the German market is the biggest (Insurance Europe, 2021).

Considering the relative weight of different lines of business (Table 1.3), Finland has the highest relative value of life policies, Iceland is top for P&C, and the Netherlands has the highest relative weight of health business (Insurance Europe, 2021).

Table 1.3: European insurance markets with higher relative share of life, P&C and health

Country (2019)	Share of life (%)	Share of P&C (%)	Share of health (%)
Europe	56	12	33
Finland	83		
Iceland		87	
Netherlands			66
Portugal	60	33	8

Source: Insurance Europe (2021)

The ranking by premium volume of the largest European insurance groups is dominated by French companies, considering that Axa, Crédit Agricole Assurances, CNP Assurances and BNP Paribas Cardif are in the top ten ranking (MAPFRE Economics, 2021), as described in Table 1.4.

Table 1.4: European ranking of insurance groups

Ranking	Group	Country	Premiums 2020 (millions of euros)
1	Axa	France	93,915
2	Allianz	Germany	82,986
3	Generali	Italy	70,704
4	Zurich	Switzerland	42,296
5	Talanx	Germany	41,105
6	Prudential	United Kingdom	37,296
7	Aviva	United Kingdom	32,651
8	Crédit Agricole Assurances	France	29,439
9	CNP	France	26,922
10	BNP Paribas Cardif	France	20,747

Source: MAPFRE Economics (2021)

In the Portuguese insurance market, there were 76 companies in 2018, comprising 40 limited liability companies (16 national and 24 foreign), 35 general agencies and one

mutual. In terms of the relative weight of insurance premiums, and considering life and non-life business, limited liability companies represent 90.5 per cent, general agencies 9.4 per cent and the mutual 0.1 per cent (Associação Portuguesa de Seguradores, 2019). The number of employees in these insurance companies in 2018 was 10,148 (Associação Portuguesa de Seguradores, 2019).

The Portuguese insurance market was estimated to be worth 10,006 million euros in 2020, decreasing 18.8 per cent from the previous year, mainly due to the reduction of life business (Aizpún, Dai and Lechner, 2020). Therefore, the non-life market has become more valuable than the life business, which is a bold difference considering the previous structure of the Portuguese insurance market (Table 1.5).

Table 1.5: Premiums, concentration and density of insurance in Portugal

Portugal (2020)	Premiums (millions EUR)	Premium (%)	Change (%)	Concentration (premiums as % of GDP)	Density (premiums per capita in EUR)
Life	4,692	47	-34.6	2.2	502
Non-life	5,314	53	3.1	2.7	602
Total	10,006	100	-18.8	4.9	1,104

Source: Aizpún, Dai and Lechner (2020)

The distribution channels play a very important role in this industry (Dominique-Ferreira, 2018). The traditional distribution channels (agents, brokers and banks) are still dominant in insurance, accounting for a relatively stable share of around 60–70 per cent of premiums in the world non-life insurance business, and an even higher stake in the life business, given the more complex nature of many of these products (Swiss Re Institute, 2017).

The Portuguese insurance distribution structure has some relevant differences when compared with European benchmarks in terms of the life and non-life insurance businesses. For instance, in the past banks would acquire a dominant position in life insurance business, resulting from cross-selling life risk insurance and their bank's financial products. This situation arose from customers' trust in banks and from intermediaries' financial illiteracy regarding the complexity of financial insurance products. The development of this distribution channel was very much driven and

stimulated by the insurance companies themselves, which traditionally belonged to the same economic group, sharing the same shareholders.

The relative weights of the different distribution channels in non-life business in Portugal are quite different from the average for Europe, revealing a very conservative situation considering the underdevelopment of the most recent forms of distribution, such as the internet. Besides, traditional channels such as agents have a higher proportion of insurance distribution in Portugal than the average for other European markets. Also the bank's branches maintain a preponderance in life insurance, clearly more so than for the European benchmarks (Insurance Europe, 2020).

1.3) Theme definition and relevance

The theme of this thesis is “Loyalty in non-life insurance: antecedents, determinants and future directions”. This theme is structured around three related topics, as shown in Figure 1.1.

Figure 1.1: Topics and main objectives of the three articles

Topic	Title	Main objective
1 What do we know about insurance cancellation?	Non-life insurance cancellation: a systematic quantitative literature review	To provide an overall picture of the current investigation of insurance cancellation in non-life business, and to take into consideration the influence of intermediaries on customers' decisions, using the systematic quantitative literature review method
2 How to avoid insurance cancellation?	Determinants of motor insurance cancellation: The role of intermediaries in customer decision-making	To identify the main factors that explain motor insurance policies cancellation by individual customers, considering the influence of intermediaries on their decisions
3 Moving forward: how to increase loyalty?	Customer loyalty in insurance industry: a bibliometric analysis.	To identify the most relevant research trends about customer loyalty in insurance

Source: Own elaboration

The three articles are sequentially organized, and each article incorporates the findings of the previous one to develop new theoretical and practical approaches to the concept of loyalty in insurance. While the first and the second articles are focused on the characterization of current knowledge about insurance cancellation and on the development of tools by insurance companies to manage it, the third article looks forward in terms of projecting the current trends of research, pointing out the most effective approaches to improve customer loyalty.

The first article is based on a systematic quantitative literature review about non-life insurance cancellation. Its main objective is to characterize the scientific research that has been done concerning insurance cancellation in non-life business. The influence of intermediaries on customers' decision to cancel insurance policies is also considered in this study, given customers' heavy reliance on their advice and recommendations (Dominique-Ferreira, 2018). Two aspects are particularly addressed in this paper: the first is an analysis of the geographical and chronological incidence of the research, its methodological approaches, and the main issues addressed; the second is the identification of patterns in the findings of the documents reviewed.

This article follows the systematic quantitative literature review methodology (Pickering, Grignon, Steven, Guitart and Byrne, 2015; Suzuki, Pai and Islam, 2018). Its advantages over traditional narrative reviews are its greater simplicity and its ability to highlight what is known and what is not known by identifying research trends and gaps (Pickering and Byrne, 2014). According to Healey and Healey (2010) and Petticrew and Roberts (2008), this technique is easy to use and offers insights that would not be found using more traditional narrative approaches. Hence, this methodology is systematic, because it follows an explicit and reproducible method to survey and select the literature; it is quantitative, because it offers a numerical understanding of the state of the art and where the gaps are (Suzuki, Pai and Islam, 2018); and it is comprehensive, because it includes different combinations of constructs, methods, subjects, variables and responses, as well as the main findings on the topic.

This article demonstrates the extant literature that focuses on individual customers and, in terms of insurance lines of business, on motor insurance. Regarding the statistical methods, it is demonstrated that logistic regression is the most frequent approach. Finally, the variables most frequently used to study insurance cancellation are, in terms of the insurance customer, age, gender, duration of the customer-company linkage, and the sum of premiums, and in terms of the insurance policy, the premium, and the existence and

value of claims. The type of intermediary is also identified as a relevant factor to analyse insurance cancellation,

The aim of the second article is to identify the main factors explaining motor insurance policy cancellation by individual customers, considering the influence of intermediaries on their decisions. Accordingly, the main factors that explain motor insurance policy cancellation by individual customers are identified. The focalization of this study on motor insurance and individual customers, and the inclusion of the distribution channels, result from the conclusions of the previous article, considering the importance of understanding insurance cancellation.

The research is focused on motor insurance because it is the largest non-life business in the world (Staib, Cabral, Kubli and Dornigg, 2020), in Europe (Insurance Europe, 2020) and in Portugal (ASF, 2020) and is also the line of business most likely to be cancelled, as demonstrated in the literature review (Chapter 2).

Individual customers adopt buying processes that are significantly different from companies' (Lopes, Alves and Brito, 2011), being less informed, rational and objective (Beloucif, Donaldson and Kazanci, 2004), making individuals the usual object of analysis when researching insurance cancellation and distribution channels. Frequently, customers abandon the insurance company but remain clients of the intermediary (Dominique-Ferreira, 2018). It has been found that loyal behaviour exists between intermediaries and individual customers but not between customers and insurers, which may lead to high churn rates in this business (Short, Graefe and Cathy, 2003). Thus, customers tend to be more loyal to intermediaries than to insurers (Dominique-Ferreira, 2018).

The methodology used in this article is logistic regression, considering that it is the most advantageous method for insurance retention modelling (Fu and Wang, 2015). This method has been used in motor insurance to analyse the probability of other types of events, such as claims (Dionne, Gouriéroux and Vanasse, 1999) and fraud (Artís, Ayuso and Estany, 1999). Regarding the data analysis of what leads to customer retention, logistic regression has also been a widely used method (e.g., Staudt and Wagner, 2018; Tähtinen and Havila, 2004)

The variables that were identified in the first article as being relevant to study insurance cancellation were analysed in terms of their capacity to predict its occurrence, using a binary logistic regression. The two significant predictors of insurance cancellation related to customers are the total premium paid and gender. The five statistically relevant factors related to the insurance policy are the annual premium, the existence of claims, its age,

the frequency of payment (whether it is annual or semi-annual), and the method of payment. Moreover, it was found that the three types of distribution channels relevant to explain insurance cancellation are the ancillary, the individual agents and company agents. Hence, using these variables it is possible for insurance companies to calculate the probability of an insurance being cancelled, allowing them to develop retention strategies focused on the most valuable customers.

The third article uses a bibliometric analysis to identify and provide a mapping visualization of the extant literature on the topic to identify the most relevant research trends and potential gaps.

The bibliometric methodology is a widely used approach to analyse and evaluate documents using quantitative methods, namely to highlight the most relevant publications in the management and innovation cognitive domains (Martínez-López, Merigó, Valenzuela-Fernández and Nicolás, 2018). The bibliometric outputs are produced by specific computer programs, specifically Vosviewer (e.g. van Eck and Waltman, 2010; Castillo-Vergara, Alvarez-Marin and Placencio-Hidalgo, 2018) and Scimat (e.g. Cobo, López-Herrera, Herrera-Viedma and Herrera, 2012; Cobo, Chiclana, Collop, De Ona and Herrera-Viedma, 2014), which were used in this article to generate comprehensive and novel results such as the total number of publications, citations and the h-index.

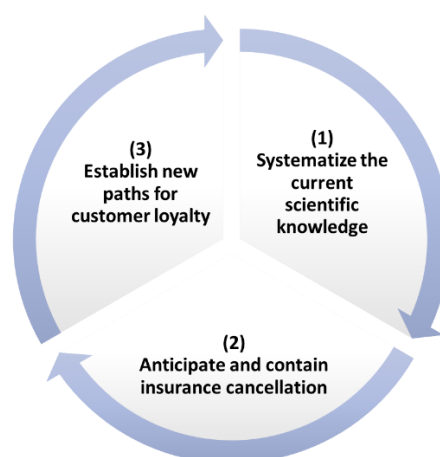
The results of this third article demonstrate a shift in the main topics associated with research on loyalty in insurance. While initially the main concern was the adoption of customer-centric positioning by insurance companies, recently the priority has been the application of new technologies, processes, statistical models and algorithms to manage the large amounts of information available, with the purpose of anticipating customer decisions and acting to reinforce customer loyalty behaviours and create more value not only for customers but for the whole insurance ecosystem.

The selection of these topics resulted from the consistent poor performance of insurance firms in customer retention and the consequent high churn rates in this industry. It is important to highlight that churn should not be an expected behaviour of customers, especially in insurance, not only because of the important role this industry plays in modern societies, but also because changing a provider is not the natural behaviour of customers, as previously shown (e.g. Heidenreich, Kraemer and Handrich, 2016; Lafley and Martin, 2017).

In order to produce a comprehensive analysis of the concept of customer loyalty in insurance, a process was defined, developed in three phases (Figure 1.2), corresponding

to the three scientific articles (Chapters 3, 4 and 5). The first step considers the analysis and systematization of the current scientific knowledge in this scientific domain. The second step examines empirically how the insurance industry can understand better the phenomena of insurance cancellation and design more effective processes to reduce it. Moreover, the probability of product cancellation is explored, and a reliable and valid method to anticipate such customer decision-making is developed. Finally, this investigation looks ahead, not only in terms of reducing the cancellation of policies, but also gaining the loyalty of customers, increasing their longevity in the company, and buying more products, preferentially with a higher share of wallet.

Figure 1.2: Three steps to analyse the concept of customer loyalty



Source: Own elaboration

Scientific research addressing customer loyalty in insurance may produce very important results, both financial and reputational. Generically, customer loyalty is sought-after in every business. It has been studied by researchers from academia and industry, and it has been instrumental in the way companies operate and succeed in the business scenario (Bhatnagar, Syed and Mishra, 2017).

Loyalty-oriented research and the identification of drivers that help explain different loyalty patterns have been characterized as important subjects of study for both academicians and managers (e.g. Allaway, Gooner, Berkowitz and Davis, 2006). Nevertheless, the mechanisms that reduce the likelihood of switching intention in the field of financial services have remained understudied (Mosavi, Sangari and Keramati, 2018). Customer retention has not been a priority in terms of scientific investigation (Ascarza *et al.*, 2018).

Although many companies across the world have loyalty programmes in place (Evanschitzky, Ramaseshan, Woisetschläger, D. M., Richelsen, V., Blut, M. and Backhaus, C., 2012) which have been significant year after year (Kim, Steinhoff and Palmatier, 2020), research on the customer response to retention programmes remains scarce (Ascarza *et al.*, 2018).

Hence, considering the narrow references to customer management, loyalty or retention in the insurance business (Guillen *et al.*, 2003), and particularly in motor insurance, its most important business line, this study is important, firstly, in contributing to fill this gap, particularly in Portugal, where the findings are original, recent and novel. A second

point is the lack of a structured base of scientific evidence regarding the cognitive field of loyalty. Academics have failed to demonstrate consistently how loyalty is built and under what circumstances it can be most effective (Watson, Beck, Henderson and Palmatier, 2015). Despite the extant literature about loyalty, the theoretical field of customer loyalty is basic (Kim, Steinhoff and Palmatier, 2020). There is evidence that many of the expected outcomes associated with customer loyalty remain dubious, without a clear materialization (Watson, Beck, Henderson and Palmatier, 2015).

Thus, the theme is very important to the insurance industry, because the financial performance of companies is intimately attached to customers' loyalty, considering that loyalty increases firms' revenue and reduces the cost of customer acquisition and retention (Abdelfattah, Rahman and Osman, 2015). Acquiring a new customer costs insurance companies several times more than retaining the current ones, which is why reducing attrition is so important (Paredes, 2018). A small increase in retention rates in this industry may add millions to premium revenue (Günther, Tvette, Aas, Sandnes and Borgan, 2014).

Using a cancellation rate of 25 per cent and an annual non-life insurance production of €2,900 billion at a global level (Staib, Cabral, Kubli and Dornigg, 2020), a rough estimate of the annual loss generated among insurance companies as a consequence of product cancellation is €725 billion.

Product cancellation remains a huge challenge in the insurance industry, and shows a tendency to grow (Lopes, Brito and Alves, 2015), in spite of the efforts and the programmes put in place by powerful financial groups that operate in this business to mitigate its effects.

Hence, customer retention is one of the critical priorities for most insurance companies (Bolancé, Estany and Padilla-Barreto, 2016). Losing and gaining customers through brand switching is a major well-founded concern for insurance firms (Brockett *et al.*, 2008).

Globally, customer loyalty was, is and will continue to be sought-after in every business, since it is instrumental in the way companies operate in the competitive scenario (Bhatnagar, Syed and Mishra, 2017). The impact of a one per cent improvement in customer retention is five times greater than the effect of a similar increase in margin (Watson, Beck, Henderson and Palmatier, 2015). The reason lies in several competitive advantages of having loyal customers: lower sensitivity to price; increased organizational profitability; lower vulnerability to the marketing efforts of competitors; and a higher

availability of energies to devote to other management tasks (Allaway, Gooner, Berkowitz and Davis, 2006). Moreover, the reduction in average premiums paid by customers as a consequence of the possible replacement of ‘good’ customers by ‘not so good’ customers is a frequently forgotten, but very relevant, effect of low customer loyalty (Brockett *et al.*, 2008).

Loyalty may still generate other benefits, such as higher patience of customers faced with service failures; an additional last opportunity to cover a concurrent offer from a competitor; a reduction of marketing costs invested in customer acquisition; positive influence on other stakeholders; and, in a broader perspective, the weakening of competitors' capacity and the consequent reduction of their market share (Allaway, Gooner, Berkowitz and Davis, 2006). In addition, loyal customers exhibit more non-random continuous purchasing and encourage their families, friends and acquaintances by recommending company products (Halliburton and Poenaru, 2010).

Hence, loyalty is an important and crucial marketing tool that is not only aimed at the customer but is a significant indicator of the success of a business (Vilkaite-Vaitone and Skackauskiene, 2020).

The topic is also very important to the industry because it may help the development of strategic thinking about customer management, considering that in today's hypercompetitive global marketplace, the broad concept of customer loyalty is more important than ever before (Ferguson and Hlavinka, 2006). Achieving customer loyalty is a primary marketing goal but building loyalty and reaping its rewards remains an ongoing challenge. Customer loyalty is at the heart of marketing efforts (Watson, Beck, Henderson and Palmatier, 2015). However, customers' buying decisions, and consequently their loyalty, are influenced by many factors, including insurance premiums, the insurance intermediary's recommendation, involvement with the product and with the provider, and pricing strategies such as price bundling (Dominique-Ferreira, Vasconcelos and Proença, 2016). Hence, the market, companies and managers in particular need this broad perspective on customer management to develop effective, successful loyalty approaches. Many loyalty-building efforts developed by companies fail to meet its objectives and expectations (Nunes and Dréze, 2006; Henderson, Beck and Palmatier, 2011), which means that more empirical studies are needed to know more and to provide novel inputs into academia and the industry regarding the antecedents and determinants of customers' loyalty.

1.4) Research questions and goals

Customer loyalty is a very important concept to insurance companies that directly affects their value (Halliburton and Poenaru, 2010), but it has been badly managed, considering its tendency to become weaker and weaker in the industry (de la Llave, López and Angulo, 2019). Although some positive effects of loyalty programmes can be identified in terms of specific customer behaviours and performance, many questions and doubts remain regarding their effect on enhancing customers' loyalty to the companies (Kim, Steinhoff and Palmatier, 2020).

Although customer loyalty to insurance products continues to grow in terms of both its importance and as a challenge, it remains poorly understood (Taylor, 2016), along with the ineffectiveness of insurers' retention strategies, shown by their low capacity to strategically retain profitable customers (Kofman and Nini, 2013). As such, the main questions of this study are:

- What is the state of the art regarding the study of non-life insurance cancellation?
- What key factors explain motor insurance policies' cancellation by individual customers? How can insurance companies anticipate an insurance cancellation occurrence?
- What are the most relevant research trends and gaps in customer loyalty in the insurance sector? What are the critical success factors of loyalty initiatives in this industry?

1.4.1 Research goals

The main goal of this research is to contribute to better comprehension of the dynamics behind customer loyalty in the insurance industry, specifically in the non-life sector, addressing motor insurance policies. Thus, the research aims to fill the research gap in extant literature on this sector, as identified by several authors (e.g., Braun, Schmeiser and Schreiber, 2016; Guillen *et al.*, 2003; Robson and Sekhon, 2011). Scientific literature remains limited when it comes to publications on insurance (Robson and Sekhon, 2011). Also, in the marketing literature, there are not many articles analysing customer loyalty to insurance companies (Estany, Nielsen and Perez-Marin, 2009). Hence, it is expected

that this research will contribute to insurance companies improving their customer loyalty performance, improving their competitive capacity and value proposition.

Thus, based on the general research goals, five specific objectives are defined in order to guide the research effort:

- Identify the most productive and influential authors, journals and institutions on customer loyalty in scientific research on insurance;
- Characterize the extant literature on insurance cancellation in terms of its incidence;
- Determine the preferred methodological approaches to research the theme of customer retention?
- Identify the main issues addressed when researching customer retention in insurance;
- Discriminate the factors that contribute, positively or negatively, to insurance cancellation.

1.5) Structure and organization of the study

This research is based on three scientific articles that are related and together allow the research questions of the dissertation to be answered. The present chapter defines the theme and justifies its academic and industrial relevance. The main research questions and the general and specific goals are also presented in this section.

The second chapter reviews the most relevant literature on the main concepts in this research. The cognitive fields of customer loyalty, loyalty in insurance and distribution in insurance are presented, establishing the pillars of the subsequent investigation.

The following Chapters 3, 4 and 5 comprise three scientific articles that, sequentially, produce the outcomes to answer the research questions and fulfil the goals of this research. The first article (Leiria, Matos and Rebelo, 2020) provides an overall picture of the current investigation of insurance cancellation in the non-life business, taking into consideration the influence of intermediaries on customers' decisions. The results of this research support the methodology and the assumptions used in the subsequent article (Leiria, Rebelo and Matos, 2021), the objective of which is to determine the main factors that explain the cancellation of motor insurance policies. The third article, from the same authors, entitled "Customer loyalty in the insurance industry: A bibliometric analysis",

which is in the process of publishing, seeks to identify the main concepts that need to be considered to overcome the primary obstacles to significant improvement in the performance of insurance companies regarding customer retention and loyalty. Each of these articles also contains a specific introduction, literature review, research questions, methodology and conclusions.

The sixth chapter summarizes the conclusions, highlights key insights and identifies the main implications. The research finishes by identifying its main limitations and suggesting future avenues for research.

Chapter 2) Literature review

Chapter 2. Literature review

The concepts of customer loyalty and insurance cancellation are central in this thesis. In order to establish the ground for this investigation, the literature review characterizes these two concepts and presents the most relevant scientific contributions to knowledge in these cognitive fields. The research is focused on customer loyalty, emphasizing that it is a feature of people, in opposition to brand loyalty, which is inherent to brands. Customer loyalty is the main goal to achieve in order to improve the traditional poor performance of insurance industry regarding customer retention. Considering the importance of loyalty programmes to the implementation of loyalty strategies and the lack of a solid body of research on this topic, the concept is detailed in the literature review. Finally, the analysis of loyalty is focused on the insurance industry in order to highlight its specificities and idiosyncrasies.

The last topic detailed in the literature review is distribution and intermediaries in insurance industry, considering the powerful influence they exert on customers' decisions, and how they determine the type and the strength of the relationships between stakeholders in this industry.

2.1) Customer loyalty

Customer loyalty is the central thrust of marketing efforts (Watson, Beck, Henderson and Palmatier, 2015), being sought after in every business (Bhatnagar, Syed and Mishra, 2017). For some authors, it is prioritized as the main aim of an organization and its marketing, constituting its biggest asset and a requirement for its foundation (Vilkaite-Vaitone and Skackauskiene, 2020).

Loyalty is fundamental to customer retention because it increases the probability of future purchases and recommendations by creating an enduring attitudinal bond with customers that is not just driven by factors such as price or convenience (Singh, Iglesias and Batista-Foguet, 2012). Hence, developing and sustaining customer loyalty is a key source of success of business activity (Damtew, 2013).

Loyalty becomes an important marketing tool that is not only aimed at the customer, but is also a significant indicator of the success of a business (Vilkaite-Vaitone and Skackauskiene, 2020).

Some of the benefits of customer loyalty to companies are: a) reduced price sensitivity; b) decreased permeability to the marketing efforts of competitors; c) the ability to invest more in improving the quality of the experiences rather than defending acquisition efforts from competing companies (Allaway, Gooner, Berkowitz and Davis, 2006).

The concept of loyalty has been used in the marketing literature in a large variety of ways. More than 40 years ago, Jacoby and Chestnut (1978) reported 53 definitions of the term, showing how extensive and vast the conceptualization of the term can be.

However, most researchers have traditionally focused on the differences between loyal versus non-loyal segments, with the common view that loyal customers are homogeneous in their decision-making and behaviour (Woodham, Hamilton and Leak, 2017). More recently, it has been argued that there are varying degrees of loyalty based on the level of commitment to the brand (Woodham, Hamilton and Leak, 2017). These degrees have been conceptualized in the form of a step-by-step progression that grows in terms of loyalty (Estany, Nielsen and Perez-Marin, 2009)). Nowadays, there is growing recognition that loyal segments may not be as homogeneous as previously thought (Woodham, Hamilton and Leak, 2017). Research on loyalty-supporting factors found that there are two groups of factors: those that cause dedication, such as trust, relationship length, company image and responsiveness, and those that cause constraints, like perceived risk, search evaluation costs, lack of alternatives and legal bonds (Bhatnagar, Syed and Mishra, 2017). In a development of this research, it was demonstrated that these two types of factors had very different impacts on loyalty: dedication factors make the relationships grow, while constraint factors make the relationships persist (Bhatnagar, Syed and Mishra, 2017).

Although there is no consensus regarding the definition and the number of levels of loyalty, extant research generally agrees that it represents a mix of attitudes and behaviours that benefit one firm relative to its competitors (Watson, Beck, Henderson and Palmatier, 2015). Thus, customer loyalty can be defined from different perspectives focusing on its attitudinal and/or behavioural facets (Eggert, Henseler and Hollmann, 2012). To fully understand the effect of loyalty on objective performance outcomes in terms of revenue and profit, both dimensions of loyalty, attitudinal and behavioural, must be measured (Watson, Beck, Henderson and Palmatier, 2015).

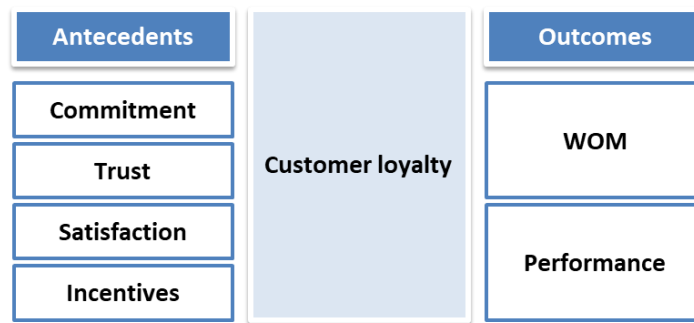
Attitudinal loyalty and behavioural loyalty have a positive and significant relationship with each other, meaning any factor which has a positive impact on attitudinal loyalty will lead to a positive effect on behavioural loyalty, making customers both attitudinally and behaviourally loyal (Fullerton, 2003). The factors that have a negative effect on either attitudinal loyalty or behavioural loyalty will also have a negative effect on the other (Bhatnagar, Syed and Mishra, 2017).

The link between attitudinal loyalty and behavioural loyalty was previously demonstrated by Fullerton (2003). In addition, according to Evanschitzky *et al.* (2012), emotional attachment and positive feelings towards the company are likely to lead to a desire to maintain the relationship and, consequently, an intention to act upon it by developing positive purchase intentions. According to Watson, Beck, Henderson and Palmatier (2015), attitudinal loyalty results from customers' positive evaluation of a relationship based on previous exchange experience, while behavioural loyalty results from situational triggers and habit.

It has also been demonstrated that satisfaction has a strong effect on attitudinal loyalty but little effect on behavioural loyalty (Watson, Beck, Henderson and Palmatier, 2015). Prior literature also suggests that behavioural loyalty relates more to short-term purchase patterns, while attitudinal loyalty reflects commitment, favourable attitudes, and true affect in the long run (Bijmolt, Verhoef and Dorotic, 2011; Bombaj and Dekimpe, 2020). Hence, the value of loyalty for a provider depends on the level of customer loyalty, but also depends on its composition in the customer portfolio—whether it is expressed more in attitudinal or behavioural forms—because this balance exerts significantly different effects on outcomes (Watson, Beck, Henderson and Palmatier, 2015). One way to maintain this balance is to identify the antecedents of loyalty, a fundamental step to understand the construct and how it can be successfully sustained.

According to Watson *et al.* (2015), there are four antecedents of customer loyalty, which are commitment, trust, satisfaction and loyalty incentives, and two outcomes, word of mouth (WOM) and performance (Figure 2.1).

Figure 2.1. Customer loyalty: antecedents and outcomes



Source: Adapted from Watson *et al.* (2015).

The relevance of trust and customer affective commitment as antecedents of customer loyalty has also been demonstrated by other researchers (e.g. Leonidou, Kvasova, Leonidou and Chari, 2013; Markovic and Bagherzadeh, 2018; Iglesias, Markovic, Bagherzadeh and Singh, 2020). The association between the concepts had already been found previously, considering that trust increases the level of commitment in the relationship between customers and providers (Kingshott and Pecotich, 2007).

An important finding was the association identified between commitment of an affective nature and customer retention (Fullerton, 2003). This association allows the concepts of retention and loyalty, which are central in this study, to be directly related.

Thus, commitment is an important concept in the study of retention behaviour (Sanchez and Iniesta, 2004). Its relevance as a key antecedent of company loyalty results from its impact on the psychological attachment and personal identification of customers with the companies, and increased price tolerance (Evanschitzky *et al.*, 2012). The positive effect of commitment on customers' willingness to accept price increases was demonstrated by Fullerton (2003). However, it has also been argued that only when commitment is based on shared values and identification does it positively impact customer loyalty; otherwise, when commitment is based on switching costs and dependence, its effect on customer loyalty is not univocal (Fullerton, 2003). Hence, a higher level of commitment is not necessarily better for the provider.

It is important to evidence the different effects of customer loyalty and brand loyalty. Brand trust is positively related to brand loyalty (Ramesh Kumar and Advani, 2005). As insurance companies sell the promise to compensate customers for losses that may occur in the future, trustworthiness is fundamental to do business in this sector (Damtew, 2013). Therefore, if customers are not affectively committed to the insurance brand, the provider

may experience substantial customer attrition rates at the end of the service contract (Fullerton, 2003).

Another concept related to customer retention and loyalty is satisfaction. According to several authors (Cooil, Keiningham, Aksoy and Hsu, 2007) satisfaction is a fundamental antecedent of the long-term behaviour of the customer. The satisfaction-loyalty link is a foundation of marketing literature and practice (Anderson and Mittal, 2000). In insurance, employees' behaviours may be critical, considering their impact on customers' perceptions of service quality and on satisfaction with the service provider (Sousa and Coelho, 2013). Nevertheless, the status of satisfaction as a predictor of loyalty has been questioned by some researchers, who encourage managers to examine returns on their investments in programmes dedicated to ensuring consumers' satisfaction (Nagengast, Evanschitzky, Blut and Rudolph, 2014).

In effect, then, customer satisfaction needs to be monitored, since in itself it is no guarantee of long-term business (Beloucif, Donaldson and Kazanci, 2004). Although customer satisfaction may positively influence customer loyalty, it is not per se a sufficient condition. Other factors, such as switching barriers to inhibit customers from defecting to new insurance providers, may be necessary. There is evidence that while levels of customer satisfaction may be identical, the level of customer loyalty can vary depending on the magnitude of the switching barriers (Chen and Wang, 2009). This reinforces the need to identify and better monitor switching barriers or other factors as alternatives to satisfaction (Kumar, Pozza and Ganesh, 2013).

For example, perceived value is a convincing alternative to satisfaction as a predictor of actual loyalty (Kumar, Pozza and Ganesh, 2013), although its impact has been largely measured through attitudinal indicators (Leroi-Werelds, Streukens, Brady and Swinnen, 2014). Hence, this link has been questioned, with the suggestion that it is necessary to go beyond attitudinal measures of loyalty, instead taking actual behaviour into account (Mencarelli and Lombart, 2017). Three main reasons support this perspective: first, the inconsistency of behavioural intentions across time and the fact that many times such behaviours do not translate into actions (De Cannière, De Pelsmacker and Geuens, 2009); second, the deterioration of correlations between behavioural intentions and actual behaviour as a consequence of interpersonal and situational factors, weakening the probability of desired behaviours' occurrence (Foxall, 2005); and third, response biases and spurious correlations from the simultaneous measurement of satisfaction and behavioural intentions (Mittal and Kamakura, 2001).

Regarding the dissolution of relationships between customers and providers, these occur because of fragilities that result from weak interdependence, lack of mutual knowledge, or weak connections in the surrounding business network (Tähtinen and Havila, 2004). Although customer switching is merely the flip side of loyalty, making switching the focal variable helps explore variables that motivate customers' switching as well those that motivate staying (Mittal, 2016). The dissolution process is motivated by a combination of the trigger that ignited the decision, switching determinants, the number of critical incidents, and who makes the decision to end the relationship (Tähtinen and Havila, 2004).

Although relatively common in the insurance business, abandoning a company is not the natural behaviour of customers. The human brain suggests that the mind always prefers automaticity to any kind of effort, such as that required in a conscious consideration of products to buy (Lafley and Martin, 2017). Besides, adoption of a new product always entails change, uncertainty and risk, endangering the status quo (Heidenreich and Handrich, 2015). The literature demonstrates that customers prefer tried and tested products to novelties (Hetts, Boninger, Armor, Gleicher and Nathanson, 2000). The natural response of customers when confronted with innovation is to resist (Ram, 1989; Szmigin and Bourne, 1998), and avoid innovative behaviours such as trying out new services or adopting new technologies (Moldovan and Goldenberg, 2004). Lafley and Martin (2017) argue that, as people are creatures of habit, they are blind to novelty. Customers resist change in passive or active ways, or both (Heidenreich and Handrich, 2015), through the effect of factors such as acquired habits (Wood and Neal, 2007) and the perception that change may lead to increased costs (Chen and Wang, 2009).

Passive innovation resistance generally inhibits favourable attitude formation within new product evaluations, leading customers to act irrationally when confronted with innovations (Heidenreich and Spieth, 2013). They underestimate the additional benefits offered by a new product and overrate the products they already possess (Heidenreich, Kraemer and Handrich, 2016).

Hence, customers look for what is familiar and easy to buy (Lafley and Martin, 2017). The simple act of deciding and overriding is a resource-intensive task, mainly in the context of time pressure, distraction and regulatory depletion (Wood and Neal, 2007). Labrecque, Wood, Neal and Harrington (2017) identified the main drivers of resistance to new products, acting as either active or passive mechanisms.

Some of the most important active drivers of resistance to new products are physical risk; functional risk due to uncertainty about complementarity with other products; social risk because of concern about others' evaluations; economic risk because of difficulty determining the true value or whether the price will change over time; perceived switching costs because of the recognized costs of learning the new product over keeping the old; and habit conflict when the new product destabilizes a pattern of use that consumers want to maintain (Labrecque *et al.*, 2017). But there are also some relevant passive drivers of resistance to change products or providers, such as a natural resistance to change; no dissatisfaction with the current situation; ignorance about the product or the category of products; thinking the new product is not relevant; or when existing usage habits are strong. Nevertheless, the study of switching barriers and their importance in insurance has received little in-depth attention (Chen and Wang, 2009).

Many discrepancies have been observed between the intention to cancel a relationship with a provider and its concretization. Several factors may explain these discrepancies, such as product involvement, that generates brand involvement and preference (Xue, 2008), or an existing product that is known and experienced rather than a new one (Wirtz, Xiao, Chiang and Malhotra, 2014). As previously argued, customers tend to prefer the easiest alternative, which is dictated by habit and other often-repeated behaviours (Wood and Neal, 2007).

2.2) Loyalty programs

Achieving customer loyalty is a primary marketing goal, but building loyalty and reaping its rewards remain ongoing challenges (Watson, Beck, Henderson and Palmatier, 2015). Frequently, companies use loyalty programmes as a marketing tool to reduced product cancellation, increase customer retention and improve the loyalty of customers (Ascarza *et al.*, 2018).

Loyalty programmes, which can be defined as institutionalized incentive systems developed and implemented with the objective of enhancing consumers' consumption behaviour over time, have been implemented at an unprecedented rate (Kim, Steinhoff and Palmatier, 2020).

There are two main types of loyalty programme structure, which are frequency reward programmes and customer tier programmes (Kopalle, Sun, Neslin, Sun and Swaminathan,

2012). Each type of loyalty programme brings specific outcomes that respond to different objectives. Accordingly, the choice of the best type of programme for each specific business depends on the characteristics of the business and its circumstances (Ascarza *et al.*, 2018). Frequency reward programmes are more common for businesses that encourage frequent purchases and are transaction-focused, and customer tier programmes are more common for high commitment, higher price point, and relationship-focused businesses (Kopalle, *et al.*, 2012), like insurance businesses tends to be.

Loyalty programmes are constituted by design elements and features which include the programme structure and rewards—namely the programme type, tiers, partnerships, and currency—as well as reward values, types and characteristics, reflecting companies' objectives and their strategic decisions (Kim, Steinhoff and Palmatier, 2020).

According to Watson *et al.* (2015), there is no consistent scientific demonstration of how these programmes build loyalty and when they can be more effective. Some studies (e.g. Kim, Steinhoff and Palmatier, 2020) evidence the lack of financial returns demonstrated by some of these programmes, frustrating many expectations in terms of improving customer loyalty and questioning whether they actually enhance loyalty to the company. Some evidence has been brought concerning the futility of many programmes and campaigns in terms of preventing churn (Ascarza *et al.*, 2018).

The reasons for such claims can be summarized in two main arguments: firstly, for most customers, loyalty, both attitudinal and behavioural, is passive and reflects habits; secondly, there is frequently an absence of robust return on investment analyses to support the decisions to create and maintain these programmes (Uncles, Dowling and Hammond, 2003). Typically, in each category customers have a group of brands from which they buy, while the realistic target of loyalty programmes should be to buy more from the category instead of focusing exclusively on the brand (Uncles, Dowling and Hammond, 2003).

The multiplicity of loyalty programmes also contributes to their lack of effectiveness, considering that, for a household with dozens of different loyalty programmes, which is a frequent scenario, adding another one may probably be worthless (Watson, Beck, Henderson and Palmatier, 2015). The inadaptability of many programmes to the different phases and objectives of customers on their customer journeys can also explain the reduced effectiveness. In this regard, Kim, Steinhoff and Palmatier (2020) described what companies should deliver at the acquisition, onboarding, expansion and retention phases of the customer journey to meet their customers' expectations of loyalty programmes.

The authors claim that at the acquisition stage, when customers join a programme, customers seek signals of the future benefits they can expect. They also state that at the onboarding stage, customers want quick results and value delivery. Then, at the expansion stage, customers are available to grant more business to loyalty programme providers for improved status (Kim, Steinhoff and Palmatier, 2020). Finally, at the retention stage, the authors argue that companies must attend to all aspects of customer's status maintenance in terms of monetary and non-monetary benefits.

However, other researchers (e.g. Chaudhuri, Voorhees and Beck, 2019) have a different perspective on the impact of loyalty programmes. Some evidence has demonstrated the positive influence of loyalty programmes on strengthening switching barriers (Jones, Mothersbaugh and Beatty, 2000; Patterson and Smith, 2003; Evanschitzky and Wunderlich, 2006), and on firms' sales and gross profits (Chaudhuri, Voorhees and Beck, 2019).

Another line of research has demonstrated that loyalty programmes may increase loyalty to the programme rather than loyalty to the company (Evanschitzky *et al.*, 2012). In this case, the loyalty programme can be crucial as a driver of purchase behaviour after customers become loyal to the company. While the incentives to adhere to a loyalty programme are usually rational and based on economic benefits, the motivation for company loyalty is more emotional, driven by the quality of the relationship between the customer and the company (Evanschitzky *et al.*, 2012).

Therefore, despite the scarcity of research on customers' response to retention programmes, the common practice of trying to sustain loyalty through the introduction of a loyalty programme seems too simplistic. Nevertheless, the loyalty programme domain continues to evolve in more creative and innovative ways, delivering new types of reward, including seamless omnichannel experiences, far beyond online or offline purchase activities (Kim, Steinhoff and Palmatier, 2020).

2.3) Loyalty in insurance

The insurance industry is much more important to a country's economy than the sheer size of its business, the number of employees, the assets under management, or the contribution to the national GDP. It has an effective role in reducing risk in various economic dimensions of society (Mirzamohammadi and Hamid, 2019). The industry is

very important as an economic activity and as an enabler of other activities' development (e.g. Han, Li, Moshirian and Tian, 2010; Weisbart 2018). A clear parallel evolution has been identified between non-life premiums and GDP in advanced markets (Swiss Re Institute, 2018). However, the insurance industry also has a fundamental impact on customers' peace of mind (Liedtke, 2007). In the long-term, being uninsured is the most costly option to individuals and to economies (Liedtke, 2007).

Despite its importance, customer retention in insurance has not been a priority in terms of scientific research. It has failed to capture the attention of financial services and marketing academics (Robson, 2015). Research into this industry has favoured the study of financial and actuarial elements, paying much less attention to the dynamics behind customer demand for insurance products (Brockett *et al.*, 2008). Guillén *et al.* (2012) argue that there is increased interest in analysing customer lifetime value and loyalty in the insurance sector, although very few contributions with practical implications can be found. A product-oriented strategy still prevails in the insurance industry, and it guides research efforts towards the study of its financial and actuarial aspects (Estany, Nielsen, Scheike and Pérez-Marín, 2012).

According to Robson and Sekhon (2011), retention, cancellation and loyalty are not among the most commonly researched topics in general insurance. In effect, investigations into consumer preferences in the insurance sector are not frequent (Braun, Schmeiser and Schreiber, 2016). More recently, regarding online experiences, existing research has focused strongly on conversion as the sole outcome of digital journeys (e.g. Kannan, Reinartz and Verhoef, 2016) while failing to consider long-term loyalty effects (Lemon and Verhoef, 2016; Herhausen, Kleinlercher, Verhoef, Emrich and Rudolph, 2019), which is inconsistent with the importance of loyalty to the competitiveness of insurance companies. It has been found that in financial services, and especially in the insurance industry, companies' financial performance is intimately attached to customer loyalty (Abdelfattah, Rahman and Osman, 2015). If increasing customer retention rates by 5 per cent may increase profits by 25 per cent to 95 per cent in general terms (Gallo, 2014), in insurance this importance can be even higher, considering that a small increase in retention rates may add millions to premium revenue (Günther *et al.*, 2014).

Customer attrition rates are pivotal business indicators for the management of insurance companies (López-Díaz *et al.*, 2017). Jeong, Gan and Valdez (2018) highlight the positive effect of policyholder retention on companies' reputation for building good customer relationships, which could further help attract new customers. De la Llave *et al.* (2019)

refer to the negative effects of losing customers both to sales revenue, as a consequence of the high cost of attracting new customers to replace those who have left, and to the company's reputation and brand image, considering that churners tend to give negative feedback about the company, which may negatively influence potential customers.

The permanence of customers increases the value of insurance companies, because long-term customers can purchase more policies from broader lines of business, require less time from the company, tend to be less sensitive to price changes, and bring in new customers (Mirzamohammadi and Hamid, 2019). Accordingly, much more emphasis should be given by insurance researchers to customer retention and loyalty.

Identification of the factors that explain switching behaviour is key to the efficient management and strategy of an insurance firm (Bolancé, Estany and Padilla-Barreto, 2016). Once these are identified, customer retention plans can be developed and actions can be taken (Günther *et al.*, 2014). Hence, finding which customers are most likely to leave is a crucial task in customer relationship management (Haugen and Moger, 2016).

The study of customer loyalty in insurance has many specificities, different from other sectors. In this industry, the productive process is inverted, as the revenue is obtained before the supply of goods and incurred costs (Felicio and Freire, 2016), which changes the nature of the relationship between customer and provider. Accordingly, loyalty management in the insurance industry has particular characteristics: for instance, its differentiated impact on different lines of business, the increased relevance of pricing for customers' decisions, and the importance of intermediaries to customers' choices.

Regarding the division between life and non-life insurance, fewer studies have been conducted on non-life than on life business in spite of the increasing relevance of the analysis of lapses in contract characteristics in non-life insurance (Staudt and Wagner, 2018). In terms of lines of business, the impact of customer loyalty is not homogeneous. Motor insurance is the type most likely to be cancelled (Brockett *et al.*, 2008). This was also found by Staudt and Wagner (2018), who demonstrated that holders of motor insurance are more likely to lapse. Motor insurance clients are more likely to be lost, probably because of its increased competitiveness and also its higher relative importance compared with other businesses (Brophy, 2015). The retention rate of motor insurance customers was 0.6 percentage points below the average retention rate for all customers in a study conducted by Verhoef and Donkers (2005). Considering the new distribution channels through online platforms, web sites can have a positive effect on customer retention of housing and health insurance, but not motor insurance, especially in its

simpler versions where competing offers can be easily compared (Verhoef and Donkers, 2005). In contrast, home, health and funeral insurance seem to be more stable businesses where clients are more reluctant to change (de la Llave, López and Angulo, 2019).

In the UK, a developed market with a high level of digital maturity, the importance of the premium as a central decision factor for customers has been increasing, reducing the customers' loyalty to their insurance providers, and outweighing the role of service quality (Beloucif, Donaldson and Kazanci, 2004).

The proximity to an insurance office or representative decreases the probability of churning; conversely, the lapse risk increases significantly when surrounded by competitor branches (de la Llave, López and Angulo, 2019). This highlights the vulnerability of customers to competitive offerings and the importance of intermediaries to the customer's decision process.

2.4) Distribution and intermediaries in insurance

Intermediaries play a very important role in this industry, bringing significant benefits for insurance companies by lowering distribution costs, and for customers by helping them to understand the industry dynamics and choose the best solutions (EIOPA, 2018).

In spite of the great importance of distribution in the organization of the whole insurance sector, research on retail and distribution management in the insurance sector has been very limited (e.g. Braun, Schmeiser and Schreiber, 2016). Nevertheless, scientific evidence reveals that the supply chain in the insurance sector relies greatly on intermediaries, who are of great importance in customers' buying decision process (Dominique-Ferreira, 2018).

The importance of intermediaries in the insurance industry is a consequence of the profound information asymmetries between customers and insurance companies, which created the need for specialized external entities who can mediate the relationships between customers and insurance companies (Dominique-Ferreira, 2018). Insurance intermediaries such as agents and brokers hold an important position as matchmakers between the supply and demand sides of insurance markets (Dominique-Ferreira, 2018). That is the case in both life and non-life business. Many insurance products are complex and are characterized by a considerable purchase uncertainty (Chen and Wang, 2009). Most customers realize their inability to compare policies effectively even with the aid of

computers and insurance experts, relying on the salesperson's ability to reduce the perceived uncertainty (Chen and Wang, 2009).

Even when customers sign contracts over the internet, they need to change their access point for cross-buying since not all products may be offered online and, as the complexity of the product rises, more personal contact is preferred (Konus, Verhoef and Neslin, 2008).

Regarding customers' decision to cancel their insurance policies, it is important to highlight that most people do not have any experience with the insurance company but occasionally have contact with the insurance agent. If the agent changes his insurance company, many of his customers will follow, even if the old insurance company has good products (Guillen, Nielsen, and Pérez-Marín, 2008). In this industry, a customer's investment in a relationship may determine the decision to remain with the provider. Effective relationship-specific investments increase customers' dependency by raising the costs of switching. There is evidence that as relationship investment increases, the relationship between customer satisfaction and customer loyalty tends to diminish (Chen and Wang, 2009).

Some authors (e.g., Lopes *et al.*, 2011) refer to the importance of a trigger to initiate the cancellation process and the importance of intermediaries in customers' decisions in this industry, as they can prompt such a move. This explains the relevance of proximity to a tied agent or to an insurance office belonging to the company or the competition in churn in insurance (de la Llave, López and Angulo, 2019). Besides, it has been demonstrated that, to a great extent, insurance providers and consumers have opposite aims (Dahlen and Napel, 2004).

A positive and unidirectional spillover effect of customer loyalty from the insurer brand to the distributor has allowed distributors to take advantage of brand manufacturers' investments in customer loyalty. This loyalty transference can generate positive or negative consequences for the insurer depending on the type of partnership it has with intermediaries. Some researchers refer to a reciprocal strengthening of loyalty to the brand and to the intermediary (e.g. Ailawadi, Pauwels and Steenkamp, 2008), based on the principle that, in the modern competitive environment, channel partners often need to collaborate to build strong bonds with end customers (Ganesan, George, Jap, Palmatier and Weitz 2009), even as they compete for customers' loyalty (Eggert, Henseler and Hollmann, 2012). Hence, customer loyalty tends to be positively affected by the development of economic or social bonds between intermediaries and customers from the

beginning of the relationship (Verhoef and Donkers, 2005). But other authors indicate that the customers' loyalty to the brand leads to loyalty to the intermediary (Hansen and Singh, 2008). Increasing customers' loyalty to the channel will reduce the brand manufacturer's odds of keeping end customers when it comes to a contest between the insurance company and the intermediary (Eggert, Henseler and Hollmann, 2012). As such, by strengthening the overall bond with the final customer, this spillover effect increases distributor-owned loyalty and therefore weakens the relative position of insurers in the competition for customers' loyalty. In case of some types of competition for the customer, the intermediary is in a privileged position to capture the efforts of both parts of customer loyalty (Eggert, Henseler and Hollmann, 2012).

Insurance companies' vulnerability to intermediaries' influence over customer decisions is reinforced by the lack of trust of many customers in insurance companies, as Halliburton and Poenaru (2010) found in their study, according to which only 48 per cent of UK and US consumers trusted their insurance provider. In effect, many customers do not perceive distinctions between insurance brands, which may explain the low relevance of brand as a decision attribute in this industry (Dominique-Ferreira, Vasconcelos and Proença, 2016). Hence, brand manufacturers need to establish and foster their own relational bonds with customers, investing in brand loyalty enhancement that can effectively protect them from vertical competition (Eggert, Henseler and Hollmann, 2012).

The market positioning of acquisition channels also affects customer retention (Thomas, 2001). Some channels induce more loyalty from customers than others, among other factors, because of their value proposition and the strength of the relationship between the customer and the intermediary (Bolton, Lemon and Verhoef, 2004). Customer loyalty tends to be negatively affected when the key success factor is price rather than brand image or service quality. It is expected that channels with attractive prices will attract more price-sensitive customers (Verhoef and Donkers, 2005).

Regarding insurance business lines, some differences can be observed in the impact of the distribution channels across different types of product. For homogeneous or simple products such as basic motor insurance, whose attributes are easy to compare, the internet may increase customers' switching opportunities by improving market transparency (Sinha, 2000). However, for heterogeneous or complex products, such as many life products that combine risk and financial coverage, the information provided online is not sufficient for a customer's decision, in which case the web site may increase switching

barriers (Verhoef and Donkers, 2005). Other authors argue differently, considering that there is no evidence of the internet being a determinant of churn, but sales agents who prompt acquisition may prompt churn (Paredes, 2018). Besides, digital channels are still, predominantly a supplement, but not a substitute, for traditional distribution channels (Naujoks, Brettel, Singh, Darnell and Schwedel, 2017). Web sites are becoming more useful for price comparison, with sales mainly being made through intermediaries (Dominique-Ferreira, 2018). Customers prefer to stay with their actual channel irrespective of the potential benefits of alternative channels, mainly because of product complexity (Staudt and Wagner, 2018). Nevertheless, it is important to analyse the cancellation of insurance policies from online and offline channels separately, because the lapsing behaviour of online customers who contract their policies via ecommerce is different from that of offline customers (de la Llave, López and Angulo, 2019).

Customer use of mobile digital channels, while continuing to grow, has remained at a low level in the insurance industry, particularly in developed countries, considering that only a small percentage of customers use mobile digital channels to conduct their most important transactions (Naujoks *et al.*, 2017). This can be a consequence of customers' perception of insufficient added value resulting from the transition from traditional to digital channels.

Another factor that may decrease customer retention is how the intermediaries are paid for their services. The most common remuneration model for intermediaries used by insurance companies is commission (EIOPA, 2018). In this model, the intermediary receives a percentage of the premium paid by the customer. But commission rates may vary depending on the type of product and other contractual aspects, such as the volume of new business. Even the mixed model, comprising commission when the product is sold or renewed and a fee for contract management, may have the same side effect. In these cases, intermediaries are frequently overpaid for new business, a tactic used by insurance companies to achieve its own growth objectives. Consequently, the main incentive for customer churn in insurance may be affected by the value propositions of insurance companies towards non-exclusive intermediaries. Other remuneration models such as the fee-based model, whereby the customer pays for the intermediary service on an hourly base or as a fixed amount, are preferable for customers. In this model, the role of the intermediary is much more transparent in terms of who they are benefiting with their advice and recommendations, as they receive no indirect payment for customer churn.

The acknowledgement that more transparency is needed in the distribution of insurance products is at the origin of the Insurance Distribution Directive (European Parliament - Council of the European Union, 2016). Its key points are to increase insurance distributors' transparency in regard to the price and the costs of their products; to provide better and more comprehensible information to customers, allowing them to take more informed decisions; where insurance products are offered in a package with another good or service, to allow the customer to buy the main good or service without the insurance policy; and to establish rules on transparency and business conduct that reduce the possibility of customers buying products that do not correspond to their needs.

Chapter 3) Non-life insurance cancellation: a systematic quantitative literature review

Chapter 3. Non-life insurance cancellation: a systematic quantitative literature review¹

Summary

The purpose of this paper is to provide an overall picture of the current investigation of insurance cancellation in non-life business, and to take into consideration the influence of intermediaries on customers' decisions, using the systematic quantitative literature review method.

This article identifies the most important factors that explain switching behavior in non-life insurance. It also highlights the impact and responsibility of insurance companies' marketing strategies and tactics on insurance policy cancellations and customer churn.

This research contributes to increase the scientific knowledge about insurance cancellation in non-life business and to the development of actions to retain customers, with a higher level of effectiveness, increasing the results of insurance companies and the performance of the industry.

3.1) Introduction

Insurance plays a fundamental role in work or in the everyday life of a modern society; it is a necessary precondition for many activities (Liedtke, 2007). The insurance business is very important as an economic activity and as an enabler for the development of other activities (e.g. Han *et al.*, 2018). It is a determining condition of economic growth, because it is a risk manager for companies and states (Krivokapic *et al.*, 2017). It also enables people to become active and stay active, since they do not have to worry about all of the possible adverse effects that a certain activity might entail (Liedtke, 2007).

One of the characteristics of this industry has been the difficulty of insurance companies to manage customer retention (Estany, Parner, Densgsoe and Perez-Marin, 2003; Brockett *et al.*, 2008; Cohen and Siegelman, 2010). The insurers' retention strategies have

¹ This research was published by *The Geneva Papers on Risk and Insurance - Issues and Practice*, 46(4), October 2021. DOI:10.1057/s41288-020-00187-2

been ineffective, considering their low capacity to strategically retain their best customers (Kofman and Nini, 2013). According to Bolancé *et al.* (2016), customer retention is one of the most important priorities for most insurance companies.

Losing and gaining customers through brand switching is a major well-founded concern for insurance firms (Brockett *et al.*, 2008). In insurance, a small increase in retention rates may add millions to premium revenue (Günther *et al.*, 2014).

An important aspect of non-life insurance policy cancellation is the influence of intermediaries. Usually, loyal behavior exists between intermediaries and customers, but not between customers and insurers, which may lead to high churn rates in this business (Short, Graefe and Cathy, 2003). When problems occur in the insurance value chain, customers tend to remain loyal to intermediaries but may change the insurance company (Dominique-Ferreira 2018).

Considering the importance of customer retention in the insurance business and the influence of intermediaries, such as exclusive agents and insurance brokers, on the buying process, satisfaction, and loyalty of customers in this industry (Brophy, 2013; Dominique-Ferreira *et al.*, 2016), the purpose of this paper is to provide an overall picture of the current investigation of insurance cancellation in non-life business, using the systematic quantitative literature review (SQLR) method (Pickering and Byrne, 2014; Pickering *et al.*, 2015), and to take into consideration the influence of intermediaries on customers' decisions.

This paper specifically addresses two issues. The first is to characterize the research in this domain by analyzing its geographical and chronological incidence, the methodological approaches, and the main issues addressed. The second is to identify patterns in the findings of the documents reviewed.

Despite its importance, customer retention in insurance has not been a priority in terms of scientific research. It has failed to capture the attention of financial services marketing academics (Robson, 2015).

This research is important both to the academy and to the industry because, on one hand, it may improve scientific knowledge in the field of customer retention in the insurance business, and, on the other hand, it can highlight good practices for insurance companies to improve their performance in their efforts to reduce the cancellation of insurance policies and to retain customers.

3.2) Method

3.2.1) The Systematic Quantitative Literature Review (SQLR)

SQLR has recently been put forward because of its systematic and comprehensive process of condensing and portraying a large body of research (Suzuki *et al.*, 2018). This method is between the more traditional narrative and systematic weighted methods. Knowledge creation using this method involves systematically searching for existing literature, using key search words to identify papers for inclusion based on clearly articulated reproducible criteria, similar to that in other systematic methods (Pickering *et al.*, 2015).

Systematic literature review is different from most narrative literature reviews because the knowledge creation is based on explicit, replicable, scientific, and transparent measurements, and it is without *a priori* assumptions to identify and select the sources. Consequently, these reviews are more comprehensive, exhaustive, less biased, and provide an audit trail of the reviewers decisions, procedures, and conclusions (Mulrow *et al.*, 1997, In Tranfield *et al.*, 2003).

It is expected that, besides scientific articles, this method also identifies documents in the form of interviews, case studies, focus groups, surveys, or field and laboratory experiments (Pickering *et al.*, 2015). This is because the ultimate goal of SQLR is not to provide evidence-based practices by using an effect size with sophisticated statistical techniques, but on the contents, such as what methodology is used or whether outcomes are positive, neutral or negative (Suzuki, Pai and Islam, 2018).

Healey and Healey (2010) and Petticrew and Roberts (2008) argue that this technique is easy to use and offers insights that cannot be gleaned via more traditional narrative approaches. The number of papers that employ this method is increasing in various disciplines (Suzuki, Pai and Islam, 2018).

3.2.2) Process design

A review protocol regarding search terms, databases, and screening criteria was accomplished to monitor and conduct the literature review objectives previously

indicated. To guarantee the quality of the inclusion criteria and the consistency and rigor in the data selection, the SQLR methodology is applied in four sequential steps: identification, screening, eligibility, and inclusion, as referred by Onwuegbuzie and Frels (2016).

The relevant documents to this research were identified using the Online Knowledge Library (b-on), a consortium of libraries that collects references from worldwide multidisciplinary academic databases, including the Academic Search Premier, Business Source Complete, Science Direct, ISI Web of Science, IEEE, Wiley Interscience, Sage, Scopus, and SpringerLink. This study sought to identify all modern English language studies relevant to the field of insurance cancellation, considering a non-life insurance context and the influence of the intermediary.

The keywords were selected by reviewing various papers in the field of insurance cancellation, considering not only the articles' keywords but also the existence of the searched terms in its abstracts. Then, a trial-and-error process was conducted to identify the best initial keywords and to generate a set of comprehensive search terms that cover all major scientific papers related to the research questions of this review. Finally, the selected search terms were discussed with experts in this field, and the necessary adjustments were introduced.

Considering the recent evolution of customer behavior literature and practices and the evidence that traditional methodologies to retain customers, based on loyalty programs that offer incentives for consumers to stay connected to the brand or on coercive strategies to lock in customers, are losing their effectiveness as drivers of long-term brand loyalty (Edelman and Singer, 2015), the publication timeframe was restricted to the current century.

The initial inclusion criteria of the documents were based on three sequential iterations, considering the following conditions: peer reviewed publications; in the English language; since the year 2000 (i.e., between January 2000 and August 2019); using the keywords and search terms indicated in Table 3.1. The database search was conducted in September 2019.

Table 3.1: Keywords and search terms used in initial inclusion criteria

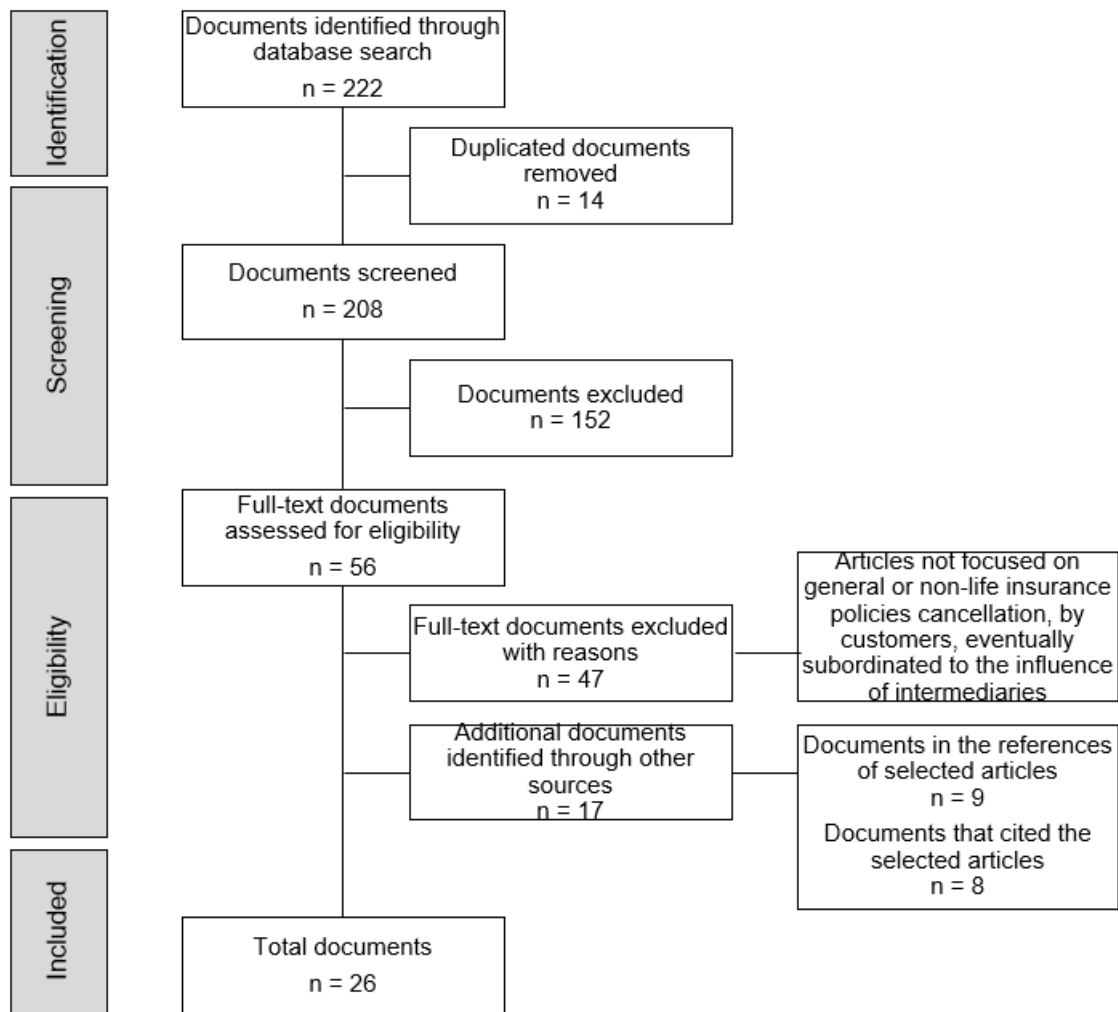
Iteration (#)	Keyword	Item researched	Publications (#)
1	insurance	title and subject terms	149.449
2	cancel or defect or laps or dissol or switch or churn	title and subject terms	808
3	intermed or distribut or agent or broker or bank or direct or channel or customer or client or consumer	title and subject terms	222

The initial selection criteria identified 222 publications. Then, the inclusion criteria for the screening process was based on three conditions: exclusion of duplicates; only the publications in the fields of business management, economics, or related fields; only articles whose subject is related to general or non-life insurance policy cancellation by customers, eventually subordinated to the influence of intermediaries. These criteria restrained the results to nine documents.

Finally, nine other publications that were referred to in the selected publications and seven publications that cited the initially selected documents, and that were compliant with the inclusion criteria, were also included in the final selection.

The selection process identified 26 publications for review, an adequate quantity according to Pickering and Byrne (2014). The number of studies that were identified, excluded, and selected, at each stage of the selection phase of the SQLR, are shown in Figure 3.1.

Figure 3.1: Prisma Flow Diagram of SQLR



Source: Own compilation adapted from Moher, Liberati, Tetzlaff, and Altman (2009).

The publications selected are mainly academic papers (17 articles), but there are also two book chapters, three articles from periodicals, two reports and one conference paper. The identification of the documents, according to the type of publication, is described in Table 3.2.

The selection of documents from different types of sources follows the principle of SQLR for identifying documents from more diversified sources than scientific academic articles (Pickering *et al.*, 2015). Wilson (2009) in Suzuki *et al.* (2018) emphasize that solely focusing on peer-reviewed journal articles in systematic methods is a limited approach that must be avoided because “grey” literature, such as unpublished works and reports by different institutions, can be as significant as those of peer-reviewed journal articles.

Table 3.2: List of documents selected

Criteria for selection	Author(s)	Title	Year	Publication Type
Initial selection	De la Llave, M.Á.; López, F.A.; Angulo, A.	The impact of geographical factors on churn prediction: an application to an insurance company in Madrid's urban area	2019	Academic Journal
	Frank, R.G.; Lamiraud, K.	Choice, price competition and complexity in markets for health insurance	2009	Academic Journal
	Gamble, A.; Juliusson, E.A.; Gärling, T.	Consumer attitudes towards switching supplier in three deregulated markets	2009	Academic Journal
	Guillén, M.; Nielsen, J.P.; Scheike, T.H.; Pérez-Marín, A.M.	Time-varying effects in the analysis of customer loyalty: A case study in insurance	2012	Academic Journal
	Haugen, M.; Moger, T.A.	Frailty modelling of time-to-lapse of single policies for customers holding multiple car contracts	2016	Academic Journal
	Jeong, H.; Gan, G.; Valdez, E.A.	Association Rules for Understanding Policyholder Lapses	2018	Academic Journal
	Lin, W.	Service failure and consumer switching behaviors: Evidence from the insurance industry	2010	Academic Journal
	López-Díaz, M.C.; López-Díaz, M.; Martínez-Fernández, S.	A stochastic comparison of customer classifiers with an application to customer attrition in commercial banking	2017	Academic Journal
	Paredes, M.	A Case Study on Reducing Auto Insurance Attrition with Econometrics, Machine Learning, and A/B Testing	2018	Conference Paper
Documents in the references of selected articles	Brockett, P.L.; Golden, L.L.; Guillen, M.; Nielsen, J.P.; Parner, J.; Perez-Marin, A.M.	Survival Analysis of a Household Portfolio of Insurance Policies: How Much Time Do You Have to Stop Total Customer Defection?	2008	Academic Journal
	Broström, E.; Bengtsson, V.; van Gelder, F.	Growing Customer Loyalty in the Age of Disruption: A Study on the Swedish P&C Insurance Industry	2018	Report
	Gallo, A.	The value of keeping the right customers	2014	Periodical
	Guillén, M.; Nielsen, J.P.; Pérez-Marín, A.M.	The Need to Monitor Customer Loyalty and Business Risk in the European Insurance Industry	2008	Academic Journal
	Guillen, M.; Parner, J.; Densgoe, C.; Perez-Marin, A.M.	Using logistic regression models to predict and understand why customer leave an insurance company	2003	Book Chapter
	Günther, C.C.; Tvette, I.F.; Aas, K.; Sandnes, G.I.; Borgan, O.	Modelling and predicting customer churn from an insurance company	2014	Academic Journal
	Naujoks, H.; Brettel, T.; Singh, H.; Darnell, D.; Schwedel, A.	Customer Behavior and Loyalty in Insurance: Global Edition 2017	2017	Report
	Rawson, A.; Duncan, E.; Jones, C.	The truth about customer experience	2013	Periodical
Documents that cited the selected articles	Staudt, Y.; Wagner, J.	What policyholder and contract features determine the evolution of non-life insurance customer relationships?: A case study analysis	2018	Academic Journal
	Bolancé, C.; Guillen, M.; Padilla-Barreto, A.E.	Predicting Probability of Customer Churn in Insurance	2016	Conference Paper
	Brophy, R.	Branding and product distribution in the Irish insurance industry	2015	Periodical
	Dominique-Ferreira, S.	The key role played by intermediaries in the retail insurance distribution	2018	Academic Journal
	Felício, J.A.; Freire, C.R.	From customer motivation to corporate performance. The role of strategic factors and distribution channels of financial service firms	2016	Academic Journal
	Guillen, M.; Nielsen, J.P.; Perez-Marin, A.M.	Cross-buying behaviour and customer loyalty in the insurance sector	2009	Academic Journal
	Larsson, A.; Broström, E.	Ensuring customer retention: insurers' perception of customer loyalty	2019	Academic Journal
	Robson, J.	General insurance marketing: a review and future research agenda	2015	Academic Journal
Robson, J.; Sekhon, Y.	Addressing the research needs of the insurance sector	2011	Academic Journal	

3.3) Presentation of results

The selected publications were quantified to provide an overview of the characteristics of the research that has been published on the topic of non-life insurance cancellation. The research was assessed for its geographical spread, dates of publication, methodological approaches, and issues addressed.

3.3.1) Geographical spread

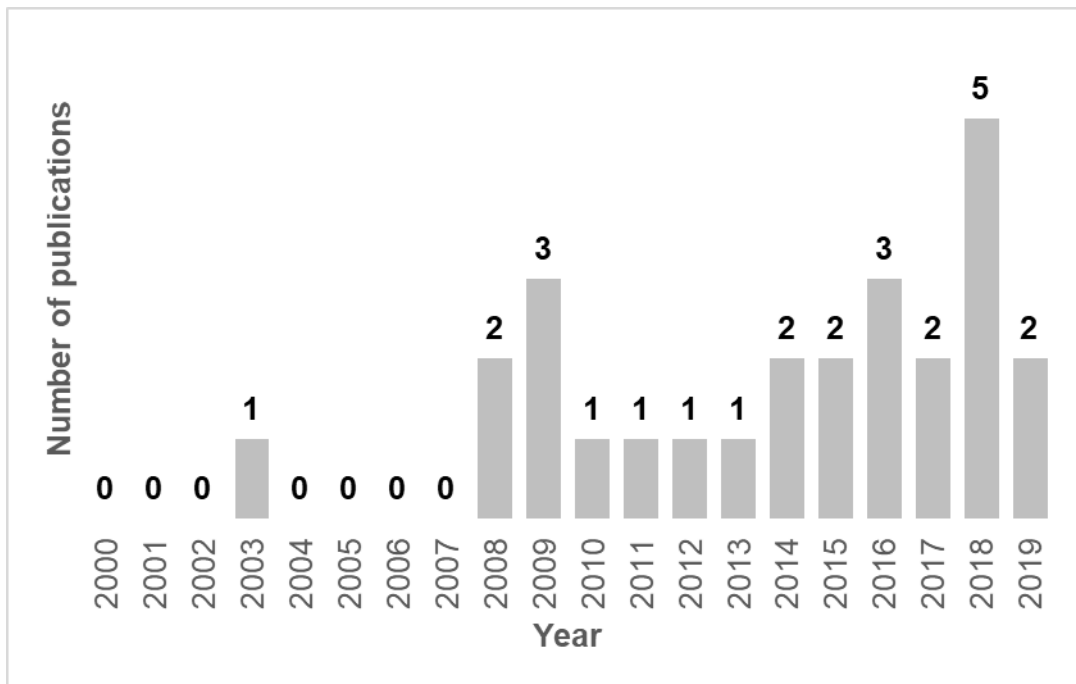
The papers selected are mainly from Europe (20 publications). There are also five publications from North America and one from Asia. No publications were selected from Oceania or Africa.

Regarding the typology of publications by geographic region, 16 of the 18 articles published in academic journals are from Europe. The other two articles are from North America and Asia. Regarding the articles in periodicals, two are from North America, both from Harvard Business Review, and one is from Europe. The two reports are from North America and Europe. The two book chapters are also from Europe. The conference paper is from North America, although it analyses the customers of a Latin American insurance company.

3.3.2) Dates of publication

Only the documents published between January 2000 and August 2019 were considered (Figure 3.2).

Figure 3.2: Number of documents selected by year of publication



Source: Own compilation

In terms of the typology, the older publication is a book chapter, published in 2003 (the other book chapter was published in 2016). The reports and the conference paper were recently published, in 2017 and 2018. The articles in the periodicals were published between 2013 and 2015. Concerning the 18 articles from academic journals, nine were published since 2015.

The European publications are much more dispersed in terms of chronology. There is a special reference to an article by Larsson and Broström (2019), which was kindly disclosed ahead-of-print.

3.3.3) Methodological approaches

The publications selected were analyzed according to their methodological approach. Eight papers are theoretical (Estany, Nielsen and Pérez-Marín, 2008; Rawson, Duncan and Jones, 2013; Gallo, 2014; Brophy, 2015; Robson, 2015; Naujoks *et al.*, 2017; Gelder, Broström and Bengtsson, 2018; Larsson and Broström, 2019) and 18 are empirical and, of those, 16 are quantitative (Bolancé, Guillen, and Padilla-Barreto 2016; Brockett *et al.* 2008; de la Llave, López, and Angulo 2019; Felício and Freire 2016; Frank and Lamiraud

2009; Gamble, Juliusson, and Gärling 2009; Guillen, Nielsen, and Perez-Marin 2009; Guillen *et al.* 2003; Guillén *et al.* 2012; Günther *et al.* 2014; Haugen and Moger 2016; Jeong, Gan, and Valdez 2018; Lin 2010; López-Díaz, López-Díaz, and Martínez-Fernández 2017; Paredes 2018; Staudt and Wagner 2018), one is qualitative (Robson and Sekhon, 2011), and one uses a mixed methodology (Dominique-Ferreira, 2018).

This sample indicates that the study of the cancellation of insurance policies is predominantly conducted through empirical quantitative analysis.

Regarding the methods of data collection for the empirical research, there is a predominance of longitudinal analysis, applied in 11 papers (Bolancé, Guillen, and Padilla-Barreto 2016; Brockett *et al.* 2008; de la Llave, López, and Angulo 2019; Guillen, Nielsen, and Perez-Marin 2009; Guillen *et al.* 2003; Guillén *et al.* 2012; Günther *et al.* 2014; Haugen and Moger 2016; Jeong, Gan, and Valdez 2018; Paredes 2018; Staudt and Wagner 2018), over the cross-sectional, used in six papers (Frank and Lamiraud, 2009; Gamble *et al.*, 2009; Lin, 2010; Robson and Sekhon, 2011; López-Díaz *et al.*, 2017), including the paper that used a mixed methodology, qualitative and quantitative (Dominique-Ferreira, 2018). In the paper by Felício and Freire (2016), both longitudinal and cross-sectional approaches were applied.

Considering the statistical techniques applied in the analysis, there is a predominance of logistic regressions. It was used in six articles (Frank and Lamiraud 2009; Guillen, Nielsen, and Perez-Marin 2009; Guillen *et al.* 2003; Günther *et al.* 2014; López-Díaz, López-Díaz, and Martínez-Fernández 2017; Staudt and Wagner 2018). Brockett *et al.* (2008) and Paredes (2018) used logistic regression and survival analysis. Survival analysis and frailty modelling were also used in two other papers (Estany, Nielsen, Scheike and Pérez-Marín, 2012; Haugen and Moger, 2016). The structural equations were applied in two articles (Felício and Freire, 2016; Dominique-Ferreira, 2018). Other techniques used in the reviewed documents were: probit regression (De la Llave *et al.*, 2019), OLS multiple linear regression analyses (Gamble *et al.*, 2009), factor analysis (Lin, 2010), association rule (Jeong *et al.*, 2018) and ROC curves to compare methods to predict lapsing (Bolancé *et al.*, 2016).

The technique applied in the qualitative studies was content analysis.

3.3.4) Issues addressed

The predominant object of analysis, when researching the cancellation of insurance policies, was individual customers. This was the case in 17 articles. Besides, there is only one article where the object of analysis was business customers. Other publications were not focused on customers but on the providing companies, in five publications, or the insurance industry, in three articles.

Regarding the approach to customer retention, non-life or general insurance was the object of study in three articles, life was the focus of analysis in one article, and in 14 publications the focus was on insurance products; in four articles the analysis was based on the insurance industry; and in the remaining four cases, there was a global analysis of concepts related to customer retention.

In terms of the lines of business, motor was studied in 12 of the 14 publications focused on insurance products. Motor insurance, considering its different terminologies such as car insurance or auto insurance, in combination with other lines of business, mainly home and contents, but also health, funeral, or pet insurance, is the topic of analysis in eight articles. In these papers the main research objective is to examine the risk of losing a customer once an initial insurance policy cancellation has occurred.

In six papers, one line of business was analyzed separately. Motor insurance was the case in four documents, and health and home were also the only products analyzed with one paper for each.

In all the cases where the motor insurance was combined with other lines of business or when the study was based on specific insurance products (motor, health or home), the analysis is concerned with individual customers. The study about corporate customers is also focused on motor insurance.

Considering the papers based on empirical research, the main source of data were the insurance companies. In 10 articles, the source was a single insurance company; and in three articles, the data was obtained from several insurance companies. Other sources of data include one bank in one article, research practitioners in insurance in another article, and the general population in three other publications.

3.4) Analytical discussion

Considering that the ultimate goal of SQLR is to analyze the contents of the documents selected (Suzuki, Pai and Islam, 2018), several findings can be highlighted both for the development of the scientific, theoretical, and conceptual body of knowledge in the field of customer retention and for the practical strategies and tactics deployed by the non-life insurance industry.

3.4.1) Customer retention in non-life insurance

The retention concept is very important to the insurance business. Customer attrition rates are pivotal business indicators for the management of insurance companies (López-Díaz *et al.*, 2017). Jeong *et al.* (2018) highlights the positive effect of policyholder retention on the company's reputation for building good customer relationships, which could further help attract new customers. De la Llave *et al.* (2019) refers the negative effects of losing customers both to sales revenue, as a consequence of the high cost of attracting new customers to replace those who left, and to the company's reputation and brand image, considering that churners tend to give negative feedback about the company, which may negatively influence potential customers.

An important finding in the articles reviewed is the fact that customer retention is not only lower in insurance than in other industries, but it has also a tendency to decrease.

Insurance customers have a less negative attitude towards switching providers than in other industries (Gamble *et al.*, 2009). The fact that insurance customers purchase peace of mind that, in the event of an insured loss, will be indemnified, makes insurance one of the most intangible of all the financial services. In the absence of a claim, customers may feel that the purchase was unnecessary, generating dysfunctional behaviors (Robson, 2015). But, even when there is a claim and the product is consumed, the complexity of the product and consumer apathy can lead to wrong purchases in the form of under-insurance or no insurance, enhancing these behaviors (Robson, 2015).

According to De la Llave *et al.* (2019), customer loyalty reveals a tendency to decrease as a consequence of the quantity of competing value propositions available. Also Brophy (2015) refers the constant decline of customer loyalty to the increasing availability of

low-cost policies. This reveals the companies' inability to price themselves based on differentiating factors; as a result, they are descending towards commodity markets. Robson (2015) indicates that general insurance, excluding large commercial insurance, is becoming a commoditized market as a consequence of the homogenization of the policies' coverages. Therefore, it seems consequential that customer retention in insurance is becoming more and more important, especially regarding the most valuable customers, because of their increasing awareness of the market dynamics and the increasing number of market competitors (Günther *et al.*, 2014).

3.4.2) Individual customers

A relevant aspect in the study of the cancellation of insurance policies is its focus on individual customers. The decision process of individual customers is less informed, rational, and objective than the process of collective customers (Beloucif *et al.*, 2004). The lack of knowledge and understanding of the insurance business and its products leaves these customers more vulnerable to alternative value propositions from competitors (Robson, 2015). According to Bond and Stone (2004) in Robson (2015), frequently, customers know what they are paying but not what they are buying. More than a problem of lack of information, the issue is the complexity of the information provided, which is not easy to understand by individual customers (Robson, 2015).

Lopes *et al.* (2011) argue that the substantial differences between the buying processes of organizations and individuals recommends a separated analysis of the two segments.

3.4.3) Motor insurance

In terms of lines of business, most of the documents reviewed are focused on motor insurance. This option can be explained by the stronger association of motor insurance with the cancellation of policies than what has been found in other lines of business.

To Guillen *et al.* (2003), customers having a motor insurance show a greater probability of lapse. According to Staudt and Wagner (2018), car insurance holders are more likely to lapse than household or liability. De la Llave *et al.* (2019) argue that the type of insurance is important when calculating the probability of churning. These authors also

found that car insurance increases the probability of losing a client and, on the contrary, home, health, and funeral insurances are more stable, considering that clients are more reluctant to change.

Staudt and Wagner (2018) also compared multi-product customers with those having car insurance and they found that car insurance customers are more likely to lapse.

3.4.4) Statistical method

Regarding the statistical methods used to research the cancellation of insurance policies, logistic regression is the most frequent and convenient approach.

Günther *et al.* (2014) evaluated three statistical techniques in a churn context which were logit models, survival analysis techniques, and data mining approaches such as tree-based methods and neural networks. They concluded that the logit model was the most popular statistical technique option due to a conjugation of factors, which are its relative simplicity, good performance, robustness, and the interpretability of the parameter estimates in terms of odds ratios. López-Díaz *et al.* (2017), in its study of churn in a bank, also found that logistic regression with a stepwise selection method is the best approach to predict clients that are highly prone to abandon the company.

3.4.5) Relevant factors to analyse customer retention

A fundamental step in the study of insurance cancellation is the identification of the factors associated with its occurrence. The articles reviewed identify a set of variables that are usually considered when this type of research is conducted. These variables are related with the customer, the policy, and the type of intermediary.

Regarding the insurance customer, the most frequently analyzed variables are age, gender, duration of the customer–company linkage, and the sum of premiums.

Age was analyzed to predict product cancellation by Bolancé *et al.* (2016), De la Llave *et al.* (2019), Guillen *et al.* (2008, 2003), Paredes (2018), and Staudt and Wagner (2018). According to De la Llave *et al.* (2019), Guillen *et al.* (2003), Paredes (2018), and Staudt and Wagner (2018), older customers tend to be less prone to lapse. According to De la Llave *et al.* (2019), the higher activity of younger people in terms of looking for

alternatives, as well as an increased aversion of older and usually wealthier customers to change, may explain this association between age and insurance cancellation.

Gender of the customer was considered a determinant variable to be analyzed by Bolancé *et al.* (2016), De la Llave *et al.* (2019), Gamble *et al.* (2009), and Guillen *et al.* (2008). According to Gamble *et al.* (2009), men tend to be more positive towards switching than women, exhibiting lower levels of loyalty. De la Llave *et al.* (2019) also found that the presence of women in insurance companies tends to be more stable than that of men.

The duration of the customer–company linkage was a relevant variable in the research of Bolancé *et al.* (2016), De la Llave *et al.* (2019), Frank and Lamiraud (2009), Guillen *et al.* (2008, 2003), Guillén *et al.* (2012), and Staudt and Wagner (2018). According to De la Llave *et al.* (2019), Frank and Lamiraud (2009), and Guillén *et al.* (2012), lapsing tends to decrease with the antiquity of the relationship. To Staudt and Wagner (2018), the results were not consistent, pointing in an apparently different direction. Guillen *et al.* (2003) reached a different result considering that there is a specific period, between two and four years after the first policy issue, that the risk of cancellation is higher, which contradicts the existence of a linear association between the duration of the customer–company linkage and insurance cancellation.

The sum of premiums paid by the customer was used by Bolancé *et al.* (2016) and De la Llave *et al.* (2019) to analyze insurance cancellation. Other measures related with the importance of the customer to the insurance company, such as the customer value (Guillen *et al.*, 2008) or the number of products (Paredes, 2018; Staudt and Wagner, 2018) were also identified in the papers reviewed. The findings were consistent in terms of a positive influence of customer value, or the sum of premiums, or the number of products possessed by the customer, on customer retention.

Regarding the insurance policies, the most frequent variables in the reviewed studies are the premium and the existence and value of claims.

The relationship between price, in absolute value or considering its variance from the previous period, and policy cancellation, was analyzed by De la Llave *et al.* (2019), Guillen *et al.* (2008, 2003), Jeong *et al.* (2018), and Paredes (2018).

In terms of the absolute value of premium, the results were not globally consistent, considering that, to De la Llave *et al.* (2019), customers who pay a higher premium are more likely to cancel their policies, but, on the contrary, to Paredes (2018), the lower premium is a determinant of churn. In terms of the yearly variation, when the premium

increases, the estimated probability of lapsation also tends to increase (Estany, Parner, Densgsoe and Perez-Marin, 2003).

Claims are another factor frequently used to analyze and predict insurance cancellations. This was the case in the publications of Guillen *et al.* (2008, 2003), Guillén *et al.* (2012), Jeong *et al.* (2018), Paredes (2018) and Staudt and Wagner (2018). The findings of these researchers are consistent in terms of an association between recent claims and an increased propensity to insurance cancellations. According to Guillen *et al.* (2008), Guillén *et al.* (2012) and Jeong *et al.* (2018), claims trigger a premium increase which can be perceived by customers as an unfair penalization. In such cases, customers try to find other competitors that do not penalize the claimant customer the same way (Jeong *et al.*, 2018), considering that insurance companies do not incorporate the existence of claims in pricing according an homogeneous procedure, which may incentivize churn.

A different type of variable from the customer and the policy characteristics was found in two articles (Paredes, 2018; Staudt and Wagner, 2018), which is the type of intermediary. Staudt and Wagner (2018) argue that tied agents are the channel with lower lapse probabilities and that, excepting brokers that revealed no significant impact on lapsing, all the intermediated channels revealed a higher likelihood to lapse than direct channels. Also Paredes (2018) identified sales agents as determinants of churn, in contrast with online and broker channels where this association was not found.

3.4.6) Influence of intermediaries on customer retention

Dominique-Ferreira (2018) argues that the heavy reliance of customers' purchase decision-making process and claims management on intermediaries is one of the most important explanations for high churn rates in the insurance market. The intermediary's recommendation plays an important role in insurance sales, as well as on the resolution of problems and claims, although these processes always depend on the insurers (Dominique-Ferreira, 2018). The complexity of insurance products and the failure of customers to understand what they are buying leads to a breakdown in trust between the customer and insurance provider and to an increased dependence on the intermediaries' influence (Robson, 2015). Most people do not have any experience with the insurance company but have occasional contact with the agent, in such a way that when an agent

changes his insurance company, many of his customers follow him, even if the old insurance company has good products (Guillen *et al.*, 2008).

Brockett *et al.* (2008) argue that, by far, the most important determinant of a total cancellation probability are the competitive effects. According to De la Llave *et al.* (2019) the agent plays an important role in customer linkage, adding that the geographical areas where the company is not located or represented, but the competing agency is, are potential churning zones. Hence, the type and number of distribution channels are a strategic resource of insurance companies, and they are fundamental to ensure the right conditions for success (Felício and Freire, 2016).

3.4.7) Insurance companies' strategies

The responsibility of insurance companies for the reduced levels of customer retention in insurance industry is a consequence of their tactics, focused on tempting customers to change provider through offers with unsustainably cheap starting premiums (Gelder *et al.*, 2018). According to Eckardt and Rähke-Döppner (2010), insurance companies try to induce intermediaries by vertical restraints as well as through their compensation schemes to distribute mainly their products. Attracting new customers, directly or through the intermediary, is a strategy used by the vast majority of insurers and constitutes a great threat to customer loyalty across the whole industry (Gelder *et al.*, 2018). The annual renewal itself can also work to erode any early signs of loyalty as it focuses the consumer's attention on price (Robson, 2015).

Dissatisfaction with the incumbent is hypothesized to be a trigger of cancellation that is augmented by expected economic benefits derived from sales promotions that are frequently publicized by competing companies (Gamble *et al.*, 2009). This practice creates a setting where customers who frequently change their insurance provider receive lower premiums (Gelder *et al.*, 2018).

Having a claim also increases the estimated probability to lapse, because it usually leads to a substantial increase in the premium for the current company (Estany, Parner, Densgsoe and Perez-Marin, 2003), a factor ignored by the competition that does not incorporate it in the value propositions to new customers (Jeong *et al.*, 2018).

Hence, before insurance companies assume that they have a retention problem, they should consider whether they have an acquisition problem instead, which generates, or at

least aggravates, the retention problem (Gallo, 2014). One of the most important challenges to insurance companies retention strategy seems to be how to stop rewarding disloyalty (Gelder *et al.*, 2018).

3.5) Conclusion and limitations

Globalization presents insurance firms with enormous challenges in terms of competitive pressure, the range of products they offer, and the quality of their distribution channels (Felício and Freire, 2016).

Insurtechs have risen as insurgent challengers. Although it's still unclear whether these business models will be successful enough to dislodge incumbents, they have already had an impact on customer expectations (Naujoks *et al.*, 2017).

In developed insurance markets, with high levels of competition and low growth rates, the newly acquired customers are actually mainly switching from competitors (Paredes, 2018). The increasing levels of competitive aggressiveness in insurance increases the volatility of the quantity and quality of existing policies (Guillen *et al.*, 2008).

Under these circumstances, the most important antidote seems to be the strategy to retain customers, considering that acquiring a new customer is anywhere from five to 25 times more expensive than retaining an existing one (Gallo, 2014). Insurance incumbents rarely make a profit from a customer during the first two years, which emphasizes the importance of retention strategies (Gelder *et al.*, 2018).

The evidence from this study illuminates the overall landscape of research on the importance of retaining customers in insurance industry, as well as on the most effective approaches to predict and prevent insurance cancellation.

This research shows that most studies are focused on individual customers and on motor policies. Besides, the documents reviewed are mostly concentrated on the characteristics of customers and the products they possess to predict insurance cancellations. Nevertheless, intermediaries also seem to play a key role on the customers' decision to cancel insurance policies. In terms of a statistical method to identify the factors most associated with insurance cancellation, logistic regression is an adequate and recurrent option.

3.5.1) Theoretical implications

Although marketing services related to consumer loyalty with insurance products is challenging and continues to grow in importance; nonetheless, it remains poorly understood (Taylor, 2016). Guillén *et al.* (2012) argues that there is an increased interest in analyzing customer lifetime value and loyalty in the insurance sector, although very few contributions with practical implications can be found. The product-oriented strategy is still prevailing in the insurance industry, and it guides the research efforts towards the study of its financial and actuarial aspects (Estany, Nielsen, Scheike and Pérez-Marín, 2012). Regarding the division between life and non-life, fewer studies have been conducted on non-life than on life, in spite of the increasing relevance of the analysis of lapses along contract characteristics in non-life insurance (Staudt and Wagner, 2018). Insurance, particularly in the non-life lines of the business, is singled out as a category worthy of further research (Robson, 2015). The fact that less than one-third of the papers in the literature review are from the UK or USA can be interpreted as reflecting the lack of priority given to the topic of customer retention in insurance by some of the major scientific journals.

This study reveals that the complexity of the product and the lack of trust between consumers and insurance providers contributes to the cancellation of policies, emphasizing the need to develop ecosystems that increase the commitment between insurance companies and customers.

Trust has been identified as one of the greatest challenges for the insurance industry going forward, because it is a more intangible industry than other financial services and also as a consequence of the delayed consumption of the product until a later date, when an insured loss occurs, which may never happen (Robson, 2015). One of the underlying reasons for the lack of trust in general insurance is the consumers' belief that insurance providers make the terms and conditions in their policies deliberately complicated and that claims are not paid out fairly (Robson, 2015).

The availability of information about different alternatives, and the consumers' willingness and ability to acquire and process information, plays an important role in consumer decision-making (Johnson *et al.*, 2003). Simplification of products, processes, terminology and customer interactions seems to be a necessary condition to increase trust in insurance industry (Spenner and Freeman, 2012); although trust needs to be considered

in its reciprocal form, as many customers believe that insurance providers expect them to lie about a claim (Robson, 2015).

3.5.2) Practical implications

This research demonstrates the impact and responsibility of insurance companies' marketing strategies and tactics on insurance policy cancellations and customer churn. The identification of the factors that explain switching behavior is a key aspect for the correct management and strategy of an insurance firm (Bolancé *et al.*, 2016). Once they are identified, customer retention plans can be developed and actions can be taken (Günther, 2014). Hence, finding the customers most likely to leave is a crucial task in customer management (Haugen and Moger, 2016).

A fundamental aspect of the retention concept is its need to be anticipated, usually by several months, to be effectively managed. Because of the low frequency of contacts between customers and the insurance companies, compared to industries like banking, the loss of customers is much more difficult to anticipate (Paredes, 2018). According to Gallo (2014), between the customer decision to abandon a company and the moment the company is informed that the customer wants, or has already, finished the relationship, more than six months can pass. In insurance business, this lapse time is sometimes longer than a year, considering that insurer's strategies to lock-in customers may avoid the end of the relationship at the moment of the year when it can take effect (Murray and Häubl, 2007). Besides, when a customer cancels one insurance contract, he or she is likely to cancel all other contracts soon after (Brockett *et al.*, 2008). Nevertheless, the lower frequency of interactions between customers and providers in the insurance industry makes churn harder to anticipate (Paredes, 2018). This should be a major concern of insurance companies considering that there is a clear correlation between the quantity of interactions, provided they are high-quality, and customer loyalty (Naujoks *et al.*, 2017). To thrive in this rapidly changing environment, forward-looking insurers are positioning themselves at the hub of an ecosystem that can do much more than assess risk, sell policies, and process claims. These companies aim to provide comprehensive and innovative solutions to their customers' everyday needs, helping them protect their health, wealth and personal property (Naujoks *et al.*, 2017). By knowing more about their customers, insurers can better target them at the moment when they are ready to buy, to

interact, or to cancel their policies. These ecosystem services are considered by the non-discount carriers that do not compete effectively on cost and price as the best way to boost revenues, improve margins and, most importantly, sustain the loyalty of their very demanding customers (Naujoks *et al.*, 2017).

The establishment of close interactions with customers may be an important factor to reduce customer losses for the service industries (Lin, 2010). A stable emotional relationship with customers, in contrast with a focus on economic incentives, helps to improve customer loyalty (Lin, 2010). Consequently, the lack of touchpoints and communication between customers and their insurance providers is a challenge for insurance companies (Robson, 2015).

3.5.3) Limitations and suggestions for future research

The main limitation of this study is the scarcity of scientific studies and research, regarding customer retention in the insurance industry, especially in the non-life lines of the business. The confidentiality of customer retention metrics, and other customer management indicators in insurance companies (De la Llave *et al.*, 2019), is a difficulty and, in some cases, a barrier to the development of scientific research on this subject.

Despite the many strengths of the SQLR methodology, it has some limitations. The most relevant is to restrict the documents analyzed to those that meet the selection criteria, ignoring any other references (Chen and Gardiner, 2019).

The integration of the different perspectives highlighted in this systematic quantitative review, namely the focus on individual customers, motor insurance and the different types of intermediaries, are an important avenue for the development of more scientific research in non-life insurance cancellations.

Chapter 4) Determinants of motor insurance cancellation: The role of intermediaries in customer decision-making.

Chapter 4. Determinants of motor insurance cancellation: The role of intermediaries in customer decision-making²

Summary

The insurance industry has not been able to effectively retain its customers and struggles to establish and maintain long-lasting relationships with them. The purpose of this paper is thus to identify the main factors that explain motor insurance policies cancellation by individual customers, considering the influence of intermediaries on their decisions.

The data used in this research is based on a sample of insurance policies that lapsed during a specific period of time. Binary logistic regression was used for data analysis.

Customer acquisition aggressive tactics of insurance companies may induce the cancellation of insurance policies. More valuable customers, the policies with higher premiums and recent claims, and the ancillary intermediaries and agents, are determinants of insurance cancellation. Conversely, the payment of policies by direct debit and without instalments reduces the probability of cancellations.

This research developed a framework with which to identify the factors that are mainly associated with motor insurance cancellation, and to predict its likelihood. It also demonstrates that insurance companies must integrate intermediaries in their customer retention efforts.

4.1) Introduction

Insurance is an important business that allows other sectors of the economy to progress (e.g. Han *et al.*, 2010; Weisbart, 2018). As well as its direct economic effect through the financial protection of assets, insurance has a fundamental impact on a customer's peace of mind (Liedtke, 2007). In spite of the importance of this industry to individual people, companies and even nations, however, it has not been able to effectively retain its customers and to establish and maintain long-lasting relationships with them, as

² This research was published by *European Journal of Management and Business Economics*, August 2021. DOI: 10.1108/EJMBE-05-2020-0103

demonstrated in previous studies (e.g. Brockett *et al.*, 2008; Cohen and Siegelman, 2010; Guillen *et al.*, 2003). Neither has it been a priority in terms of scientific investigation (e.g. Braun *et al.*, 2016; Guillen *et al.*, 2003). ‘Retention’, ‘cancellation’ and ‘loyalty’ are not among the most commonly researched topics in general insurance (Robson and Sekhon, 2011). Customer retention in insurance thus continues to grow in both importance and challenge, but remains poorly understood (Taylor, 2016).

In spite of the relevance of intermediaries in this industry, as the first point of contact between insurance products and customers (Dalla Pozza, Heitz-Spahn and Texier, 2017), research into customer retention has not recognised their influence. The study of lapsing behaviour in insurance has been focused on the sociodemographic characteristics of customers, such as gender or age, the policy payment method (annual or monthly) and the purchase date or the value of the last premium (Pinquet, Estany and Ayuso, 2011; Frees, Bolancé, Estany and Valdez, 2018), but not on the intermediaries.

Motor insurance and individual customers are also relevant fields through which to research product cancellation.

Motor insurance is the largest non-life insurance business in Europe (Insurance Europe, 2018b) and in the world (Swiss Re Institute, 2019), and its performance drives the trends observed in the overall non-life sector (OECD, 2020). It is also the insurance that is most frequently cancelled (Brockett *et al.*, 2008). According to (Staudt and Wagner, 2018), motor insurance customers are more likely to lapse.

The factors that determine the cancellation of policies by individual customers can be significantly different from those by companies. Individual customers have less evident and predictable decision processes than organisations (Lopes *et al.*, 2015), who are usually better informed, more rational and objective (Beloucif, Donaldson and Kazanci, 2004).

Considering the state of the research and the managerial context of customer retention in insurance, the purpose of this paper is to identify the main factors explaining motor insurance policy cancellation by individual customers, considering the influence of intermediaries on their decisions.

Comprehending the dynamics behind insurance cancellation and the factors that may explain it, is very relevant to the development of the scientific knowledge, considering that it has not been a priority to researchers. Such knowledge is also very important to most insurance companies in order to prevent insurance cancellation, as customer

retention is one of its main challenges and priorities (Bolancé *et al.*, 2016; Guillen *et al.*, 2009).

4.2) Literature review and research hypotheses

The insurance industry faces a problem of customer retention which has grown in this era of abundant information and the digital transformation of businesses that defy strategies and decision-making assumptions about how to retain customers. Customer retention is one of the main challenges (Guillen *et al.*, 2009) and priorities (Bolancé, Estany and Padilla-Barreto, 2016) for most insurance companies, because product cancellation directly affects their profitability (Verhoef and Commandeur, 2001; Ascarza *et al.*, 2018). There is some evidence regarding the association between customer retention and lifetime value (Gupta, Lehmann and Stuart, 2004; Venkatesan and Kumar, 2004), and with equity value (Verhoef and Commandeur, 2001). Several authors (e.g. Gupta *et al.*, 2004; Reichheld, 1996) found that a small increase in retention can have a significant impact on the profitability of organisations. Ascarza *et al.* (2018) argue that retention drives a firm's profitability and value.

There are few specific references for customer retention and loyalty in insurance (Guillen *et al.*, 2003). One reason is that the insurance industry has privileged the study of financial and actuarial elements, paying much less attention to the dynamics behind customer demand for insurance products (Brockett *et al.*, 2008). Some papers were found regarding motor insurance cancellation, and among these Taylor (2016) demonstrated that both cognitive and affective considerations are important to consumer judgment and decision-making processes. Cohen and Siegelman (2010) examined the profitability of motor insurance customers, demonstrating that the ratio of premiums to losses is larger for repeat policyholders, which were more profitable to the insurance company than new customers. Guillen *et al.* (2003) developed a model to explain motor insurance lapses and to calculate their probability.

There is also a lack of studies regarding customer retention regarding the influence of intermediaries on customer decisions to abandon an insurance company. Although intermediaries are the largest distribution channel in both non-life insurance generally, and in motor insurance, in Europe (Insurance Europe, 2018a) and in the world (Swiss Re Institute, 2017), there is still much to be learned. Braun *et al.* (2016) and, more recently,

Dominique-Ferreira (2018) have highlighted the very limited research into retail and distribution management in insurance, despite its great importance to the entire business, both upstream and downstream.

Some references were found for the importance of intermediaries in the decisions of insurance customer. The supply chain of the insurance sector relies greatly on outsourcing, such as intermediaries (Dominique-Ferreira, 2018). According to Short *et al.* (2003), loyal behaviours exist between intermediaries and customers, but not between customers and insurers, which may explain the high churn rates in this business. The insurance company's image as portrayed to customers is affected by the relationship developed between customers and intermediaries (Brophy, 2013a, 2013b; Liljander *et al.*, 2009; Robson *et al.*, 2016). Insurance managers should also consider which products should be more adequate to each distribution channel, in order to increase the fit between the channel, as a purchase situation antecedent, and the product type (Steinhart and Mazursky, 2010).

Four research hypotheses were formulated after reviewing the literature, regarding the importance of intermediaries for product cancellation, insurance policy premiums, the existence of claims and the payment options.

4.2.1) Importance of intermediaries for product cancellation

The levels of customers lapsing in the insurance business may be associated with a customer's vulnerability to the influence of external stakeholders (Brockett *et al.*, 2008), considering that insufficient knowledge of insurance products, by itself, is a cause of lapsing (Pinquet, Estany and Ayuso, 2011). When there are problems in the insurance value chain, customers tend to remain clients of the intermediaries but to change insurance company (Dominique-Ferreira, 2018). Therefore, the first hypothesis is:

H1 - Intermediaries influence customer decisions to cancel their insurance policies.

Digital interfaces were not considered as intermediaries because, in many countries, these channels are classified as brokers, and not as a specific distribution channel. In many cases, these platforms are used to gather information to be analysed with the agents, and not to finalise the decision process (EIOPA, 2018). Customer use of mobile digital channels, while growing, has remained at low levels in the insurance industry, particularly

in developed countries, and only a small percentage of customers use it to conduct their most important transactions (Naujoks *et al.*, 2017).

4.2.2) Insurance policy premiums

Regarding the impact of policy premium on its probability to be cancelled, divergent inferences can be drawn. On one side, the association between price and product involvement and the finding that involvement contributes to retention (Hollebeek, Conduit, Sweeney, Soutar, Karpen, Jarvis and Cheb, 2016; Mittal, 2016) suggests that higher premium policies are less susceptible to be cancelled. But, on the other side, in specific insurance markets, it has been found that premium rates may outweigh the role of service quality in insurance purchase (Beloucif, Donaldson and Kazanci, 2004). Hence, the impact of policy premium on insurance cancellation is a hypothesis that needs to be tested:

H2 – Higher premium policies have a higher probability of being cancelled.

4.2.3) Existence of claims

It seems to be an association between the existence of a claim and the cancellation of a policy. According to Guillen *et al.* (2003), making a claim increases the probability of insurance lapsing, because it usually leads to a substantial increase in the premium for the current company. Kofman and Nini (2013) found a strong positive correlation between insurance claims and the lapse of the policy, for reasons such as avoiding the premium penalties associated with claims. Guillen *et al.* (2009) demonstrated that the existence of a claim is one relevant factor affecting the probability of complete insurance cancellation. Nevertheless, it is not clear the reason why a traumatic situation, such as a claim, is an incentive to churn. Accordingly, in order to improve the comprehension of the relationship between claims and insurance cancellation, the third hypothesis is:

H3 – Claims increase the probability of insurance cancellation.

4.2.4) Payment options

The low frequency of contact between customers and insurance companies (Paredes, 2018) means that increasing interactions for unpleasant or undesirable motives, such as regarding payments, may make people more conscious of the benefits of looking for alternatives, leading to an increased probability of cancellation.

Frees *et al.* (2018) note that the policy payment interval either annual or monthly, is a relevant factor in understanding lapse behaviour in insurance. It is also important to consider the type of payment used by the customer when assessing customer retention (Guillen *et al.*, 2008). Consequently, the following hypothesis was formulated:

H4 – Annual payment intervals that do not require interaction with the insurance company reduce the probability of insurance cancellation.

4.3) Methodology

4.3.1) Data design

The variables selected to identify the factors associated with the cancellation of motor insurance policies are related to the characteristics of policyholders, the products they possess and the distribution channel for these products, according to the literature reviewed (Cohen and Siegelman, 2010; de la Llave *et al.*, 2019; Frees *et al.*, 2018; Fu and Wang, 2015; Kofman and Nini, 2013; Lopes *et al.*, 2011; Pinquet *et al.*, 2011; Staudt and Wagner, 2018). Nevertheless, the covariates in the model are constrained to those required to achieve a good explanation of the phenomena, considering that the inclusion of additional covariates may reduce the transferability of the analyses to other companies (Brockett *et al.*, 2008).

Kofman and Nini (2013) argued that exogenous, observable and publicly available variables capture the necessary information about policyholders for testing the empirical hypotheses, and that these variables were the policyholder characteristics, automobile characteristics, policy characteristics, and policy performance. Accordingly, Table 4.1 presents these variables.

Table 4.1: Explanatory variables

Policyholder	
Customer premium	Total premiums paid by the customer, considering all their non-life policies in force at the insurance company
Customer claims	Existence of a claim in any of the customer's policies in force at the insurance company
Gender	Gender of the customer
Age	Age, in years, of the policyholder, between 18, the minimum age to be driving licensed, and 90, the maximum reasonably accepted age to drive
Insurance policy	
Policy premium	Motor insurance premium
Policy claims	Existence of a claim on the motor policy with the current insurer.
Policy age	Age, in years, of the motor insurance policy in force in the insurance company.
Policy instalments payment	Instalments of the policy payment, considering the four usual options: monthly, quarterly, semi-annual and annual
Method of payment	Method used to pay the policy. The two options are: direct debit from a bank account and non-direct debit alternatives that require some type of intervention from the customer or their intermediary

Table 4.1: Explanatory variables (cont.)

Types of intermediaries	
Direct	The distribution of insurance products without intermediaries, using the insurer's internal resources, such as their employees or communication channels
Ancillary	Intermediaries whose main activity is not insurance distribution, where insurance is an ancillary activity, that generates an additional source of revenue, although both activities are usually closely related
Individual agent	Insurance distribution agents, legally classified as 'one person' companies or sole proprietorship firms
Company agent	Insurance distribution agents, legally classified as private companies
Broker	Intermediaries with more complex business structures and capacities than agents, whose main objective is to find the best solution on the market for the specific, and usually complex, needs of their affinity and corporate customers.
Bank	Also referred to as "bancassurance", is the distribution of insurance products through bank channels, based on a partnership agreement between the bank and the insurance company

4.3.2) Data collection

The data used in this research consists of two samples of motor insurance policies: one that was in force during a period of analysis between January and July 2017, and another that was in force from the same initial time and cancelled by the end of that same period. The study of insurance policies that were cancelled during a period of time, compared with another group of policies that remained in force during the same period, have been previously used in other research (e.g. Brockett *et al.*, 2008). In the same context, but in a different industry, East, Harris, Lomax, Willson and Hammond (1998) studied customer defection based on an analysis of defectors and non-defectors.

The data was randomly obtained from a major general insurance company in Portugal. Cohen and Siegelman (2010) similarly based their research on the observable characteristics of customers from a single Israeli insurer to test the coverage–risk prediction of adverse selection in insurance markets. Kofman and Nini (2013) tested the information advantage of retaining lower risk policyholders using a data set composed exclusively of the comprehensive motor insurance policies in force as of a certain period in time, from a single Australian insurer.

The two samples include 3500 motor insurance policies for individual customers, randomly collected, in the same way as other authors researching the cancellation of insurance policies (e.g. Caeiro, 2012; Reuss, 2002).

4.3.3) Data analysis

Binary logistic regression is used in this research for data analysis. These models are adequate to identify relevant associations between the cancellation of an insurance policy and the independent variables, as well as to calculate the probability of a cancellation. According to Fu and Wang (2015), logistic regressions are natural choices for modelling binary response variables, because this method has become a standard in insurance retention modelling. Verhoef and Donkers (2005) also argue that, as customer retention is a binary variable (defection/retention), the probit model is the best option with which to estimate the effect of the acquisition channel on customer retention. Brockett *et al.* (2008) also used a logistic regression model to predict the probability of a policy

cancellation. Guillen *et al.* (2003) described this method as suitable for constructing a lapse score to provide some indication of the customer's expected behaviour before they are actually gone.

Logistic models are usually estimated using the maximum likelihood method (Cox and Snell, 1989; Agresti, 2002; Agresti and Kateri, 2014). Once the maximum likelihood estimates have been obtained, they can be used to make statistical inferences concerning the relationships between the cancellation behaviour and the independent variables.

The variables used in the binary logistic regression are described in Table 4.2.

Table 4.2: Description of dependent and independent variables

Variables			
Name	Description	Type	Values
Dependent variable			
PROD_CANC	Product cancelled	Categorical binary	Assumes the value 1 when the motor insurance policy is cancelled and 0 when the motor insurance policy is not cancelled
Independent variables			
CUSTM_PREM_-200	Customer premium is less than € 200	Dummy (Reference class)	Assumes value 1 when the total value of customer premiums is inferior to €200, and 0 otherwise
CUSTM_PREM_200-300	Customer premium is equal to or more than €200 and less than €300	Dummy	Assumes value 1 when the total value of customer premiums is equal or superior to €200 and inferior to €300, and 0 otherwise
CUSTM_PREM_300-500	Customer premium is equal to or more than €300 and less than €500	Dummy	Assumes value 1 when the total value of customer premiums is equal or superior to €300 and inferior to €500, and 0 otherwise
CUSTM_PREM_500+	Customer premium is equal to or more than €500	Dummy	Assumes value 1 when the total value of customer premiums is superior to €500 and 0 otherwise

Table 4.2: Description of dependent and independent variables (cont.)

Name	Description	Type	Values
CUST_CLAIM_Y	Customer claims	Dummy	Assumes value 1 when the customer has, at least, one claim in any policy in force, and 0 otherwise
CUSTM_GENDER_M	Customer gender	Dummy	Assumes value 1 when the customer is male, and 0 when the customer is female
CUSTM_AGE	Customer age	Quantitative variable	Age in years, limited to the interval 18 to 90
POL_PREM_-200	Policy premium inferior to € 200	Dummy (Reference class)	Assumes value 1 when the premium of the policy is inferior to €200 and 0 otherwise
POL_PREM_200-300	Policy premium is equal or superior to €200 and inferior to €300	Dummy	Assumes value 1 when the premium of the policy is equal or superior to €200 and inferior to €300, and 0 otherwise
POL_PREM_300-500	Policy premium is equal or superior to €300 and inferior to €500	Dummy	Assumes value 1 when the premium of the policy is equal or superior to €300 and inferior to €500, and 0 otherwise
POL_PREM_500+	Policy premium is equal or superior to €500	Dummy	Assumes value 1 when the premium of the policy is equal or superior to €500, and 0 otherwise
POL_CLAIM_Y	Policy claims	Dummy	Assumes value 1 when the policy has, at least, one claim, and 0 otherwise

Table 4.2: Description of dependent and independent variables (cont.)

Name	Description	Type	Values
POL_AGE_0-1	Policy age is inferior to two years	Dummy (Reference class)	Assumes value 1 when the age of the policy is inferior to two years, and 0 otherwise
POL_AGE_2-5	Policy age is equal or superior to 2 years and inferior to 5 years	Dummy	Assumes value 1 when the age of the policy is equal or superior to two years and inferior to five years, and 0 otherwise
POL_AGE_5+	Policy age is equal or superior to 5 years	Dummy	Assumes value 1 when the age of the policy is equal or superior to five years, and 0 otherwise
POL_INSTAL_12	Monthly payments	Dummy (Reference class)	Assumes value 1 when the policy is paid in 12 instalments, and 0 otherwise
POL_INSTAL_04	Quarterly payments	Dummy	Assumes value 1 when the policy is paid in four instalments, and 0 otherwise
POL_INSTAL_02	Semi-annual payments	Dummy	Assumes value 1 when the policy is paid in two instalments, and 0 otherwise
POL_INSTAL_01	Annual payments	Dummy	Assumes value 1 when the policy has an annual payment, and 0 otherwise

Table 4.2: Description of dependent and independent variables (cont.)

Name	Description	Type	Values
POL_PAY_DD	Payment by direct debit on bank account	Dummy	Assumes value 1 when the payment method is a direct debit from a bank account, and 0 when the payment method is not a direct debit from a bank account
DIRECT	No intermediary	Dummy (Reference class)	Assumes value 1 when the policy has no intermediary, and 0 otherwise
INTERM_ANCIL	Ancillary	Dummy	Assumes value 1 when the policy has an ancillary intermediary, and 0 otherwise
INTERM_AGENT_IND	Individual agent	Dummy	Assumes value 1 when the intermediary of the policy is an individual agent, and 0 otherwise
INTERM_AGENT_COMP	Company agent	Dummy	Assumes value 1 when the intermediary of the policy is a company agent, and 0 otherwise
INTERM_BROKER	Broker	Dummy	Assumes value 1 when the intermediary of the policy is a broker, and 0 otherwise
INTERM_BANK	Bank	Dummy	Assumes value 1 when the intermediary of the policy is a bank, and 0 otherwise

Considering the dependent and the independent variables, the maximum likelihood method was used to estimate the model parameters. The data analysis was carried out using IBM's SPSS software version 24.

The resulting logistic regression model is as follows (equation 1):

Equation 1: Logistic Regression Model

$$\begin{aligned} \ln\left(\frac{P_i}{1-P_i}\right) = & \hat{\beta}_0 + \hat{\beta}_1(\text{CUSTM_PREM_200} - 300) + \hat{\beta}_2(\text{CUSTM_PREM_300} - 500) \\ & + \hat{\beta}_3(\text{CUSTM_PREM_500} +) + \hat{\beta}_4(\text{CUSTM_CLAIM_Y}) \\ & + \hat{\beta}_5(\text{CUSTM_GENDER_M}) + \hat{\beta}_6(\text{CUSTM_AGE}) + \hat{\beta}_7(\text{POL_PREM_200} \\ & - 300) + \hat{\beta}_8(\text{POL_PREM_300} - 500) + \hat{\beta}_9(\text{POL_PREM_500} +) \\ & + \hat{\beta}_{10}(\text{POL_CLAIM_Y}) + \hat{\beta}_{11}(\text{POL_AGE_2} - 5) + \hat{\beta}_{12}(\text{POL_AGE_5} +) \\ & + \hat{\beta}_{13}(\text{POL_INSTAL_04}) + \hat{\beta}_{14}(\text{POL_INSTAL_02}) \\ & + \hat{\beta}_{15}(\text{POL_INSTAL_01}) + \hat{\beta}_{16}(\text{POL_PAY_DD}) + \hat{\beta}_{17}(\text{INTERM_ANCIL}) \\ & + \hat{\beta}_{18}(\text{INTERM_AGENT_IND}) + \hat{\beta}_{19}(\text{INTERM_AGENT_COMP}) \\ & + \hat{\beta}_{20}(\text{INTERM_BROKER}) + \hat{\beta}_{21}(\text{INTERM_BANK}) + \hat{\mu}_i \end{aligned}$$

where $\ln\left(\frac{P_i}{1-P_i}\right)$ is the logit, $\hat{\beta}_j$ the regression coefficients and $\hat{\mu}_i$ the residuals.

4.4) Results

The results obtained from the integral logit model indicated in Table 4.3 reveal that, at the conventional level of $\alpha=0.05$, eight of the 21 variables, given the other variables in the regression, are not statistically significant, considering the p-values of the parameters as superior to 0.05.

Table 4.3: Unrestricted logistic regression model estimation results

Variables in the Equation	$\hat{\beta}$	S.E.	Wald	df	p-value	$e^{\hat{\beta}}$
CUSTM_PREM_200-300	0,144	0,080	3,217	1	0,073	1,155
CUSTM_PREM_300-500	0,219	0,070	9,732	1	0,002	1,245
CUSTM_PREM_500+	0,433	0,077	31,814	1	0,000	1,542
CUSTM_CLAIM_Y	0,054	0,089	0,372	1	0,542	1,055
CUSTM_GENDER_M	-0,115	0,057	4,096	1	0,043	0,892
CUSTM_AGE	0,000	0,002	0,030	1	0,863	1,000
POL_PREM_200-300	0,028	0,083	0,113	1	0,737	1,028
POL_PREM_300-500	-0,377	0,095	15,613	1	0,000	0,686
POL_PREM_500+	0,710	0,181	15,443	1	0,000	2,033
POL_CLAIM_Y	0,255	0,106	5,756	1	0,016	1,290
POL_AGE_2-5	0,301	0,056	29,206	1	0,000	1,351
POL_AGE_5+	0,345	0,080	18,833	1	0,000	1,412
POL_INSTAL_04	0,118	0,164	0,520	1	0,471	1,125
POL_INSTAL_02	-0,258	0,150	2,972	1	0,085	0,773
POL_INSTAL_01	-0,544	0,143	14,361	1	0,000	0,581
POL_PAY_DD	-1,105	0,089	152,909	1	0,000	0,331
INTERM_ANCIL	0,646	0,257	6,310	1	0,012	1,909
INTERM_AGENT_IND	0,537	0,139	14,905	1	0,000	1,711
INTERM_AGENT_COMP	0,492	0,138	12,791	1	0,000	1,636
INTERM_BROKER	0,290	0,167	3,021	1	0,082	1,337
INTERM_BANK	0,094	0,292	0,103	1	0,748	1,098
Constant	-0,294	0,221	1,775	1	0,183	0,745

Source: IBM SPSS Outputs and own calculations

A restricted version of the regression, however, suggests that the exclusion of some of the non-statistically significant variables, when considered individually, may reduce the p-value of the remaining variables. It is thus necessary to test whether all the coefficients associated with those variables can be jointly equal to zero.

Following the stepwise method, considering the non-rejection of the null hypothesis of each variable as significantly different from 0, to $\alpha=0.05$, the non-significant variables were successively removed, in descending order of the p-values, until all the coefficients presented p-values under 0.05. The resulting restricted logistic regression model estimation is presented in Table 4.4.

Table 4.4: Results of the restricted logistic regression model estimation and test of exclusion restrictions

Variables in the Equation	$\hat{\beta}$	S.E.	Wald	df	p-value	$e^{\hat{\beta}}$
CUSTM_PREM_200-300	0,153	0,075	4,175	1	0,041	1,166
CUSTM_PREM_300-500	0,227	0,068	10,999	1	0,001	1,255
CUSTM_PREM_500+	0,447	0,069	41,643	1	0,000	1,564
CUSTM_GENDER_M	-0,114	0,056	4,078	1	0,043	0,893
POL_PREM_300-500	-0,379	0,092	17,073	1	0,000	0,684
POL_PREM_500+	0,712	0,178	16,078	1	0,000	2,038
POL_CLAIM_Y	0,306	0,072	18,275	1	0,000	1,358
POL_AGE_2-5	0,299	0,055	29,371	1	0,000	1,349
POL_AGE_5+	0,345	0,077	20,100	1	0,000	1,412
POL_INSTAL_02	-0,337	0,105	10,230	1	0,001	0,714
POL_INSTAL_01	-0,626	0,094	44,581	1	0,000	0,535
POL_PAY_DD	-1,139	0,083	187,243	1	0,000	0,320
INTERM_ANCIL	0,472	0,233	4,098	1	0,043	1,604
INTERM_AGENT_IND	0,362	0,087	17,415	1	0,000	1,436
INTERM_AGENT_COMP	0,316	0,084	14,332	1	0,000	1,372
Constant	-0,015	0,127	0,013	1	0,909	0,986
$X_0^2 - X_R^2 = -2LL_0 - (-2LL_R) = 9300,941 - 9296,662 = 4,279$						

Source: IBM SPSS Outputs and own calculations

In addition to the 13 explanatory variables initially considered statistically significant, two variables (CUSTM_PREM_200-300 and POL_INSTAL_02) which were non-significant in the unrestricted logistic regression model, become significant in the

restricted model, with p-values, respectively, equal to 0.041 and 0.001, hence inferior to the reference value of 0.05.

The restricted model was evaluated in relation to the integral model, testing the null hypothesis that the excluded parameters are not significantly different from 0, to $\alpha=5\%$:

$$H_0: \beta_4 = \beta_6 = \beta_7 = \beta_{13} = \beta_{20} = \beta_{21} = 0$$

The G^2 test indicates that the null hypothesis H_0 is not rejected, concluding that the restricted model reveals a better explanatory capacity than the original model.

$$G^2(6) = X^2_0 - X^2_R = -2LL_0 - (-2LL_R) = 9300.941 - 9296.662 = 4.279 < 12.592 (\chi^2, 6 \text{ df})$$

(df=21-15=6, $\alpha=0.05$)

The resulting restricted logit model is as follows (equation 2):

Equation 2: Restricted Logistic Regression Model

$$\ln\left(\frac{P_i}{1-P_i}\right) = \hat{\beta}_0 + \hat{\beta}_1(\text{CUSTM_PREM_200} - 300) + \hat{\beta}_2(\text{CUSTM_PREM_300} - 500) \\ + \hat{\beta}_3(\text{CUSTM_PREM_500} +) + \hat{\beta}_5(\text{CUSTM_GENDER_M}) \\ + \hat{\beta}_8(\text{POL_PREM_300} - 500) + \hat{\beta}_9(\text{POL_PREM_500} +) \\ + \hat{\beta}_{10}(\text{POL_CLAIM_Y}) + \hat{\beta}_{11}(\text{POL_AGE_2} - 5) + \hat{\beta}_{12}(\text{POL_AGE_5} +) \\ + \hat{\beta}_{14}(\text{POL_INSTAL_02}) + \hat{\beta}_{15}(\text{POL_INSTAL_01}) \\ + \hat{\beta}_{16}(\text{POL_PAY_DD}) + \hat{\beta}_{17}(\text{INTERM_ANCIL}) \\ + \hat{\beta}_{18}(\text{INTERM_AGENT_IND}) + \hat{\beta}_{19}(\text{INTERM_AGENT_COMP}) + \hat{\mu}_i$$

According to the estimates produced by the restricted logistic regression model (Table 4.4), there are two significant predictors of insurance cancellation, related to the customers' characteristics, which are the total premium paid (CUSTM_PREM_200-300, CUSTM_PREM_300-500 and CUSTM_PREM_500+) and gender (CUSTM_GENDER_M); five significant predictors related to the insurance policy, which are the premium but, in this case, only above €300 (POL_PREM_300-500 and POL_PREM_500+), the existence of claims (POL_CLAIM_Y), the number of years it has been in force (POL_AGE_2-5 and POL_AGE_5+), whether payment is annual or

semi-annual (POL_INSTAL_01 and POL_INSTAL_02), and the method of payment (POL_PAY_DD); and three types of distribution channels, which are the ancillary (INTERM_ANCIL), the individual agents (INTERM_AGENT_IND) and the company agents (INTERM_AGENT_COMP).

Considering the impact on the logit, determined by the restricted logistic regression model, the probability of a cancellation increases with the total premium paid by the customer, the premium of the policy being above €500, the existence of claims in the policy, the age of the policy, and three types of intermediaries, which are the ancillary, individual agents and company agents.

All other variables being equal, the higher the total premiums paid by the customer and the premium of the policy, when above €500, the higher the probability that it will be cancelled. The marginal impact on the logit of the total premium paid by the customer, considering its highest interval (above €500), is 0.447, and for the policy premium, also at the highest value interval (above €500), is 0.712. In these cases, the odds ratios are, respectively, 1.564 and 2.038.

A claim on the policy, all other factors being equal, also increases the probability of cancellation. The marginal impact in the logit is 0.306 and the odds ratio 1.358.

Still considering the assumption that all other variables remain equal, the older the policy, the higher its probability of cancellation, considering the marginal impact on the logit of policy age between 2 and 5 years (0.299) and above 5 years (0.345). In these cases, the odds ratio is, respectively, 1.349 and 1.412.

Ancillary intermediaries, the individual agents and the company agents also increase the probability of insurance cancellation. Accordingly, the marginal impact on the logit of ancillary, the least committed distribution channel with insurance industry, (0.472), is higher than for individual agents (0.362), but smaller than for company agents (0.316). The odds ratios, in these three cases are, respectively, 1.604, 1.436 and 1.372.

Conversely, the impact on the logit, determined by the restricted logistic regression model (Table 4.4), reveals a decreased probability of cancellation when the customer is male (CUSTM_GENDER_M), the policy premium is between €300 and €500 (POL_PREM_300-500), the frequency of payments is lower, annual or semi-annual, (POL_INSTAL_01 and POL_INSTAL_02), and the payment method is a direct debit from a bank account (POL_PAY_DD). The marginal impact on the logit varies between -1.139 (for POL_PAY_DD) and -0.114 (for CUSTM_GENDER_M). In these two cases, the odds ratios are, respectively, 0.320 and 0.893.

According to the results produced by the restricted logistic regression model, six factors are not statistically significant predictors of insurance cancellation: a customer's previous claims considering all their policies (CUSTM_CLAIM_Y), customer age (CUSTM_AGE), a policy with premiums below €300 (POL_PREM_200-300), quarterly instalment payments (POL_INSTAL_04) and the intermediation of brokers (INTERM_BROKER) or banks (INTERM_BANK).

The final restricted model allows the probability of a motor insurance cancellation to be calculated. For instance, for an insurance policy used in a company for three years, with a premium of € 350, without claims, for whom the customer is male, and who pays a total of €700 annually for their motor insurance policies, without instalments, by direct debit from a bank account, directly written by the insurance company, without an intermediary, the logit can be estimated with the equation 3:

Equation 3: calculation of the probability of a motor insurance cancellation

$$\ln\left(\frac{\hat{P}_i}{1 - \hat{P}_i}\right) = -0.015 + 0.447(CUSTM_PREM_500 +) \\ - 0.114(CUSTM_GENDER_M) + 0.299(POL_AGE_2 - 5) \\ - 0.379(POL_PREM_300 - 500) - 0.626(POL_INSTAL_01) \\ - 1.139(POL_PAY_DD) = -1.527$$

Accordingly, the probability of this insurance being cancelled is:

$$\hat{P}_i = \frac{e^{y_i}}{1 + e^{y_i}} = \frac{e^{-1.527}}{1 + e^{-1.527}} = 0.178$$

The probability of this policy being cancelled is therefore 0.178, which means that, on average, 17.8 per cent of insurance policies in these conditions will be cancelled.

The results of the models allow us to draw conclusions regarding the hypothesis formulated above.

Hypothesis H1, '*Intermediaries influence customers' decision to cancel its insurance policies*' is not rejected. The restricted version of the model (Table 4.4) demonstrates that, ancillary (INTERM_ANCIL), individual agents (INTERM_AGENT_IND) and company

agents (INTERM_AGENT_COMP) are statistically relevant to predicting insurance cancellation, although the same is not true for brokers (INTERM_BROKER) and banks (INTERM_BANK). This conclusion confirms the findings of Paredes (2018), that the acquisition of insurance through a sales agent is a determinant of churn, which is not verified if the channel is a broker. Verhoef and Donkers (2005) also found substantial evidence that some channels have a negative effect on customer retention, while others are associated with higher retention rates. From a different perspective, Christiansen, Eling, Schmidt and Zirkelbach (2016) came to the same conclusion, confirming that contracts purchased from tied agents are less likely to lapse, highlighting the relevance of intermediaries as the exclusive distributors of a single insurance company for customer retention.

Hypothesis H2, '*Higher premium policies have a higher probability of being cancelled*' is not rejected, considering that the variable POL_PREM_500+ increases the probability of cancellation, which is the opposite effect to that observed with the variable representing premiums below this interval (POL_PREM_300-500). The marginal impact on the logit of these variables is positive, in the first case (0.712), increasing the probability of insurance cancellation, and negative in the second (-0.379), decreasing that probability. The odds ratios are, respectively, 2.038 and 0.684. Other variables for policy premiums are statistically non-significant and were omitted from the restricted model (Table 4.4).

Hypothesis H3, '*Claims increase the probability of insurance cancellation*' is not rejected. The independent variable POL_CLAIM_Y is statistically significant. According to the restricted model (Table 4.4), the existence of a claim increases, *ceteris paribus*, logit by 0.306, with an odds ratio of 1.358. The fact that the independent variable CUSTM_CLAIM_Y did not reveal statistical significance in the restricted model (Table 4.4) may be interpreted as an arbitrage of customers, eventually induced by their intermediaries, in terms of only cancelling the policies for which premiums will increase as a consequence of making a claim, as in the case of motor insurance with the application of bonus-malus schemes (Kofman and Nini, 2013; Dionne and Harrington, 2017; Ayuso, Estany and Nielsen, 2018), and not cancelling the policies that do not have claims or for which claims do not directly increase the premium.

Hypothesis H4, '*Annual payment intervals that do not require interaction with the insurance company reduce the probability of insurance cancellation*' is not rejected, as both variables, POL_INSTAL_01 and POL_PAY_DD, are statistically significant. Estimates of their parameters and exponentials, as shown in Table 4.4, indicate that, if all

else is held constant, changing from a monthly payment, the reference category, to an annual payment, induces a decrease of -0.626 in the logit, with an odds ratio of 0.535. A change in the payment method from an intermediated alternative to direct debit from a bank account, induces a decrease of -1.139 in the logit, with an odds ratio of 0.320.

4.5) Discussion

Ancillary intermediaries and agents are determinants of insurance cancellation, as demonstrated in this study. Insurance customers tend to be more loyal to intermediaries than they are to insurers (Eckardt and R athke-D oppner, 2010; Brophy, 2013a; Twing-Kwong, Albaum and Fullgrabe, 2013; Miotto and Parente, 2015). Different acquisition channels, however, affect customer retention differently (Verhoef and Donkers, 2005). The initiative and effort required to cancel insurance policies may be prompted by smaller intermediaries, non-exclusive to any insurer, with the objective of reducing the premium paid by customers who reap the benefits of an insurer's promotions, and also benefit from the commissions resulting from its growth rate in new customers.

More valuable customers and higher premium policies tend to be more commonly targeted by the acquisition tactics of competitors, as they are more subject to cancellation. Large policies have more negotiation power, and are more likely to switch insurance carrier if they do not receive favourable renewal prices or desirable coverage (Fu and Wang, 2015). Older policies in a company are also more vulnerable to being cancelled. Brand new policies are somewhat riskier and receive a premium discount relative to their risk (Kofman and Nini, 2013), which can inhibit their cancellation in the initial years with an insurance company.

The results also demonstrate that the existence of claims is a predictor of insurance cancellation, which is in line with Frees *et al.* (2018) who argued that customers with a claim have a higher tendency to lapse due to the fear that an unfavourable experience rating induces premium increases.

The finding that insurance cancellation is negatively correlated with payment by direct debit, and without instalments, is a consequence of the low frequency of contact between insurance companies and customers. The rare interactions between insurance companies and customers are usually associated with unpleasant situations, such as making payments and claims.

The low involvement with a product, as in the case of an insurance policy, leads customers to spend less time and effort searching that product, which can decrease the likelihood of identifying more attractive alternatives (Wirtz, Xiao, Chiang and Malhotra, 2014). Increasing the frequency of instalments may contradict the effect of a customer's low involvement with insurance which reduces the search for alternatives.

Direct debit from a bank account has a negative impact on product cancellation because, if nothing is done, the default process is the automatic renewal of insurance, even if customers feel they should cancel and switch to another provider. In the case of paying insurance by direct debit from a bank account, passive behaviour has the consequence of not cancelling the policy.

As the market becomes saturated, it becomes more difficult to find new consumers and, as a consequence of the limited options to increase customer bases, companies sometimes make surprising offers to acquire a competitor's loyal customers (Woodham, Hamilton and Leak, 2017). Aggressively attracting new customers, directly or through an intermediary, is thus a strategy used by the vast majority of insurers, threatening customer retention across the whole industry (Gelder, Broström and Bengtsson, 2018). The reduced levels of customer retention in the insurance industry are also therefore the responsibility of insurers, who are focused on tempting customers to change providers through offers with unsustainably cheap starting premiums (Gelder, Broström and Bengtsson, 2018).

4.6) Conclusion and Implications

This research aimed to improve comprehension of the dynamics behind insurance customer decisions to cancel their insurance policies. It is vital for a retailer to fully understand the concept of customer retention because otherwise they will fail to collect, analyse and decide upon the right action with the correct data (Larsson and Broström, 2019). To decrease the current levels of product cancellation, insurance companies need to know their customers, and identify those who are more likely to be targeted by competitors, such as those who pay more premiums or have older and more expensive policies. They must also pay attention to market dysfunctions that generate competitive disadvantages, such as immediate and substantial increases of premiums, or the withdrawal of functionalities from policies, after claims are made, especially if the concurrent offers do not consider this variable in their acquisition proposals. Insurance

companies should also review the business processes that augment opportunities of cancellation, such as payment methods. In this case, the payment of premiums by direct means, such as a direct debit from a bank account, and without instalments, should be clearly incentivised.

Insurance companies must integrate intermediaries who distribute insurance in their efforts to improve customer retention, developing long term partnerships where their exclusivity is clearly compensated. New value propositions must be developed, increasing the weight of alternative forms of remuneration to the traditional and prevailing payment of commissions over the business volumes. New business indicators, either qualitative, such as customer satisfaction or the customer recommendations, or quantitative, such as retention rate or client seniority, measured by the average years customers are with the company, are important pillars for more effective retention strategies.

This research has improved the theoretical body of knowledge behind customer decisions to cancel their motor policies. The framework developed to identify the factors that are mainly associated with product cancellation, and to predict its probability, have demonstrated their reliability and robustness. The results demonstrated that the effect of intermediaries on customer retention must be considered.

The main contributions of this research to the insurance industry are, firstly, an improved understanding of the concept of customer retention, which is necessary for insurance companies to collect, analyse and decide upon the right action with the correct data. The identification of the factors that insurance companies must adequately manage in order to reduce product cancellation is another contribution. Finally, the importance of insurance companies changing their priorities from the acquisition to the retention of customers was highlighted. The excessive focus of insurance company strategies on the acquisition of customers is one of the reasons for the high levels of product cancellation in this industry. The main limitation of this study is the restriction on data access. Insurance companies are significantly resistant to sharing their customer data, even in an anonymised form, including to academic research.

The impact on customer retention from the disruptive value propositions of new insurance providers, sustained in digital frameworks, is a relevant avenue for future investigation regarding the development of research about customer retention in insurance.

There is also a clear tendency to increase interactions between insurance companies and customers, supported by new technologies. The impact on customer retention from the

development of valuable and frequent contacts between customers and insurance companies is another field for further research.

Chapter 5) Customer loyalty in the insurance industry: A bibliometric analysis³

³ It is expected that a shorter version of the research on this topic may be submitted soon for publication, to a peer reviewed and indexed international journal.

Chapter 5. Customer loyalty in the insurance industry: A bibliometric analysis

Summary

This study describes the conceptual structure of customer loyalty in insurance through a bibliometric analysis and identifies its most relevant research trends. The scientific documents published about customer loyalty in insurance are examined using two bibliometric computer programs, Vosviewer and Scimat, that allow the spatial representation of the research concept. Both descriptive and network analysis are produced in this bibliometric research. The paper highlights the importance of customer loyalty to successfully compete in the insurance industry and identifies good practices that insurance companies should adopt. The analysis of research trends highlights the importance of statistical models and algorithms to anticipate customer decisions, reinforce the desired behaviours and disincentivise the undesirable ones. This is the first comprehensive article offering a bibliometric analysis of the leading research trends on customer loyalty in insurance.

5.1) Introduction

The insurance business is very important as an economic activity and as an enabler of other activity development (e.g. Han *et al.*, 2010; Weisbart, 2018). This sector plays a major role in leveraging the economies of many countries, providing stability and confidence in markets (Dominique-Ferreira, Vasconcelos and Proença, 2016). The service provided is essential and demonstrates its effect on the lives of customers in the long run. Accordingly, special attention is dedicated to trust indexes as a determinant to maintain long-term relationships with customers and gain their loyalty (Saeed and Hamid, 2019). However, this industry is also characterised by low levels of customer loyalty and high churn rates (Dominique-Ferreira, Vasconcelos and Proença, 2016). Studies estimate that 26% to 31% of insurance customers switch insurance providers every year (Mirzamohammadi and Hamid, 2019).

The concept of customer loyalty is not new to management research. Copeland (1923) published the article “Relation of consumers’ buying habits to marketing methods” almost 100 years ago. Nevertheless, achieving customer loyalty remains a primary marketing goal of companies (Watson, Beck, Henderson and Palmatier, 2015).

Although there is no consensus definition of loyalty, research generally agrees that customer loyalty is a systematic purchase behaviour that consistently favours one entity over the alternatives (Watson, Beck, Henderson and Palmatier, 2015). Customer loyalty is the biggest asset of any organisation and a requirement for the foundation of any organisation (Vilkaite-Vaitone and Skackauskiene, 2020), constituting a critical success factor to successfully compete in highly competitive environments (Iglesias, Markovic, Bagherzadeh and Singh, 2020). The number of companies that presently have loyalty programmes in place reflects the importance of loyal customers to increase sales and customer share (Evanschitzky *et al.*, 2012). These programmes benefit customers with rewards for purchasing from a firm, while firms increase profits due to increased customer loyalty (Kumar and Petersen, 2005).

Regarding the insurance industry, the value of companies is directly affected by the average duration customers stay with the company (Halliburton and Poenaru, 2010). Customer loyalty is a critical success factor to insurance firms because the selling cost of an insurance policy is not recovered unless the policy is renewed (Abdelfattah, Rahman and Osman, 2015).

Despite the importance of customer loyalty to business success in insurance, little attention has been spent on examining the literature and reflecting how research has evolved and shaped this field (Leiria, Matos and Rebelo, 2020). Some empirical studies examine the individual workings of loyalty programmes, but no study has been conducted to systematise the recent findings and the research tendencies of customer loyalty in insurance.

In light of the gap outlined above, the purpose of this paper is to address two research objectives. The first is to describe the research that has been conducted. We want to identify the most productive and influential authors, journals, institutions and countries. The second is to characterise the relevant research trends in this field and, particularly, the current publication trends.

We address these objectives by examining the relevant scientific documents published about this subject, using two bibliometric computer programs that allow the spatial representation of the research concept, which are Vosviewer and Scimat. The conceptual structure of a research field may be uncovered by its spatial representation of the concepts and theoretical constructs and are intertwined to form subgroups (Cobo, López-Herrera, Herrera-Viedma and Herrera, 2011).

Our findings contribute to the literature by enhancing the knowledge of the ‘loyalty in insurance’ construct. This is achieved by identifying the most influential publications, authors, journals, research institutions and countries as well as the tendencies of the research themes. To our knowledge, this is the first bibliometric analysis focused on customer loyalty in insurance. The use of two different bibliometric platforms, Vosviewer and Scimat, frequently used in a mutually exclusive way, is an advantageous methodological option, both in the enrichment of the descriptive analysis of the research and in deepening the characterisation of its main trends. Regarding managerial implications, the paper highlights the importance of customer loyalty to successfully compete in the insurance industry, considering the growing quantity and diversity of projects that have been developed and the volume of scientific production. The research also identifies good practices to improve the performance of insurance companies regarding the loyalty of customers. The importance of the ‘research’ theme in the current tendencies of investigation reflects the criticalness of insurance companies to have abundant and reliable data about customers and the tools to generate knowledge from that data. Hence, motivated teams, specialised in information management processes, are increasingly a determinant of success in the insurance industry. Finally, the importance

of health insurance to launch new initiatives and test innovative programmes of ‘customer loyalty’, before its generalisation to other lines of business is demonstrated.

The remainder of the article is structured as follows. The methodology section presents the theoretical background of bibliometric analysis and the research sequence. The following section presents the results of the descriptive and the evolutionary analysis. The discussion section reviews the theoretical and practical implications of the results. The last section includes conclusions and suggests directions for future research.

5.2) Methodology

Bibliometric analysis has been widely used in academic research to identify the most influential publications, sources, institutions and countries, the most productive authors, and the subjects most closely related to a specific field (Milian, Spinola and Carvalho, 2019). It is an adequate method to investigate the conceptual structure of a research area (Cobo *et al.*, 2014). Specifically in business, management and marketing sciences, it has frequently been used to summarise the most representative results of a set of bibliographic documents (Martínez-López, Merigó, Valenzuela-Fernández and Nicolás, 2018). Bibliometric analysis also enables the identification of current trends and future research avenues of a specific topic or concept (Li, Wu and Wu, 2017). This method of examining bibliographic material proves to be useful in organising the information within a specific field (Albort-Morant and Ribeiro-Soriano, 2016) by framing representative summaries of the extant literature (Dhontu, Kumar and Pattnaik, 2020).

Both descriptive and network analysis are produced in this bibliometric research. The bibliometric indicators used in the descriptive analysis are the number of publications, the number of citations (Podsakoff, MacKenzie, Podsakoff and Bachrach, 2008; Svensson, 2010; Martínez-López, Merigó, Gázquez-Abad and Ruiz-Real, 2020) and the h-index. The h-index, or Hirsch index, is a measure of the scientific achievements of a researcher, subsequently adapted to other domains, such as academic journals and research centres (Hirsch, 2005). This widely used indicator of scientific impact reflects the relationship between the number of publications and the number of citations of those publications.

In the analysis of sources, CiteScore and SCImago Journal Rank indicator (SJR) were also used. The CiteScore is the number of citations received by a source in one year from

documents published in the three previous years, divided by the number of documents indexed in Scopus, published in those three years (Elsevier B.V., 2020). SJR is the average number of weighted citations received in the year by the documents published in the source in the three previous years (Scimago Lab, 2020b).

In the network analysis, the bibliometric indicators considered are bibliographic coupling, co-citation and co-occurrence of keywords. Bibliographic coupling is a measure of similarity between different items, based on the references they share, which is frequently applied for publications, authors, journals, institutions and countries. Co-citation is the frequency with which two works are cited together by a third work. Co-occurrence is a measure of proximity between publications based on the frequency of keywords. The co-occurrence of keywords allows the delimitation of the boundaries of scientific areas, highlighting the most relevant knowledge shared within a scientific field, hence facilitating its progress (Catriotta, Loi, Marku and Naitana, 2019).

5.2.1) Bibliometric tool

Two computer programs were used in the bibliometric analysis, Vosviewer and Scimat. Vosviewer is a program developed by van Eck and Waltman (2010) and is useful to create, visualise and interpret maps based on network data (Castillo-Vergara, Alvarez-Marín and Placencio-Hidalgo, 2018). The VOS (“Visualisation of Similarities”) algorithm displays the relationships between entities in large bibliometric networks, placing those entities on a map according to the connections between them. The nodal network visualisation is based on the number and strength of the links, graphically represented by the size of the nodes and their interlinking lines. The Vosviewer network visualisation maps are used, in this research, to analyse co-citations of authors and journals and bibliographic coupling of institutions. The overlay visualisation is used to provide a visual history of the research topic. These maps detect the new and fading topics through the keywords co-occurrence (Catriotta, Loi, Marku and Naitana, 2019).

Scimat (“Science Mapping Analysis Software Tool”) allows the construction of scientific maps and the visualisation of the evolution of a scientific area. To determine the cognitive structure of a scientific field, Scimat creates clusters, based on the bibliometric networks. These clusters can be categorised using a strategic diagram, according to their Callon’s

density and centrality measures. Scimat also presents its evolution, along successive time periods, using different visualisation techniques (Cobo, 2012).

Performance analysis and science mapping are the two main bibliometric procedures to explore a research field (van Raan, 2005). While performance analysis is based on measuring the impact of the scientific production considering the citations, science mapping is used to study the conceptual structure of a particular research field. The Scimat software combines both approaches, tracking the evolution of a research field throughout consecutive time periods (Cobo *et al.*, 2014). The integration, in a single tool, of the most common methods, algorithms, and measures for science mapping is an advantage of Scimat over other science mapping analysis software programs that are focused on segments of this process.

The Scimat strategic diagram has four quadrants, with different meanings and implications. The top right quadrant has the ‘motor clusters’ which are the important and developed themes in the research area, considering its high centrality and density. The ‘peripheral clusters’, on the top left quadrant, are the developed but marginally important themes. These are specialised topics but are not related to the most predominant current lines of investigation. The ‘basic clusters’, on the bottom right quadrant, are the relevant themes that have not been a priority in terms of scientific production. Its centrality is high, but the density is low. Finally, on the bottom left quadrant are the ‘emerging or declining clusters’, that are not important or developed. Accordingly, both the centrality and the density are low.

A third dimension in the strategic diagram is given by the bibliometric indicators, such as the quantity of publications, the number of citations, or the h-index, and is represented by the size of the clusters.

Scimat is used in this research to analyse the cognitive structure and the evolution of the research themes related to the ‘loyalty in insurance’ concept.

5.2.2) The sampling process

The publications, and their bibliographic data, were searched on Scopus database. According to Dhontu *et al.* (2020), Scopus is the largest multi-disciplinary database of peer-reviewed literature in social science research, widely recognised and frequently accessed for quantitative analyses. The Scopus coverage of scientific publications is

greater than other databases such as the Web of Science (Amador, Cruz, José and Fernando, 2019). Regarding marketing journals, Scopus has a fuller record than the Web of Science database, considering the years of publication and the number of titles for the data collection period (Veloutsou and Mafe, 2019). Norris and Oppenheim (2007) demonstrated, in their study of alternatives to the Web of Science for covering social sciences' literature, that Scopus was the best choice from amongst the multidisciplinary databases reviewed, which were Scopus, Web of Science, CSA Illumina and Google Scholar. They also concluded that Scopus tools were sufficient to analyse citation counts. The data sample and criteria for inclusion of publications in our analyses were based on the literature review (e.g., Bhatnagar *et al.*, 2017; Chaudhuri *et al.*, 2019; Els, Bijmolt, Zhang, Basso, Dorotic, Kopalle, Minnema, Mijnlieff and Wunderlich., 2014; Watson *et al.*, 2015). The search string contained the terms 'insurance' and 'loyalty', and also 'trust', 'commitment', 'word of mouth', 'behaviour' and 'attitude'.

Trust represents the confidence that the business partner will behave with integrity and reliability, in a non-opportunistic way, associating the brand to fair, accountable and responsible values (Iglesias, Markovic, Bagherzadeh and Singh, 2020). A positive relationship between trust and both behavioural and attitudinal aspects of loyalty has been found (Evanschitzky *et al.*, 2012). Banyte *et al.* (2014) demonstrated, for instance, that patients' trust in the clinic boosts their loyalty to the clinic. It has also been demonstrated that trust in insurance providers enhances customer loyalty (Mirzamohammadi and Hamid, 2019). Commitment is an important construct that seems to lead to important outcomes for providers, such as psychological attachment, personal identification and increased price tolerance (Evanschitzky *et al.*, 2012). 'Commitment' and 'trust' are antecedents of loyalty (Watson, Beck, Henderson and Palmatier, 2015). Both these concepts are associated with the strength of the relationship between the customer and the provider, the former in terms of the desire to prolong it and the latter considering its transparency and predictability. Trust increases the commitment level in a relationship (Kingshott and Pecotich, 2007).

Word of mouth is an outcome that many researchers include in their operationalisation of customer loyalty (Evanschitzky *et al.*, 2012). Positive word of mouth is a defining element of customer loyalty in insurance, as well as the intention to purchase products in the future (Tsu-Wei and Feng-Cheng, 2013). Online technologies increase the easiness for customers to engage in word of mouth activities, amplifying its effect on loyalty (Watson, Beck, Henderson and Palmatier, 2015).

‘Attitudes’ and ‘behaviours’ are also very relevant concepts related with loyalty. Watson et al. (2015) argues that these are its first and second elements.

‘Satisfaction’ was not included in the search string because its relationship with loyalty has several nuances, differing substantially between different customer segments (Herhausen *et al.*, 2019).

The Scopus subject area was limited to ‘BUSI’, in order to exclusively select the documents related to Business, Management and Accounting, which includes the subjects of Business, Management, Strategy and Marketing. Only documents published in the English language were selected.

Several hypotheses of search strings were tested to optimise the binomial ‘maximum number of publications with full adherence to the topic of loyalty in insurance’. The final formula used to select the documents was:

```
((TITLE-ABS-KEY(loyal*) OR KEY("word*of*mouth") OR (TITLE-ABS-KEY(commit* OR trust*) AND (TITLE-ABS-KEY(BEHAV* OR ATTITUD*))) AND KEY(insurance))) AND ( LIMIT-TO ( SUBJAREA,"BUSI" ) ) AND ( LIMIT-TO (LANGUAGE,"English" ) )
```

No initial date was established to allow the analysis of the evolutionary trends of the research area to begin with the initial publications.

All the complete records were considered, in all formats, including journal papers, conference papers and books, to generate a robust, empirically derived representation of the state of the research developments in the field of analysis.

The search and download of the data were performed on 11 June 2020 and returned 98 records.

5.3) Results

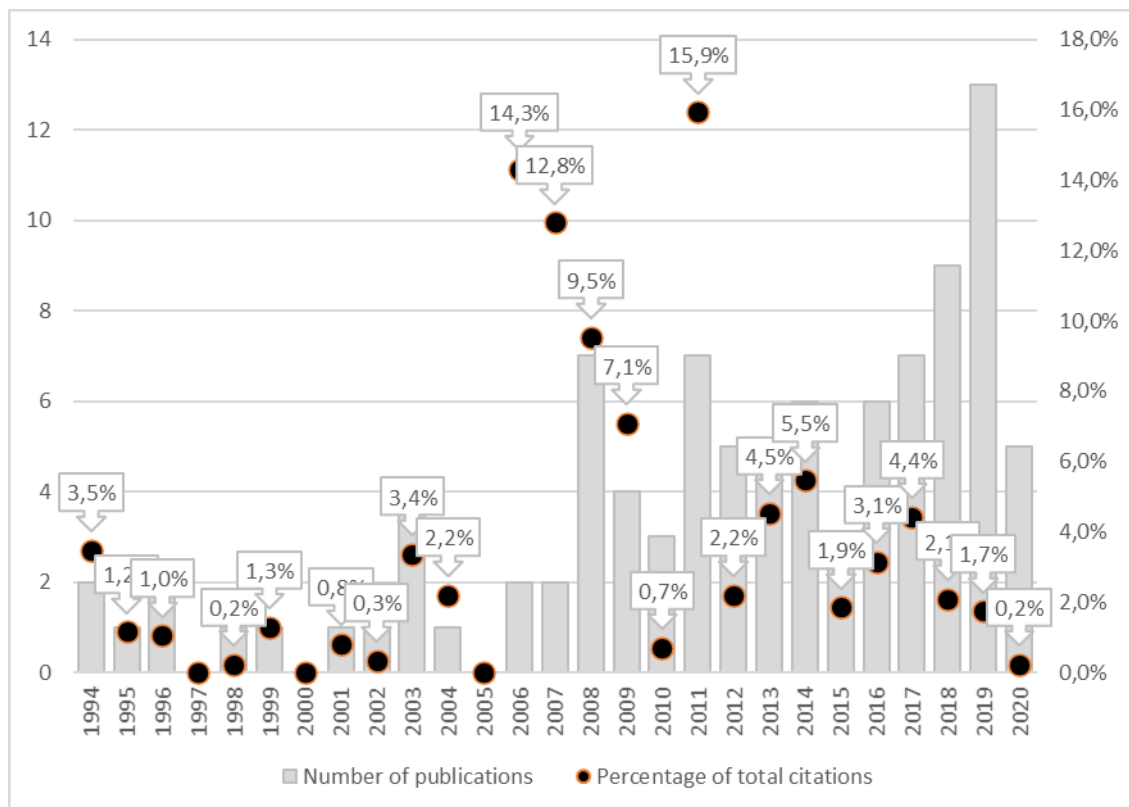
5.3.1) Descriptive analysis

Although the loyalty concept has been studied in management for several decades, recently it has been gaining considerable attention in the marketing literature (Vilkaite-Vaitone and Skackauskiene, 2020). During the first 14 years considered in the data set, between 1994, the date of the oldest document publication, and 2007, a small number of

documents were published, with a very small quantity of citations. The number of citations was very small until 2006, when it significantly increased. Considering the complete timeframe of analysis, the most important years in terms of citations was between 2006 and 2011. Recently, the number of publications increased significantly but not the number of citations. The low level of citations in the most recent years is not surprising, considering that later works are newer. The number of citations for an article published within any given period is dependent on how long it has been since the article was published (Podsakoff, MacKenzie, Podsakoff and Bachrach, 2008). The low quantity of citations of the most recent publications is a common pattern in terms of the chronological analysis of scientific research papers' influence (e.g., Dhontu *et al.*, 2020). Scientific research divulgation requires time and, to be cited, a scientific research needs to be divulgated.

Figure 5.1 shows the number of publications and the relative weight of citations by year. Globally, 71% of the works were cited, but only 9% received 25 or more citations.

Figure 5.1: Number of Publications and relative weight of citations in 'Insurance loyalty' per year.



Source: own elaboration

The most cited article on ‘loyalty in insurance’ is ‘Path analysis of perceived service quality, satisfaction and loyalty in Greek insurance’ by Tsoukatos and Rand (2006), published by the *Managing Service Quality Journal*, where the authors analysed the relationship between service quality, customer satisfaction and loyalty, in the Greek insurance industry. Table 5.1 lists the 10 most cited documents.

Table 5.1: Most cited papers on Insurance loyalty

R	Authors	Year	Title	Source title	TC
1	Tsoukatos E., Rand G.K.	2006	Path analysis of perceived service quality, satisfaction and loyalty in Greek insurance	Managing Service Quality	112
2	Antón C., Camarero C., Carrero M.	2007	Analysing firms' failures as determinants of consumer switching intentions: The effect of moderating factors	European Journal of Marketing	60
3	Turkyilmaz A., Akman G., Ozkan C., Pastuszak Z.	2011	Empirical study of public sector employee loyalty and satisfaction	Industrial Management and Data Systems	57
4	Taylor S.A., Hunter G.L., Lindberg D.L.	2007	Understanding (customer-based) brand equity in financial services	Journal of Services Marketing	50
5	Hsieh A.-T., Li C.-K.	2008	The moderating effect of brand image on public relations perception and customer loyalty	Marketing Intelligence and Planning	47
6	Qi Y., Ming-Xia L.	2014	Ethical leadership, organizational identification and employee voice: examining moderated mediation process in the Chinese insurance industry	Asia Pacific Business Review	32
7	Chen M.-F., Mau L.-H.	2009	The impacts of ethical sales behaviour on customer loyalty in the life insurance industry	Service Industries Journal	31

Table 5.1: Most cited papers on Insurance loyalty (cont.)

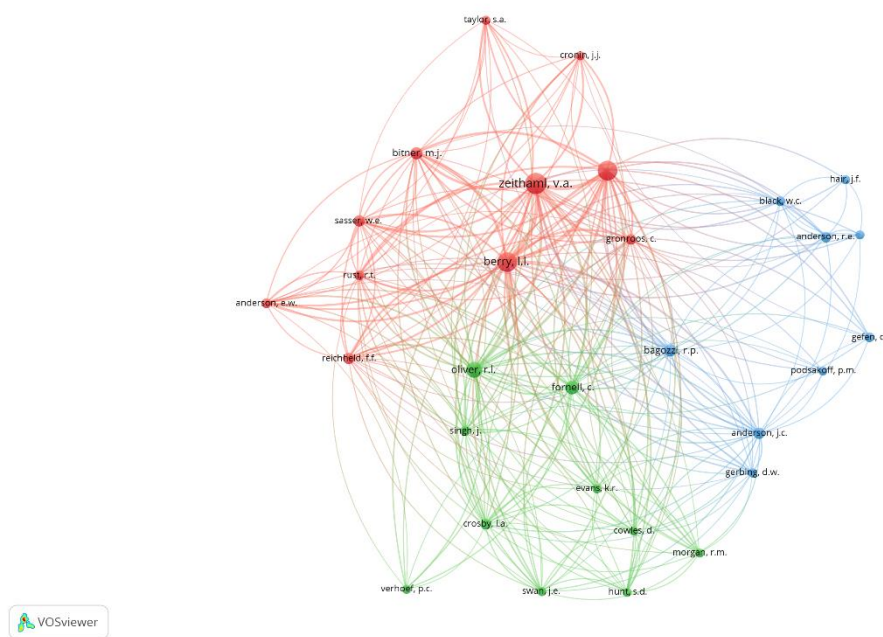
R	Authors	Year	Title	Source title	TC
8	MacStravic S.	1994	Patient loyalty to physicians	Journal of Health Care Marketing	29
9	Chen M.-F., Wang L.-H.	2009	The moderating role of switching barriers on customer loyalty in the life insurance industry	Service Industries Journal	26
10	Jeng S.-P.	2011	The effect of corporate reputations on customer perceptions and cross-buying intentions	Service Industries Journal	24

Note: R = rank; TC = total citations

Source: Own Elaboration.

Regarding the co-citations of the most influential authors on ‘loyalty in insurance’ (see Figure 5.2), it is worth noting a significant discrepancy between the top 10 authors on the research topic, considering the number of publications and citations, and the most influential authors in the co-citation index. Only two authors, Steven A. Taylor and Georges Dionne, are in both lists; however, none of them are in the top 20.

Figure 5.2: Co-citation of authors



Source: Own elaboration, using Vosviewer network visualization, with a threshold of 15 citations and the 33 most influential connections.

The *International Journal of Bank Marketing*, positioned as a vehicle for the dissemination of research on marketing issues related to financial services providers, and the *Journal of Services Marketing*, with a much broader aim of addressing the most innovative and disruptive research on services marketing, are the sources with the most articles on ‘loyalty in insurance’. Both these journals are mainly categorised in the area of marketing (Scimago Lab, 2020a). Sixteen sources have two or more papers and 52 only have one. The 10 sources with more articles represent 15% of the total of journals in the data set, indicating a relatively low concentration of publications in different sources. The diversification of publications by different sources is a consequence of its

dispersion between generalist journals of marketing, business and management, and insurance or financial journals.

Another relevant characteristic of the sources in the data set, is the non-coincidence between the journals with more publications and the most cited.

Three journals, the *International Journal of Bank Marketing*, the *Geneva Papers on Risk and Insurance: Issues and Practice*, and the *Journal of Healthcare Management*, are in the top 10 with more publications, but are not in the top 10 most cited. This is a consequence of the focalisation of these journals on insurance, health and finance topics, which generates a significant proportion of the publications in the data set. In contrast, the most cited journals, positioned to cover broader topics, are cited for more diverse types of subjects, including ‘loyalty in insurance’ and many others in the fields of business, management and marketing. Table 5.2 shows the top 10 most cited journals.

Table 5.2: The most influential publications on Insurance loyalty

R	Journal name	TC	TP	TC /TP	h-Index	Cite Score 2018	SJR 2018	Subject area	Category	Publisher
1	Journal of Service Theory and Practice	137	3	46	79	2,99	0,807	Business, Management and Accounting	Strategy and Management	Emerald
2	Journal of Services Marketing	94	4	24	96	3,65	1,021	Business, Management and Accounting	Marketing	Emerald
3	Service Industries Journal	81	3	27	62	2,36	0,563	Business, Management and Accounting	Management of Technology and Innovation Strategy and Management	Taylor & Francis
4	European Journal of Marketing	60	1	60	91	2,34	0,910	Business, Management and Accounting	Marketing	Emerald
5	Industrial Management and Data Systems	57	1	57	96	4,95	1,137	Business, Management and Accounting (and others)	Industrial Relations Management Information Systems Strategy and Management	Emerald
6	Marketing Intelligence and Planning	53	3	18	64	2,49	0,580	Business, Management and Accounting	Marketing	Emerald

Table 5.2: The most influential publications on Insurance loyalty (cont.)

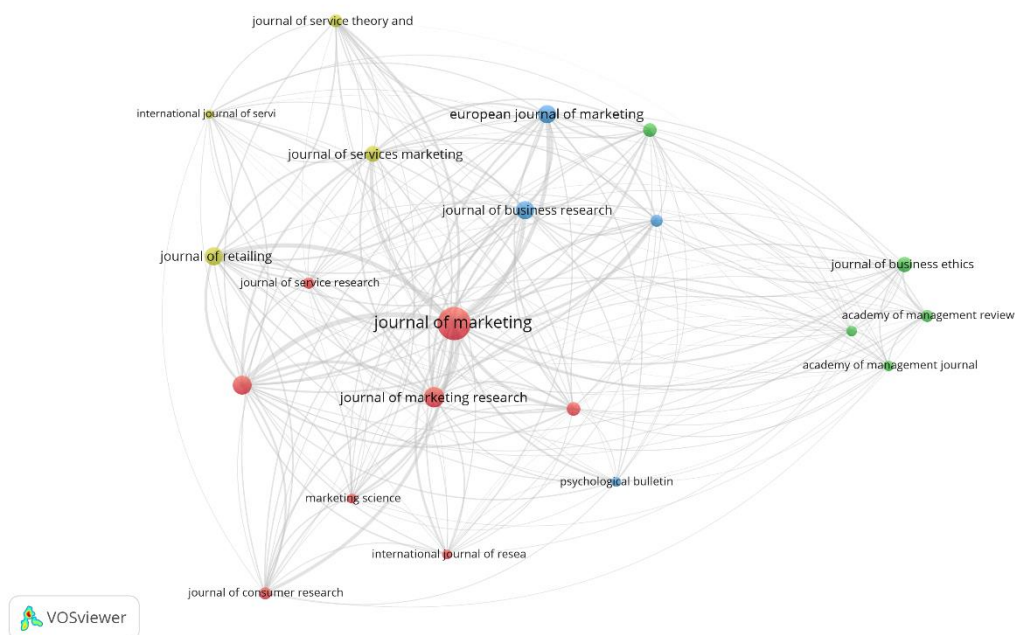
R	Journal name	TC	TP	TC/ TP	h- Index	Cite Score 2018	SJR 2018	Subject area	Category	Publisher
7	Journal of Health Care Marketing (discontinued)	39	2	20	n.a.	n.a.	n.a.	(discontinued)	(discontinued)	(discontinued)
8	Asia Pacific Business Review	32	1	32	33	1.00	0.30 7	Business, Management and Accounting	Business and International Management	Routledge
9	International Journal of Quality and Service Sciences	26	2	13	27	1.76	0.54 7	Business, Management and Accounting	Business, Management and Accounting (miscellaneous)	Emerald
10	International Journal of Service Science, Management, Engineering, and Technology	23	1	23	5	n.a.	n.a.	Business, Management and Accounting (and others)	Industrial Relations Management Information Systems Strategy and Management	IGI Global Publishing

Note: R = rank; TC= total citations; TP= total publications; the Subject Area and the Category are SJR classification, according to the fields of research where each journal is more productive.

Source: Own Elaboration.

According to the co-citation analysis, four clusters of sources can be identified. The first is composed by eight journals, focused on marketing science, marketing research and consumer research, such as the *Journal of Marketing*, the *Harvard Business Review* and the *Journal of Consumer Research*. The second cluster contains five journals, mainly concentrated in management theory and practice, business ethics and other industry-specific topics, like the *Academy of Management Journal*, the *Journal of Business Ethics* and the *International Journal of Bank Marketing*. The third cluster has four journals, mainly European references in the marketing and business research fields. The *European Journal of Marketing* and the *Journal of Business Research* are two examples. The fourth cluster has four journals, primarily focused on service management and services marketing, such as the *Journal of Service Theory and Practice* and the *Journal of Services Marketing*. Figure 5.3 shows the co-citation of sources on the data set.

Figure 5.3: Co-citation of journals in ‘Insurance loyalty’.



Source: Own elaboration, using Vosviewer network visualization, with a minimum citation threshold of 21

The country with the most publications about ‘loyalty in insurance’ is the United States, followed by Taiwan and India, the only countries in the data set with 10 or more

publications. Table 5.3 presents the 10 most productive countries. The results confirm the leading position of the United States in management research (Podsakoff, MacKenzie, Podsakoff and Bachrach, 2008). Taiwan leads the citations rankings, followed by the United States and the United Kingdom. Taiwan, Sweden and Switzerland have the best performance in the number of scientific publications by population size, considering the countries with two or more references. Taiwan, Sweden and the United Kingdom are the top countries for the number of citations by population.

Table 5.3: The most productive and influential countries

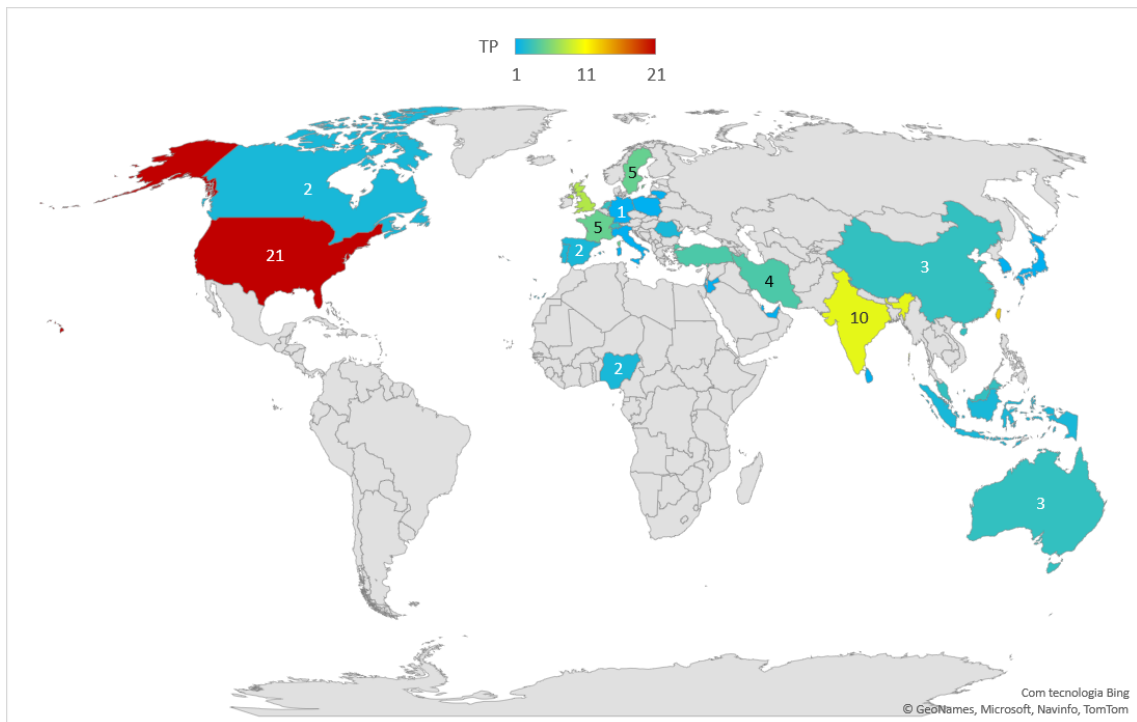
R	Country	TP	TC	TP/Pop	TC/Pop
1	USA	21	146	0,06	0,44
2	Taiwan	13	176	0,55	7,40
3	India	10	65	0,01	0,05
4	UK	8	142	0,12	2,10
5	France	5	39	0,08	0,60
6	Sweden	5	23	0,50	2,29
7	Turkey	4	60	0,05	0,72
8	Iran	4	7	0,05	0,08
9	China	3	35	0,00	0,02
10	Australia	3	22	0,12	0,87

Notes: R = rank; TP = total publications; TC = total citations; TP/Pop and TC/Pop = number of publications and citations per million inhabitants

Source: Own Elaboration with population indicators obtained from United Nations (2019).

There is global interest in researching this theme, in spite of the dominant position of North American, Southeast Asian, European, the Middle Eastern and Australian regions, as the map in Figure 5.4 indicates. Nigeria is the only African country represented in the data set, considering the articles by Obalola and Adelopo (2012), cited five times, which result from a partnership between the University of Lagos and De Montfort University, and Epetimehin (2011), from Joseph Ayo Babalola University, with one citation.

Figure 5.4: Map of countries with ‘Insurance Loyalty’ publications

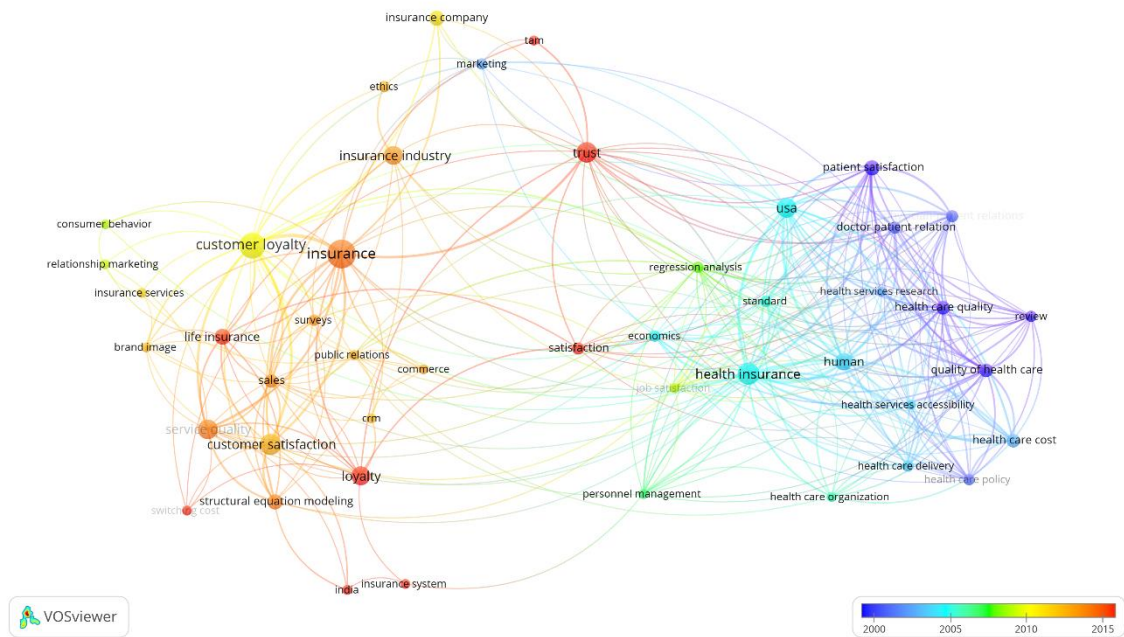


Source: Own elaboration, using MS Excel

5.3.2) Evolutionary analysis

The overlay visualisation of keywords co-occurrence identifies an evolution of the research of ‘loyalty in insurance’ (Figure 5.5). The initial publications were mainly focused on health insurance business. Then, the priorities of research appear to have moved to the exploration of the loyalty concept and its impact on customers. At this stage, the central keyword was ‘customer loyalty’. Recently, the research has been more concentrated on the relationship between insurance, particularly life insurance, and the impacts of loyalty on its antecedents and consequences. The keywords ‘trust’, ‘satisfaction’ and ‘quality’ on one side and ‘sales’ and ‘commerce’ on the other are central in this phase. The keywords related to the tools used to manage loyalty, such as ‘surveys’ and ‘structural equation modelling’, are also much more frequent in recent publications.

Figure 5.5: Keywords co-occurrence.



Source: Own Elaboration, using Vosviewer overlay visualization, with a threshold of 47.

To examine the trends of the evolution of ‘loyalty in insurance’ research with Scimat, the documents were divided according to the date of publication. Consecutive periods, with equal duration, were considered, following the analytical procedure of other bibliometric research (e.g., Podsakoff *et al.*, 2008). Considering that the oldest document was published in 1994, the study was divided into three periods of nine years, 1994–2002 / 2003–2011 / 2012–2020, although less than a half of the last year of the final period was considered as the search was conducted in mid-June.

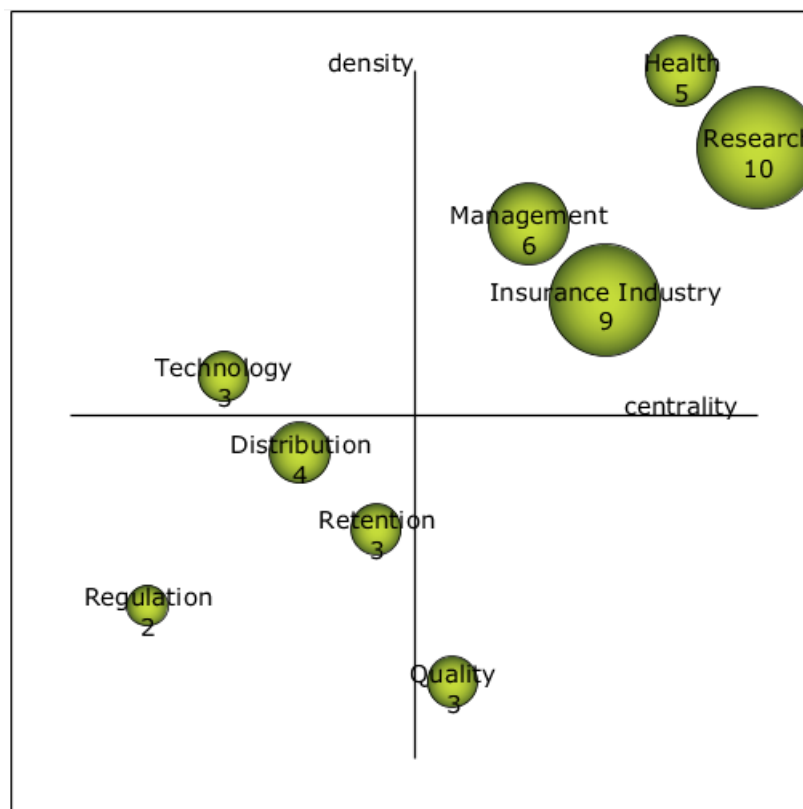
Following the process conceptualised by Cobo *et al.* (2012), a strategic map was produced for each of these periods. The parameters were ‘word group’ as the unit of analysis, ‘co-occurrence’ was the method to build the network, the Equivalence Index was the similarity measure to normalise the network, and Simple Centres was the clustering algorithm to obtain the map and its associated clusters.

Regarding the number of publications, there is a constant growing tendency. In the initial period, only 9.2% of the documents were published, increasing to 30.6% in the intermediate period and to 60.2% in the final period, by far the most prolific nine years. In 2019, for the first time, more than 10 documents were published in a single year. As

far as the number of citations is concerned, there is a significant concentration of more than 65.9% in the second period. The low number of publications in the first period and the recency of the publications in the last years, may explain the concentration of citations in the documents published in the intermediate years.

The Scimat strategic diagram, for all the publications in all periods (Figure 5.6) reveals that ‘Research’ and ‘Health’, ‘Insurance industry’ and ‘Management’ have been the motor themes of researching ‘loyalty in insurance’. ‘Technology’ is a peripheral theme, considering that some research has been done but not as a central topic. Inversely, ‘Quality’ is an important theme with a low level of research production. ‘Distribution’, a theme whose density increases in the intermediate period of analysis, ‘Retention’ and ‘Regulation’, appear in the strategic diagram as low relevance themes.

Figure 5.6: Global strategic map.



Source: own elaboration using Scimat

According to the strategic diagram, in the first period, between 1994 and 2002, ‘customer’, covering its different roles and terms, such as consumer, policyholder and patient, is the first motor theme. Customer orientation was positioned as a required

necessary step for insurance companies to increase customer loyalty. ‘Business-process’ and ‘attitudes and behaviours’ are other motor themes, which reinforce the perspective that insurance companies should orient their internal organisation and processes towards customers. This was the decade that many firms (re)adopted a customer focus (Uncles, Dowling and Hammond, 2003). Later, Baber, Kaurav and Paul (2020) found that companies that had adopted a customer orientation in their organisational philosophy in the previous years, achieved a higher level of performance.

The commercial strategy of insurance companies is a peripheral theme, which means that some research was done regarding its relationship with loyalty but with marginal importance. The relevant topics are shown on Figure 5.7, highlighting their h-index.

The most representative paper of this period, according to the number of citations, is by MacStravic (1994) and studied the importance and benefits of loyalty in its different dimensions, both to patients and to the medical system, including health insurance businesses.

Figure 5.7: Strategic map of 1994–2002 period.

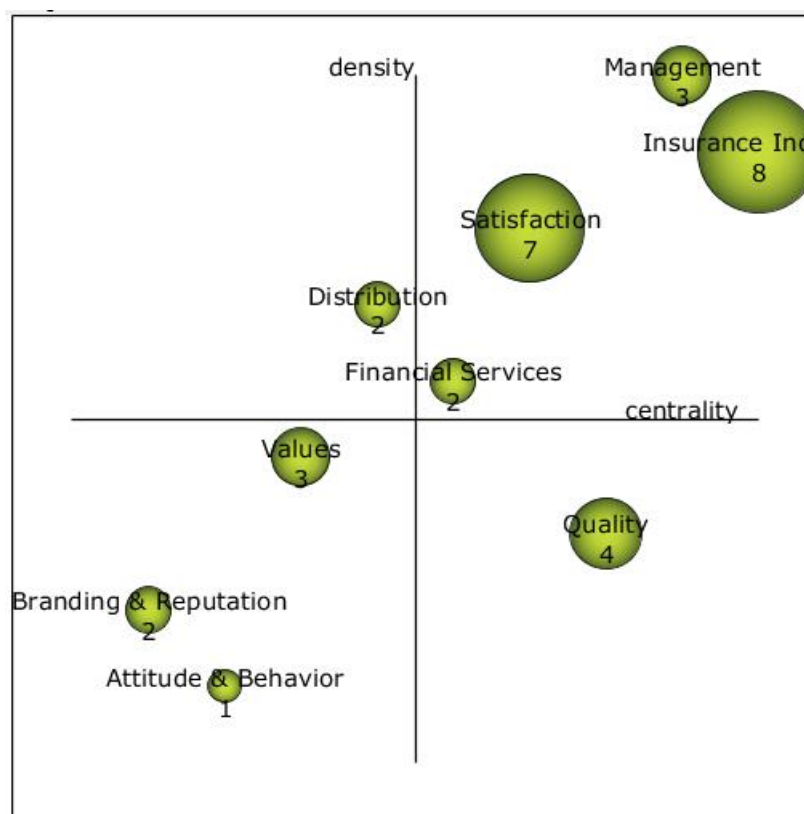


Source: own elaboration using Scimat

In the second time interval, between 2003 and 2011, the predominant motor themes on the strategic diagram are ‘management’ and ‘insurance industry’. During this period, the research tends to relate the loyalty of customers with the management of insurance companies and highlights its relevance to the whole industry. Two other themes are also central in the scientific research during this period, which are the association between satisfaction and loyalty and the impact of other financial services on the loyalty of insurance customers.

The most cited documents in this period are by Tsoukatos and Rand (2006), previously mentioned, and Antón, Camarero and Carrero (2007). This research argued that critical incidents and price changes are much stronger influences on the decision to cancel car insurance, than service quality or company commitment. The relevant topics in the 2003–2011 period are shown on Figure 5.8, highlighting their h-index.

Figure 5.8: Strategic map of 2003–2011 period.

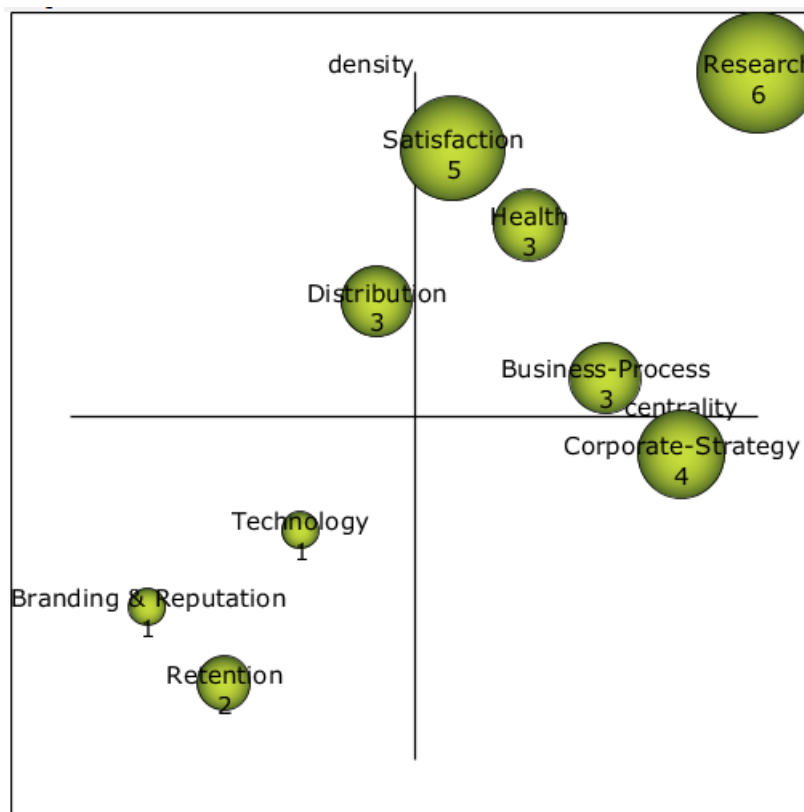


Source: own elaboration using Scimat

In the most recent period, between 2012 and 2020 (Figure 5.9), ‘research’, ‘health’, ‘satisfaction’ and ‘business-process’ are the motor themes. The ‘research’ theme reflects

the importance that is currently given to information management on the effectiveness of loyalty projects and programmes. Leveraging loyalty data to enhance core value proposition through personalisation and customer experience management is a central evolutionary trend in loyalty (Ferguson and Hlavinka, 2006). The ‘health’ theme highlights the importance of this line of business to the conceptualisation and implementation of innovative approaches to loyalty in insurance. Compared with the previous period, the ‘satisfaction’ theme reveals a tendency to reduce its centrality and increase the density, which means that it maintains a relevant amount of scientific production but has been losing importance to the cognitive structure of the research field. ‘Business process’ re-emerges as a central theme but with a relatively low density, meaning that it may constitute a future avenue for researching ‘loyalty in insurance’

Figure 5.9: Strategic map 2012–2020 period.



Source: own elaboration using Scimat

The article by Qi and Ming-Xia (2014) is the most cited in the nine recent years. In this article, focused on the Chinese insurance industry, the relevance of ethical leadership to improve employee voice behaviour is evaluated, considering the importance for top

managers to respond appropriately, make good decisions and correct problems before they escalate.

5.4) Discussion

While the ‘loyalty’ concept is not new and insurance is not a modern industry, the research of loyalty in insurance has significantly increased in the last few years (Leiria, Matos and Rebelo, 2020).

Notably, the focus of the research has been changing, from an initial phase mainly associated with the importance of insurance companies adopting a customer orientation, to a recent approach based on the application of statistical models and algorithms to anticipate customer decisions, reinforce the desired behaviours and disincentivise the undesirable ones. The discovery of the power of data is a macro trend that affects the evolution of customer loyalty strategy (Ferguson and Hlavinka, 2006).

Both the overlay visualisation, using Vosviewer, and the Scimat strategic maps highlight the importance of sustaining loyalty projects in insurance using reliable and abundant information.

The relevance of the keyword ‘health’ in different periods, in the two platforms, reflects its continuous importance, since the first publications until today. However, the term ‘health’ has had different associations in the different periods of analysis. In the initial years, it was mainly related to health care providers in the USA, while currently it is associated with ‘corporate strategy’, ‘business process’, ‘technology’ and ‘distribution’. This suggests that health insurance may be an adequate ground to test and launch innovative projects for loyalty in insurance, before its dissemination to other lines of business. It is in health insurance sector, more than in any other financial business, that insurtech has threatened the traditionally opaque and inefficient insurers with new business models (Scardovi, 2017).

The inexistence of leading marketing, business and management scholars on the list of the top ranked authors may reflect the focalisation of the analysis on the insurance industry. However, the relevance of leading authors, such as Valarie A. Zeithaml, 15,303 citations and an h-index of 24, Leonard L. Berry, 17,041 citations and an h-index of 43 and A. Parasuraman, 21,365 citations and an h-index of 47, in the co-citation index may be a consequence of the recency of the research of customer loyalty in insurance, which

is still sustained on the general marketing, business and management literature. The most relevant sources in this field are not industry specific but rather the most preeminent journals in the fields of marketing and services.

Regarding the institutions, there is a geographical dispersion of the most significant research centres but a concentration on a relatively low number of schools. The concentration of 50% of the citations in 10% of the universities reflects the tendency of a concentration of a small number of universities having the vast majority of citations in the field of management (Podsakoff, MacKenzie, Podsakoff and Bachrach, 2008). The tendency for mutual citations between institutions from the same country revealed in other bibliometric analyses (e.g., Martínez-López *et al.*, 2018) is not found in this research.

The results also highlight the global nature of the ‘loyalty in insurance’ research, considering the 31 countries represented in the origin of the publications collected.

5.5) Conclusions

The goal of the present study is to provide a holistic understanding and map the evolution of customer loyalty in the insurance industry research field. This was achieved using a bibliometric approach with the Vosviewer and Scimat software computer programs, considering the documents published and indexed in Scopus from when the first works appeared until June 2020.

The importance of loyalty in mature markets has never been greater than today, given the difficulty of companies to expand to new loyal customers (Vilkaite-Vaitone and Skackauskiene, 2020). Loyalty boundaries will continue to expand outward, encompassing many more ideas, strategies and tactics (Ferguson and Hlavinka, 2006), implemented with an increasing diversity of tools and programmes. The majority of managers understand the importance of customer loyalty and, therefore, pay attention to increasing the loyalty of existing customers, attracting new loyal customers and choosing a strategy of customer loyalty management (Vilkaite-Vaitone and Skackauskiene, 2020). This means moving beyond the ‘spend a dollar, earn a point’ loyalty programmes, to building physical and virtual environments in which customers can connect with each other and with providers and other stakeholders to share insights and relevant information.

The insurance business is in a very sensitive position because its transformation challenges and related risks are probably the highest in the financial system, requiring a more radical re-thinking of their business and operating model (Scardovi, 2017). Insurance companies face technological uncertainty that comes from how big data and analytics can enhance their value propositions in a consistent and sustainable way. The use of advanced analytical models to manage big quantities of data, that insurance companies already possess, opens the possibility of sharply increasing value propositions. Frequent interactions with stakeholders, based on useful information, not only to reduce their risks, the fundamental need satisfied by the insurance industry, but also to facilitate the adoption of a desirable lifestyle and wellbeing, will bring insurance companies closer to the communities they serve and help them to gain their customers' trust and loyalty. Marketing executives at the uppermost levels have come to understand the critical importance of loyalty data to their fundamental business models (Ferguson and Hlavinka, 2006).

Some limitations are noteworthy in this study. While our data set from Scopus is comprehensive, it is not exhaustive. The exclusion of sources not indexed by Scopus, the non-English articles and the documents from journals in fields other than management or business, such as mathematics, econometrics, psychology, sociology or anthropology, may have left out relevant references in the research field. Another limitation is analysing the insurance industry as if it was a homogeneous industry. Although the findings of this research are valid to the insurance industry as a whole, some geographical idiosyncrasies and specific lines of business would require adaptations of the general conclusions. Finally, despite the objectivity of the bibliometric analysis, some decisions had to be made that introduced the subjective perspective of the authors. Although supported on previous findings of academic research, the division of the timeframe into three periods and the identification and labelling of the core research, incorporated some degree of subjectivity. Nevertheless, various techniques were used to minimise the subjectivity bias on the word's selection, such as the unification of singulars, plurals, acronyms, synonyms and different spellings; the elimination of keywords unrelated to the topic; and the merging of low-frequency words into broader terms.

Relevant new avenues for researching loyalty of customers in the insurance industry have been opened by the digital transformation of the economy. The adaptation of e-loyalty to insurance, the impact of lowering barriers to entry in this industry as a result of the digitisation of economies, or the impact of new technological tools, such as the internet

of things, the analytical processes and artificial intelligence, on customers' loyalty are topics that require further investigation. The focalisation of the methodology used in this research on smaller units of analysis, either geographically or along business lines, is another potential research field derived from this paper. Finally, considering that loyalty is composed of attitudinal and behavioural components, it would be relevant to reproduce this research for each of these constituents, considering their different antecedents and implications.

Despite the limitations, this research will be of great utility to improve the performance of insurance companies on customer loyalty, either in an academic, scientific and conceptual perspective, or in an applied business form.

Although there is a growing number of publications and journals discussing this topic, we encourage academics, not only from marketing, management and business fields but also from other subject areas, to devote themselves to the challenging and important field of research that is customer loyalty in the insurance industry.

Chapter 6) Conclusion, limitations and paths for future research

Chapter 6. Conclusion, limitations and paths for future research

6.1) Conclusion

The importance of customer retention in insurance and demonstration of the poor performance of companies in this regard were the starting point for this study. Three research questions were defined, considering a sequential investigation process. The initial objective was to identify the main drivers of scientific investigation in field of retention of non-life insurance customers. Those findings were then applied to a real case with the objective of investigating the factors relevant to insurance cancellation, which may to be managed in order to anticipate and mitigate its effects. Finally, there was a look into the main tendencies that may be relevant in terms of research on customer retention and how to improve customer loyalty.

The first research question, which sought to identify the main drivers of scientific investigation in the field of retention of non-life insurance customers, was the object of analysis of the first article, “Non-life insurance cancellation: a systematic quantitative literature review”, presented in Chapter Three. This research found slowly increasing interest in this research topic, although the scientific production in this field remains at a low level. Comparing different regions of the world, it was found that Europe is the most prolific in scientific production on this theme. It was demonstrated that the most important medium to disseminate the scientific research in this field is the academic paper, considering that only a small percentage of relevant documents are published in periodicals, books, reports or conference papers. It was also found that the most frequent methodological approach to research the cancellation of insurance products is the empirical quantitative study using longitudinal analysis.

Regarding the most frequently investigated issues in the research on non-life insurance customers retention, the main object of study is the individual customer, which shows much higher prevalence than studies focused on business customers, insurance companies or the insurance industry. The decision process of individuals is less rational and predictable than the process of organizations, making its study much more relevant and challenging.

The approach to the insurance industry is mostly concentrated on specific insurance products. Only a very small number of publications dedicated to the analysis of customer retention considered a more aggregated perspective, such as life or non-life business, or even the insurance industry as a whole. In the insurance products category, motor insurance is the most frequent reference, either as a sole product or in conjunction with other products like home, contents, health, funeral or pet insurance. The reason that motor insurance is the most interesting insurance business to research is, on the one hand, its relative business value compared to other lines of business and its perception by customers as the most valuable insurance; and, on the other hand, its association with a very high propensity to churn.

In a majority of situations, data are obtained from a single insurance company in spite of the reluctance of these entities to share information, including when the objective is to produce an academic investigation.

Three domains emerge as fundamental variables, these being the profile of the customer, the characteristics of the insurance policy, and the type of intermediary.

The article “Non-life insurance cancellation: a systematic quantitative literature review” also demonstrated that the most frequent and convenient statistical technique to research the cancellation of insurance policies is logistic regression, and that this method is also employed in other activities developed by insurance companies, such as the identification of fraudsters, or the occurrence of claims.

The second research question, which sought to identify the most relevant factors to explain motor insurance policy cancellation by individual customers and how insurance companies can anticipate its occurrence, was the object of analysis of the second article, “Determinants of motor insurance cancellation: the role of intermediaries in customer decision making”, presented in Chapter Four.

The starting point for this research was to obtain values for the variables that the previous article had determined as relevant to this research question. These variables were related to the profile of customers, the characteristics of the policy, and the type of intermediary. The variables that were considered in the set related to the profile of customers were the total premiums paid, the existence of previous claims, gender and age. Regarding the characteristics of the policy, the variables analysed were the premium, the existence of previous claims, the time it was in force, the number of payment instalments and the payment method. Finally, in the set of variables about the type of intermediary, the

following six classes were considered: direct, ancillary, individual agent, company agent, broker and bank branch.

In line with the evidence produced in the first article, logistic regression was applied to the selected variables. The model estimation identified ten significant predictors of insurance cancellation. In the customer profile, two variables were found to be relevant, but in opposite ways: the volume of premiums paid tend to favour cancellation, while male customers tend to disfavour its occurrence. Regarding the characteristics of the policy, five variables were found to be relevant. A premium policy above €500, the existence of claims, and the time it has been in force are positively related to product cancellation. Conversely, a lower number of payment instalments and payment by direct debit tend to reduce the cancellation of insurance policies. Finally, in terms of distribution channels, three types are relevant in explaining insurance cancellation, which are ancillary, individual and company agents.

The model also allowed calculation of the probability of insurance cancellation, considering its characteristics, the profile of the customer, the type of intermediary involved in the acquisition of the product, and the intermediary's relationship with the customer.

This research is very relevant to the industry as it provides leads about customers that are more likely to churn. With these findings, insurance companies can select those customers that are more valuable and prone to leave and develop closer relationships, based on frequent and useful dialogues and providing them with relevant information for their well-being and safety. These activities have been simplified and facilitated by new technologies such as the Internet of Things, which allows customer risks to be monitored in real time, or artificial intelligence, that may automate the interactions in every moment of the relationship.

The third research question, which aimed to identify the most relevant research trends in customer loyalty in insurance and the critical success factors to deploy a loyalty initiative, was the object of analysis of the third article, "Customer loyalty in the insurance industry: a bibliometric analysis", presented in Chapter Five.

A bibliometric methodology has been frequently used in business and management scientific research to summarize the most relevant results (Martínez-López, Merigó, Valenzuela-Fernández and Nicolás, 2018). Using the software programs Vosviewer and Scimat, analysis of the scientific publications on customer loyalty in insurance revealed a growing interest in terms of the academic research and the number of publications, both

in general marketing, business and management journals, and in insurance industry and financial journals. Analysis of keywords' co-occurrence using Vosviewer also revealed an evolution of the research priorities in this field. The strategic map produced by Scimat, based on the co-occurrence of concepts composed by groups of related keywords, showed a clear evolution of the main topics of research, considering three main phases. Initially, the main lines of research emphasized the importance of insurance companies adopting a customer orientation in order to improve customer loyalty. Later, the main lines of research tended to highlight the impact of loyalty on insurance companies' performance and on the attractiveness of the insurance industry, concluding that it should be a priority concern for insurance management. More recently, a set of new concepts in the fields of information management, research tools, and new processes and technologies has gained predominance in this field of scientific literature.

Besides the specific answers to the research questions, this thesis also highlights the responsibility of the insurance companies themselves for the poor performance in terms of customer loyalty, highlighted in the benchmarks between insurance and other industries like retail banking. One probable cause of this incapacity of insurance companies to develop and nurture relationships with their customers is the preference for investment in customer acquisition programmes, which generate short-term results, instead of considering the long-term benefits of customer retention. However, even in this type of strategy, it would be possible to improve customers' loyalty to insurance companies if some basic initiatives were taken, as this research has highlighted. The first is to know customers better and to concentrate the company's efforts and investments on retaining the most valuable, avoiding wasting resources on customers with a very low likelihood of being profitable in the future. The savings from this type of analysis can be significant, considering that only a fraction of customers will be target and, consequently, only a fraction of the money will be spent on retention projects. Another situation evidenced in this research is the adaptation of payment modalities. Considering that some forms of payment are associated with product cancellation, insurance companies should incentivize their customers to avoid non-desirable payment modalities and to opt for those modalities that are associated with customer retention, as this study has demonstrated. Also, the reconfiguration of traditional, generalized, practices used by insurance companies may be very prejudicial to customer retention, such as penalties applied after a claim, ignoring that customers must be managed considering a long-term value analysis.

These are simple measures that every insurance company should consider, assuming that the main strategy of favouring acquisition efforts instead of retention will not change. However, this research has evidenced that the long-term benefits of changing this strategy would be very significant. It has been demonstrated that, according to the scientific evidence available, changing the strategic focus from customer acquisition to customer retention is fundamental. Moreover, the evolution of customer behavioural patterns associated with the development of new technologies has created new sources of value generation that insurance companies need to fully understand and to incorporate in their relationships with customers and intermediaries.

The insurance industry has been associated with some negative characteristics in terms of customer management. There is a permanent tension between customers, providers and intermediaries in this industry, because the insurance companies want to receive the maximum in premiums and to pay the minimum in claims. In contrast, customers want to pay the lowest possible premiums and, when there is a claim, they want to receive as much as possible. Between customers and insurance companies, the intermediaries need to sell as much as possible for the highest premium they can, considering that, in European insurance markets, their most common source of income is commission on those premiums, which tend to be higher for products that are the least important to customers, considering their lower claims ratio. This tension is higher in the insurance industry than in other businesses because the majority of customers will never have any contact with the product they buy.

Another characteristic of this industry is the very high level of customer complaints. In 2018, motor insurance generated 800,000 complaints in Europe (Publications Office of the European Union, 2019). These complaints have three characteristics that reveal the low importance insurance companies give to claim resolution, which are a long-term consistent trend to increase its occurrence; a concentration on specific products, particularly motor insurance and third-party liability; and result from causes that are clearly identified, related to claims and administrative processes, that remain unchanged. All these factors contribute to the very high level of product cancellations in this industry, especially in the motor line of business, and the poor performance in terms of customer loyalty. But new technologies can contribute to change this landscape by solving some traditional dysfunctions (Scardovi, 2017). The escalation of customer demands, many times inspired by their experiences with big tech companies, constitutes a competitive pressure on incumbent insurance companies to improve their processes and practices in

order to avoid customer churn to new players with more valuable propositions, including in terms of transparency of processes. From the many new technologies that have emerged in recent years, new developments in fields such as automation, immersive media, cloud computing, nanotechnology, geospatial tech, advanced materials and many others have disrupted the way people live and work, as well as how industries create value (Scardovi, 2017). Four developments are especially important in the insurance industry in terms of its impact on customer loyalty: analytical capabilities and big data, artificial intelligence, the Internet of Things, and blockchain.

Analytical capabilities and big data create value in a cycle that begins with the availability of a lot of data from multiple sources. These data are treated with statistical models and algorithms that generate information relevant to business challenges, allowing managers to make informed decisions and to launch initiatives and projects to improve customer loyalty. Insurance has also applied analytical analysis in other fields such as risk scoring, customer segmentation, enhanced pricing and underwriting, and fraud detection.

The use of analytical models and algorithms in insurance has grown very significantly in recent years. From an initial phase when the focus was mainly focused on comprehension of the company's current situation in terms of critical success factors, these models have broadened their purpose to explain very diverse aspects of the insurance business, and to anticipate and influence the business's probable evolution. One of the most critical elements to enhance the quality of the analytical capabilities in insurance companies is data quality and availability. New and old, internal and external sources of data are available to insurance companies. Internal sources are historical data from policies, claims, payments, customer surveys and actuarial studies. There are also unstructured sources of data such as emails, voice conversations, online activities and social media content, which are also important inputs of information to firms. External sources, which are increasingly important, come from data received from sensors, wearables and, in general terms, telematic devices. There are also other third-party data sources like open data from public and government sources, credit information and weather data. With the analytical models, insurance companies can determine the profile and the circumstances that distinguish loyal from non-loyal customers and, consequently, invest in the critical factors that may increase customer loyalty, or even identify other non-customers that have similar characteristics to the loyal customers and try to conquer them.

An important issue for the European Supervisory Authorities, composed by the European Insurance and Occupational Pensions Authority, the European Banking Authority and the

European Securities and Markets Authority, in its function of monitoring the emerging risks for consumers that arise from financial innovations, is the accuracy of the data used in big data, which can lead to erroneous decisions. In addition, there is an overarching obligation of financial institutions to treat customers fairly and a need to ensure that sensitive data are only used according to the consumers' informed consent and only for limited purposes.

It is very important that insurance companies deploy extremely reliable data management processes and can deliver value propositions that generate enough benefits to customers to justify the inconvenience of sharing their personal data with insurance companies. The added value created by insurance companies brings new types of benefit in the form of personalized advice about relevant aspects of customers risk, improvement of protection and avoidance of damage, in order to provide a superior service, or it can lead to a decrease in the insurance premium as a consequence of more accurate customer risk profiling. The important issue is that, although these examples of value creation contribute to customer loyalty, none of this is possible if customers do not trust that the insurance company will manage their personal data in a responsible and valuable way.

Artificial intelligence is based on the emulation of human behaviours in physical systems. These technologies have also evolved very rapidly in terms of their applications to many industries, insurance being one of the sectors where its impact has been studied (McWaters, 2018).

There are several applications of AI in insurance, chatbots being one of the most common. From an initial objective of providing basic information and executing simple operations like the cancellation of a policy or payment processing, these applications have evolved to more complex automated tasks that create value to customers, such as product advice or risk avoidance measures. One area where AI has significantly improved the customer experience is in reducing the time taken to provide information or execute tasks and operations. Many activities performed by humans in insurance companies can be executed automatically by machines, with advantages in terms of time, cost and quality, considering a reduction in the number of errors. Hence, the automatization of tasks in the insurance industry will tend to accelerate in the next few years (Scardovi, 2017), sacrificing many traditional jobs, that will either be lost or converted into value added activities such as customer support.

The third technology is the Internet of Things. Data collected with the use of sensors from people or objects at risk, such as cars, houses or even individual persons, are

contextualized with the current circumstances of that risk, providing a holistic overview. The resulting information allows the anticipation of accidents that insurance companies can use to alert customers to change their current behaviours or circumstances in order to avoid its occurrence. In motor insurance, for instance, it is possible in real time to monitor indicators like kilometres driven, hard braking, driving duration, speed, driving frequency, time of the day, peak or non-peak hours, routes and roads, use of onboard electronics, and many other elements that characterize driving behaviours (McWaters, 2018). These alerts that contribute to decrease the risks of customers and hence increase the peace of mind of individual customers and reduce the unpredictability of businesses can be converted into useful dialogues that insurance companies establish with their customers, strengthening the relationship and so increasing loyalty. Some examples of new services provided by insurance companies to customers based on this information are, in motor insurance, rewards for safe driving, finding stolen cars or providing emergency services; in home insurance, remote monitoring and alerts for water leakage or early warning alert for smoke or fire; or in health insurance, online diagnosis and health remote check-ups.

Many functions and activities deployed by insurance companies will be profoundly improved by using the online data to reduce their risks. Rating, pricing and subscription will be drastically improved with this information, considering the tendency towards individual and customized analyses of customer profiles instead of the traditional segmented approach. Consequently, the most important task of the workforce in the insurance industry is also drastically changing, with increasing demand for data mining and management—i.e., digital and analytics specialists. In fact, one of the factors that has been delaying the adoption of these technologies in insurance may be the lack of available people with the right competences. This circumstance has also been a strong motivation for insurance companies to develop long-term partnerships with specialized providers in niche technological solutions.

The fourth technology is blockchain, which is a domain still being developed and, consequently, with an impact that is not fully predictable. Nevertheless, some of its characteristics suggest that it may generate very disruptive consequences in insurance business. The reason lies in some characteristics of blockchain, like the validation of transactions by consensus mechanisms called proof-of-work, the immutability of transactions, the removal of a single node of failure, or disintermediation, anticipating its

usefulness in many insurance processes, improving value generation for customers and, consequently, loyalty to the insurance company.

The whole insurance value chain is undergoing a deep transformation with these new technologies. The impacts across all the processes and activities are evident: in product design, from a one-size-fits-all culture to customized and connected solutions; in pricing and underwriting, from analysis based on historical and aggregated data to predictive analysis supported by big data; in distribution, from in-person and non-specialized agents and call centres to online, mobile, social quick comparison shops and specialized agents and brokers; and in administrative operations, from manual on-premise processing to cloud-based automatic operations.

These new technologies have created the opportunity to change the relationship between insurance companies and their customers. We consider that insurance should move into a new type of paradigm, based on trust and confidence between customers, providers and intermediaries, where loyalty-based behaviour is a more rational option than is the case today. We consider that this vision is possible if the following six paths become priorities for insurance companies: simplicity, invisibility, pulled by the demand, and being behaviour-driven, holistic and socially responsible.

The first main path we recommend to deepen relationships between the stakeholders in this industry is to develop more simple, clear, transparent and understandable products, mitigating one of the main sources of conflict in this business, which is customers' inability to fully understand the products they are buying.

The simplicity and transparency of insurance products can be achieved by initiatives focused on customer literacy and on the insurance offer, considering four different types of concept: a modular product construction, integral versions of products, flat fee commissions, and a parametric approach.

Regarding insurance customer literacy, the development of programs to segment classes of customers, considering their financial background and types of product needed, are critical for customers to understand the fundamentals of insurance and so improve their autonomy to make their own informed decisions.

The modular philosophy of product conception involves a basic product to which customers add the further coverage that they consider to be relevant to cover their specific risks and circumstances, instead of being obliged to buy an insurance package with coverage that they do not want or understand. A problem has been identified with this attractive approach, however, which is that the customer may not be aware of their

specific risks, considering, through ignorance, that important coverage is superfluous. To overcome this risk, it is recommended to support customers when they are shopping, advising them to include all the important coverage in their insurance.

Integral versions of products are based on a movement opposite to the modular philosophy but with the same objective of increasing transparency and decreasing conflict. In this case, the insurance product includes all the features and services that an average customer may need. The challenge in this case is to have affordable products. Hence, this approach must be conceptualized in a system where all the sources of cost that do not add value for the customer are eliminated.

A third relevant proposal to increase simplicity and transparency is to increase flat fee payments to intermediaries independently of the line of business or the existence of claims. This option is very important to mitigate the adverse incentive given to intermediaries by the traditional model of commission in insurance, which corresponds to a percentage of the premium paid by the customer, to develop hard selling tactics in their relationships with customers, considering that it is their most evident option to increase revenue.

The fourth proposal to increase the simplicity, clarity, transparency and understandability of insurance is parametric insurance. In this case, claims are paid automatically when a determined parameter is achieved. While in traditional insurance, the compensation for the claim is paid according to losses incurred as determined after loss adjustment, considering the interpretation of the policy conditions, which sometimes may be a long, complex and opaque process, parametric insurance determines a value for a certain parameter so that, when it is achieved—usually by the measurement of IoT-enabled sensors—the payment is automatically made without any type of discussion, interpretation or adjustment. Some lines of business where the concept of parametric insurance has been tested are crops, travel, flood, earthquake and cyber risks. We argue that its use should be extended to all products where technological devices are sufficient to identify the occurrence of a claim.

The second main path we recommend to deepen relationships between stakeholders in this industry is, when possible, to make insurance invisible. Insurance products can become invisible when they are included in another product that the customer buys. Insurance can be offered as an additional service that can be added to the product like warranties. In this case, the customer does not need to undertake another decision process to buy the insurance, because the evaluation and the definition of the insurance that best

matches the product have already been completed. This proposal follows the increasing importance of the business to business to consumer (B to B to C) model of distribution. This is not new in insurance, considering the importance of entities like banks, accountants, travel agencies, and other intermediaries in this industry distribution. However, it has been developed by new technologies that, in an automated way, allow information about consumers and products to be sent to insurers to assess the risks, receiving in return a customized insurance policy bundled in a complete solution. This option has the advantage of decreasing the customer's effort to find adequate insurance that matches another product that he/she is buying; on the other hand, it has the disadvantage of reducing the number of alternatives for customers to consider to a single option. Besides, it often may lead to over-insurance because it covers risks protected by the product guarantee. This approach is already relevant in some product categories like motor vehicles, smartphones, small appliances, furniture removal and travel, but in our view, its use should be increased in these businesses and considered as an option for any other product where a life or non-life insurance constitutes an added value.

The third main path we recommend to deepen relationships between the stakeholders in this industry is to broaden the offer of on-demand products which allow customers to decide the conditions of insurance operability, giving them the capacity to design the product features. The customer can determine exactly what items, coverage and period he wants the insurance to be in force for. It is a new concept of insurance product that moves from an annual generic product with a set of predefined coverages totally managed by the insurance provider, to a new product philosophy focused on specific, discrete events, covering the risks assumed by the customer for a particular time, and co-managed by the customer using a mobile application. There are examples of on-demand insurance products in both life and non-life lines of business. In life insurance, it is possible to activate life insurance to change the coverage or the capital of the policy during a specific period of time, such as when customers are travelling. In non-life insurance, many situations have tested this approach: for example, in motor insurance, the premium can be calculated as a function of the time the insurance is in force or the miles driven; in personal accidents, insurance is activated and deactivated by the customer when the practice of a specific sport begins and ends. Even at work, this type of insurance can be useful to second jobs when there is not an established working schedule: it can be used only during the working time. Nevertheless, it is important to highlight that on-demand insurance may be prejudicial to customers if customers are not aware of their real risks

and consequently do not subscribe to them; or when the periods are too long, it may become more expensive than traditional insurance. To insurance companies, on-demand insurance requires the development of new competences and management tools such as those implied in fraud detection or those related to adverse selection. The asymmetric information possessed by customers related to their risk, like some health vulnerability, that insurance companies do not know about, creates an advantage to customers when subscribing the risks related to that vulnerability, with a severe impact on companies' claims ratios.

The fourth main path we recommend to deepen relationships between the stakeholders in this industry is to accelerate the use of behavioural insurance transversally to all lines of business. This is based on the principle that customers must benefit when they act in order to mitigate their risks and, consequently, to avoid claims. The development of behavioural insurance is the result of the association between IoT technologies and artificial intelligence, allowing permanent monitoring of behaviours and measurement of how risks are prevented. Thanks to this principle, many risks that were not insurable for affordable premiums, like motor insurance for younger customer segments or health insurance for customers with chronic diseases like diabetes, can now be insured if customers allow their behaviours to be monitored, demonstrating their cautious and preventive behaviours. In health, insurance companies have developed products based on an assessment of customer status, the encouragement of healthy long-term habits, and tracking. In the end, if customers improve or maintain a healthy lifestyle, they benefit from lower premiums and a wide range of discounts on health-related products or services; if they do not, they will pay higher premiums and will not be rewarded.

The fifth main path we recommend to deepen relationships between the stakeholders in this industry is to develop the perspective of holistic insurance. This proposal represents a very significant cultural evolution, also driven by new technologies, from a traditional model of interactions between customers and providers restricted to payments, claims and providing information, to a philosophy of a permanent protector that is continuously dialoguing with customers, advising or warning them about how to live safer and healthier. Insurance moves upstream in the value chain, being present in their everyday activities, such as housing, wellness, work, leisure, shopping, travel and others. There is a cycle that begins by analysing insights from the customer or their objects at risk, allowed by gadgets connected through IoT technologies which are contextualized with analytical models and big data, followed by an alert to potential accidents or damages, and finalized

with a recommendation of how to act in order to avoid it, which may result from artificial intelligence algorithms.

The sixth main path we recommend to deepen relationships between the stakeholders in this industry is to strengthen the social responsibilities of insurance companies. There is increased sensibility towards humanitarian issues and the sustainability, climate and ecological challenges, that insurance industry has begun to address as both a voluntary initiative and as an adaptation to recent regulatory demands. The humanitarian problems of our time can be mitigated with a reduction in the insurance protection gap, reflected in the difference between the amount of insurance that is economically beneficial and the amount of coverage actually purchased (Schanz, 2018), which the insurance industry is in a privileged position to address.

There are some examples of new insurance products that explicitly include an objective and transparent association with social causes, highlighting their differences from traditional insurance companies that do not incorporate social responsibility in their mission.

Besides the six main paths recommended to deepen relationships between the stakeholders in this industry, mainly concerned with the role of insurance companies, we also propose an evolution in the priorities of intermediaries. The use of new technologies can significantly strengthen the competitiveness of the intermediary by improving the value created for the customer. The development of basic versions of insurance products, simple and easy to understand, forces the intermediary to upscale in the insurance value chain, considering it will not be competitive in relation to new digital distribution channels when dealing with these lower segments of products. The technologies may satisfy customers' need for simple products in terms of both price and convenience. Hence, unspecialized intermediaries, selling exclusively simple or undifferentiated products, will tend to disappear because they will not have arguments to fight online selling on insurers' web sites, by aggregators that automatically compare alternative offers, or by the big tech firms, such as Alphabet (Google), Amazon or Alibaba. However, specialized intermediaries, focused on specific risks, activities or customer profiles, will tend to become more important considering the increasing complexity of the risks that customers need to manage in their familial or business activities.

Insurance companies must recognize the importance of developing closer relationships with intermediaries, totally adequate in this new competitive landscape, developing

programmes to refocus intermediaries where they can be more valuable, and redesigning their remuneration models considering today's omnichannel environment.

We also argue that social media will play an increasingly important role in customer loyalty. There are many dimensions where social media may become a powerful tool, such as the identification of new needs, the generation of ideas for product development, the establishment of dialogues on topics relevant to the community, alerting the public to risks such as natural catastrophes, increasing the rigour of pricing and subscription, preventing and detecting fraud, and supporting communities. There are not many cases of insurance companies with successful social media strategies when considering the number of followers and interaction in the industry.

We consider that insurance companies should accelerate the development of competences related to social media management and improve their value creation strategies towards becoming a holistic protector partner for customers. Hence, social media may constitute another powerful tool to strengthen relationships with customers and increase loyalty.

The current situation in terms of customer loyalty in insurance is also a responsibility of insurance companies, as this study shows. Technological advancements provide the means and tools that allow insurers to significantly overcome their vulnerability of weak customer relationships with impactful consequences for firms in terms of product cancellations that cost them millions of euros every year. Technological innovation has become a competitive requirement that needs to be deeply understood and applied in loyalty strategies.

But the technological transformation of insurance also brings new social responsibilities to insurance companies and raises new ethical and regulatory questions that need to be monitored. On a micro level, it is important that all customers are inside the insurance ecosystem and deserve fair treatment from insurance providers. The new value propositions also need to respect barriers to the use of personal customer data, which, in Europe, are established by the GDPR. On a macro level, the challenge of sustainability and climate change must become a priority for insurance companies, whose commitment is evidenced by the integration of these dimensions in risk evaluation and pricing, and in the activities where their funds are invested. Furthermore, insurance protection gaps that leave individuals, households, firms and the public sector underinsured, and consequently without protection to random events such as natural catastrophes, cyber, healthcare and pension risks, can be mitigated by technology. Long-lasting relationships based on trust and mutual knowledge between insurance customers and providers, with much lower

product cancellation rates and loyal customers, are a determinant step towards a new paradigm where companies are more competitive and profitable, and customers better served.

6.2) Research limitations

Each of the three studies that comprise this thesis has its own limitations related to its specific processes and methodologies, as mentioned in the articles. In this regard, a common limitation to all the articles in the research is the difficulty inherent in obtaining data from firms, even more those addressing customers' relationships with their service and product providers. This limitation, which is generalized to any study about insurance customer dynamics and in all the geographies where these research have been conducted, can explain the low level of academic research in this field. The confidentiality of customer retention metrics and other customer management indicators in insurance companies is a difficulty and, in some cases, a barrier to the development of scientific investigation on this subject. Considering the current research, it would be important to have accessed more comprehensive data about the customers and the motor policies analysed in the second article to provide more detailed explanations to the results obtained. Both academia and the insurance industry would benefit if a new paradigm of information exchange were adopted.

6.3) Paths for future research

This study opens new avenues for research into customer loyalty in the insurance industry in terms of the strategies deployed by insurance companies to improve their performance, and regarding measurement of the impacts.

The analysis of the impact of the measures identified in this study aimed to reduce the cancellation of insurance policies. Tactical and strategic lines of business development identified in this research can be studied in applied situations. Tactically, the processes identified are related to the revision of penalties applied to customers when claims occur, payment options, and the establishment of new forms of relationships with intermediaries that can be very important to mitigate their interest in having customers rotate between

insurance companies. Regarding the insurance companies' strategy, instead of focusing on customer acquisition targeting undifferentiated segments with the objective of improving short-term results, we recommend concentrating on efforts to retain the most valuable customers and those vulnerable to other offers. Integrating customer retention programmes with a firm's marketing strategy and activities will produce a long-term impact on firms' ROI and customer loyalty that should be further researched and investigated.

A second line of future study is the impact of digital technologies and new data sources on the development of new loyalty strategies. This will certainly be relevant, although it is not clear, for instance, which technology (or combination of technologies), lines of business and customer segments (or functions) will be more successful in the future. Hence, it is important to increase scientific research on the impact of new technologies and software usage on customer loyalty as new value propositions are offered to customers. Future approaches will need to feature more creative, innovative and relevant benefits, including consistent holistic experiences that transcend solely online or offline purchase activities. The emergence of social media, new technology innovations and process disruptions can create enhanced customer experiences and new approaches to transform services. Insurance companies' efforts to secure successful business models will certainly impact customer loyalty in a way that should be characterized in scientific terms. Particularly, the impact of big tech companies such as Amazon, Alphabet (Google), Facebook, Apple or Alibaba should be studied in the redefinition of convenience, speed, value and ease of use of new standards in insurance, considering the different segments of customers and lines of business.

Finally, this analysis is mainly focused on non-life products and individual customers. Although the cancellation of insurance is a much more unpredictable and challenging business problem in these cases, as previously demonstrated, it would be interesting to broaden this analysis to life insurance and to organizational customers.

References

- Abdelfattah, F. A., Rahman, M. S. and Osman, M. (2015) 'Assessing the antecedents of customer loyalty on healthcare insurance products: Service quality; perceived value embedded model', *Journal of Industrial Engineering and Management*, 8(5), pp. 1639–1660. doi: 10.3926/jiem.1494.
- Agresti, A. (2002) *Categorical Data Analysis*. 2nd ed. Hoboken, NJ: Wiley. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edsebk&AN=769330&site=eds-live>.
- Agresti, A. and Kateri, M. (2014) 'Some Remarks on Latent Variable Models in Categorical Data Analysis', *Communications in statistics-Theory and Methods*, 43(4), pp. 801–814. doi: 10.1080/03610926.2013.814783.
- Ailawadi, K., Pauwels, K. and Steenkamp, J.-B. (2008) 'Private-Label Use and Store Loyalty', *Journal of Marketing*, 72, pp. 19–30. doi: 10.1509/jmkg.72.6.19.
- Aizpún, F. C., Dai, X. and Lechner, R. (2020) *Swiss Re sigma No 3 /2021: World insurance: the recovery gains pace*. Zurich.
- Albort-Morant, G. and Ribeiro-Soriano, D. (2016) 'A bibliometric analysis of international impact of business incubators', *Journal of Business Research*, 69(5), pp. 1775–1779. doi: 10.1016/j.jbusres.2015.10.054.
- Allaway, A. W., Gooner, R. M., Berkowitz, D. and Davis, L. (2006) 'Deriving and exploring behavior segments within a retail loyalty card program.', *European Journal of Marketing*, 40(11/12), pp. 1317–1339. doi: 10.1108/03090560610702830.
- Amador, D.-S., Cruz, D. R.-R. M. de la, José, Á.-G. and Fernando, G.-V. D. (2019) 'Mapping of scientific coverage on education for Entrepreneurship in Higher Education', *Journal of Enterprising Communities: People and Places in the Global Economy*, 13(1/2), pp. 84–104. doi: 10.1108/JEC-10-2018-0072.
- Anderson, E. W. and Mittal, V. (2000) 'Strengthening the Satisfaction-Profit Chain.', *Journal of Service Research*, 3(2), pp. 107–120. doi: 10.1177/109467050032001.
- Antón, C., Camarero, C. and Carrero, M. (2007) 'Analysing firms' failures as determinants of consumer switching intentions: The effect of moderating factors', *European Journal of Marketing*, 41(1–2), pp. 135–158. doi: 10.1108/03090560710718157.

- Artís, M., Ayuso, M. and Estany, M. G. (1999) 'Modelling different types of automobile insurance fraud behaviour in the Spanish market', *Insurance Mathematics and Economics*, 24(1), pp. 67–81. doi: 10.1016/S0167-6687(98)00038-9.
- Ascarza, E., Neslin, S. A., Netzer, O., Anderson, Z., Fader, P. S., Gupta, S., Hardie, B. G. S., Lemmens, A., Libai, B., Neal, D. and Provost, F. (2018) 'In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions.', *Customer Needs & Solutions*, 5(1/2), pp. 65–81. doi: 10.1007/s40547-017-0080-0.
- ASF (2020) *Relatório de Evolução da Atividade Seguradora - 1.o Semestre de 2020*. Lisbon.
- Associação Portuguesa de Seguradores (2019) *Insurance in Portugal 2018 / 2019*. Lisbon.
- Avram, K., Nguyen, Y. N. and Skully, M. T. (2010) *Insurance and Economic Growth: A Cross Country Examination*, Australian Centre for Financial Studies - Finsia Banking and Finance Conference 2010. Vitoria. doi: 10.2139/ssrn.1646757.
- Ayuso, M., Estany, M. G. and Nielsen, J. P. (2018) 'Improving automobile insurance ratemaking using telematics: incorporating mileage and driver behaviour data', *Transportation*, pp. 1–18. doi: 10.1007/s11116-018-9890-7.
- Baber, R., Kaurav, R. P. S. and Paul, J. (2020) 'Impact of individual market orientation on selling and customer orientation', *Journal of Strategic Marketing*, 28(4), pp. 288–303. doi: 10.1080/0965254X.2018.1489880.
- Banyte, J., Tarutė, A. and Taujanskyte, I. (2014) 'Customer Engagement into Value Creation: Determining Factors and Relations with Loyalty', *Engineering Economics*, 25, pp. 568–577. doi: 10.5755/j01.ee.25.5.8402.
- Beloucif, A., Donaldson, B. and Kazanci, U. (2004) 'Insurance broker --client relationships: An assessment of quality and duration.', *Journal of Financial Services Marketing*, 8(4), pp. 327–342. Available at: <http://search.ebscohost.com/login.aspx?direct=true&site=eds-live&db=bth&AN=13169535>.
- Bhatnagar, S. B., Syed, A. A. and Mishra, J. K. (2017) 'Identifying Customer Loyalty Supporting Factors in the Retail Banking Context: An Empirical Examination', *Journal of Relationship Marketing*, 16(3), pp. 197–225. doi: 10.1080/15332667.2017.1349556.
- Bijmolt, T. H. A., Verhoef, P. C. and Dorotic, M. (2011) 'Loyalty Programs : Generalizations on Their Adoption, Effectiveness and Design', *Foundations and*

- Trends in Marketing. Edited by Now Publishers. Boston. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edsebk&AN=464014&site=eds-live>.
- Bolancé, C., Estany, M. G. and Padilla-Barreto, A. E. (2016) Predicting probability of customer churn in insurance, *Modeling and Simulation in Engineering, Economics and Management - International Conference, MS 2016, Proceedings*. doi: 10.1007/978-3-319-40506-3_9.
- Bolton, R. N., Lemon, K. N. and Verhoef, P. C. (2004) 'The Theoretical Underpinnings of Customer Asset Management: A Framework and Propositions for Future Research.', *Journal of the Academy of Marketing Science*, 32(3), pp. 271–292. doi: 10.1177/0092070304263341.
- Bombaij, N. J. F. and Dekimpe, M. G. (2020) 'When do loyalty programs work? The moderating role of design, retailer-strategy, and country characteristics', *International Journal of Research in Marketing*, 37(1), pp. 175–195. doi: 10.1016/j.ijresmar.2019.07.003.
- Bond, A. and Stone, M. (2004) 'How the automotive insurance claims experience affects customer retention.', *Journal of Financial Services Marketing*, 9(2), pp. 160–171. doi: 10.1057/palgrave.fsm.4770149.
- Braun, A., Schmeiser, H. and Schreiber, F. (2016) 'On consumer preferences and the willingness to pay for term life insurance', *European Journal of Operational Research*, 253(3), pp. 761–776. doi: 10.1016/j.ejor.2016.02.023.
- Brockett, P. L., Golden, L. L., Estany, M. G., Nielsen, J. P., Parner, J. and Perez-Marin, A. M. (2008) 'Survival Analysis of a Household Portfolio of Insurance Policies: How Much Time Do You Have to Stop Total Customer Defection?', *Journal of Risk & Insurance*, 75(3), pp. 713–737. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=33461551&site=eds-live>.
- Brophy, R. (2013a) 'Adding value to insurance products: The AXA Irish experience', *Journal of Product and Brand Management*, 22(4), pp. 293–299. doi: 10.1108/JPBM-09-2012-0183.
- Brophy, R. (2013b) 'Bancassurance: an insurance concept from a Irish perspective', *Journal of Financial Regulation and Compliance*, 21(4), pp. 319–333. doi: 10.1108/JFRC-12-2012-0052.

- Brophy, R. (2015) 'Branding and product distribution in the Irish insurance industry', Insurance Institute of Ireland: Thinkpiece.
- Caeiro, V. C. S. (2012) 'Avaliação do risco de crédito de clientes empresariais levantamento de requisitos e estimação de modelos'. Available at: Caeiro, Vera Cristina Santiago. 2011. %22Avaliação do risco de crédito de clientes empresariais levantamento de requisitos e estimação de modelos%22. Dissertação de Mestrado. Universidade Técnica de Lisboa. Instituto Superior de Economia e Gestão.
- De Cannière, M. H., De Pelsmacker, P. and Geuens, M. (2009) 'Relationship Quality and the Theory of Planned Behavior models of behavioral intentions and purchase behavior', *Journal of Business Research*, 62(1), pp. 82–92. doi: <https://doi.org/10.1016/j.jbusres.2008.01.001>.
- Castillo-Vergara, M., Alvarez-Marin, A. and Placencio-Hidalgo, D. (2018) 'A bibliometric analysis of creativity in the field of business economics', *Journal of Business Research*, 85, pp. 1–9. doi: 10.1016/j.jbusres.2017.12.011.
- Castriotta, M., Loi, M., Marku, E. and Naitana, L. (2019) 'What's in a name? Exploring the conceptual structure of emerging organizations', *Scientometrics*, 118(2), pp. 407–437. doi: 10.1007/s11192-018-2977-2.
- Chaudhuri, M., Voorhees, C. M. and Beck, J. M. (2019) 'The effects of loyalty program introduction and design on short- and long-term sales and gross profits.', *Journal of the Academy of Marketing Science*, 47(4), pp. 640–658. doi: 10.1007/s11747-019-00652-y.
- Chen, M.-F. and Wang, L.-H. (2009) 'The moderating role of switching barriers on customer loyalty in the life insurance industry.', *Service Industries Journal*, 29(8), pp. 1105–1123. doi: 10.1080/02642060902764574.
- Chen, M. K.-L. and Gardiner, E. (2019) 'Supporting older workers to work: a systematic review', *PERSONNEL REVIEW*, 48(5), pp. 1318–1335. doi: 10.1108/PR-11-2018-0455.
- Christiansen, M. C., Eling, M., Schmidt, J. and Zirkelbach, L. (2016) 'Who is Changing Health Insurance Coverage? Empirical Evidence on Policyholder Dynamics.', *Journal of Risk & Insurance*, 83(2), pp. 269–299. doi: 10.1111/jori.12053.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. and Herrera, F. (2011) 'An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the Fuzzy Sets Theory field', *Journal of Informetrics*, 5(1), pp. 146–166. doi: 10.1016/j.joi.2010.10.002.

- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. and Herrera, F. (2012) 'SciMAT: A new science mapping analysis software tool', *Journal of the American Society for Information Science and Technology*, 63, pp. 1609–1630. doi: 10.1002/asi.22688.
- Cobo, M. J., Chiclana, F., Collop, A., De Ona, J. and Herrera-Viedma, E. (2014) 'A bibliometric analysis of the intelligent transportation systems research based on science mapping', *IEEE Transactions on Intelligent Transportation Systems*, 15(2), pp. 901–908. doi: 10.1109/TITS.2013.2284756.
- Cohen, A. and Siegelman, P. (2010) 'Testing for Adverse Selection in Insurance Markets.', *Journal of Risk & Insurance*, 77(1), pp. 39–84. doi: 10.1111/j.1539-6975.2009.01337.x.
- Cooil, B., Keiningham, T. L., Aksoy, L. and Hsu, M. (2007) 'A Longitudinal Analysis of Customer Satisfaction and Share of Wallet: Investigating the Moderating Effect of Customer Characteristics.', *Journal of Marketing*, 71(1), pp. 67–83. doi: 10.1509/jmkg.71.1.067.
- Copeland, M. T. (1923) 'Relation of Consumers' Buying Habits to Marketing Methods', *Harvard Business Review*, pp. 282–289. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=7027398&site=eds-live>.
- Cox, D. R. and Snell, E. J. (1989) 'Analysis of Binary Data, Second Edition'. Routledge. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edsebk&AN=1838609&site=eds-live>.
- Dahlen, S. and Napel, S. (2004) 'Insurance intermediation — Theoretical analysis and practical issues in the european market', *Zeitschrift für die gesamte Versicherungswissenschaft*, 93, pp. 67–99. doi: 10.1007/BF03216997.
- Dalla Pozza, I., Heitz-Spahn, S. and Texier, L. (2017) 'Generation Y multichannel behaviour for complex services: the need for human contact embodied through a distance relationship', *Journal of Strategic Marketing*, 25(3), pp. 226–239. doi: 10.1080/0965254X.2017.1299785.
- Damtew, K. (2013) 'The role of “trust” in building customer loyalty in insurance sector- A study', *IOSR Journal of Business and Management*, 14, pp. 82–93. doi: 10.9790/487X-1448293.

- Dhontu, N., Kumar, S. and Pattnaik, D. (2020) 'Forty-five years of Journal of Business Research: A bibliometric analysis', *Journal of Business Research*, 109, pp. 1–14. doi: 10.1016/j.jbusres.2019.10.039.
- Dionne, G., Gouriéroux, C. and Vanasse, C. (1999) 'Evidence of Adverse Selection in Automobile Insurance Markets BT - Automobile Insurance: Road Safety, New Drivers, Risks, Insurance Fraud and Regulation', in Dionne, G. and Laberge-Nadeau, C. (eds). Boston, MA: Springer US, pp. 13–46. doi: 10.1007/978-1-4615-4058-8_2.
- Dionne, G. and Harrington, S. (2017) 'Insurance and Insurance Markets', *SSRN Electronic Journal*. doi: 10.2139/ssrn.2943685.
- Dominique-Ferreira, S. (2018) 'The key role played by intermediaries in the retail insurance distribution.', *International Journal of Retail & Distribution Management*, 46(11), pp. 1170–1192. doi: 10.1108/IJRDM-10-2017-0234.
- Dominique-Ferreira, S., Vasconcelos, H. and Proença, J. F. (2016) 'Determinants of customer price sensitivity: an empirical analysis', *Journal of Services Marketing*, 30(3), pp. 327–340. doi: 10.1108/JSM-12-2014-0409.
- East, R., Harris, P., Lomax, W., Willson, G. and Hammond, K. (1998) 'Customer Defection From Supermarkets.', *Advances in Consumer Research*, 25(1), pp. 507–512. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=83386486&site=eds-live>.
- van Eck, N. J. and Waltman, L. (2010) 'Software survey: VOSviewer, a computer program for bibliometric mapping', *Scientometrics*, 84(2), pp. 523–538. doi: 10.1007/s11192-009-0146-3.
- Eckardt, M. and Rähke-Döppner, S. (2010) 'The Quality of Insurance Intermediary Services—Empirical Evidence for Germany.', *Journal of Risk & Insurance*, 77(3), pp. 667–701. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=52649159&site=eds-live>.
- Edelman, D. C. and Singer, M. (2015) 'Competing on Customer Journeys.', *Harvard Business Review*, pp. 88–97. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=110320330&site=eds-live>.

- Eggert, A., Henseler, J. and Hollmann, S. (2012) 'Who Owns the Customer? Disentangling Customer Loyalty in Indirect Distribution Channels.', *Journal of Supply Chain Management*, 48(2), pp. 75–92. doi: 10.1111/j.1745-493X.2011.03260.x.
- EIOPA (2018) Insurance Distribution Directive - Evaluation of the structure of insurance intermediaries markets in Europe. Luxembourg. doi: 10.2854/422696.
- Els, B., Bijmolt, T., Zhang, J., Basso, L., Dorotic, M., Kopalle, P., Minnema, A., Mijnlief, W. and Wunderlich, N. (2014) 'Advancing research on loyalty programs: a future research agenda', *Marketing Letters*, 26. doi: 10.1007/s11002-014-9311-4.
- Elsevier B.V. (2020) How are CiteScore metrics used in Scopus? Available at: https://service.elsevier.com/app/answers/detail/a_id/14880/supporthub/scopus/ (Accessed: 15 June 2020).
- Epetimehin, F. M. (2011) 'A study of the factors enhancing the purchase of life insurance in Nigeria', *International Business Management*, 5(3), pp. 124–128. doi: 10.3923/ibm.2011.124.128.
- Estany, M. G., Parner, J., Densgoe, C. and Perez-Marin, A. (2003) 'Using Logistic Regression Models to Predict and Understand Why Customers Leave an Insurance Company', in Shapiro, A. F. and Jain, L. C. (eds) *Intelligent and Other Computational Techniques in Insurance: Theory and Applications*. Singapore: World Scientific Publishing, pp. 465–490. doi: 10.1142/9789812794246_0013.
- Estany, M. G., Nielsen, J. P., Scheike, T. H. and Pérez-Marín, A. M. (2012) 'Time-varying effects in the analysis of customer loyalty: A case study in insurance', *Expert Systems With Applications*, 39(3), pp. 3551–3558. doi: 10.1016/j.eswa.2011.09.045.
- Estany, M. G., Nielsen, J. P. and Perez-Marin, A. M. (2009) 'Cross-buying behaviour and customer loyalty in the insurance sector', *Esic Market*, 132(January-April), pp. 77–105.
- Estany, M. G., Nielsen, J. P. and Pérez-Marín, A. M. (2008) 'The Need to Monitor Customer Loyalty and Business Risk in the European Insurance Industry.', *Geneva Papers on Risk & Insurance - Issues & Practice*, 33(2), pp. 207–218. doi: 10.1057/gpp.2008.1.
- European Parliament - Council of the European Union (2016) Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution. Available at: <http://data.europa.eu/eli/dir/2016/97/oj>.

- Evanschitzky, H., Ramaseshan, B., Woisetschläger, D. M., Richelsen, V., Blut, M. and Backhaus, C. (2012) 'Consequences of customer loyalty to the loyalty program and to the company', *Journal of the Academy of Marketing Science*, 40(5), pp. 625–638. doi: 10.1007/s11747-011-0272-3.
- Evanschitzky, H. and Wunderlich, M. (2006) 'An Examination of Moderator Effects in the Four-Stage Loyalty Model.', *Journal of Service Research*, 8(4), pp. 330–345. doi: 10.1177/1094670506286325.
- Felício, J. A. and Freire, C. R. (2016) 'From customer motivation to corporate performance. The role of strategic factors and distribution channels of financial service firms', *Service Business*, 10(1), pp. 135–157. doi: 10.1007/s11628-014-0260-z.
- Ferguson, R. and Hlavinka, K. (2006) 'Loyalty trends 2006: Three evolutionary trends to transform your loyalty strategy', *Journal of Consumer Marketing*, 23, pp. 292–299. doi: 10.1108/07363760610681682.
- Foxall, G. (2005) *Understanding Consumer Choice*. Hampshire: Palgrave Macmillan Ltd.
- Frank, R. G. and Lamiraud, K. (2009) 'Choice, price competition and complexity in markets for health insurance', *Journal of Economic Behavior and Organization*, 71(2), pp. 550–562. doi: 10.1016/j.jebo.2009.04.005.
- Frees, E. W., Bolancé, C., Estany, M. G. and Valdez, E. (2018) 'Joint Models of Insurance Lapsation and Claims'. Available at: <http://arxiv.org/abs/1810.04567>.
- Fu, L. and Wang, H. (2015) 'Estimating Insurance Attrition Using Survival Analysis.', *Variance: Advancing the Science of Risk*, 8(1), pp. 55–72. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=102816265&site=eds-live>.
- Fullerton, G. (2003) 'When Does Commitment Lead to Loyalty?', *Journal of Service Research*, 5(4), pp. 333–344. doi: 10.1177/1094670503005004005.
- Gallo, A. (2014) 'The Value of Keeping the Right Customers.', *Harvard Business Review Digital Articles*, pp. 2–5. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=118647860&site=eds-live>.
- Gamble, A., Juliusson, E. A. and Gärling, T. (2009) 'Consumer attitudes towards switching supplier in three deregulated markets', *Journal of Socio-Economics*, 38(5), pp. 814–819. doi: 10.1016/j.socec.2009.05.002.

- Ganesan, S., George, M., Jap, S., Palmatier, R. W. and Weitz, B. (2009) 'Supply Chain Management and Retailer Performance: Emerging Trends, Issues, and Implications for Research and Practice', *Journal of Retailing*, 85(1), pp. 84–94. doi: <https://doi.org/10.1016/j.jretai.2008.12.001>.
- Gelder, F. van, Broström, E. and Bengtsson, V. (2018) *Growing Customer Loyalty in the Age of Disruption: A Study on the Swedish P&C Insurance Industry*. Stockholm. Available at: <https://www.differ.se/2018/06/27/growing-customer-loyalty-in-the-age-of-disruption/>.
- Guillen, M., Parner, J., Densgsoe, C. and Perez-Marin, A. M. (2003) 'Using Logistic Regression Models to Predict and Understand Why Customers Leave an Insurance Company', in *Intelligent and Other Computational Techniques in Insurance*. WORLD SCIENTIFIC (Series on Innovative Intelligence), pp. 465–490. doi: [doi:10.1142/9789812794246_0013](https://doi.org/10.1142/9789812794246_0013).
- Günther, C.-C., Tvette, I. F., Aas, K., Sandnes, G. I. and Borgan, O. (2014) 'Modelling and predicting customer churn from an insurance company.', *Scandinavian Actuarial Journal*, 2014(1), pp. 58–71. doi: [10.1080/03461238.2011.636502](https://doi.org/10.1080/03461238.2011.636502).
- Gupta, S., Lehmann, D. R. and Stuart, J. A. (2004) 'Valuing Customers.', *Journal of Marketing Research (JMR)*, 41(1), pp. 7–18. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=11925397&site=eds-live>.
- Hadhek, Z. (2014) 'Insurance and Economic Growth', *Journal of Economics and Sustainable Development*, 05(12), pp. 102–112.
- Halliburton, C. and Poenaru, A. (2010) *The Role of Trust in Consumer Relationships*.
- Han, L., Li, D., Moshirian, F. and Tian, Y. (2010) 'Insurance Development and Economic Growth', *The Geneva Papers on Risk and Insurance - Issues and Practice*, 35(2), pp. 183–199. doi: [10.1057/gpp.2010.4](https://doi.org/10.1057/gpp.2010.4).
- Hansen, K. and Singh, V. (2008) 'Research Note —Are Store-Brand Buyers Store Loyal? An Empirical Investigation', *Management Science*, 54, pp. 1828–1834. doi: [10.1287/mnsc.1080.0861](https://doi.org/10.1287/mnsc.1080.0861).
- Haugen, M. and Moger, T. A. (2016) 'Frailty modelling of time-to-lapse of single policies for customers holding multiple car contracts.', *Scandinavian Actuarial Journal*, 2016(6), pp. 489–501. doi: [10.1080/03461238.2014.963886](https://doi.org/10.1080/03461238.2014.963886).

- Healey, M. and Healey, R. L. (2010) 'How to conduct a literature search', in Clifford, N., French, S., and Valentine, G. (eds) *Key methods in geography*. Second Edi. Los Angeles: Sage.
- Heidenreich, S. and Handrich, M. (2015) 'What about Passive Innovation Resistance? Investigating Adoption-Related Behavior from a Resistance Perspective', *Journal of Product Innovation Management*, 32(6), pp. 878–903. Available at: <http://gateway.isiknowledge.com/gateway/Gateway.cgi?&GWVersion=2&SrcAuth=EBSCO&SrcApp=EDS&DestLinkType=CitingArticles&KeyUT=000362499400004&DestApp=WOS>.
- Heidenreich, S., Kraemer, T. and Handrich, M. (2016) 'Satisfied and unwilling: Exploring cognitive and situational resistance to innovations', *JOURNAL OF BUSINESS RESEARCH*, 69(7), pp. 2440–2447. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000375812300015&site=eds-live>.
- Heidenreich, S. and Spieth, P. (2013) 'Why innovations fail - The case of passive and active innovation resistance', *International Journal of Innovation Management*, 17(5). doi: 10.1142/S1363919613500217.
- Henderson, C. M., Beck, J. T. and Palmatier, R. W. (2011) 'Review of the theoretical underpinnings of loyalty programs', *Journal of Consumer Psychology*, 21(3), pp. 256–276. doi: 10.1016/j.jcps.2011.02.007.
- Herhausen, D., Kleinlercher, K., Verhoef, P. C., Emrich, O. and Rudolph, T. (2019) 'Loyalty Formation for Different Customer Journey Segments', *Journal of Retailing*, 95(3), pp. 9–29. doi: 10.1016/j.jretai.2019.05.001.
- Hetts, J. J., Boninger, D. S., Armor, D. A., Gleicher, F. and Nathanson, A. (2000) 'The Influence of Anticipated Counterfactual Regret on Behavior.', *Psychology & Marketing*, 17(4), pp. 345–368. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=11580136&site=eds-live>.
- Hirsch, J. E. (2005) 'An index to quantify an individual's scientific research output.', *Proceedings of the National Academy of Sciences of the United States of America*, 102(46), pp. 16569–72. doi: 10.1073/pnas.0507655102.
- Hollebeek, L. D., Conduit, J., Sweeney, J., Soutar, G., Karpen, I., Jarvis, W. and Cheb, T. (2016) 'Epilogue to the Special Issue and reflections on the future of engagement

- research.’, *Journal of Marketing Management*, 32(5–6), pp. 586–594. doi: 10.1080/0267257X.2016.1144340.
- Iglesias, O., Markovic, S., Bagherzadeh, M. and Singh, J. J. (2020) ‘Co-creation: A Key Link Between Corporate Social Responsibility, Customer Trust, and Customer Loyalty’, *Journal of Business Ethics*, 163(1), pp. 151–166. doi: 10.1007/s10551-018-4015-y.
- Insurance Europe (2018a) DatabaseOctober2018-Distribution. Available at: <https://www.insuranceeurope.eu/insurancedata> (Accessed: 7 December 2018).
- Insurance Europe (2018b) European Insurance – Key Facts, Insurance Europe, October 2018. Brussels. Available at: <https://www.insuranceeurope.eu/european-insurance-key-facts>.
- Insurance Europe (2020) European Insurance in Figures, 2018 data. Brussels. Available at: <https://www.insuranceeurope.eu/european-insurance-figures-2018-data>.
- Insurance Europe (2021) Databasemarch2021-Total, European insurance industry database. Available at: <https://www.insuranceeurope.eu/statistics> (Accessed: 29 November 2021).
- Jacoby, J. and Chestnut, R. W. (1978) *Brand loyalty: Measurement and management*. New York: Wiley.
- Jeong, H., Gan, G. and Valdez, E. A. (2018) ‘Association Rules for Understanding Policyholder Lapses’, *Risks*, 6(3), p. 69. doi: 10.3390/risks6030069.
- Johnson, E. J., Bellman, S. and Lohse, G. L. (2003) ‘Cognitive Lock-In and the Power Law of Practice.’, *Journal of Marketing*, 67(2), pp. 62–75. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=9431559&site=eds-live>.
- Jones, M. A., Mothersbaugh, D. L. and Beatty, S. E. (2000) ‘Switching Barriers and Repurchase Intentions in Services.’, *Journal of Retailing*, 76(2), pp. 259–274. doi: 10.1016/S0022-4359(00)00024-5.
- Kannan, P. K., Reinartz, W. and Verhoef, P. C. (2016) ‘The path to purchase and attribution modeling: Introduction to special section’, *International Journal of Research in Marketing*, 33(3), pp. 449–456. doi: <https://doi.org/10.1016/j.ijresmar.2016.07.001>.
- Kim, J. J., Steinhoff, L. and Palmatier, R. W. (2020) ‘An emerging theory of loyalty program dynamics’, *Journal of the Academy of Marketing Science*. doi: 10.1007/s11747-020-00719-1.

- Kingshott, R. P. J. and Pecotich, A. (2007) 'The impact of psychological contracts on trust and commitment in supplier- distributor relationships.', *European Journal of Marketing*, 41(9/10), pp. 1053–1072. doi: 10.1108/03090510710773345.
- Kofman, P. and Nini, G. P. (2013) 'Do Insurance Companies Possess an Informational Monopoly? Empirical Evidence From Auto Insurance', *Journal of Risk and Insurance*, 80(4), pp. 1001–1026. doi: 10.1111/j.1539-6975.2012.01487.x.
- Konuş, U., Verhoef, P. C. and Neslin, S. A. (2008) 'Multichannel Shopper Segments and Their Covariates', *Journal of Retailing*, 84(4), pp. 398–413. doi: 10.1016/j.jretai.2008.09.002.
- Kopalle, P. K., Sun, Y., Neslin, S. A., Sun, B. and Swaminathan, V. (2012) 'The Joint Sales Impact of Frequency Reward and Customer Tier Components of Loyalty Programs.', *Marketing Science*, 31(2), pp. 216–235. doi: 10.1287/mksc.1110.0687.
- Krivokapic, R., Njegomir, V. and Stojic, D. (2017) 'Effects of corporate diversification on firm performance: Evidence from the Serbian insurance industry', *Economic Research-Ekonomska Istrazivanja*, 30(1), pp. 1224–1236. doi: 10.1080/1331677X.2017.1340175.
- Kumar, V. and Petersen, J. A. (2005) 'Using a customer-level marketing strategy to enhance firm performance: A review of theoretical and empirical evidence', *Journal of the Academy of Marketing Science*, 33(4), pp. 504–519. doi: 10.1177/0092070305275857.
- Kumar, V., Pozza, I. and Ganesh, J. (2013) 'Revisiting the Satisfaction–Loyalty Relationship: Empirical Generalizations and Directions for Future Research', *Journal of Retailing*, 89, pp. 246–262. doi: 10.1016/j.jretai.2013.02.001.
- de la Llave, M. Á., López, F. A. and Angulo, A. (2019) 'The impact of geographical factors on churn prediction: an application to an insurance company in Madrid's urban area.', *Scandinavian Actuarial Journal*, 2019(3), pp. 188–203. doi: 10.1080/03461238.2018.1531781.
- Labrecque, J., Wood, W., Neal, D. and Harrington, N. (2017) 'Habit slips: when consumers unintentionally resist new products.', *Journal of the Academy of Marketing Science*, 45(1), pp. 119–133. doi: 10.1007/s11747-016-0482-9.
- Lafley, A. and Martin, R. (2017) 'Customer loyalty is overrated', *Harvard Business Review*, pp. 45–54. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=120353913&sitete=eds-live>.

- Larsson, A. and Broström, E. (2019) 'Ensuring customer retention: insurers' perception of customer loyalty', *Marketing Intelligence & Planning*. Edited by B. Ellen, 38(ahead-of-print), pp. 151–166. doi: 10.1108/MIP-02-2019-0106.
- Leiria, M., Matos, N. and Rebelo, E. (2020) 'Non-life insurance cancellation: a systematic quantitative literature review', *The Geneva Papers on Risk and Insurance - Issues and Practice*. doi: 10.1057/s41288-020-00187-2.
- Leiria, M., Rebelo, E. and Matos, N. (2021) 'Measuring the effectiveness of intermediary loyalty programmes in the motor insurance industry: loyal versus non-loyal customers', *European Journal of Management and Business Economics*, ahead-of-print. doi: 10.1108/EJMBE-05-2020-0103.
- Lemon, K. N. and Verhoef, P. C. (2016) 'Understanding Customer Experience Throughout the Customer Journey.', *Journal of Marketing*, 80(6), pp. 69–96. doi: 10.1509/jm.15.0420.
- Leonidou, L. C., Kvasova, O., Leonidou, C. N. and Chari, S. (2013) 'Business Unethicality as an Impediment to Consumer Trust: The Moderating Role of Demographic and Cultural Characteristics', *Journal of Business Ethics*, 112(3), pp. 397–415. doi: 10.1007/s10551-012-1267-9.
- Leroi-Werelds, S., Streukens, S., Brady, M. K. and Swinnen, G. (2014) 'Assessing the value of commonly used methods for measuring customer value: a multi-setting empirical study', *Journal of the Academy of Marketing Science*, 42(4), pp. 430–451. doi: 10.1007/s11747-013-0363-4.
- Li, C., Wu, K. and Wu, J. (2017) 'A bibliometric analysis of research on haze during 2000–2016', *Environmental Science and Pollution Research*, 24(32), pp. 24733–24742. doi: 10.1007/s11356-017-0440-1.
- Liedtke, P. M. (2007) 'What's Insurance to a Modern Economy?', *The Geneva Papers on Risk and Insurance - Issues and Practice*, 32(2), pp. 211–221. doi: 10.1057/palgrave.gpp.2510128.
- Liljander, V., Polsa, P. and van Riel, A. (2009) 'Modelling consumer responses to an apparel store brand: Store image as a risk reducer', *Journal of Retailing and Consumer Services*, 16(4), pp. 281–290. doi: 10.1016/j.jretconser.2009.02.005.
- Lin, W.-B. (2010) 'Service failure and consumer switching behaviors: Evidence from the insurance industry', *Expert Systems with Applications*, 37(4), pp. 3209–3218. doi: 10.1016/j.eswa.2009.09.059.

- Lopes, L., Alves, H. and Brito, C. (2011) 'Lost customers: determinants and process of relationship dissolution', 40th EMAC Conference. Lyubliana, p. 7.
- Lopes, L., Brito, C. and Alves, H. (2015) Dissolução e reativação de relacionamentos no contexto dos serviços Business-to-Consumer. Universidade do Porto. Available at: <https://www.rcaap.pt/detail.jsp?id=oai:bibliotecadigital.ipb.pt:10198/12735>.
- López-Díaz, M. C., López-Díaz, M. and Martínez-Fernández, S. (2017) 'A stochastic comparison of customer classifiers with an application to customer attrition in commercial banking.', *Scandinavian Actuarial Journal*, 2017(7), pp. 606–627. doi: 10.1080/03461238.2016.1209549.
- MacStravic, S. (1994) 'Patient loyalty to physicians', *Journal of Health Care Marketing*, 14(4), pp. 53–55. Available at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-0028605909&partnerID=40&md5=42b65ccf32acc27e26326080a751c3df>.
- MAPFRE Economics (2021) 2020 ranking of the largest European insurance groups. Madrid.
- Markovic, S. and Bagherzadeh, M. (2018) 'How does breadth of external stakeholder co-creation influence innovation performance? Analyzing the mediating roles of knowledge sharing and product innovation', *Journal of Business Research*, 88, pp. 173–186. doi: <https://doi.org/10.1016/j.jbusres.2018.03.028>.
- Martínez-López, F. J., Merigó, J. M., Valenzuela-Fernández, L. and Nicolás, C. (2018) 'Fifty years of the *European Journal of Marketing*: a bibliometric analysis', *European Journal of Marketing*, 52(1/2), pp. 439–468. doi: 10.1108/EJM-11-2017-0853.
- Martínez-López, F. J., Merigó, J. M., Gázquez-Abad, J. C. and Ruiz-Real, J. L. (2020) 'Industrial marketing management: Bibliometric overview since its foundation', *Industrial Marketing Management*, 84, pp. 19–38. doi: <https://doi.org/10.1016/j.indmarman.2019.07.014>.
- McWaters, R. J. (Lead A. (2018) *The New Physics of Financial Services*.
- Mencarelli, R. and Lombart, C. (2017) 'Influences of the perceived value on actual repurchasing behavior: Empirical exploration in a retailing context', *Journal of Retailing and Consumer Services*, 38, pp. 12–21. doi: 10.1016/j.jretconser.2017.04.008.
- Milian, E. Z., Spinola, M. de M. and Carvalho, M. M. de (2019) 'Fintechs: A literature review and research agenda', *Electronic Commerce Research and Applications*, 34. doi: 10.1016/j.elerap.2019.100833.

- Miotto, A. P. and Parente, J. G. (2015) 'Retail evolution model in emerging markets: Apparel store formats in Brazil', *International Journal of Retail and Distribution Management*, 43(3), pp. 242–260. doi: 10.1108/IJRDM-03-2012-0025.
- Mirzamohammadi, S. and Hamid, M. (2019) 'Optimization of customers' trust in the insurance industry by data envelopment analysis: An actual case study', in *3rd Eu International Conference on Industrial Engineering and Operations Management, IEOM 2019*. School of Industrial Engineering, Iran University of Science and Technology, Tehran, Iran: IEOM Society, pp. 990–998. Available at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85079486826&partnerID=40&md5=13eeb110267f1c7057072f4df97dbfa7>.
- Mittal, B. (2016) 'Retrospective: why do customers switch? The dynamics of satisfaction versus loyalty.', *Journal of Services Marketing*, 30(6), pp. 569–575. doi: 10.1108/JSM-07-2016-0277.
- Mittal, V. and Kamakura, W. A. (2001) 'Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics.', *Journal of Marketing Research (JMR)*, 38(1), pp. 131–142. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=4447759&site=eds-live>.
- Moher, D., Liberati, A., Tetzlaff, J. and Altman, D. G. (2009) 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement.', *PLoS Medicine*, 6(7), pp. 1–6. doi: 10.1371/journal.pmed.1000097.
- Moldovan, S. and Goldenberg, J. (2004) 'Cellular automata modeling of resistance to innovations: Effects and solutions', *Technological Forecasting & Social Change*, 71(5), pp. 425–442. doi: 10.1016/S0040-1625(03)00026-X.
- Mosavi, S. M., Sangari, M. S. and Keramati, A. (2018) 'An integrative framework for customer switching behavior.', *Service Industries Journal*, 38(15/16), pp. 1067–1094. doi: 10.1080/02642069.2018.1428955.
- Mulrow, C. D., Cook, D. J. and Davidoff, F. (1997) 'Systematic reviews: Critical links in the great chain of evidence', *Annals of Internal Medicine*, 126(5), pp. 389–390. doi: 10.7326/0003-4819-126-5-199703010-00008.
- Murray, K. B. and Häubl, G. (2007) 'Explaining cognitive lock-in: The role of skill-based habits of use in consumer choice', *Journal of Consumer Research*, 34(1), pp. 77–88. doi: 10.1086/513048.

- Nagengast, L., Evanschitzky, H., Blut, M. and Rudolph, T. (2014) 'New Insights in the Moderating Effect of Switching Costs on the Satisfaction–Repurchase Behavior Link', *Journal of Retailing*, 90(3), pp. 408–427. doi: <https://doi.org/10.1016/j.jretai.2014.04.001>.
- Naujoks, H., Brettel, T., Singh, H., Darnell, D. and Schwedel, A. (2017) *Customer Behavior and Loyalty in Insurance: Global Edition*. Available at: <https://www.bain.com/insights/customer-behavior-loyalty-in-insurance-global-2017>.
- Norris, M. and Oppenheim, C. (2007) 'Comparing alternatives to the Web of Science for coverage of the social sciences' literature', *Journal of Informetrics*, 1(2), pp. 161–169. doi: <https://doi.org/10.1016/j.joi.2006.12.001>.
- Nunes, J. C. and Dréze, X. (2006) 'Your Loyalty Program Is Betraying You.', *Harvard Business Review*, pp. 124–131. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=19998917&site=eds-live>.
- Obalola, M. and Adelopo, I. (2012) 'Measuring the perceived importance of ethics and social responsibility in financial services: A narrative-inductive approach', *Social Responsibility Journal*, 8(3), pp. 418–432. doi: 10.1108/17471111211247992.
- OECD (2019) *Insurance Markets in Figures*, OECD Global Insurance Statistics. Available at: <https://www.oecd.org/daf/fin/insurance/> (Accessed: 7 December 2021).
- OECD (2020) *Global Insurance Market Trends 2019*. Available at: <https://www.oecd.org/daf/fin/insurance/Global-Insurance-Market-Trends-2019.pdf>.
- Ojo, M. (2012) 'Insurance sector development and economic growth in Nigeria', *African Journal of Business Management*, 6. doi: 10.5897/AJBM11.2853.
- Onwuegbuzie, A. J. and Frels, R. (2016) *Seven Steps to a Comprehensive Literature Review: A Multimodal and Cultural Approach*. Sage Publications Ltd (UK).
- Paredes, M. (2018) 'A Case Study on Reducing Auto Insurance Attrition with Econometrics, Machine Learning, and A/B Testing', in 2018 IEEE 5th International Conference on Data Science and Advanced Analytics (DSAA), Data Science and Advanced Analytics (DSAA), 2018 IEEE 5th International Conference on, DSAA, pp. 410–414. doi: 10.1109/DSAA.2018.00053.

- Patterson, P. G. and Smith, T. (2003) 'A cross-cultural study of switching barriers and propensity to stay with service providers', *Journal of Retailing*, 79(2), pp. 107–120. doi: 10.1016/S0022-4359(03)00009-5.
- Petticrew, M. and Roberts, H. (2008) *Systematic Reviews in the Social Sciences: A Practical Guide*, *Systematic Reviews in the Social Sciences: A Practical Guide*. doi: 10.1002/9780470754887.
- Pickering, C., Grignon, J., Steven, R., Guitart, D. and Byrne, J. (2015) 'Publishing not perishing: how research students transition from novice to knowledgeable using systematic quantitative literature reviews.', *Studies in Higher Education*, 40(10), pp. 1756–1769. doi: 10.1080/03075079.2014.914907.
- Pickering, C. and Byrne, J. (2014) 'The benefits of publishing systematic quantitative literature reviews for PhD candidates and other early-career researchers', *Higher Education Research and Development*, 33(3), pp. 534–548. doi: 10.1080/07294360.2013.841651.
- Pinquet, J., Estany, M. G. and Ayuso, M. (2011) 'Commitment and Lapse Behavior in Long-Term Insurance: A Case Study.', *Journal of Risk & Insurance*, 78(4), pp. 983–1002. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=67365249&site=eds-live>.
- Podsakoff, P. M., MacKenzie, S. B., Podsakoff, N. P. and Bachrach, D. G. (2008) 'Scholarly influence in the field of management: A bibliometric analysis of the determinants of University and author impact in the management literature in the past quarter century', *Journal of Management*, 34(4), pp. 641–720. doi: 10.1177/0149206308319533.
- Publications Office of the European Union (2019) *2019 Consumer Trends Report*. Luxembourg. doi: 10.2854/143157.
- Qi, Y. and Ming-Xia, L. (2014) 'Ethical leadership, organizational identification and employee voice: examining moderated mediation process in the Chinese insurance industry', *Asia Pacific Business Review*, 20(2), pp. 231–248. doi: 10.1080/13602381.2013.823712.
- van Raan, A. F. J. (2005) 'Measuring Science BT - Handbook of Quantitative Science and Technology Research: The Use of Publication and Patent Statistics in Studies of S&T Systems', in Moed, H. F., Glänzel, W., and Schmoch, U. (eds). Dordrecht: Springer Netherlands, pp. 19–50. doi: 10.1007/1-4020-2755-9_2.

- Ram, S. (1989) 'Successful innovation using strategies to reduce consumer resistance. An empirical test', *The Journal of Product Innovation Management*, 6(1), pp. 20–34. doi: 10.1016/0737-6782(89)90011-8.
- Ramesh Kumar, S. and Advani, J. Y. (2005) 'Factors Affecting Brand Loyalty: A study in an emerging market on fast moving consumer goods', *Journal of Customer Behavior*, pp. 251–275. doi: 10.1362/1475392054797223.
- Rawson, A., Duncan, E. and Jones, C. (2013) 'The truth about customer experience', *Harvard Business Review*, pp. 90–98. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=89716235&site=eds-live>.
- Reichheld, F. F. (1996) 'Learning from Customer Defections.', *Harvard Business Review*, pp. 56–67. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=9603067619&site=eds-live>.
- Reuss, A. L. (2002) *Statistical prediction of cancellation behavior among holders of motor insurance contracts in Germany*. San Diego State.
- Robson, J. (2015) 'General insurance marketing: A review and future research agenda.', *Journal of Financial Services Marketing*, 20(4), pp. 282–291. doi: 10.1057/fsm.2015.20.
- Robson, J. and Sekhon, Y. (2011) 'Addressing the research needs of the insurance sector', *International Journal of Bank Marketing*, 29(7), pp. 512–516. doi: 10.1108/02652321111177795.
- Robson, J., Sekhon, Y. and Ning, H. S. (2016) 'Understanding the strain of inter-personal relationships on employees.', *Journal of Business & Industrial Marketing*, 31(8), pp. 995–1003. doi: 10.1108/JBIM-10-2016-272.
- Saeed, M. and Hamid, M. (2019) *Optimization of customers' trust in the insurance industry by data envelopment analysis: An actual case study*.
- Sanchez, M. and Iniesta, M. A. (2004) 'The structure of commitment in consumer-retailer relationships: Conceptualization and measurement.', *International Journal of Service Industry Management*, 15(3), pp. 230–249. doi: 10.1108/09564230410540917.
- Scardovi, C. (2017) 'Transformation in Insurance', in *Digital Transformation in Financial Services*, pp. 163–185. doi: https://doi.org/10.1007/978-3-319-66945-8_10.

- Schanz, K.-U. (2018) Understanding and Addressing Global Insurance Protection Gaps. Zurich. Available at: <https://www.genevaassociation.org/research-topics/socio-economic-resilience/research-brief-global-insurance-protection-gaps> (Accessed: 27 November 2021).
- Scimago Lab (2020a) Scimago Journal & Country Rank. Available at: <https://www.scimagojr.com/> (Accessed: 15 June 2020).
- Scimago Lab (2020b) SJR-Help. Available at: <https://www.scimagojr.com/help.php> (Accessed: 15 June 2020).
- Short, P. F., Graefe, D. R. and Cathy, S. (2003) 'Churn, churn, churn: how instability of health insurance shapes America's uninsured problem.', Issue Brief (Commonwealth Fund), pp. 1–16. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=14621666&site=eds-live>.
- Singh, J., Iglesias, O. and Batista-Foguet, J. (2012) 'Does Having an Ethical Brand Matter? The Influence of Consumer Perceived Ethicality on Trust, Affect and Loyalty.', *Journal of Business Ethics*, 111(4), pp. 541–549. doi: 10.1007/s10551-012-1216-7.
- Sousa, C. M. P. and Coelho, F. (2013) 'Exploring the relationship between individual values and the customer orientation of front-line employees', *Journal of Marketing Management*, 29(15–16), pp. 1653–1679. doi: 10.1080/0267257X.2013.798674.
- Spenner, P. and Freeman, K. (2012) 'To Keep Your Customers, Keep It Simple.', *Harvard Business Review*, pp. 108–114. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=74458912&site=eds-live>.
- Staib, D., Cabral, C. D. S. R., Kubli, D. and Dornigg, J. (2020) *Sigma 4 / 2020*. Zurich. Available at: institute.swissre.com/sigma.
- Staudt, Y. and Wagner, J. (2018) 'What policyholder and contract features determine the evolution of non-life insurance customer relationships?: A case study analysis', *International Journal of Bank Marketing*, 36(6), pp. 1098–1124. doi: 10.1108/IJBM-11-2016-0175.
- Steinhart, Y. and Mazursky, D. (2010) 'Purchase availability and involvement antecedents among financial products.', *International Journal of Bank Marketing*, 28(2), pp. 113–135. doi: 10.1108/02652321011018314.

- Suzuki, M., Pai, C.-F. and Islam, M. J. (2018) 'Systematic Quantitative Literature Review on Criminological Theories in Asia.', *Asian Journal of Criminology*, pp. 129–151. doi: 10.1007/s11417-017-9262-9.
- Svensson, G. (2010) 'SSCI and its impact factors: a "prisoner's dilemma"?', *EUROPEAN JOURNAL OF MARKETING*, 44(1–2), pp. 23–33. doi: 10.1108/03090561011008583.
- Swiss Re Institute (2017) *Sigma 3 / 2017*. Zurich. Available at: <https://www.swissre.com/institute/research/sigma-research/sigma-2017-03.html>.
- Swiss Re Institute (2018) *Sigma 3 /2018*. Zurich. Available at: [institute.swissre.com/sigma](https://www.swissre.com/institute/research/sigma-research/sigma-2018-03.html).
- Swiss Re Institute (2019) *Sigma 3 / 2019*. Zurich. Available at: <https://www.swissre.com/institute/research/sigma-research/sigma-2019-03.html>.
- Szmigin, I. and Bourne, H. (1998) 'Consumer equity in relationship marketing.', *Journal of Consumer Marketing*, 15(6), pp. 544–557. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=1344002&site=eds-live>.
- Tähtinen, J. and Havila, V. (2004) 'Editorial: Enhancing Research in Exchange Relationship Dissolution.', *Journal of Marketing Management*, 20(9–10), pp. 919–926. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=14826952&site=eds-live>.
- Taylor, S. A. (2016) 'Attitude and Gender as Predictors of Insurance Loyalty', *International Journal of Psychology and Behavioral Sciences*, 6(3), pp. 99–102. doi: 10.5923/j.ijpbs.20160603.01.
- Thomas, J. S. (2001) 'A Methodology for Linking Customer Acquisition to Customer Retention.', *Journal of Marketing Research (JMR)*, 38(2), pp. 262–268. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=4628464&site=eds-live>.
- Tranfield, D., Denyer, D. and Smart, P. (2003) 'Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review.', *British Journal of Management*, 14(3), pp. 207–222. doi: 10.1111/1467-8551.00375.

- Tsoukatos, E. and Rand, G. K. (2006) 'Path analysis of perceived service quality, satisfaction and loyalty in Greek insurance', *Managing Service Quality*, 16(5), pp. 501–519. doi: 10.1108/09604520610686746.
- Tsu-Wei, Y. and Feng-Cheng, T. (2013) 'Investigating effects of relationship marketing types in life insurers in Taiwan', *Managing Service Quality: An International Journal*, 23(2), pp. 111–130. doi: 10.1108/09604521311303408.
- Twing-Kwong, S., Albaum, L. G. and Fullgrave, L. (2013) 'Trust in customer-salesperson relationship in China's retail sector', *International Journal of Retail and Distribution Management*, 41(3), pp. 226–248. doi: 10.1108/09590551311306264.
- Uncles, M. D., Dowling, G. R. and Hammond, K. (2003) 'Customer loyalty and customer loyalty programs.', *Journal of Consumer Marketing*, 20(4), pp. 294–316. doi: 10.1108/07363760310483676.
- United Nations (2019) *World Population Prospects 2019*. Available at: https://population.un.org/wpp/Publications/Files/WPP2019_Volume-I_Comprehensive-Tables.pdf.
- Veloutsou, C. and Mafe, C. (2019) 'Brands As Relationship Builders In The Virtual World: A Bibliometric Analysis', *Electronic Commerce Research and Applications*, 39, p. 100901. doi: 10.1016/j.elerap.2019.100901.
- Venkatesan, R. and Kumar, V. (2004) 'A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy.', *Journal of Marketing*, 68(4), pp. 106–125. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=14343255&site=eds-live>.
- Verhoef, P. C. and Commandeur, H. (2001) 'Driving Customer Equity, How Customer Lifetime Value is Reshaping Corporate Strategy. Roland T. Rust, Valarie A. Zeithaml, Katherine N. Lemon, The Free Press, New York; (2000), 292pp.', *Long Range Planning*, 34(6), pp. 759–762. doi: 10.1016/S0024-6301(01)00091-7.
- Verhoef, P. C. and Donkers, B. (2005) 'The effect of acquisition channels on customer loyalty and cross-buying', *Journal of Interactive Marketing*, 19(2 OP-Journal of Interactive Marketing (John Wiley & Sons). Spring2005, Vol. 19 Issue 2, p31-43. 13p.), pp. 31–43. doi: 10.1002/dir.20033.
- Verhoef, P. C. and Lemon, K. N. (2013) 'Successful customer value management: Key lessons and emerging trends', *European Management Journal*, 31(1), pp. 1–15. doi: 10.1016/j.emj.2012.08.001.

- Vilkaite-Vaitone, N. and Skackauskiene, I. (2020) 'Service Customer Loyalty: An Evaluation Based on Loyalty Factors', *SUSTAINABILITY*, 12(6). doi: 10.3390/su12062260.
- Watson, G., Beck, J., Henderson, C. and Palmatier, R. (2015) 'Building, measuring, and profiting from customer loyalty.', 43(6 *OP-Journal of the Academy of Marketing Science*. Nov2015, Vol. 43 Issue 6, p790-825. 36p.), p. 790. doi: 10.1007/s11747-015-0439-4.
- Weisbart, S. (2018) *How Insurance Drives Economic Growth*. New York. Available at: <https://www.iii.org/sites/default/files/docs/pdf/insurance-driver-econ-growth-053018.pdf>.
- Wilson, D. B. (2009) 'Missing a critical piece of the pie: simple document search strategies inadequate for systematic reviews', *Journal of Experimental Criminology*, 5(4), pp. 429–440. doi: 10.1007/s11292-009-9085-5.
- Wirtz, J., Xiao, P., Chiang, J. and Malhotra, N. (2014) 'Contrasting the Drivers of Switching Intent and Switching Behavior in Contractual Service Settings', *Journal of Retailing*, 90(4), pp. 463–480. doi: 10.1016/j.jretai.2014.07.002.
- Wood, W. and Neal, D. T. (2007) 'A New Look at Habits and the Habit-Goal Interface', *Psychological Review*, 114(4), pp. 843–863. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ776723&site=eds-live>.
- Woodham, O. P., Hamilton, M. L. and Leak, R. L. (2017) 'I know what I like, I like what I know: How breadth of brand experience and cognitive effort influence brand switching', *Journal of Marketing Theory & Practice*, 25(2), pp. 141–159. doi: 10.1016/S1057-7408(07)70037-2.
- Xue, F. (2008) 'The moderating effects of product involvement on situational brand choice', *Journal of Consumer Marketing*, 25(2), pp. 85–94.

Annexes

Annex 1: Largest insurance groups in european countries - Total premiums (life and non-life)

Country (2018)	Largest Insurance Group		2nd largest		3rd largest	
	Group	Gross Written Premiums (€m)	Group	Gross Written Premiums (€m)	Group	Gross Written Premiums (€m)
Austria	Vien Insurance Group	3 912	UNIQA	3 717	Generali	2 643
Belgium	AG Insurance	6 149	AXA	3 433	Ethias	2 628
Bulgaria	KBC Group	170	VIG Vien Insurance Group	166	Lev Ins	146
Switzerland	AXA	9 944	Swiss Life	8 141	Helvetia	4 530
Czech Republic	VIG	1 960	Generali	1 557	Allianz	520
Germany	Allianz	0	Generali	0	Ergo	0
Estonia	Swedbank Group	137	VIG Group	122	Sampo Group	96
Spain	Vidacaixa	8 217	Mapfre	7 291	Mutua Madrileña	5 270
Finland	Ilmarinen	5 410	Varma	5 118	Elo	3 640
France	CREDIT AGRICOLE	26 307	AXA	22 593	CNP ASSURANCES	19 330
Croatia	Croatia	372	Allianz	157	Euroherc	151
Italy	Generali	24 202	Intesa Sanpaolo	19 264	Poste Vita	16 797

(cont.)

Annex 1: Largest insurance groups in european countries - Total premiums (life and non-life) (cont.)

Country (2018)	Largest Insurance Group		2nd largest		3rd largest	
	Group	Gross Written Premiums (€m)	Group	Gross Written Premiums (€m)	Group	Gross Written Premiums (€m)
Luxembourg	Foyer	744	La Luxembourgeoise	447	Cardif	306
Latvia	BALTA	104	BTA	79	ERGO	74
Netherlands	Achmea	18 772	VGZ	10 997	CZ	9 999
Poland	PZU	5 314	TALANX	1 755	Ergo	1 524
Portugal	Grupo Fidelidade	4 496	Ageas Grupo	2 143	Santander Totta Seguros	1 100
Sweden	Folksam	4 809	Alecta	4 039	Länsförsäkringar	3 401
Slovakia	VIG	0	Allianz	0	Generali	0
Turkey	Allianz Sigorta AŞ	959	Adolu Anonim Türk Sigorta Şirketi	941	Aksigorta AŞ	564

Source: Insurance Europe (2021)

Annex 2: Insurance companies in european countries

Country (2018)	Domestic enterprises with head offices on domestic market	Subsidiaries of EU/EEA enterprises on domestic market	Subsidiaries of third country (non- EU/EEA) enterprises on domestic market	Total
Germany	528	0	0	528
France	260	259	1	520
Sweden	301	35	0	336
Spain	215	0	0	215
Switzerland	145	47	0	192
Poland	60	60	0	120
Finland	51	51	0	102
Italy	97	0	0	97
Luxembourg	82	14	0	96
Turkey	59	25	9	93
Denmark	92	0	0	92

(cont.)

Annex 2: Insurance companies in european countries (cont.)

Country (2018)	Domestic enterprises with head offices on domestic market	Subsidiaries of EU/EEA enterprises on domestic market	Subsidiaries of third country (non- EU/EEA) enterprises on domestic market	Total
Belgium	65	0	0	65
Portugal	39	15	0	54
Bulgaria	36	14	0	50
Greece	36	13	1	50
Austria	43	0	0	43
Czech Republic	28	15	0	43
Slovakia	15	13	0	28
Estonia	11	8	0	19
Croatia	18	0	0	18
Malta	13	0	0	13
Latvia	6	3	0	9

Source: Insurance Europe (2021)

Annex 3: Life insurance real growth rate - OECD Members

Country (2018)	Real growth rate - Life	Country	Real growth rate - Life
Russia	29,9%	Lithuania	1,4%
Dominican Republic	24,9%	Norway	1,0%
United Kingdom	17,9%	Guatemala	0,8%
Portugal	15,1%	Germany	0,7%
Peru	14,6%	India	0,5%
Bolivia	14,4%	Colombia	0,1%
Nicaragua	11,8%	Switzerland	-0,1%
Sri Lanka	11,8%	Greece	-0,4%
Costa Rica	10,4%	Hungary	-0,6%
Ecuador	9,8%	Luxembourg	-0,9%
Mexico	7,8%	Indonesia	-1,3%
United States	7,3%	Estonia	-1,5%
Belgium	7,1%	Spain	-3,1%
Morocco	6,8%	Korea	-4,0%
Malaysia	6,5%	Finland	-4,8%
Hong Kong	5,6%	Slovak Republic	-5,0%
Paraguay	5,4%	Czech Republic	-5,1%
Tunisia	5,2%	Austria	-5,4%
Denmark	4,8%	Netherlands	-6,3%
Egypt	4,5%	Brazil	-7,3%
Italy	4,4%	Australia	-8,6%
Chile	3,9%	Latvia	-8,8%
Singapore	2,8%	Ireland	-10,5%
France	2,7%	Poland	-12,7%
Iceland	2,1%	Turkey	-12,9%
Slovenia	1,5%		

Source: OECD (2019)

Annex 4: Non-life insurance real growth rate - OECD Members

Country (2018)	Real growth rate non-life	Country (2018)	Real growth rate - non-life
Luxembourg	35,0%	Colombia	3,3%
Latvia	16,1%	Greece	3,0%
Estonia	12,4%	Malaysia	2,5%
Spain	12,3%	Australia	2,4%
Hungary	10,7%	Brazil	1,8%
Egypt	10,1%	Korea	1,7%
Lithuania	8,2%	Austria	1,6%
Peru	8,1%	Belgium	1,3%
Slovak Republic	8,0%	France	1,3%
Norway	8,0%	United Kingdom	1,2%
Sri Lanka	7,9%	Dominican Republic	1,0%
India	7,2%	Switzerland	1,0%
Chile	7,1%	Italy	0,9%
Indonesia	7,0%	Ecuador	0,8%
Portugal	6,5%	Germany	0,8%
United States	5,7%	Nicaragua	0,7%
Iceland	5,5%	Guatemala	0,6%
Bolivia	5,5%	Mexico	-0,3%
Morocco	5,4%	Denmark	-0,5%
Poland	5,3%	Costa Rica	-1,0%
Slovenia	5,0%	Ireland	-2,3%
Czech Republic	4,7%	Tunisia	-2,4%
Paraguay	4,3%	Turkey	-5,8%
Hong Kong	3,9%	Singapore	-6,3%
Netherlands	3,7%	Finland	-19,2%
Russia	3,5%		

Source: OECD (2019)

Annex 5: Asset allocation of domestic insurance companies - all sectors
(preliminary)

OECD Member countries (2018)	Cash and deposits	Bills and bonds	Equity	Look-through of investments is not available	Others
Argentina	1,6%	53,4%	6,3%	25,2%	13,4%
Australia	10,3%	69,7%	9,7%		10,3%
Austria	4,1%	62,4%	16,5%		17,0%
Belgium	2,7%	73,4%	6,4%		17,4%
Bermuda	11,3%	81,1%	7,6%		0,0%
Bolivia	2,8%	62,3%	8,4%		26,5%
Brazil	0,8%	83,1%	13,9%		2,2%
Chile	4,6%	59,2%	7,0%		29,2%
Colombia	4,9%	80,2%	9,3%		5,6%
Costa Rica	2,7%	78,4%	4,3%		14,6%
Czech Republic	5,4%	67,6%	14,8%		12,2%
Denmark	4,3%	35,9%	40,3%	7,1%	12,5%
Ecuador	4,2%	25,5%	3,2%		67,0%
Egypt	61,1%	14,5%	5,4%		18,9%
Estonia	22,3%	70,9%	0,2%	5,8%	0,9%
Finland	9,3%	46,2%	13,4%	17,8%	13,3%
France	0,5%	69,1%	10,4%	17,9%	2,1%
Germany	1,7%	70,5%	11,6%		16,2%
Greece	8,2%	79,7%	6,1%		5,9%
Guatemala	23,8%	57,5%	1,8%		16,9%
Honduras	9,4%	21,8%	68,8%		0,0%
Hungary	4,5%	83,2%	1,1%	7,4%	3,7%
Iceland	1,1%	46,9%	20,3%	20,3%	11,4%
India		77,1%	18,4%	1,0%	3,5%
Ireland	12,9%	63,6%	5,4%	7,1%	11,0%
Israel	8,7%	49,3%	20,4%		21,6%

Source: OECD (2019)

**Annex 5: Asset allocation of domestic insurance companies - all sectors
(preliminary) (cont.)**

OECD Member countries (2018)	Cash and deposits	Bills and bonds	Equity	Look-through of investments is not available	Others
Italy		75,0%	9,5%	12,8%	2,7%
Korea	2,3%	63,7%	3,9%		30,2%
Latvia	13,3%	79,0%	2,5%		5,2%
Lithuania	7,4%	76,8%			15,8%
Luxembourg	4,5%	35,8%	3,0%		56,7%
Malaysia	7,6%	59,7%	18,2%		14,5%
Mexico	0,5%	82,9%	6,3%		10,3%
Morocco	4,5%	37,6%	49,8%		8,1%
Netherlands	3,9%	54,3%	2,9%	7,1%	31,8%
Nicaragua	1,4%	79,5%	1,0%		18,1%
Norway	1,1%	76,5%	19,6%		2,7%
Paraguay	22,8%	70,7%	2,0%		4,5%
Peru	4,6%	73,8%	7,8%		13,8%
Poland	5,1%	63,8%	22,4%		8,7%
Portugal	10,2%	75,5%	8,7%		5,6%
Russia	25,2%	40,4%	6,4%	0,3%	27,7%
Singapore	5,6%	61,3%	12,4%	16,1%	4,5%
Slovenia	3,7%	75,9%	13,4%		7,0%
Spain	8,3%	79,0%	6,7%		5,9%
Sri Lanka	16,0%	55,5%	11,7%	1,4%	15,4%
Switzerland	5,6%	47,6%	5,8%		41,0%
Tunisia	20,6%	54,0%	24,4%		1,0%
Turkey	63,5%	30,0%	3,8%	1,6%	1,2%
United Kingdom	8,3%	78,9%	5,2%		7,5%
United States	3,6%	63,6%	11,7%		21,1%

Source: OECD (2019)

Annex 6: Life insurance distribution channels in selected european countries (*)

Country (2018)	Direct writing	Agents	Brokers	Other intermediaries	Bancassurance	Other
Belgium	23%	0%	41%		36%	
Bulgaria	13%	77%	23%			
Croatia	48%	21%	7%		23%	1%
France	14%	6%	11%		65%	4%
Greece	10%				36%	
Italy	10%	13%	2%		75%	
Luxembourg	15%	52%	13%		20%	
Malta	5%	14%	2%		96%	
Poland	35%	39%	4%		22%	
Portugal	3%	15%	2%		80%	
Spain	11%	16%	8%		65%	
Turkey	5%	12%	2%		80%	2%

Source: OECD (2019)

(*) the selection is based on the availability of data in the database

Annex 7: Non-life insurance distribution channels in selected european countries (*)

Country (2018)	Direct writing	Agents	Brokers	Bancassurance	Other intermediaries	Other
Belgium	19%	12%	61%	8%		
Bulgaria	15%	33%	67%	0%		
Croatia	58%	22%	12%	8%		1%
Finland	54%	38%	5%	3%		
France	33%	32%	18%	15%		2%
Germany	8%	58%	25%	6%		4%
Italy	8%	75%	10%	7%		
Luxembourg	8%	66%	26%			
Malta	37%	42%	35%	1%	1%	
Poland	14%	65%	17%	3%		1%
Portugal	7%	55%	20%	16%		2%
Spain	20%	36%	24%	13%	7%	
Turkey	11%	60%	13%	14%		3%
United Kingdom	34%	4%	51%	5%		6%

Source: OECD (2019)

(*) the selection is based on the availability of data in the database