The Application of Consumer Behaviour Analysis in Regulating Disclosure Requirements for Insurance-Based Investment Products in the European Union

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A dissertation submitted in partial fulfilment of Master of Arts in Financial Services

Faculty of Laws, University of Malta

May 2025

ABSTRACT

The purpose of this thesis is to examine and criticise the extent to which legislators and financial regulators utilise consumer behaviour analysis in the application of disclosures for insurance-based investment products across the European Union.

This research outlines the key disclosures found in the legislative framework related to the distribution of insurance-based investment products. It further explores how financial decision making can be made through mental heuristics along with the tools that can be used to capture such subconscious information.

By then analysing case studies, this study concludes that the application of consumer behaviour in the creation of disclosures for insurance-based investment products is sorely limited. The benefits of consumer behaviour analysis are drawn from similar sectors and on this basis a proposal is made to ensure that human heuristics are considered by legislators and regulators to build more effective disclosure regimes. The study discusses that since the subconscious, natural reactions that consumers have to information dissemination are being largely ignored, despite a wider acknowledgement of the importance of considering mental heuristics, disclosures are not fulfilling their goals. This study provides legislators and regulators with a substantiated recommendation to establish disclosure requirements on unbiased, information gathered through neurophysiological tools.

Keywords: consumer behaviour analysis, disclosure, heuristics, insurance-based investment products, regulation.

DEDICATION

To my wife, I am forever grateful to you for steering the ship while I fulfilled this journey.

To my children, I hope this inspires you to work towards your goals and never stop looking for answers.

To my younger self, life finds a way.

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ACKNOWLEDGEMENTS

I am grateful to the Malta Financial Services Authority for reigniting my academic curiosity and for their continuous support. In particular, I would like to thank my close colleagues for accommodating me when needed and for their constant encouragement.

I extend my gratitude to my supervisor, Prof. Christopher P. Buttigieg, for his valuable insights, comments and guidance.

TABLE OF ABBREVIATIONS

Full title	**Acronym**
Electroencephalography	EEG
European Banking Authority	EBA
European Insurance and Occupational Pensions Authority	EIOPA
European Securities and Markets Authority	ESMA
European Supervisory Authorities	ESAs
Functional Magnetic Resonance Imaging	fMRI
Insurance Distribution Directive	IDD
Insurance Product Information Document	IPID
Insurance-Based Investment Product	IBIP
Key Information Document	KID
Packaged Retail and Insurance-based Investment Products	PRIIPs
Sustainable Finance Disclosure Regulation	SFDR

CHAPTER 1 – INTRODUCTION

Around €11.5 trillion is held in cash and deposits across Europe, accounting for about one-third of households' total financial assets.[1]

1.1 Dissertation Overview

Even in its most standard form, an insurance-based investment product ("IBIP") may be complex and difficult to understand. Yet, these products remain a relatively popular savings and investment option for retail investors.[2] Therefore legislators and regulators, in a bid to protect investors, have conceived a framework of disclosures that must be provided to clients, particularly prior to the sale of the product, in a bid to offer simplicity and comparability and reduce information asymmetry. It is becoming increasingly clear however that these disclosures are not reaching their goals.[3] Clients are being overloaded with information, cash is remaining dormant, and investment returns are not always in line with client expectations. This dissertation will therefore challenge how regulatory disclosure frameworks for IBIPs are crafted. Disclosures may not be reaching their goals because humans make irrational financial decisions through mental heuristics.[4] This thesis will outline that the bodies responsible for creating the relative disclosure regime are not making a meaningful effort to understand how consumers naturally react to disclosures and are therefore unable to come up with disclosures that are appreciated by consumers. This thesis will therefore highlight a new understanding and methodology for consumer testing

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[1] Christine Lagarde, 'Follow the Money: Channelling Savings into Investment and Innovation in Europe' (*European Central Bank*, 22 November 2024) <https://www.ecb.europa.eu/press/key/date/2024/html/ecb.sp241122~fb84170883.en.html> accessed 5 April 2025.
[2] Maria Attard, 'An Analysis on the Factors Leading to Take Life Insurance' (University of Malta 2019).
[3] Insurance Europe, 'Insight Briefing: Better, Not More, Information for Consumers'.
[4] Gerd Gigerenzer and Wolfgang Gaissmaier, 'Heuristic Decision Making' (2011) 62 Annual Review of Psychology 451.

of disclosure of IBIPs, using neurophysiological tools to capture subconscious decision-making information, that in turn can be used to create meaningful disclosure.

1.2 Research Objectives and Questions

The main objective of this thesis will be to first understand how consumer behaviour analysis has been implemented in the creation and testing of disclosures for IBIPs. This will be possible by outlining the applicable regulatory framework and exploring tools that can be used to carry out such analysis.

The main research question to be addressed is,

- *How are legislators and regulators applying consumer behaviour analysis to establish regulatory disclosures for IBIPs?*

This will be answered also through the following supplementary questions,

- *What disclosures for IBIPs are mandated in the current framework?*
- *Are the current disclosures effective and if not, why?*
- *What tools can be used to carry out effective consumer behaviour analysis?*
- *What evidence is there to showcase the benefits of consumer behaviour analysis in contrast to traditional methods of data collection?*

In the absence of evidence of consumer behaviour analysis for IBIPs, case studies from similar sectors and industries can be highlighted to showcase the benefits of such an approach.

1.3 Research Outline and Relevance

The Introduction chapter outlines the objectives and research questions, together with the outline and relevance of the thesis. It also introduces the key concepts of IBIPs, disclosure as a regulatory tool and behavioural biases.

The Literature Review of this dissertation will outline the main retail product disclosure requirements imposed for IBIPs. It will then explore the concept of irrational consumer behaviour and the tools that can be carried out to conduct consumer testing.

The Methodology chapter will outline how a doctrinal and case study approach will allow for information to be collected and analysed.

Iin the following chapter of Analysis and Discussion this dissertation will criticise the extent of consumer testing adopted for IBIPs, and the relevance and effectiveness of tools employed, while also considering and contrasting similar experiments for related sectors and industries.

The findings will then lead to a series of observations within the Conclusion of this thesis, particularly any shortcomings and missed opportunities, with proposals for regulatory bodies to utilise better methodologies to create effective disclosure.

This dissertation also appears to be an original attempt at putting together the fragmented efforts of different bodies that carried out consumer testing for disclosures on IBIPs. It will seek to assist legislators and regulators by criticising the limited application of consumer testing and provide insights into innovative solutions for long-standing issues concerning disclosure. To achieve this, it is important to introduce the concepts of insurance, regulatory disclosure, consumer behaviour, and their relationship.

1.4 Insurance and Insurance as an Investment Product

Insurance, in its most basic form, is a transfer of risk. A policyholder, the person transferring their risk, enters into a contract with an insurance undertaking, where the undertaking is agreeing to indemnify the policyholder should the policyholder experience a loss, subject to certain terms and conditions, including the payment of a premium by the policyholder to the insurance undertaking. A contract of life insurance, in its most standard form, provides a payment of a predetermined sum to the heirs, or persons as otherwise agreed, of the policyholder in the event that the policyholder loses their life. Common examples of this type of insurance include level or decreasing term life insurance contracts, and are commonly requested by banks as collateral against relatively larger loan facilities. An insurance-based investment product is a type of life insurance contract where part of the premium paid by the policyholder is used as life cover as just described, where then the remaining premium is directed towards investment purposes, such as shares or bonds, commonly referred to as 'units'. This is where the term 'unit-linked' derives its name, a popular type of IBIP, as the investment part of the premium would be put towards different units of investment, as part of the life insurance contract. Apart from unit-linked, an IBIP may be a 'with-profits' type of contract, where the investment portion of the premium is wholly placed in a single underlying fund, which is tied to the contract, instead of being spread in different types of underlying investments, or units. Certain insurance undertakings are also offering a combination of these two types, which are referred to as 'hybrid' IBIPs.

The Insurance Distribution Directive[5] ("IDD"), which is the primary piece of European Union legislation that regulates how insurance products are sold across the bloc, defines an IBIP to be an "insurance product which offers a maturity or surrender value… which value is partially or wholly exposed to market fluctuations". Indeed, insurance premiums that are being invested in units are therefore subject to the opportunities and risks of those markets in which such capital is placed.

IBIPs are long-term contracts, where returns on investment are realised in the medium to long term. In her study, Attard establishes that 40.8% of the Maltese population that has a life insurance contract has taken out such a policy with the main reason being the need to have a savings plan.[6] Therefore an IBIP is not primarily seen as an investment vehicle for expeditious growth. Attard also outlines that 95% of the population would seek the 'reliability' of an insurance undertaking, in contrast with 'clear explanations' and 'easy

[5] Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution (OJ L 26).
[6] Attard (n 2).

application processes', which bear negligible importance[7]. This underlines the pivotal role of insurance undertakings as bearers of trust.

1.5 Policy and Regulation as Disclosure Tools

The regulatory landscape governing financial services, particularly in the domain of IBIPs, is generally considered complex and ever evolving. Within the European Union, the dual roles of legislators and regulators have become increasingly significant, particularly in protecting investor interests through legal frameworks and regulatory interventions. At the heart of such regulatory efforts lies the objective of influencing market dynamics and financial decision-making processes, with the ultimate aim of promoting transparency, consumer protection, and broader economic prosperity.

Legislators and regulators occupy pivotal roles within financial systems, shaping how markets operate and influencing the conduct of market participants. While the legislator sets the foundational legal framework and policy direction, regulators bring these laws into action through detailed rules, guidelines, and supervisory interventions. Thus, regulation becomes an essential intervention mechanism used to influence economic and societal behaviour to align with broader societal objectives. The strategic use of regulatory tools is therefore crucial for ensuring that financial markets function efficiently, ethically, and transparently. As such, regulation should not be seen only as a reactionary measure against market failures but also as a proactive tool that can be utilised to shape the behaviours of market participants.

As shall be discussed throughout this dissertation, one of the challenges that policymakers face is the mitigation of information asymmetry. Information asymmetry occurs when one party to a financial transaction possesses more information than the other and is considered a key challenge by financial regulators.[8] In the case of IBIPs, which are commonly regarded

[7] ibid.
[8] Christopher P Buttigieg and Sarah Pulis, 'Supervision of Conduct of Business: Ensuring a Fair Deal for Clients in Europe's Smallest Member State' (2024) 17 Law and Financial Markets Review.

to be difficult for the retail investor to understand, it is often the provider that has more detailed knowledge than the consumer, and may often lead to negative consequences for investors.[9] Such information imbalances can lead to adverse outcomes, including mis-selling practices, consumer detriment, and inefficiencies in the allocation of resources within the industry. Regulation, specifically in the form of mandatory disclosure requirements, aims directly to address these asymmetries that would be to the disadvantage of retail clients, by ensuring that consumers are adequately informed to make their financial decisions.

Disclosure regulations generally mandate financial institutions to provide clear, relevant, and comprehensive information regarding financial products, services, and associated risks. In the context of IBIPs, transparency in disclosure practices becomes particularly crucial due to the inherent complexity and long-term nature of these products. Effective disclosures serve as foundational tools for consumers to assess the benefits, costs, risks, and suitability of various financial products, thereby enabling more prudent financial decision-making. Effective disclosure fosters trust among consumers, thereby enhancing consumer confidence and market stability.[10] It can also reduce instances of mis-selling, where financial products are sold based on incomplete or misleading information, possibly leading to financial loss and consumer dissatisfaction.

Furthermore, transparent disclosure practices contribute to creating a level playing field between insurance companies, ensuring that information provided to consumers remains comparable. Comparability enhances consumer choice, as consumers can evaluate competing products based on standardised metrics such as cost and charges, risk, performance scenarios, and contractual features.

However, despite these clear benefits, the implementation of effective disclosure regulations faces considerable challenges. Research consistently indicates that simply

[9] Christopher P Buttigieg, John A Consiglio and Gerd Sapiano, ‘A Critical Analysis of the Rationale for Financial Regulation Part II: Objectives of Financial Regulation’ (2020) European Company and Financial Law Review 437.
[10] Organisation for Economic Co-Operation and Development, *Behavioural Insights and Public Policy: Lessons from Around the World* (OECD Publishing 201703-01).

providing more information does not necessarily equate to better consumer decisions.[11] Information overload, poorly designed disclosures which are complex and difficult to understand can limit the effectiveness of disclosures. Therefore, the key regulatory challenge is not only ensuring that information is provided, but also ensuring it is communicated effectively, taking into account cognitive heuristics and behavioural biases.

1.6 Behavioural Biases

This dissertation will outline that financial decision-making is inherently complex, often influenced by behavioural biases and cognitive limitations that can lead consumers to make suboptimal choices. These biases such as framing effects, overconfidence, and risk aversion, significantly impact consumer decisions, particularly when navigating complex financial products like IBIPs.[12] Regulators must therefore consider these behavioural elements when creating frameworks and policies intended to influence and steer consumer behaviour. By embedding an understanding of these biases into regulatory frameworks, legislators and regulators can enhance the effectiveness of their interventions, leading to improved consumer outcomes and a more efficient allocation of resources.

Behavioural economics widely recognises that human beings often make irrational decisions due to psychological factors. On the other hand, 'traditional' economic theories assume rational, utility-maximizing behaviour, which often fails to account adequately for real-world decision-making complexities. By incorporating insights from behavioural economics into regulatory design, policymakers can address the cognitive and emotional impacts on financial decision-making, thereby improving regulatory effectiveness and consumer outcomes.[13]

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[11] David Bawden and Lyn Robinson, 'Information Overload: An Overview' (2020) Oxford Encyclopedia of Political Decision Making.
[12] Richard H Thaler and Cass R Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (Yale University Press 2008).
[13] George Loewenstein, Cass R Sunstein and Russell Golman, 'Disclosure: Psychology Changes Everything' (2014) 6 Annual Review of Economics 391.

Understanding these biases may offer insight into addressing them. Innovative methodologies can be utilised to design and test disclosures to enhance their effectiveness. Recent advancements in consumer behaviour analysis, including neurophysiological testing methods such as eye-tracking, facial recognition, Electroencephalography ("EEG"), and functional Magnetic Resonance Imaging ("fMRI") offer promising solutions as consumer testing. These methodologies provide empirical insights into how consumers interact with and process financial disclosures, thereby enabling regulators to design disclosures more considerate of actual consumer behaviour traits.

1.7 Conclusion

In conclusion, this dissertation critically explores how regulatory frameworks, particularly IBIP disclosure requirements, are constructed, implemented, and evaluated within the EU's financial services context. This thesis will criticise how integrating advanced behavioural insights into regulatory practices is essential for ensuring that disclosure regulations achieve their intended purpose of protecting and empowering financial consumers effectively. To do so, it is imperative to outline the disclosure regime for IBIPs to understand what information clients are being provided. Similarly, the concept of consumer behaviour analysis and the tools used to collect data must be discussed. These will be highlighted in the next chapter.

CHAPTER 2 – LITERATURE REVIEW

Insurance policies have a complex nature, causing complex choices.[14]

Like chewing food and breathing, it is our unconscious mind that helps us to survive and evolve.[15]

2.1 Introduction

This chapter will outline the disclosure regime for IBIPs and examine why the doctrine of disclosure is important in this regard. The regulatory disclosures that govern the distribution of IBIPs are not found in a solitary repository or list. Therefore, this chapter will seek to conduct a legislative outline of the requirements laid out in various sections of European law, to indicate the main disclosures that must be communicated when distributing IBIPs to retail clients. This chapter will look into the main features of the primary legislations that regulate disclosures pertaining to IBIPs, being the Insurance Distribution Directive, the Packaged Retail and Insurance-based Investment Products Regulation ("PRIIPs") and their supplementing delegated regulations. This paragraph will also look into sustainability related disclosures that have been introduced more recently and are a prominent aspect of supervisory efforts.[16]

After outlining the disclosures that emanate from regulatory requirements, this chapter will dive into the topic of consumer buying behaviour. The chapter will develop the concept and examine why it is important to consider and understand buying behaviour from a neurophysiological point of view. This relatively newer school of thought, which argues that consumers do not make rational choices, or are unaware of why certain choices are made, will be discussed to gain an understanding of the intricacies of using such tools for consumer

[14] EIOPA, 'Behavioural Insights in Insurance and Pensions Supervision - EIOPA' (*EIOPA*) <https://www.eiopa.europa.eu/tools-and-data/behavioural-insights-insurance-and-pensions-supervision_en> accessed 20 January 2025.
[15] Gerald Zaltman, *How Customers Think: Essential Insights into the Mind of the Market* (Harvard Business School Publishing 2003).
[16] European Insurance and Occupational Pensions Authority, 'Sustainable Finance' (*EIOPA*) <https://www.eiopa.europa.eu/browse/sustainable-finance_en> accessed 5 April 2025.

research and testing. This chapter will then highlight the implications of consumer behaviour analysis on disclosure.

2.2 Duty of Disclosure

The fundamental principle that requires insurance undertakings and intermediaries to prompt disclosures to their potential and existing clients is that of *uberrima fides,* or 'utmost good faith', as coined in the landmark ruling of Lord Mansfield in the case of Carter vs. Boehm (1766).[17] The insurance undertaking or intermediary, together with the potential, or existing, policyholder are to openly share all relevant and material information that could impact whether each party would enter into the contract of insurance, and if so, on what terms. A contract of insurance is a contract of trust, as both parties to the contract must act in utmost good faith towards one another before, during and after the contract is in force. Lord Mansfield hence established that both insurer and insured have the duty to disclose all relevant information that could influence either party's decision to accept the terms of the contract, including premium, exclusions and whether to assume the risk transfer at all.

To facilitate this duty and to ensure that insurance distributors are disclosing material information, policymakers have outlined regulation that demonstrates what, how and when this information is to be presented.

2.3 Regulated Disclosure

Disclosures are not only made to satisfy the requirements of a contract between two parties. Aims of disclosure include to support efficient markets, ensure transparency and integrity, seek consumer protection and more broadly secure financial stability. In this regard, it is argued that "crises are crystallisers in regulatory improvements"[18], where therefore regulation is often the result of financial market turbulence. The argument as to why disclosure needs to be mandated and regulated partly stems from the fact that

[17] *Carter v Boehm* (1766) 3 Burr 1905 (King's Bench).
[18] Karel Lannoo and Arman Khachaturyan, 'Disclosure Regulation in the EU: The Emerging Framework' (Centre for European Policy Studies 2003) 48.

voluntary disclosure rarely occurs because of the high monetary and propriety costs associated with making such disclosures.[19] Furthermore, the absence of regulation cannot ensure that consumers will be in a position to access harmonised sets of publicly available information for comparison purposes, and to also distinguish between what is information and what is marketing material.[20] Therefore, for disclosure to be effective, the architecture of the disclosure system must be given considerable importance.[21]

Different types of legislation have therefore been passed and enacted to create the European framework in place today. In view that different types of legislation exist, a summary of the different types of legislation and main players will be outlined below, for a better understanding of the framework that will then follow.

2.4 European Legislative Architecture

'Regulations' are binding legislative Acts which must be implemented and applied in their entirety across the EU and therefore wholly contribute towards the harmonisation of legislation across all jurisdictions. There is no need for transposition into national law. 'Directives' are also legislative Acts that set targets for member states to achieve, where then it is the individual country that must determine how it will reach these goals, therefore offering a level of fluidity during transposition.[22] When Directives have a minimum level of harmonisation, this allows Member States to enhance the scope of regulation with further provisions at national level. In this regard, transposition into local legislation is required by member states.

[19] ibid.
[20] ibid.
[21] ibid.
[22] European Union, 'Types of Legislation' (*European Union*) <https://european-union.europa.eu/institutions-law-budget/law/types-legislation_en> accessed 27 January 2025.

Regulations and Directives are complemented by the Lamfalussy architecture which is a regulatory process in place for financial services since 2001, after the European Union took on board the proposals within the Lamfalussy Report, which is summarised hereunder.[23]

1. Basic laws are proposed by the European Commission which are then adopted by the European Parliament and Council.
2. Implementing measures are adopted by the Commission, either as Regulatory Technical Standards or as Implementing Technical Standards.
3. Committees of national supervisors can advise the Commission to adopt Level 1 and 2 acts, while also issuing its own guidelines on how rules are to be implemented. These are the European Insurance and Occupational Pensions Authority ("EIOPA"), the European Banking Authority ("EBA") and the European Securities and Markets Authority ("ESMA"). The Joint Committee of the European Supervisory Authorities is a body that brings together these three European Supervisory Authorities ("ESAs").

Delegated regulations are a form of secondary legislation used to supplement or provide more detailed rules for the implementation of primary legislation. Essentially, Level 1 Acts provide the high-level principles, and Level 2 Delegated Acts ensure that these principles are applied with the necessary technical details, often by specifying how particular provisions are to be carried out.

Further to this backdrop of the architecture of European legislation, this chapter will now look into the specific legislation that specifically governs the disclosure of the distribution of IBIPs.

[23] European Commission, 'Regulatory Process in Financial Services' (*European Commission*) <https://finance.ec.europa.eu/regulation-and-supervision/regulatory-process-financial-services_en> accessed 27 January 2025.

2.5 Regulatory Framework for Insurance-Based Investment Products in the EU

Directive 2002/92/EC of the European Parliament and the Council on insurance mediation, commonly known as the Insurance Mediation Directive, at a point in time had been the only legislation that regulated the sale of insurance products in the EU.[24] The Commission carried out an implementation check between 2005 and 2008 which acknowledged the need for this to be reviewed.[25] Financial turbulence during and around this period further highlighted the importance of ensuring a high level of consumer protection, through information clarity and comparability. This then led to a proposal for further legislation to regulate the point of sale, therefore the distribution, of insurance products.[26]

Today, disclosures surrounding the distribution and maintenance of IBIPs are primarily governed by the Insurance Distribution Directive, which replaced the Insurance Mediation Directive, and the Packaged Retail and Insurance-Based Investment Products Regulation. The below will provide an analysis of these legislations and their relevant supplementing regulations. Further consideration will be given towards recently introduced legislation on sustainable finance, notably the Sustainable Finance Disclosure Regulation ("SFDR").

2.5.1 Insurance Distribution Directive - Directive (EU) 2016/97[27]

One of the main objectives of the IDD is to improve the standards of consumer protection by ensuring that consumers across member states benefit from the same level of protection, irrespective of the distribution channels from which insurance products can be offered. In its broadest application, the IDD applies to both insurance undertakings and insurance intermediaries. As a Directive, it establishes a set of harmonised rules on transparency, including pre-contractual disclosures, conduct of business obligations and

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[24] Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002 on Insurance Mediation (OJ L 9).
[25] European Commission, 'Proposal for a Directive of the European Parliament and of the Council on Insurance Mediation' (2012) COM(2012) 360.
[26] ibid.
[27] Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution.

rules for supervision and sanctioning for distributors that do not comply. This part of the study will highlight the key parts of the IDD that specifically outline disclosures that need to be made to consumers, in general and specifically for the distribution of IBIPs.

Article 18 of the IDD outlines a list of general information that either insurance intermediaries or undertakings must make 'in good time' before the insurance contract is concluded, such as their identity, capacity and whether advice is being provided on the insurance products being sold.

Article 19 continues by outlining what information must be provided by intermediaries, with respect to holdings within an insurance undertaking, and any contractual obligations that may exist to conduct business with a particular undertaking. Further information that is to be disclosed includes the nature of remuneration, such as fees or any other type of economic remuneration. Situations where intermediaries are remunerated for distribution may naturally give rise to conflicts of interest, and so further measures that insurance companies are to take to mitigate this risk are outlined in Articles 6 and 8 of Commission Delegated Regulation (EU) 2017/2359[28] that supplements the IDD.

In addition to this, Article 8(2) of Commission Delegated Regulation (EU) 2017/2358[29], that also supplements the IDD, further places a further onus of disclosure on manufacturers of insurance products, where they must provide distributors with all appropriate information on the features and characteristics of the product. This information should allow distributors to understand the target market for such a product and identify customers for whom the product is not compatible. Article 10 of Commission Delegated Regulation (EU) 2017/2358 does however ensure that this onus is not solely shifted on the manufacturer of the product, where distributors are to ensure that their strategy is in line with that identified

[28] Commission Delegated Regulation (EU) 2017/ 2359 of 21 September 2017 Supplementing Directive (EU) 2016/ 97 of the European Parliament and of the Council with Regard to Information Requirements and Conduct of Business Rules Applicable to the Distribution of Insurance-Based Investment Products (OJ L 341).

[29] Commission Delegated Regulation (EU) 2017/ 2358 of 21 September 2017 Supplementing Directive (EU) 2016/ 97 of the European Parliament and of the Council with Regard to Product Oversight and Governance Requirements for Insurance Undertakings and Insurance Distributors (OJ L 341).

by the manufacturer and that their product distribution arrangements must be regularly reviewed and be amended if necessary. EIOPA's approach on the supervision of product oversight and governance highlight that manufacturers continue to have the responsibility to monitor that the distribution strategy is being adequately implemented.[30]

The IDD, through Article 20(4), refers to the complexity of the insurance product *and* the type of customer, where it is outlined that the information about the insurance product must be disseminated in consideration of these two factors. This implies that disclosure must be considerate not only of the product, but also of the customer that may purchase the product, so the characteristics of the target market must be understood.

A crucial element of the IDD is Article 20 that establishes the existence of the insurance product information document, commonly referred to as the "IPID", for non-life insurance products. While not the primary scope of this study, the IPID is a notable effort in creating a standardised template for all types of non-life retail insurance products.

It is acknowledged that insurance may often be offered as an addition, or ancillary to, another product or service which is not necessarily insurance related. In this regard Article 24 of the IDD establishes that distributors must inform clients whether there is a possibility to purchase the standalone products separately, and if so, provide descriptions thereof, to avoid customers unwillingly purchasing products which are not needed.

In line with the main scope of this study, Chapter VI of the IDD outlines specific additional requirements for IBIPs, starting with Article 28 that dictates that information on any conflicts of interests that may damage the customer's interests must be disclosed in good time.

The IDD continues to outline, by way of Article 29, that all costs and related charges related to the product shall be provided to customers. Furthermore, where advice is given, this shall include at least information on investment strategies and their risks, and an indication of

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[30] European Insurance and Occupational Pensions Authority, *EIOPA's Approach to the Supervision of Product Oversight and Governance* (Publications Office of the European Union 2020).

the cost of advice. Here the concept of ongoing disclosure is noted, through the necessity to carry out periodic assessments of the suitability of that product to the customer. Essentially, there must be a collection of costs and charges in relation to the *distribution* of the product, not costs or losses that are caused by underlying market risks. This information must be expressed in both monetary terms and as a percentage, along with an explanation of how these costs will impact potential returns.

When providing advice on an IBIP, the distributor is to collect information from the customer regarding their knowledge and experience in financial services. This exercise is referred to as the appropriateness test. Where products are not appropriate for customers, a customer must be provided with a warning to that effect. To mitigate information asymmetry, a warning shall also apply when customers do not provide the requested information, or do so insufficiently. The provision of advice constitutes the need for the distributor to provide the customer with a statement that specifies how the advice given meets the preferences, objectives and characteristics of the customer. The above is outlined in Article 30 of the IDD which continues to establish that a record between the customer and undertaking or intermediary must be in place, that sets out the rights and obligations of both parties, and the terms on which the insurance service will be provided. This is supplemented by Commission Delegated Regulation (EU) 2017/2359 that clarifies what information is to be provided within the suitability statement, particularly Article 14 which denotes that disclosures must include how the recommendation to the client meets the customer's goals, financial situation, knowledge and experience. Distributors must explain why the IBIP is suitable for the consumer based on their financial situation, investment objectives, and risk tolerance and provide a clear summary of how the product meets the consumer's needs and why it is the best option among alternatives.

The above gathers and summarises at a high level the retail disclosures that are subject to the distribution of IBIPs under the IDD. Of significant importance, but not directly tied to the distribution of life insurance contracts, is Commission Implementing Regulation (EU) 2017/1469, that establishes a template for the IPID for non-life products. Hence, one must now consider how information for life products is similarly disseminated, as this study focuses on the more prescriptive rules that apply on the distribution of insurance policies with an investment element.

2.5.2 Packaged Retail and Insurance-based Investment Products Regulation - Regulation (EU) No 1286/2014[31]

A wide range of financial products fall within the scope of the PRIIPs regulation, signifying a clear attempt to harmonise not only disclosures between a particular cohort of products, but also disclosures between different types of products, which share an investment risk and are marketed to retail clients. EIOPA argues that since these are relatively complex products that vary from one to another, with a potentially large market size, consumers require more comprehensive information.[32] Within this definition of PRIIPs, lie IBIPs, as discussed earlier in this study.

The PRIIPs Regulation complements the IDD by requiring the provision of a Key Information Document ("KID") for all packaged retail and insurance-based investment products. The scope is to provide a consumer-friendly information document with the key features of the product.[33] It is a standardised document designed to facilitate comparisons between products, which can, at most, be 3 sides of an A4-size paper when printed. The IDD had established an IPID for non-life products, and here KID is established for IBIPs.

The regulation itself mandates the European Supervisory Authorities to develop the regulatory technical standards on *what* content should be included, and *whe*n and *how* this is to be delivered to consumers. Henceforth, Commission Delegated Regulation (EU)

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[31] Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs) 2014 (OJ L 352).

[32] European Insurance and Occupational Pensions Authority, 'Packaged Retail and Insurance-Based Investment Products (PRIIPs)' (*EIOPA*) <https://www.eiopa.europa.eu/browse/regulation-and-policy/packaged-retail-and-insurance-based-investment-products-priips_en> accessed 27 January 2025.

[33] ibid.

2017/653[34] came into application, where Articles 1 to 8 and 10 to 14 dictate what information should be included within the KID. Annex 1 to this regulation also provides a template for PRIIP manufacturers to simply complete with their own product specific information.

Key pre-contractual disclosures to be found within the KID include:

- If applicable, an alert that the product to be purchased is not simple and could be difficult to understand.
- A description of the product, including its objectives, the target market, benefits and the term of the contract.
- The risk-reward profile that includes a summary risk indicator ("SRI") that classifies the product's risk on a numerical scale between 1 and 7.
- The maximum losses that could be suffered, performance scenarios and relevant tax implications on payout.
- Costs including direct and indirect costs, such as entry, ongoing and exit charges. There is also further responsibility on distributors to indicate any further distribution related costs not included within the KID, as outlined within the IDD.
- For how long the product should be kept, commonly referred to as the Recommended Holding Period, and whether money invested within the PRIIP can be taken out early.
- Complaints procedures and any other relevant information.

Essentially, the PRIIPs KID provides standardised information for consumers, but it does not address whether the product is suitable for a specific individual. Therefore, as highlighted above, the IDD and Delegated Regulation 2017/2359 bridge this gap by requiring a suitability or appropriateness assessment before the sale of an IBIP. Disclosures must be

[34] Commission Delegated Regulation (EU) 2017/ 653 of 8 March 2017 Supplementing Regulation (EU) No 1286 / 2014 of the European Parliament and of the Council on Key Information Documents for Packaged Retail and Insurance-Based Investment Products (PRIIPs) by Laying down Regulatory Technical Standards with Regard to the Presentation, Content, Review and Revision of Key Information Documents and the Conditions for Fulfilling the Requirement to Provide Such Documents (OJ L 100).

made that explain why the product is, or is not, appropriate for the consumer's financial objectives, knowledge, and risk tolerance.

A particular mention must also be made regarding ongoing disclosures which are also mandated by the PRIIPs regulation. These ensure that consumers remain informed about the performance and costs of their IBIPs throughout the contract's duration. These disclosures, to be made at least annually, should include a summary of the client's product performance in consideration of charges incurred, and any changes to the product's risk profile.

Should there be material changes to the terms and conditions of the IBIP, as drawn up at inception of the insurance contract, these need to be notified to the client. This includes updates to the KID to reflect significant changes in the product's characteristics or risks.

In this regard, one may take note of instances within the local scenario to appreciate the importance of ongoing disclosure. The 2023 annual report of the Office of the Arbiter for Financial Services, as established by Chapter 555 of the Laws of Malta, indicates that Life insurance consistently held the highest insurance related complaints for 2022 and 2023.[35] For example, this report highlights case ASF 062/2023[36], where over the policy's 30 year term, the policyholder at maturity received almost just 30% of the returns they had anticipated receiving on inception of the policy. One therefore must give consideration to how the policyholder had been monitoring the performance of their policy, where there could have been the possibility to consider early surrender due to the investment performing considerably below expectations. There seems to be a trend local in discrepancies between expected and actual returns at maturity such as cases ASF 124/2024[37] and ASF 15/2024[38], that therefore highlight the importance also of ongoing

[35] Arbiter for Financial Services, 'Annual Report 2023' (2024).
[36] MN v Eagle Star (Malta) Ltd. (C 104) ASF 062/2023 (2023).
[37] L-Ilmentatur v Mapfre MSV Life p.l.c. (C-1522) ASF 124/2024 (2024).
[38] L-Ilmentatrici v Mapfre MSV Life p.l.c. (C-1522) ASF 115/2024 (2024).

disclosure during the policy's term, to ensure that policyholders are kept with the performance of their investment returns.

2.5.3 Sustainable Finance Disclosure Regulation - Regulation (EU) 2019/2088[39]

Sustainable development, and more precisely sustainable finance, has recently become a popular point of discussion and potentially a unique selling point for those undertakings that manage to manufacture and distribute products that are in line with the beliefs, demands and needs of a more socially and environmentally cautious target market. This however has created a potential opportunity for false, exaggerated or misleading claims of sustainability, which are not sufficiently backed up with real initiatives and efforts, if at all. This practice is commonly referred to as greenwashing[40] and is a threat to market integrity and trust in financial services providers.[41] To overcome this issue, the EU adopted a set of regulations to ensure financial players make fair and correct sustainability related claims. The SFDR imposes obligations on financial market participants, the definition of which includes insurance companies manufacturing IBIPs, and financial advisers, which includes intermediaries distributing IBIPs on advice, to disclose information on the sustainability characteristics of their products.

The SFDR establishes that financial market participants and financial advisors are to disclose how they take sustainability risks into account, which may influence the value and returns of policyholder investments, as well as the negative effects those investments may have on the environment and society.

Articles 3, 4 and 5 of the SFDR outline specific website disclosures that financial market participants and advisors must have. These are considered to be entity level disclosures.

[39] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (OJ L 317).
[40] Chiara Cremasco and Leonardo Boni, 'Is the European Union (EU) Sustainable Finance Disclosure Regulation (SFDR) Effective in Shaping Sustainability Objectives? An Analysis of Investment Funds' Behaviour' (2024) 14 Journal of Sustainable Finance & Investment 1018.
[41] Christopher P Buttigieg and Sarah Pulis, 'Strategic Initiatives to Address Greenwashing' (2024) 25 ERA Forum 327.

These include information within their policies on how sustainability risks are considered in their investment decision-making process and financial advice, and how or whether they consider principal adverse impacts of their investment decisions. Additionally, remuneration policies are to disclose how these are aligned with the mentioned integration of sustainability risks.

Articles 6, 8 and 9 then deal with product-level disclosures. Pre-contractual and periodical documents must include information on how such products will aim to promote environmental or social characteristics, or have as its main objective a positive impact on the environment or society, depending on the goals of the product. All financial products must outline in pre-contractual documents how sustainability risks are incorporated into investment decisions and highlight the potential impact on the investment's profitability. Article 10 complements these by mandating that this information must be published on the websites of market participants and financial advisers.

The regulatory technical standards under Commission Delegated Regulation (EU) 2023/363[42] provide templates to be used by market players for pre-contractual and also periodic disclosures for products that fall under the scope of Articles 6, 8 and 9 of the SFDR. The key elements of these templates include the percentage amount of the investment that is aligned with Regulation (EU) 2020/852[43], commonly referred to as the Taxonomy Regulation, sustainability indicators to measure how the sustainability objective is reached and how the investments do not cause significant harm.

Furthermore, the Delegated Regulations (EU) 2017/2358 and (EU) 2017/2359 mentioned above have also been amended by Commission Delegated Regulation (EU) 2021/1257[44],

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[42] Commission Delegated Regulation (EU) 2023/363 of 31 October 2022 amending and correcting the regulatory technical standards laid down in Delegated Regulation (EU) 2022/1288 as regards the content and presentation of information in relation to disclosures in pre-contractual documents and periodic reports for financial products investing in environmentally sustainable economic activities (OJ L 50).

[43] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198).

[44] Commission Delegated Regulation (EU) 2021/1257 of 21 April 2021 amending Delegated Regulations (EU) 2017/2358 and (EU) 2017/2359 as regards the integration of sustainability

which includes further disclosures to be made to clients when sustainability preferences are expressed, particularly when the distributor does not have products available that are in line with these preferences and the client is given the option to reconsider their sustainability preferences.

2.6 The Current Regime's Challenges and Link to Behavioural Analysis

The outline of disclosures highlighted above is clear in establishing that the amount of information that must be provided to consumers is abundant, and information overload is undeniable. Not only is the information plentiful, but it is also technical and detailed, therefore difficult for common retail investors to easily decipher and comprehend. The Commission's recent proposals to simplification and burden reduction are a testament to this.[45] The Omnibus legislation is an acknowledgement that the current regime, including the very recently introduced sustainable finance regime, is restricting growth and dampening the EU's competitiveness.[46] European consumers will be disheartened, and there are risks of ignoring information and making suboptimal financial decisions, or withdrawing interest from investing altogether.

It is imperative therefore that behavioural finance is a primary consideration for IBIPs. These products have their particular characteristics, life cycles, risks and underlying investment options, and as such deserve a greater depth of research on how they are to be presented to potential clients.

factors, risks and preferences into the product oversight and governance requirements for insurance undertakings and insurance distributors and into the rules on conduct of business and investment advice for insurance-based investment products (OJ L 277).

[45] Directorate-General for Communication, 'Commission Proposes to Cut Red Tape and Simplify Business Environment' (*European Commission*, 26 February 2025) <https://commission.europa.eu/news/commission-proposes-cut-red-tape-and-simplify-business-environment-2025-02-26_en> accessed 5 April 2025.

[46] European Commission, 'Q&A on Simplification Omnibus I and II' (*European Commission*, 26 February 2025) <https://ec.europa.eu/commission/presscorner/detail/en/qanda_25_615> accessed 28 March 2025.

2.7 Implications of Consumer Behaviour Analysis

There are two instances within the framework outlined above that demonstrate a recognition of the importance of consumer testing, though its application remains limited. Article 20(9) of the Insurance Distribution Directive mandates EIOPA to conduct consumer testing for the design of the IPID. However, this requirement applies solely to non-life insurance products and does not extend to IBIPs, despite their increased complexity and risk. Likewise, Article 33 of the PRIIPs Regulation requires the European Commission to undertake 'consumer testing' as part of a broader review process, rather than as an integral part of the initial design of the KID. An initial limitation worth noting is that the term 'consumer testing' is not defined. There is not a definition or expectation of what consumer testing should entail. This limited approach fails to fully leverage behavioural insights. Furthermore, the exclusion of mandatory consumer testing in the ongoing production of disclosures for IBIPs represents a missed opportunity to strengthen investor protection and regulatory effectiveness.

The previous sections of the literature review have outlined the main provisions of disclosure for IBIPs. The next sections will now look into consumer behaviour and testing.

2.8 Principles of Behaviour Finance and Consumer Behaviour

Traditional finance theories, especially the Efficient Market Hypothesis proposed by Eugene Fama[47], have played a central role in studying and understanding investor behaviour. Fama argued that individuals make rational decisions based on all available information, which leads to efficient markets. He also suggested that any random or irrational behaviour, likened to a "random walk in the park," would be offset by other irrational or random trades, maintaining market efficiency.[48] According to this hypothesis, financial instrument prices

[47] Eugene Fama, 'Efficient Capital Markets: A Review of Theory and Empirical Work' (1970) 25 Journal of Finance 383.
[48] Andrei Shleifer, *Inefficient Markets: An Introduction to Behavioral Finance* (Oxford University Press 2000).

are a reflection of all available information, making it highly unlikely for investors to consistently outperform the market.

Behavioural finance challenges this school of thought by examining how individuals often act irrationally due to emotional factors and cognitive biases.[49] It can no longer be ignored that humans, as individuals, experience emotions, social inclinations and biases. Behavioural finance therefore seeks to uncover how psychological factors, cognitive biases, emotional triggers, and social dynamics impact and influence decision-making among financial investors.[50] Barberis and Thaler insist that certain market dynamics and behaviour simply cannot be understood or justified through rational models such as that proposed by Fama.[51] Nisbett and Wilson continue to establish that consumers have no conscious awareness of memorial and perceptual processes and additionally people cannot report that cognitive processes have even happened[52], which is a very important aspect of challenging traditional methods of data gathering, such as focus groups and surveys.

It is now known that while the human brain is spending its time conversing with itself, the number of times these conversations are witnessed is very infrequent.[53] Zaltman discusses the unconscious thought within the purchasing journey and explains that about 95% of mental activity happens outside of conscious awareness. [54] Zaltman further outlines the following shortcomings that limit companies in effectively serving their customers[55]. These include that consumers,

1. Can think in a rational manner.
2. Are able to explain their behaviour.

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[49] Robert J Shiller, 'From Efficient Markets Theory to Behavioral Finance' (2003) 17 Journal of Economic Perspectives 83.

[50] Ahmed Abubakar Zik-Rullahi, Ibikunle Jide and Emmanuel Okpe Onuh, 'Behavioural Finance: Exploring the Psychology and Economic Aspects of Financial Decision-Making' (2023) 7 European Review in Accounting and Finance 50.

[51] Nicholas Barberis and Richard Thaler, 'A Survey of Behavioral Finance' (2002) Working Paper 9222 National Bureau of Economic Research.

[52] Richard E Nisbett and Timothy DeCamp Wilson, 'Telling More Than We Can Know: Verbal Reports on Mental Processes' (1977) 84 Psychological Review.

[53] Rita Carter, *Mapping the Mind* (University of California Press 1999).

[54] Zaltman (n 15).

[55] ibid.

3. Think in words.
4. Can consume and interpret messages as intended by the sender.

Essentially the main point of discussion here is that consumers behave in ways that cannot be comprehended. The mental activity preceding choices happens in the subconscious. Consumers display attitudes that even they are not aware of, yet such attitudes still strongly influence buying decisions. Hence it is important to seek to understand these attitudes in order to understand buying behaviour.

Renvoisé and Morin describe the decision-making process in simple terms by splitting the brain into three sections; the new, middle and old.[56] These sections process rational-thinking, emotional processing and decision making, respectively. This hierarchy outlines the distinction that lies between the rationale, emotional processing and the decision maker, as depicted in Figure 1.

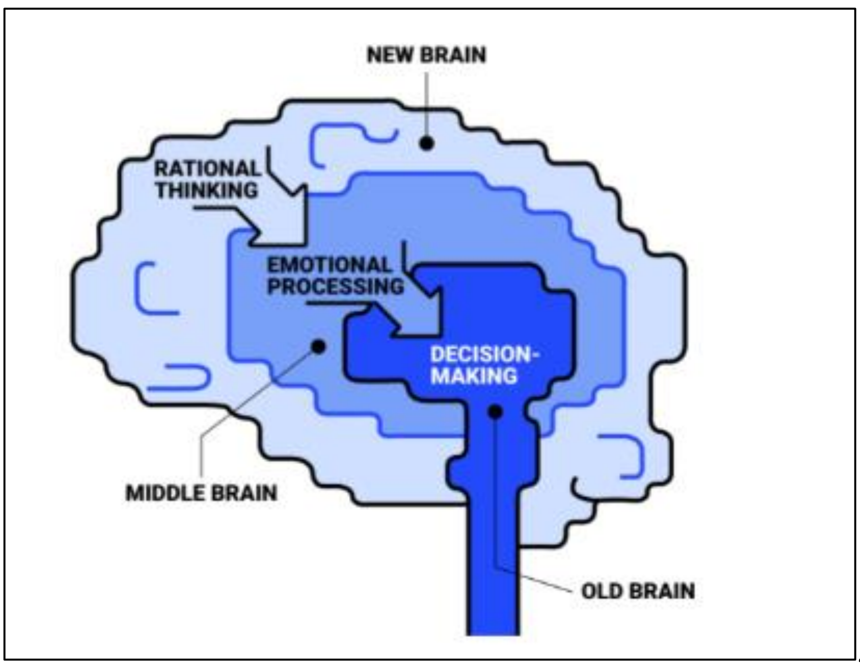

Figure 1: Human brain categorisation[57]

[56] Patrick Renviosé and Christophe Morin, *Neuromarketing: Understanding the 'Buy Button' in Your Customer's Brain* (Thomas Nelson, Inc 2002).
[57] ibid., 6.

It is therefore clear that the decision-making and rational thinking parts of the human brain are distinct.

2.8.1 Irrational Behaviour

The irrational decision-making part of the brain is therefore taking mental shortcuts when making decisions. These shortcuts are often referred to as heuristics and are judgements that can lead to biases or error.[58]

Consumers are often enticed and motivated to purchase IBIPs because they offer a way to achieve long-term financial gains and security[59]. Many are driven by intrinsic motivations, such as the desire to protect their family or ensure a comfortable retirement. However, due to the influence of psychological biases, consumers may fail to fully recognise the true costs or risks associated with these products. The complexity of these products compounds the issue, leading to a situation of information asymmetry where consumers are not fully aware of the risks or benefits of their purchases. This lack of understanding can leave consumers vulnerable to predatory practices or suboptimal investment decisions.

This is further influenced by perception, as many consumers mistakenly view IBIPs as "safe" due to their association with insurance companies, often linked with security and risk transfer. However, these products still carry inherent market risks, and the mismatch between consumer perception and reality can lead to significant financial missteps.

Psychological biases therefore play a powerful role in shaping financial services and investment decision-making. This leads to individuals making choices that may not align with their long-term financial goals and interests. Biases such as loss aversion, overconfidence, framing effects and present bias often influence consumer behaviour.

[58] Warren Thorngate, 'Efficient Decision Heuristics' (1980) 25 Behavioral Science 219.
[59] Attard (n 2).

Loss aversion, for example, causes individuals to fear losses more than they value equivalent gains, which can result in risk-averse behaviours[60] that ultimately hinder financial growth. For instance, consumers would not purchase an IBIP with a higher risk indicator that would fit within their rational risk appetite, because of this cognitive bias, where a riskier product could potentially benefit higher financial returns.

Overconfidence is another hypothesis that suggests that customers, more specifically investors, can misprocess information. An overconfident investor is one whose belief in their own assessment of financial performance is too strong.[61] Overconfidence can lead to an inflated sense of one's ability to make accurate predictions about the market, therefore ignoring, entirely or selectively in part, disclosure and information that is being presented.

Framing effects may cause people to react differently to identical financial information, depending on how it is presented. The concept, which was discussed by popular psychologists Kahneman and Tvesky[62], behind framing is that people's choices are often shaped by how options are described, whether the focus is on potential gains or potential losses. For example, the following statements describe the same scenario. "This investment has a 90% success rate over the past 5 years" and "This investment has a 10% failure rate over the past 5 years". Whilst producing the same information, when the situation is framed in terms of gains, this tends to be perceived more positively.

Present bias is the description of people that tend to disregard their future needs and preferences in favour of immediate utility and pleasure, which makes them prioritise short-term gratification over long-term goals. Studies such as that presented by Asgari and

[60] Daniel Kahneman, Jack L Knetsch and Richard H Thaler, 'Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias' (1991) 5 Journal of Economic Perspectives 193.
[61] James Scott, Margaret Stumpp and Peter Xu, 'Overconfidence Bias in International Stock Prices' (2003) 29 The Journal of Portfolio Management 80.
[62] Amos Tversky and Daniel Kahneman, 'The Framing of Decisions and the Psychology of Choice' (1981) 211 Science 453.

Pouralimardan conclude that there is a negative correlation between consumers with present bias and money management behaviour.[63]

Consumer behaviour analysis can therefore also be used as a predictive tool, helping regulators anticipate consumer responses to interventions such as laws, advertising standards, and market changes. Benartzi and Thaler[64] provide evidence that consumer testing can be used to 'speak' with the decision-making part of the brain, for better customer outcomes. Using nudges such as different default investment strategies, default enrolment with the option to opt out, and opportunities to make changes in design plans, all appeared to successfully steer behaviour to more positive decisions.

2.8.2 Accessing the Old Brain

As discussed further above, in a bid to understand why customers take certain decisions, now in the knowledge that most decisions are taken subconsciously or irrationally, such an understanding needs to come by reading and tracking the activity of the old brain.

Advanced consumer testing techniques have been increasingly employed to assess consumer reactions. These methodologies provide deeper insights into subconscious consumer responses to information, that arguably could enable regulators to design disclosures that are more engaging and effective.

A study carried out by Doehring[65] demonstrates how collective images of brain activity through fMRI lead to conclusions that participants are less risk-seeking if incentives to purchase financial instruments were 'social' compared to 'financial' incentives, while also demonstrating that reaction times, or the time taken to make a decision, were lower when participants were faced with a financially rewarding incentive. Another study conducted by

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[63] Heshmatulah Asgari and Mohaddeseh Pouralimardan, 'Present Bias and Individual Financial Behaviors: An Application of Behavioral Economics' (2023) 15 The Journal of Economic Policy 365.
[64] Shlomo Benartzi and Richard HH Thaler, 'Heuristics and Biases in Retirement Savings Behavior' (2007) 21 Journal of Economic Perspectives 81.
[65] M Niels Doehring, 'Neural Correlates of Risk-Taking with Social and Financial Incentives – an fMRI Study' (Doctoral Thesis, University of Bremen 2022).

Kuhnen and Knustson[66] revealed, also through the use of fMRI to observe neural activity, that financial decision making invoked anticipatory neural activation, therefore promoting irrational choice, by anticipating outcomes based on previous experiences.

The study of De Martino et. al.[67] used another type of monitoring, that of EEG, to demonstrate the 'framing effect' mentioned above, through visual representation of brain activity when provided with different stimuli. EEG is a method that records electrical activity in the brain, providing insights into cognitive load, attention levels, and emotional reactions. Researchers are able to observe what stimuli produce higher engagement levels by observing which parts of the brain are actively responding to that stimulus.

Another method used in the study of consumer behaviour is that of eye-tracking, which records the movements such as fixation, dilation and saccades, which are subconscious reactions to information stimuli.[68][69] In the context of disclosures and how these are presented, eye-tracking is an effective tool to determine and understand where attention is allocated and how individuals navigate through different swathes of information. An interesting study by Duclos[70] demonstrated the difference in attention and reactions between information presented on a graph instead of a table, signifying that the method of presentation of information will affect how the information is consumed.

Other monitoring devices that have been used to gauge the human reactions to stimuli are Galvanic Skin Response[71] and heart monitoring. These tools respectively measure electrical

[66] Camelia M Kuhnen and Brian Knutson, 'The Neural Basis of Financial Risk Taking' (2005) 47 Neuron 763.
[67] Benedetto De Martino and others, 'Frames, Biases, and Rational Decision-Making in the Human Brain' (2006) 313 Science 684.
[68] Zihao Liu and Peter de Goeij, 'Using Eye-Tracking to Understand Individual Decision-Making' (2020) 57 Netspar Survey Paper.
[69] Filip-Mihai Toma and others, 'Gazing through the Bubble: An Experimental Investigation into Financial Risk-Taking Using Eye-Tracking' (2023) 9 Financial Innovation 28.
[70] Rod Duclos, 'The Psychology of Investment Behavior: (De) Biasing Financial Decision-Making One Graph at a Time' (2015) 25 Journal of Consumer Psychology 317.
[71] Rafal Ohme and others, 'Analysis of Neurophysiological Reactions to Advertising Stimuli by Means of EEG and Galvanic Skin Response Measures' (2009) 2 Journal of Neuroscience, Psychology, and Economics 21.

conductance of the skin, and heartbeat rates, which fluctuate in response to stress or emotional stimuli.

2.9 Conclusion

It is therefore evident that traditional consumer testing methods, such as focus groups, questionnaires and surveys, are not appropriate to elicit raw information regarding how consumers react to stimuli, such as disclosures. These traditional methods allow participants time to rationalise their responses and are therefore not a true reflection of actual reactions of consumers, in contrast to neurophysiological tools, which capture the instant, natural reaction.

One of the objectives of this thesis is to outline the implementation of the above practices, and therefore the following chapter will explain the methodology of how the above frameworks and concepts will be analysed, through the use of a doctrinal and case-study approach. The application of this methodology from a regulatory perspective and how such tools can be used to reach regulatory objectives will then be discussed in Chapter 4 of this thesis.

CHAPTER 3 – METHODOLOGY

Case study research is particularly valuable for its ability to reflect the complexities of real-world situations.[72]

3.1 Introduction

After gaining clarity on the disclosure regime for IBIPS, the concept of consumer behaviour analysis and how they are related, this chapter outlines the methodology that will be followed to answer the research problem, which examines the application of consumer behaviour analysis in shaping regulatory disclosures for IBIPs within the EU. This research does not involve primary data collection, but rather an analysis of the implementation of consumer behaviour testing.

Recent developments in EU legislative framework, such as the 'Retail Investment Strategy' ("RIS")[73] and proposals for burden reduction and simplification[74], have contributed towards the initiation of this study. It will therefore seek to also determine how consumer testing can assist in shaping regulatory developments.

Legal research is traditionally categorised into doctrinal and non-doctrinal methods.[75] The former, often referred to as "black-letter law" research, focuses on analysing legal texts and regulatory frameworks. This method is therefore desk-based and aims to clarify, interpret, and put a structure towards a gathering of legal principles.[76] Since the aim of this study is to reflect and criticise the implementation of consumer behaviour testing into the creation of law and regulatory frameworks, the doctrinal approach is suitable for this study.

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[72] Robert K Yin, *Case Study Research and Applications: Design and Methods* (6th edn, Sage Publications 2017).

[73] 'Retail Investment Strategy - European Commission' <https://finance.ec.europa.eu/publications/retail-investment-strategy_en> accessed 5 April 2025.

[74] Directorate-General for Communication (n 44).

[75] Mike McConville and Wing Hong Chui, *Research Methods for Law* (3rd edn, Edinburgh University Press 2017).

[76] Terry Hutchinson and Nigel J Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17 Deakin Law Review 83.

Furthermore, this research will adopt a case study approach to examine various instances of behavioural finance implementation, while also exploring existing academic work that has analysed behavioural finance and, where applicable, its relationship with regulations.

Therefore, this study adopts a doctrinal legal research method combined with a qualitative case study approach. This methodology allows for an in-depth examination of specific instances where consumer behaviour insights were integrated, or overlooked, in the provision of regulatory disclosures for IBIPs. This approach will allow the achievement of the research objectives as this method outlines the mandated disclosures within the regulatory framework, discuss and criticise their effectiveness, showcase examples of how consumer behaviour analysis was, or was not, applied, and highlight the added value of consumer behaviour analysis through practical examples.

3.2 Research Approach

3.2.1 Doctrinal Research

Doctrinal research includes the analysis of legal texts, regulations, and policies to outline the development and application of legal principles. Doctrinal research is essential for seeking clarifications in the legal framework and understanding the evolution thereof.

This study shall make use of doctrinal research not to analyse the legal framework in isolation, but rather to investigate whether and how consumer behaviour and consumer testing have influenced regulatory disclosure requirements over time. It is particularly relevant in financial regulation, where consumer protection laws continuously pass through changes and adaptations.

Unlike empirical research, which relies on data collection through surveys or interviews, doctrinal research is desk-based and primarily involves reviewing legal frameworks. This is essential for understanding the disclosure framework for IBIPs and the extent to which they incorporate behavioural insights.

3.2.2 Case Study Analysis

Given that this study seeks to explore specific instances where consumer behaviour insights were applied, and missed opportunities to do so, a case study methodology is also to be adopted. Yin describes case study research as an in-depth analysis of specific instances within a real-world context, therefore making this type of research suitable for the evaluation of the effectiveness of regulatory decisions.[77] The case study approach allows for a detailed examination of regulatory interventions and industry practices.

The case study approach is qualitative and interpretive, where each case will be analysed on the effectiveness of data collection and materiality of contribution towards legal changes. The selected case studies will hence serve as secondary empirical evidence to assess whether regulatory authorities have adequately integrated consumer testing into disclosure requirements.

3.3. Case Selection & Analysis

3.3.1 Selection Criteria

The case studies selected for this research are based on the regulatory significance. This study will analyse past experiences that have influenced the evolution of disclosures for IBIPs. It will look into case studies undertaken by EU regulatory bodies such as the EIOPA, ESMA and national competent authorities. Furthermore, an analysis of case studies in similar sectors that utilise consumer behaviour insights, will provide similar, comparable situations.

3.3.2 Case Study Framework

The case studies will be analysed using the following proposed method, as applicable:

[77] Yin (n 71).

1. Background - context of the cases, including regulatory gaps or market failures, or anticipations thereof, that led to regulatory intervention.
2. Consumer behaviour application - the extent to which consumer testing and behavioural research were carried out.
3. Effectiveness - whether results were implemented to shape regulatory disclosure.

3.4 Sources of Data

3.4.1 Primary Sources

This thesis will examine the application of consumer testing within the context of EU regulations and directives, specifically focusing on PRIIPs Regulation and the IDD as the main European insurance disclosure texts, as well as in regulatory reports and guidelines issued by ESAs and National Competent Authorities.

3.4.2 Secondary Sources

Secondary sources will complement the legal analysis, including academic literature such as books and journal articles on financial regulation, consumer behaviour analysis, and disclosure effectiveness, as well as industry reports produced by industry associations, consumer advocacy groups, and think tanks like Insurance Europe.[78]

3.5 Analytical Framework

To assess the role of consumer behaviour in regulatory disclosure, this research will integrate insights from behavioural economics theories and methods of testing. The analysis will focus on cognitive biases and decision-making by evaluating whether regulatory disclosures address biases such as overconfidence and information overload. It will also look into consumer testing methods by examining how usability and A/B testing

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[78] Insurance Europe, 'Mission Statement' (*Insurance Europe*) <https://www.insuranceeurope.eu/about-us/1/who-we-are/mission-statement> accessed 10 February 2025.

were applied, if at all, through behaviour analysis tools such as those mentioned in the literature review above, to influence disclosure content and formats.

3.6 Limitations of the Methodology

Although doctrinal and case study research offer strong legal and regulatory insights, this methodology comes with certain limitations.

- Reliance on publicly available data: Consumer testing studies used by regulators may not be publicly disclosed, limiting full transparency. It must be assumed that if consumer testing has been applied, this has been publicly announced, even if the details of the study are not published. If studies are not available for public scrutiny, or no mention of such studies are traceable, it is assumed that these have not been carried out and do not exist. Those that are in the public domain may lack full information on the methodology and results obtained.
- Lack of empirical testing: The study will not involve primary data collection, meaning it cannot directly assess consumer reaction toward disclosures.
- Bias: it is widely accepted that some regulatory decisions, and industry reports or opinions, may reflect political or industry pressures rather than purely consumer-oriented concerns.

Several considerations will be held to mitigate these limitations. Where regulatory consumer testing methodologies are not fully disclosed, this thesis will critically analyse comparable studies within scholarly literature, to contrast research methods.

To address the absence of primary data collection, the study will rely on existing research that includes empirical findings. The lack of primary data collection and empirical testing will be further mitigated by ensuring reference to studies and reports from scientific journals and reputable sources. Although direct testing is not part of this research, careful use of existing evidence will help capture real-world consumer perspectives.

The study will remain cautious of the fact that lobby groups, and political bodies alike, may have their own agendas to satisfy, and therefore conclusions and proposals from reports of such bodies will be considered in this context, and on the basis of evidence and experience to substantiate such conclusions. Only the views and conclusions of relatively reputable consumer advocacy groups and industry representatives will be considered.

3.7 Conclusion

This chapter has outlined the research approach, case study selection, sources of data, analytical framework and limitations for this thesis. By combining doctrinal research with case study analysis, this study seeks to critically evaluate the role of consumer behaviour insights in shaping regulatory disclosures for IBIPs and provide contrasts to similar contexts.

The next chapter will examine and criticise instances where consumer testing is mandated by the regulatory framework and to what extent it was applied. It will also highlight missed opportunities where consumer behaviour analysis was not carried out and contrast with similar sectors and industries to showcase the advantages of such analysis.

CHAPTER 4 – ANALYSIS AND DISCUSSION ON THE IMPLEMENTATION OF CONSUMER BEHAVIOUR ANALYSIS

"Figures, particularly in relation to performance and costs, at best confuse investors and at worst mislead them."[79]

4.1 Introduction

The effectiveness of regulatory disclosures for financial services and products is a general concern for policymakers, particularly in sectors involving complex investment financial instruments, which may include certain types of insurance-based investment products, particularly unit-linked products that offer a range of differing underlying investment options with their own unique characteristics. Research indicates that enhanced disclosure improves market quality by increasing liquidity and efficiency, thereby reducing the cost of capital and return volatility.[80] Regulatory disclosure frameworks are intended to enhance transparency, support informed decision-making, and mitigate the impact of cognitive biases and mental shortcuts that can lead to suboptimal consumer choices. In principle, disclosure regulations should empower consumers to make informed choices by presenting information in a clear, comprehensible, and decision-useful manner. However, research also indicates that traditional disclosure models often fail to achieve these objectives due to cognitive biases such as information overload, framing effects, and choice paralysis.[81][82] If done right, disclosure therefore can serve as an essential tool that facilitates efficient resource allocation in capital markets. Investors are provided with a broader range of investment opportunities when they are being presented with the necessary information on those alternative opportunities to make informed decisions.[83]

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[79] European Fund and Asset Management Association, 'EFAMA's Evidence on the PRIIP KID's Shortcomings' (2018) [18-4008].
[80] Itay Goldstein and Liyan Yang, 'Information Disclosure in Financial Markets' (2017) 9 Annual Review of Financial Economics 101.
[81] Tversky and Kahneman (n 61).
[82] Gigerenzer and Gaissmaier (n 4).
[83] Paula J Dalley, 'The Use and Misuse of Disclosure as a Regulatory System' (2007) 34 Florida State University Law Review.

As discussed within the literature review of this study, cognitive biases often impair consumers' ability to fully understand financial disclosures, leading to suboptimal financial choices, which may not only mean investing in alternatives which are less ideal, but even the withholding of investment altogether. As Bertrand and Morse indicate, disclosure policies that incorporate an understanding of consumer cognitive biases are a more effective policy tool that can improve financial decision-making and lead to better consumer outcomes.[84] Despite these benefits, Goldstein and Yang are amongst those that highlight a concern that academic literature on the effects of disclosure remains ambiguous and an area in which there is still a lot to be explored.[85]

By analysing how behavioural economics has been incorporated, or overlooked, in the consumer testing of regulatory disclosure, this discussion will seek to uncover the strengths and criticise the shortcomings of the implementation of current disclosure requirements for IBIPs in the European Union. The chapter will also take into consideration international case studies to contrast consumer testing practices in other financial regulatory environments. This comparative analysis will seek to offer insights into the different ways that consumer disclosure has been implemented, what shaped its format and what outcomes resulted, if any.

This chapter will assess the importance of effective disclosures in overcoming cognitive biases and examine the role of regulatory disclosure in rationalising consumer decision-making. This is an important aspect as outlined within the literature review of this study, as consumers often tend to make irrational decisions. In the specific context of IBIPs, this chapter will then critically evaluate the PRIIPs KID consumer testing process, as the key legal text for IBIPs disclosure, complemented with an analysis of limitations of the consumer testing of the rest of the disclosure framework. Subsequently, comparative examples from similar and comparable industries will be explored to analyse alternative consumer testing

[84] Marianne Bertrand and Adair Morse, 'Information Disclosure, Cognitive Biases and Payday Borrowing' (2011) 66 The Journal of Finance 1865.
[85] Goldstein and Yang (n 79).

methodologies and how these could have been applied within the IBIP disclosure framework.

This chapter will highlight that relevant application of consumer behaviour analysis is limited. The application of consumer testing fails to materially collect data on irrational decision-making. Data collection tools for consumer insights, when used, are predominantly traditional tools such as surveys or questionnaires, which are not effective in collecting natural reactions. Yet, case studies offer support for consumer behaviour analysis as a catalyst going forward to create effective disclosures for complex insurance products.

4.2 The Role of Consumer Testing in Regulatory Disclosures

Consumer testing is increasingly becoming a useful tool that can crucially aim to understand and contribute towards the decision-making process of setting consumer disclosure, particularly in financial markets where complex products often lead to information asymmetries between firms and consumers. Consumers make use of heuristics and mental shortcuts that may lead to relatively poor financial decisions[86]. As a result, regulatory bodies have started to look into the study of consumer behaviour insights and consider the results thereof into their policymaking efforts. Consumer testing methodologies, such as eye-tracking within A/B studies, may allow regulators and policy makers to assess how consumers absorb, react and interact with disclosure documents, and whether they meaningfully enhance comprehension and decision-making.

It appears that the European Union's approach to consumer testing has been inconsistent across different financial sectors, with some areas, such as general insurance as opposed to long-term life insurance, benefiting from more consumer study engagement than others, as will be analysed further below. In contrast with general business, investment product disclosures, particularly within the PRIIPs KID framework, have been criticised for relying on limited consumer testing methodologies that fail to capture real-world investor behaviour and intricately look into whether the main objectives of the KID have been reached, namely

[86] Thaler and Sunstein (n 12).

facilitating consumers to make informed decision, the reduction of reliance on investment advice and increasing trust in the financial industry and insurance sector.[87] To understand the extent of consumer testing in PRIIPs disclosures, the next section of this chapter examines key case studies where consumer testing has been used in an attempt to improve disclosure design. The subsequent sections will look into the methodological adequacy of consumer testing on a broader scope and the outcomes and insights such tests have yielded.

4.3 Consumer Testing Under the PRIIPs Regulation

The Key Information Document was introduced as part of the PRIIPs Regulation to enhance transparency and comparability across investment products. Article 33 of this Regulation is a crucial consideration for this thesis as it mandates the European Commission to review the Regulation, where it is specifically outlined that a part of such review was to include 'consumer testing', by 31 December 2018. The objective was to gain insights into whether consumers could understand, compare, and utilise the information that is to be disclosed, as mandated by the Regulation. Article 33, and the Regulation itself, however falls short of amplifying or specifying what is meant by 'consumer testing'. This has led to the execution of this requirement to be criticised for its methodological limitations, lack of depth, and failure to result in substantive regulatory changes.[88]

4.3.1 Consumer Testing Prior to the Introduction of the PRIIPs Regulation

To provide a better context as a backdrop for the testing that was to be undertaken by the end of 2018 as outlined above, one must also consider the consumer testing that was done prior to the introduction of the regulation itself.

[87] Better Finance, 'Better Finance Response' <https://betterfinance.eu/wp-content/uploads/BETTER-FINANCE-Response-ESAs-PRIIPs-Amendments-L2-FINAL.pdf> accessed 17 March 2025.
[88] ibid.

In 2009 the Committee of European Securities Regulators, which was ultimately replaced by ESMA, put forward a consultation paper as technical advice on the format and contents of KID disclosures for Undertakings for the Collective Investment in Transferable Securities.[89] These are investment instruments that also fall within the scope of the PRIIPs regulation. To create this advice, consumer feedback to assess comprehension of KIDs was collected through surveys, interviews, and focus groups.

These tools used in this methodology raises a fundamental question regarding what 'consumer testing' truly means and what legislators and regulators are accepting to be 'consumer testing'. As revealed within the literature review of this thesis, these tools are not suitable for the collection of irrational behaviour patterns of respondents. By placing focus groups and questionnaires under the umbrella of consumer testing, this thesis is arguing that the essence and scope of consumer testing is being limited, and the true motivation of consumer testing is not being satisfied. Consumer testing should focus on understanding the natural reactions of humans to stimuli such as disclosures, because as already discussed, humans are irrational beings. Describing surveys and interviews as 'consumer testing' is considered to be a stretch of the definition of the term, and an attempt to make normal, traditional market research appear to be something bigger and insightful than it actually is.

Continuing on the consultation paper of the Committee of European Securities Regulators, participants taking part in this study reviewed different versions of potential KIDs, a form of A/B testing, focusing on clarity and effectiveness in communicating risk, costs, and performance. Results from the information collected showed persistent challenges, with investors misunderstanding risk indicators and performance scenarios, prompting recommendations for versions that were simplified, offered standardised information and contained improved visual presentations. However, it is acknowledged within this report itself that consumer testing was also limited due to resource and time constraints,

[89] Committee Of European Securities Regulators, 'CESR's Technical Advice at Level 2 on the Format and Content of Key Information Document Disclosures for UCITS' (2009) Consultation Paper CESR/09-552.

impacting the breadth and depth of insights obtained. One notes that the areas of analysis covered by this paper were pre-determined and included the basic format of the KID together with disclosures on risk and rewards, charges and performance. Therefore, consumer testing was introduced at a stage where decisions had already been made as to *what* information would go into the KID, and basic considerations of how this information should be presented. It does not appear that consideration was made towards whether other information that wasn't being considered prior to consumer testing, could be included, or even if certain information should be there at all. Mock-ups serve to test the 'how' rather than the 'what' is to be included, where in this case the 'what' appears to have been already decided upon. A case in point, which will be touched upon further in this thesis, is the probability that a performance outcome of an investment will be reached.

This report was followed by an attempt by the European Commission to explore the decision-making processes of retail investment clients, which was presented in November of 2010.[90] The experiments carried out in this instance sought to investigate how consumers respond to different formats and presentations of investment information. This is a similar consideration undertaken by the CESR as outlined above. The first part of this experiment provided participants with scenarios as to how they would invest, either in an advised or non-advised environment. This led to indicators on how clients would choose to invest their money based on how information was presented to them. It must be noted that the study was limited by the fact that participants were not investing their own money, and therefore falls short of carrying out an investigation reflective of true consumer behaviour in a real-world setting. Nonetheless this report provides insights such as, the benefits of standardisation of information, which is a principle embedded within the very core of the KID, the drawbacks of information overload and clients' willingness to pay for financial advice. While this report provides an outcome in principle, which is that the way disclosure is presented can impact consumer behaviour, it does not specifically conclude what are the disclosures that should be made and how. Nonetheless this report, even in consideration

[90] Nick Chater, Steffen Huck and Roman Inderst, 'Consumer Decision-Making in Retail Investment Services: A Behavioural Economics Perspective' (European Commission 2010).

that it is listed as the very first behavioural research carried out by the European Commission[91], appears to lay a solid foundation for policymakers to recognise that there are behavioural nuances to consider in how information should be presented.

Another study commissioned at European Union level came in 2015, titled "Consumer testing study of the possible new format and content for retail disclosures of packaged retail and insurance-based investment products".[92] Consumer testing in this study was structured across two distinct phases, each employing quantitative and qualitative methodologies. Phase I focused on separately assessing consumer comprehension of individual elements within the proposed KID, such as risk, performance, and cost sections. Phase II, building on the insights from Phase I, tested full KIDs to replicate realistic consumer interaction scenarios. The quantitative analysis was conducted via large-scale online surveys across ten selected EU member states, while qualitative insights were gained through targeted focus groups in six countries. It is noticed that the methodologies employed do not use tools that aim to cater for the neurophysiological responses of consumers and therefore the study is again limited in understanding actual consumer behaviour.

A main consideration of this study is the interpretation of probability of performance outcomes. The results of this study suggest that participants mistakenly inferred their own probabilities on how investments would perform, when no probabilities were explicitly provided. When this outcome is contrasted with the limitation mentioned in this area in the 2009 study mentioned above, it is clear that the lack of consumer testing in 2009 was a missed opportunity to anticipate this outcome this time round. When the 'what' to be disclosed was not tested among consumers, consumers created their own conclusions, without information to base such conclusions on.

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[91] European Commission, 'Behavioural Research' (*European Commission*) <https://commission.europa.eu/strategy-and-policy/policies/consumers/consumer-protection-policy/evidence-based-consumer-policy/behavioural-research_en> accessed 4 March 2025.

[92] London Economics and Ipsos, 'Consumer Testing Study of the Possible New Format and Content for Retail Disclosures of Packaged Retail and Insurance-Based Investment Products' (European Commission 2015).

It is noted from this study that 'better' designs and presentation of information in KIDs alone are not enough to create effective disclosures, where profound gaps in financial literacy exist. Policymakers must acknowledge that investor education must work in tandem with disclosure simplification. Consumers' difficulties in understanding investment disclosures go beyond document design. Furthermore, while this study looked into the simplification of templates for KIDs, its restricted sample size, limited depth, and failure to sufficiently address consumers' low financial literacy may have undermined the robustness and applicability of its outcomes.

It therefore appears that consumer testing efforts conducted prior to the introduction of the PRIIPs regulation were limited by traditional information gathering tools, such as focus groups, that focused on *how* information could be presented. This thesis is therefore arguing that considering these reports to be actual consumer testing is not a fair reflection, where attempts to consider irrational behaviours to stimuli were not made. Another limitation of these applications is that it appears that *what* information was to be tested for was predominantly already decided. Disclosures were introduced without a proper assessment of how these would contribute or facilitate the decision-making process, and therefore it is not surprising that currently there are still concerns on the effectiveness of such disclosures, as will be discussed further on.

4.3.2 Consumer Testing Under Article 33 of the PRIIPs Regulation

Moving on from studies carried out before the introduction of the PRIIPs regulation, the consumer testing process under Article 33 of the PRIIPs Regulation was intended to assess the clarity, comparability, and usefulness of disclosures for retail investors. The European Commission outsourced the study to a number of consulting firms, relying on a combination of consumer surveys and user testing exercises. The European Commission's final report[93]

[93] Directorate-General for Financial Stability, Financial Services and Capital Markets Union and DevStat, 'Consumer Testing Services: Retail Investors' Preferred Option Regarding Performance Scenarios and Past Performance Information within the Key Information Document under the PRIIPs Framework: Final Report' (European Commission 2020) FISMA/2019/016/C.

is the outcome of the Commission's effort to satisfy this testing process, as demanded by the Regulation.

While it is acknowledged that this report claims to base its outcomes on consumer testing, it is once again noted that the study made use of methods such as direct consumer interviews, focus groups, surveys, and usability tests. Therefore, there is a trend in line with the studies previously mentioned where consumer testing is limited to traditional methods, rather than testing real-world scenarios. The primary method of data collection involved self-reported surveys in which consumers were asked to explain their understanding of disclosures. However, surveys alone are not a reliable indicator of actual consumer behaviour, as respondents may claim comprehension without genuinely understanding the disclosures' implications.[94] This thesis is therefore arguing that the researchers primarily addressed clarity and readability rather than thoroughly examining actual behavioural drivers, cognitive biases, or psychological tendencies influencing consumer decision-making processes.

The methodology of carrying out this study is disputable because financial decision-making is often characterised by irrational behaviour and susceptibility to cognitive biases, as argued prominently by Kahneman and Tversky in their prospect theory.[95] For instance, the 'framing effect' alone demonstrates how subtle differences in wording disclosures or presentation of illustrative information can lead consumers to make very different decisions even if the underlying facts remain unchanged. Consumers frequently employ mental shortcuts or rules of thumbs rather than carrying out a concentrated effort to analyse disclosures. Behavioural economists Thaler and Sunstein, in their renowned book "Nudge," discuss that disclosures can be more effective when they are considerate of consumer behavioural patterns and thus actively allow consumers to follow a decision making path that reflects their demands and needs, rather than assuming consumers will rationally

[94] Daniel Kahneman and Amos Tversky, 'Prospect Theory: An Analysis of Decision under Risk' (1979) 47 Econometrica 263.
[95] ibid.

digest and interpret presented information.[96] Surveys and interviews therefore frequently miss subtle behavioural traits such as emotional states and overconfidence. More robust methodologies such as eye-tracking were not utilised, potentially limiting the reliability of the outcomes of what should have been a landmark review of the PRIIPs regulation. A criticism is that the same methodologies were used as within the studies carried out prior to the introduction of the PRIIPs regulation, so this study does not seem to offer any added value or benefits.

Moreover, the tools used for the review mentioned above indicate that information collection from participants appears to have taken place in a controlled setting rather than authentic, real-world environments. It has been shown that experiments held in authentic environments, possibly in situations where participants are not even aware that they are being studied, minimises the risk of participants altering behaviour due to the awareness and environment of a controlled setting.[97] The situation of humans, and in this case active participants of a study, altering their behaviour in response to their awareness of being observed is commonly known as the 'Hawthorne effect'. Data collection in real world environments provides the opportunity to collect data that is truer to how consumers would actually behave during the sales journey. Data gathered would take into consideration the influencing factors that are in play during the sales journey. These may include social interactions, for example with a financial advisor or family members, and other variables, such as time constraints. This approach of field experiments therefore arguably would enhance the validity of findings, something which the Commission at the time had not performed. The study aimed to assess whether participants could recall and recognise information, rather than evaluating how it would be processed and used by the participants in making investment choices.

[96] Thaler and Sunstein (n 12).
[97] Omar Al-Ubaydli and John A List, 'Do Natural Field Experiments Afford Researchers More or Less Control than Laboratory Experiments? A Simple Model' (National Bureau of Economic Research 2014) Working Paper 20877.

Additionally, no clear benchmarking was conducted to compare KID effectiveness against alternative disclosure formats. For example, going forward there have been proposals to consider the KID, instead of being presented in the form of 3 A4-sized papers, to be presented in the form of layered information, particularly during digital distribution.[98]

As also seen from the studies performed prior to 2018 as referred to earlier, one of the most chronic issues is the representation of information regarding performance scenarios. The PRIIPs KID requires manufacturers of IBIPs to provide forward-looking performance scenarios which are based on historical data. However, research has indicated that such scenarios may create unrealistic return expectations, particularly in bullish markets.[99] Bancilhon et al. discuss how consumers tend to underestimate smaller probabilities and on the other hand overestimate large probabilities.[100] Focus has been limited to the presentation thereof, and not the heuristic decisions that may come with the representation of such data.

In addition, in-depth considerations towards one of the flagship disclosures within the KID, that of the Summary Risk Indicator, do not seem to have been looked into. This is meant to provide a simplified risk score from 1 (low risk) to 7 (high risk). In line with Tversky and Kahneman's work on framing, behavioural research suggests that consumers may misinterpret risk scales, a concern that was not thoroughly studied in this consumer testing. The testing under Article 33 did not seek to address the concern of how consumers are contextualising the risk scores within the KID.

Another fundamental disclosure, not just within the pre-contractual KID but which is also an ongoing requirement, is the provision of information relating to associated costs. The

98 European Securities and Markets Authority, 'ESAs Recommend Changes to Make the PRIIPs Key Information Document More Consumer-Friendly' (*ESMA*, 2 May 2022) <https://www.esma.europa.eu/press-news/esma-news/esas-recommend-changes-make-priips-key-information-document-more-consumer> accessed 1 April 2025.

99 Monika Halan, Renuka Sane and Susan Thomas, 'The Case of the Missing Billions: Estimating Losses to Customers Due to Mis-Sold Life Insurance Policies' (2014) 17 Journal of Economic Policy Reform 285.

100 Melanie Bancilhon, Zhengliang Liu and Alvitta Ottley, 'Let's Gamble: Uncovering the Impact of Visualization on Risk Perception and Decision-Making' (October 2019).

testing under Article 33 also did not look into how these costs can be presented to be more effective. For example, research shows that, in particular where financial literacy levels are relatively low, the presentation of fees in absolute numerical amounts would be much easier for consumers to understand rather than fees being presented as an annual percentage rate.[101] This ultimately may translate into better consumer outcomes since consumers are better understanding the associated fees and therefore may decide on investment options with lower fee structures.

The complexity of the KID together with the issue of over-disclosure does not appear to have been tackled through the study being discussed. Independent studies have shown that cognitive overload, where excessive information leads to decision paralysis, can significantly affect investor choices[102], which then lead to shortcuts and mental heuristics being utilised.[103] However, the consumer testing did not adequately address this concern, nor did it propose optimal disclosure lengths or formats to enhance comprehension. This is despite the fact that the outcomes of this study indicate that there is widespread financial illiteracy amongst retail consumers, who therefore would benefit from even less technical disclosures. Pfeffer and Sutton[104] point out that 'knowing better' does not directly result in 'doing better' and the topic of disclosure saturation is one that is frequently explored. Therefore, it is essential to ensure that consumers are presented with the information that is appropriate and relevant to their specific needs.[105] There is difficulty in understanding and knowing what information is truly required by individual customers to reach their goals, and how to disseminate this information. Ariely outlines in his study that controlling the flow of information, perhaps through the use of layering, can possibly help consumers match their preference and exert greater confidence in their final judgements.[106] Once

[101] Justine S Hastings and Lydia Tejeda-Ashton, 'Financial Literacy, Information, and Demand Elasticity: Survey and Experimental Evidence from Mexico' (National Bureau of Economic Research 2008) Working Paper 14538.
[102] Jeffrey Pfeffer and Robert I Sutton, *The Knowing-Doing Gap : How Smart Companies Turn Knowledge into Action* (Harvard Business School Press 2000).
[103] Gigerenzer and Gaissmaier (n 4).g
[104] Pfeffer and Sutton (n 101).
[105] Dan Ariely, 'Controlling the Information Flow: Effects on Consumers' Decision Making and Preferences' (2000) 27 Journal of Consumer Research 233.
[106] ibid.

again, the study does not inherently seek to answer the question of ‘what’ information is to be disclosed.

Despite the testing done under Article 33 of the PRIIPs regulation, further to the points raised above on the methodology adopted to carry out this testing, unsurprisingly the findings did not result in meaningful regulatory improvements. Perhaps in part owing to the criticisms outlined above, no substantial modifications were made to the KID format outlined in the regulatory technical standard following the consumer testing phase, therefore further throwing into doubt the effectiveness of such an exercise. Fundamentally, however, this thesis is arguing that even the timing of the mandate for consumer testing should be challenged. Consumer testing was mandated to occur a year *after* the disclosure requirements had already entered into force. Ideally, such evaluations should be conducted *prior* to the implementation of the original Level 1 text. This proactive approach would allow for significant testing to occur before consumers and market participants actually have to engage with such mandated disclosures.

In addition to the above criticisms, it is noted that independent organisations have carried out studies highlighting shortcomings within the PRIIPs regulation, where for example the European Fund and Asset Management Association stress that there are deficiencies in the formulation of the cost structure under the PRIIPs methodology, and are therefore intrinsically misleading.[107] This argument is supported by Better Finance, the European Federation of Investors and Financial Services Users, who argue that there are fundamental issues with the calculations of costs, particularly in the absence of past performance disclosures.[108] Insurance Europe, which is the European insurance and reinsurance federation that represents all types of (re)insurance undertakings through the European

[107] European Fund and Asset Management Association (n 78).
[108] Better Finance, ‘Better Finance Position Paper on Calculation and Presentation of Costs and Performance Scenarios in the PRIIPs KID’ <https://betterfinance.eu/wp-content/uploads/PRIIPs-Position-Paper-BETTER-FINANCE.pdf> accessed 22 March 2025.

national insurance associations, has also raised its concerns on the insufficient and limited consumer testing on legislative proposals on disclosure requirements.[109]

Overall, this review under Article 33 left a lot to be desired in terms of consumer testing that seeks to understand the buying behaviours of consumers.

4.3.3 Other Studies on the PRIIPs Regulation and Regulatory Technical Standards

2020 brought about a report by the Joint Committee of the European Supervisory Authorities on the draft regulatory technical standards to the PRIIPs KID.[110] This study primarily acknowledges that additional and further consumer testing would continue to elicit additional evidence and insights on the effectiveness of the KID and any changes that could be implemented to enhance it. Nonetheless, as outlined within the report itself, this testing done by the ESAs was restricted by the Commission in terms of the scope that was to be studied. As a result, the ESAs had to seek feedback from stakeholders to compensate for information that was thus not gathered as part of the consumer testing. This primarily occurred through a roundtable with industry experts. At this stage of this thesis, it is evident that this methodology for information gathering is significantly limited and not insightful to the extent of consumer testing. Once again, the ESAs report is heavily constrained to the performance scenarios presented within the KID, and despite the emphasis on testing this part of the KID, this study indicates that there would only be marginal benefits in including estimated likelihoods of different scenarios. The report itself highlights that the lack of consumer testing on the inclusion of illustrative scenarios did not allow for a robust basis for the ESAs to recommend including such illustrative scenarios**.** This limitation is concerning particularly in light of this issue being brought up in previous studies. There appears to be a craving from the ESAs to carry out insightful consumer testing, harnessed by limitations mandated by the Commission. Indeed, this would be beneficial also for the

[109] Insurance Europe, 'Response to the ESAs Call for Evidence on the European Commission Mandate Regarding the PRIIPs Regulation' (2021) COB-PRI-21-123.
[110] Joint Committee of the European Supervisory Authorities, 'Draft Final Report Following Consultation on Draft Regulatory Technical Standards to Amend the PRIIPs KID' (2020) JC 2020 66.

testing of performance scenarios, as neurophysiological studies have demonstrated, through the collection of brain activity, that visual stimulations correlate with an increase in mathematical ability, language and even memory[111] and therefore there are clear positive effects in framing visual presentations of information.[112] Therefore it can be argued therefore that an opportunity to consider lessening the amount of information, or to present the same information in a more engaging, interactive way, was missed by the ESAs.

Nonetheless, the ESAs continued to stress their call for consumer testing on the review of the PRIIPs Regulation. The call for advice of April 2022 makes no less than 20 requests for consumer testing to be undertaken before the anticipated future adaptation of the PRIIPs regulation.[113] These calls were also similarly echoed in the European Securities and Markets Authority's Final Report on the European Commission mandate on certain aspects relating to retail investor protection.[114] These calls are the result of market information and intelligence highlighting that this Regulation is not reaching its goals, and in this light, it comes as no surprise that there are changes to the PRIIPs regulation in the pipeline.

4.4 Changes in the PRIIPs Regulation

While the previous sections of this dissertation's chapter looked into limitations in the testing of the PRIIPs regime, this section examines regulatory proposals that aim to remedy these limitations, albeit with similar constraints. Proposals have been brought forward at the European Parliament that suggested changes to the PRIIPs regulation, in particular the KID.[115] These proposed changes include providing investors with simulation tools and

111 Michael G Kothakota and D Elizabeth Kiss, 'Use of Visualization Tools to Improve Financial Knowledge: An Experimental Approach' (2020) 31 Journal of Financial Counseling and Planning 193.
112 Brian Scholl, Adam W Craig and Alycia Chin, 'A Picture Is Worth a Thousand Dollars: Visual Aids Promote Investor Decisions' (2023) 8 Journal of the Association for Consumer Research 416.
113 Joint Committee of the European Supervisory Authorities, 'Call for Advice on PRIIPs: ESA Advice on the Review of the PRIIPs Regulation' (2022) JC 2022 20.
114 European Securities and Markets Authority, 'Final Report On the European Commission Mandate on Certain Aspects Relating to Retail Investor Protection' (2022) ESMA35-42–1227.
115 Committee on Economic and Monetary Affairs, 'Report on the Proposal for a Regulation of the European Parliament and of the Council Amending Regulation (EU) No 1286/2014 as Regards the Modernisation of the Key Information Document' (European Parliament 2024) A9-0160/2024.

comparative tools, in consideration of the fact that PRIIPs and particularly IBIPs may offer investors a range of underlying investment options under the umbrella of a single 'wrapper'. These are however arguably vague proposals and do not outline how and on what basis these tools should be created or delivered. It therefore appears that an opportunity is in place, that in the event that simulation and comparative tools are to be created, these should be done on the basis of consumer behaviour testing. This is a particularly noteworthy initiative that is being proposed to be undertaken by EIOPA and ESMA in the sake of harmonisation across the bloc, as certain member states may already have the intention to introduce such tools, essentially meaning that consumers within those member states may be offered a higher level of transparent options and hence protection through more efficient disclosure methods. Other considerations include the provision of past performance of investments, further to scenarios which are forward looking and making the provision of a KID digital by default. The proposals however do not identify why these actions are being suggested. At face value, they appear to offer rational ideas to offer benefits for potential consumers, however, as has been discussed, consumers act irrationally and therefore significant adaptations would benefit from being vetted by behaviour analysis beforehand, particularly for past performance indicators, which can be framed differently unless strictly specified within regulation how these are to be done. Even if specifically outlined how this information is to be presented, regulators should therefore seek to implement a strategy which is based on consumer testing to ensure positive outcomes. A recent independent study on the impact of information disclosure on investors highlights the importance of how such scenarios are presented, or framed. Brain activity was monitored through the use of fMRI scans as part of an experiment that determined that investors that received good news before bad news would valuate the price of a stock higher than investors who received the same news, but the bad news first.[116] This clearly demonstrates how the provision of the same information, how information is framed, can affect buyer behaviour. This study may be considered similarly for IBIPs where, for example,

[116] Jingshu Guo, 'The Impact of Information Disclosure Mode on Investors' Cognitive Process' 3 Academic Journal of Engineering and Technology Science 36.

providing information of an underlying fund who has previous negative results but then following up with information that the fund has positive forward-looking scenarios, or vice-versa. The same information is provided, but the sequence in which they are provided affects investors' decision making. This is therefore irrational behaviour, because ultimately the same information has been disseminated, though with conflicting results. Regulators have the opportunity to use disclosure as an attempt to assist consumers to rationalise their decision making.

Another proposal put forward by the European Commission to amend the PRIIPs KID[117] is based on stakeholder consultations, the 'collection and use of expertise' and feedback from a dedicated impact assessment.[118] Neither the proposal or the supplementing impact assessment appear to make reference to any type of consumer behaviour testing as a basis to propose better disclosure requirements, and therefore again do not provide an alternative with added value to studies already conducted.

4.5 The Need for More Robust Consumer Testing in PRIIPs Disclosures

The consumer testing conducted under Article 33 of the PRIIPs Regulation was insufficient in ensuring that the KID reached its goal of being genuinely useful for retail investors by offering concise, clear disclosures. The reliance on self-reported surveys, rather than behavioural experiments cast a shadow on the essence and outcome of the findings. Moreover, the testing failed to comprehensively assess real-world investor decision-making, leaving gaps in understanding how consumers interact with financial disclosures. It is being suggested that the oversight of cognitive biases, which heavily influence financial decision-making, further weakens the effectiveness of the KID as a consumer-friendly document.

[117] European Commission, 'Proposal for a Regulation of the European Parliament and of the Council Amending Regulation (Eu) No 1286/2014 as Regards the Modernisation of the Key Information Document' (2023) COM(2023) 278 final.
[118] European Commission, 'Commission Staff Working Document: Impact Assessment Report' (2023) SWD(2023) 278.

To address these concerns, future regulatory revisions must incorporate more rigorous consumer testing methodologies, based on tools that collect subconscious decision-making data. Real-world decision simulations should be employed to determine whether disclosures genuinely enhance consumer understanding rather than merely fulfilling regulatory requirements. Without such improvements, the PRIIPs KID risks remaining a mandatory compliance exercise rather than a genuine consumer protection tool.

4.6 Other Regulatory Efforts for Consumer Testing in Insurance

In order to contrast the above criticisms with similar disclosure requirements, it is noted that EIOPA was mandated to carry out consumer testing before finalising the implementing technical standards for an Insurance Product Information Document under the Insurance Distribution Directive. The methodology of this study also makes use of an online questionnaire and guided focus groups, essentially outlining another case of consumer testing which however is limited in accessing the rational decision-making process of the consumer.[119] It appears that the general arguments mentioned above, in relation to consumer testing for the KID, in terms of lack of consideration of behavioural finance theories and heuristics also apply in this instance of consumer testing for the IPID.

Similarly, a study by the European Commission explored the decision-making process in general insurance services primarily examining how different informational conditions and tools influenced consumer choices.[120] The study employed econometric methods to determine how various experimental conditions, such as the prominence of alternatives, timing, and highlighting of information, affected consumers' ability to make optimal decisions. Results indicated benefits from certain interventions. Prominently placed informative icons increased consumer engagement, while interactive tools helped users make more informed and financially appropriate decisions, though only a minority actively

[119] LE Europe, Ipsos Mori, and Academy Design Partners, 'IPID Consumer Testing and Design Work' (EIOPA 2016) EIOPA/OP/153/2015.
[120] London Economics, Ipsos, and VVA Europe, 'Study on Consumers' Decision Making in Insurance Services: A Behavioural Economics Perspective: Final Report' (European Commission 2017).

used these tools. Presenting key information late in the decision process positively influenced consumer behaviour, allowing for adjustments and reconsideration of initial choices. Nonetheless, the experimental setting might not fully replicate real-world complexities faced by consumers, potentially affecting the outcomes of the findings. It does not appear that tangible changes to legislation were made as a result of this study on general insurance.

As there does not appear to be further evidence of consumer behaviour analysis for insurance, it is concluded that there is negligible consumer testing for general insurance, and insurance in general. This thesis has discussed how, despite mandates outlined in directives for consumer testing to be carried out on disclosures that clients are to receive prior to purchasing an IBIP, the way such testing has been conducted appears to have left a lot of room for meaningful outcomes. This is because consumers process information irrationally, and a concentrated effort to elicit rational reactions and responses does not appear to have been carried out. Traditional research methods often fail to capture the subconscious processes influencing consumer decisions. To illustrate how consumer testing can be more effectively implemented, it is useful to compare the PRIIPs approach with other regulatory initiatives. For comparison, the objective of the next part of this dissertation is to discuss whether these methodologies have been utilised to assess consumer reactions to other types of financial disclosures and if the insights gained have informed regulatory practices.

4.7 Comparative Perspective: Other Regulatory Efforts to Approach Consumer Testing

In a European context, the utilisation of behavioural analysis by national competent authorities appears also to be underwhelming.

In the United Kingdom, the Financial Conduct Authority ("FCA") has attempted to bridge the gap from traditional data collection methods by conducting A/B testing on different warning formats to determine which had the strongest impact on consumer behaviour.[121] What elevates this study from those discussed before, particularly those carried out by the Commission, is that the questionnaires and focus group sessions were complemented with the use of simulation setups, where subjects were analysed as they made their way through an online investment platform as they sought to select an investment fund. This research found that simplified risk wording and visual aids significantly improved consumer understanding, offering more meaningful results to the approach carried out for the PRIIPs KID testing.

The Dutch Authority for Financial Markets ("AFM") claims to take into account within its supervisory actions behavioural insights because they acknowledge that consumers mainly act irrationally. It is publicly stated that their application of behavioural insights is however still being developed.[122] One of the Authority's exploratory studies include the observation of online investment platforms. In this study the AFM acknowledges the way in which information and choices are presented to investors will influence the behaviour of the investor[123] and therefore the scope of this report was not to conduct primary data collection but to ultimately encourage investment firms to consider the elements of choice that can potentially influence the behaviour of their customers.

Another case is that of the Central Bank of Ireland ("CBI"), which publishes 'Economic Letters' that are overviews of studies carried out by independent researchers. The data gathering tools for these studies are mainly a mixture of secondary data and surveys or questionnaires.[124][125] The Central Bank of Ireland has though presented a study where it designed a randomised controlled trial to analyse whether mandatory financial disclosures could be modified to overcome behavioural heuristics or obstacles and elicit better

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[121] Lucy Hayes, Anish Thakrar and William Lee, 'Now You See It: Drawing Attention to Charges in the Asset Management Industry' (2018) Occasional Paper 32 Financial Conduct Authority.

[122] The Dutch Authority for the Financial Markets, 'AFM & Consumer Behaviour' (*AFM*) <https://www.afm.nl/en/sector/themas/over-het-toezicht-en-beleid-van-de-afm/toezicht-en-beleid/consumentengedrag> accessed 19 February 2025.

[123] The Dutch Authority for the Financial Markets, 'Observing Online Investment Platforms' (2023).

[124] Julia Le Blanc, 'Household Saving Behaviour in Ireland' (2016) 5 Central Bank of Ireland.

[125] Conor Parle and Zivile Zekaite, 'Inflation Expectations of Euro Area Consumers and Firms' (2020) 14 Central Bank of Ireland.

consumer outcomes for mortgage refinancing options within the Irish market.[126] Provision 6.5(g) of the CBI's Consumer Protection Code requires entities, at least on an annual basis, to inform variable rate mortgage holders about alternative mortgage products that have lower costs and are available to them at that point in time. Through testing of different designs of this communication, the outcome was that adapted communications resulted in an increase of refinancing of up to 76%. The regulatory financial disclosure itself was not amended, however the way in which the regulatory requirement was achieved was amended to achieve better consumer outcomes, which is ultimately the goal and scope of this particular disclosure requirement. This case highlights the importance of consumer testing and its relationship to disclosure as it demonstrates that the regulatory requirement in itself will not reach its full potential objective, and it needs to be supplemented with evidence that supports how it will be executed, and not through focus groups or questionnaires, but actual behaviour patterns.

An encouraging usage of neurophysiological tools to address a problem within the financial market was used by the Danish Competition and Consumer Authority. Here biometric data was collected through the use of eye-tracking and facial recognition software, to compile information to address the problem of consumer inactivity in mortgage markets. The study was designed to understand the responses of consumers to mandatory information requirements at the time of the study, namely Article 14(2) of the Mortgage Credit Directive 2014/17/EU. From there, the Authority aimed to provide insights into how mandatory disclosure can assist regulators in reaching the goals of positive consumer outcomes.[127] In this case the Authority came up with a recommendation for the implementation of a cover letter, or front page, that transparently compared the loan offers available in the market. This letter managed to mitigate the issue of information overload through a concise and comparative solution. Biometric data outlined that consumers experienced less frustration and spent less time searching for information that was relevant to them, essentially

[126] Shane Byrne, Kenneth Devine and Yvonne McCarthy, 'Interrupting Inertia: Evidence from a Mortgage Refinancing Field Trial' [2022] Central Bank of Ireland.
[127] Danish Competition and Consumer Authority, 'Competitive Markets and Consumer Welfare: Consumers Benefit from a Standardised Front Page to Loan Offers' (2018) 23.

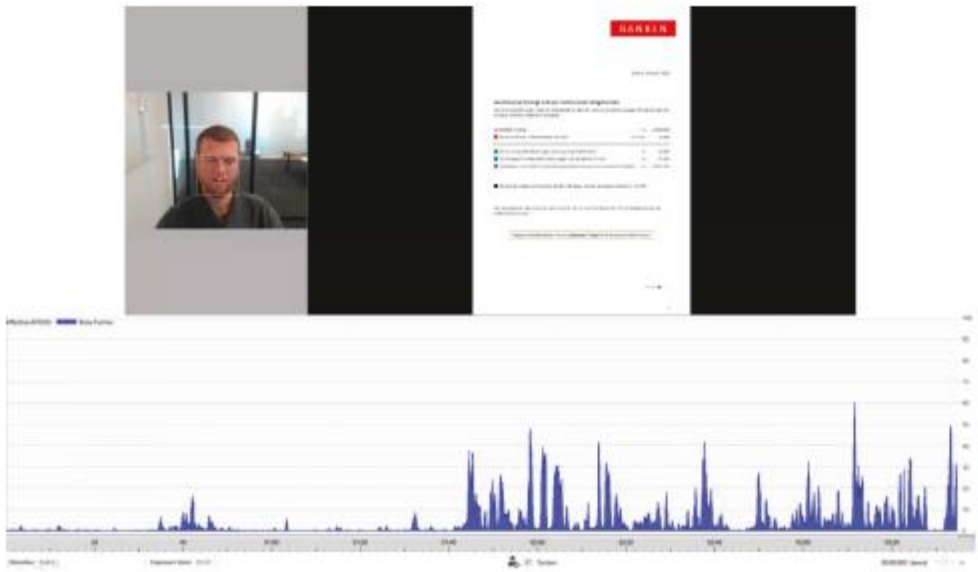
facilitating a more positive sales journey. The figures below tangibly highlight how these tools contributed towards creating better disclosure documents.

Figure 2: Results of eye-tracking experiments by the Danish Competition and Consumer Authority[128]

[128] ibid.

Illustration 3

Screenshot from the test setup picturing a respondent reading the front page.



Left side of the screenshot shows the respondent including the various measuring points used for the biometrics analysis. To the right a screenshot of what the respondent is looking at. Below the measured brow f urrow, which is a proxy for experienced frustration.

Figure 3: Results of facial recognition experiments by the Danish Competition and Consumer Authority[129]

Further to the stand-alone case studies mentioned above, thorough research on the methodologies and tools used by regulators, also outside of the European Union, have yielded insignificant results of utilisation of consumer behaviour analysis across the board, let alone to test for the effectiveness of disclosures for insurance-based investment products.

This also applies to disclosures to be made in regard to sustainability claims. As discussed within the literature review of this dissertation, manufacturers and financial advisors of

[129] ibid.

IBIPs which are sustainably oriented or have sustainability goals also have specific disclosure requirements to make particularly under the Sustainable Finance Disclosure Regulation. Evidence of consumer testing for this Regulation has not been traced. Comparatively, a report commissioned by the European Commission titled "Study on the effects on consumer behaviour of online sustainability information displays" investigates how different presentations of energy labels on online retail platforms influence consumer decision-making.[130] The study focuses on the effectiveness of various energy label formats in guiding consumers toward more energy-efficient product choices, in the context of non-financial products, such as household appliances. While this consumer testing for this study was limited to mock online shopping experiences, and therefore does not delve into financial disclosure or irrational behaviour, findings indicate that simplified labels with intuitive visual cues were more effective in conveying information than complex or text-heavy formats. Remarkably, over a decade later, the world of financial services has not been able to apply such a disclosure format for sustainability features in financial products, and instead, after the introduction of the Sustainable Finance Disclosure Regulation, Taxonomy Regulation and others, efforts are now being coordinated to simplify and reduce the burden that these legislations have created, also in terms of additional disclosure requirements for IBIPs, seemingly because consumer testing had not been adequately considered in the financial services field.

There does however seem to be a more dedicated effort at European supervisory authority level when it comes to acknowledging the importance of behavioural insights. In 2013, EIOPA published what is generally known as the 'Max Report' where it outlined why behavioural insights are important to consider, taking the pensions sector as a case study.[131] While this report did not actually carry out primary data collection, it provided a foundation for the Authority to outline the importance of carrying utilising such a methodology. This

[130] ECORYS, Tilburg University, and GFK, 'Study on the Effects on Consumer Behaviour of Online Sustainability Information Displays' (European Commission 2014).
[131] European Insurance and Occupational Pensions Authority, 'Good Practices on Information Provision for DC Schemes' (2013) EIOPA-BoD-13/010.

report was particularly important as it introduced the concept of 'layering' for information presentation, where information is presented according to priority.[132]

In January of 2020, EIOPA then published its report on consumer testing of Pan-European Personal Pension Product information documents.[133] A tangible effort was made to collect statistically meaningful evidence through two of the report's main objectives. These were to measure the extent that consumers understood the content of two mock-up disclosure sheets, and to assess the perceived attractiveness and trustworthiness of the same mock-ups. The first was done through an online survey that requested respondents on their ability to understand and recall the content of the mock-ups. More interestingly, a 'Discrete Choice Experiment' was conducted for the second objective mentioned above. Questions were asked to respondents to understand behavioural characteristics, such as whether social nudges would affect their desire to purchase a product and how they attributed 'low risk' to other product features such as costs and guarantees. While these questions seem to be more sensitive in their attempt to understand respondents' buying behaviour, the fact remains that data was collected from respondents through a type of questionnaire, which means that test subjects are effectively given time to think and reflect on their response, ultimately not gathering data which is true to the natural reactions of the human behaviour. Time to think and reflect on an answer allows test subjects to rationalise their behaviour, whereas it has been established that consumers tend to act irrationally during the sales journey. Since the publication of EIOPA's study, it has since emerged that the uptake of Pan-European Personal Pension Products across the European bloc has been very limited and EIOPA is working on reassessing why such products have not been yet successful.[134] It appears that this would be a good opportunity for the Authority to consider whether the

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132 EIOPA (n 14).
133 The London School of Economics and Political Science, Open Evidence, and BDI Research, 'Consumer Testing and Communication Design Work Specifying the Details of the Pan- European Personal Pension Product (PEPP) Key Information Document (KID) and Benefit Statement (PEPP BS)' (European Insurance and Occupational Pensions Authority).
134 European Insurance and Occupational Pensions Authority, 'EIOPA Staff Paper: A Simple and Long-Term European Savings Product: The Future Pan-European Pension Product' (Consumer Protection Department 2024).

methodology used during the consumer testing may have failed to extract data that could have contributed to the lack of success of such products.

During 2021 and 2022 EIOPA also commissioned a third-party service provider to carry out behavioural research on consumer behaviours relating to travel insurance following the Covid-19 pandemic.[135] This appears to be one of the very first initiatives carried out by a financial regulator that specifically made use of neurophysiological data gathering tools, in this case eye-tracking and facial coding. Disappointingly however it does not appear that the results of this study have been made publicly available, and whether the outcomes of the studies have been in any way implemented.

In 2021 EIOPA also carried out, through third-party service providers, testing of digital disclosures in pension tracking systems within the EU.[136] This appears to be a unique instance where a regulatory authority has utilised and shared the results of neurophysiological data collection. The ultimate goal of this study was to support the Authority in designing a digital interface of the pension tracking system. Facial recognition software and eye-tracking were used to supplement other tools that included desk research, mock-up designs and qualitative interviews. The role of these tools in this study was to assess how consumers navigate the systems and their reactions to the information prompted in the system's landing page and subsequent pop-ups. By collecting data relating to eye movements and fixations or gazes, the Authority was provided with information on which sections of the mock-ups are ignored, which sections are read, including how much time is spent on different bits of information, and ultimately which emotions are elicited while observing the prompted information.

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[135] Open Evidence, 'Behavioural Research in Relation to Travel Insurance Products: Implications of COVID- 19 on Consumer Outcomes Considering Consumer Behaviours in Acquisition, Usage, and Disposition Decisions' (*Open Evidence*, 23 March 2021) <https://open-evidence.com/2021/03/23/behavioural-research-in-relation-to-travel-insurance-products-implications-of-covid-19-on-consumer-outcomes-considering-consumer-behaviours-in-acquisition-usage-and-disposition-decisions/> accessed 20 March 2025.

[136] Open Evidence, London School of Economics, and BrainSigns I, 'Consumer Testing of Digital Disclosures in Pension Tracking Systems across the EU' (European Insurance and Occupational Pensions Authority).

Figure 4 Example of specific areas of interest - landing page

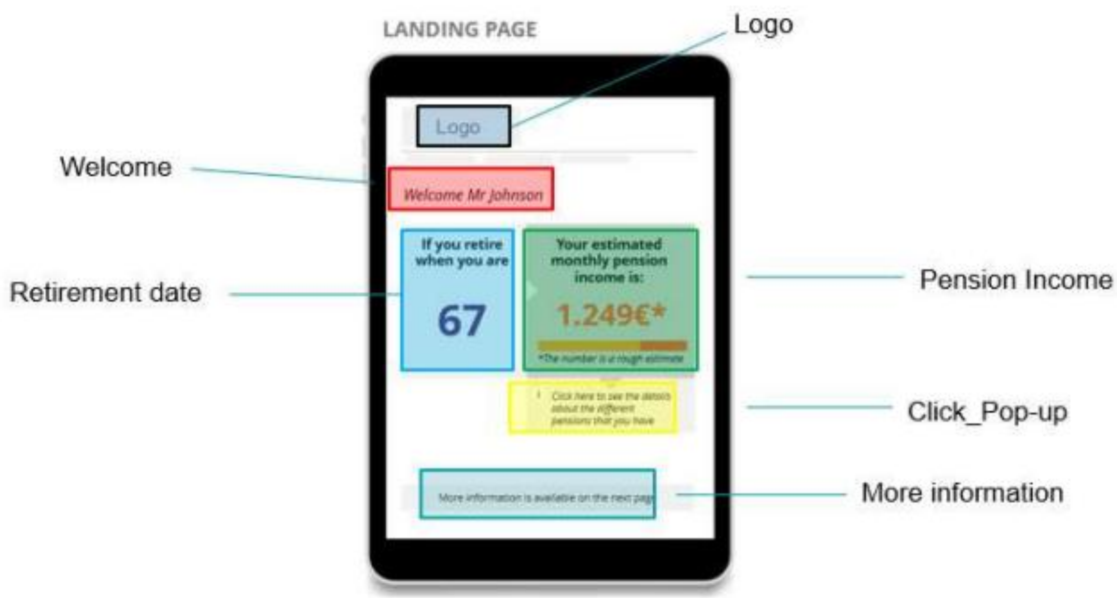

Figure 4: Extract of EIOPA's analysis of areas of interest based on eye-tracking and facial recognition[137]

From the results obtained in this experiment, EIOPA was able to determine that a 'pop-up' from the system did not attract the gaze of participants, which is quite insightful as one may have assumed that a pop-up would instantly grab the attention of a reader. In fact, test subjects only noticed the new information after 'many seconds' and results further show that their efficacy on the pop-up was negligible, as only less than a second was then spent on the information within. This report also brings to light the impact of placing information on the top-left position of the disclosure template, where in countries with a sinistrodextral reading system, people would start to read from there, which therefore means that regulators can opt to reach their goals by placing information which is considered important in that area of the template. This is interesting to compare with the current template of the KID currently outlined in the regulatory technical standards of the PRIIPs regulation, where this area of the template is filled with data on the provider of the product, such as their logo, rather than intricate details of the product itself.

[137] ibid.

Interestingly, this study highlights that the logo is the least area of interest in terms of time viewed, creating an argument that the most effective part of the KID in terms of attracting interest is being wasted on the least interesting information.

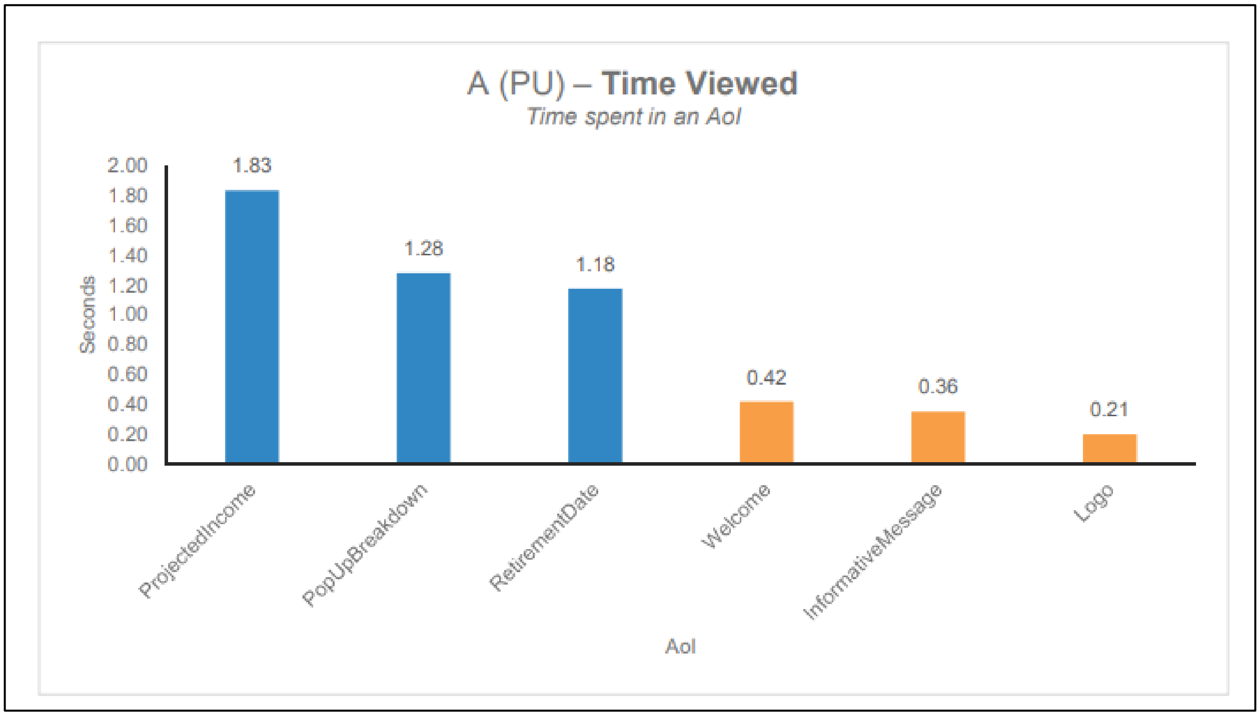

Figure 5: Extract from EIOPA's analysis on time spent on different areas of interest[138]

This study emphasises that an important consideration in mock-up tests must be given to the positioning of the information within the templates. Test participants struggled to locate information located on the bottom-right of templates. A result that is worth mentioning that came through the triangulation of qualitative interviews and eye-tracking results is in relation to how graphical elements are presented. There was clearly a higher engagement for bar charts rather than doughnut charts, and eye-tracking results showcased that grids and arrows within the design offered a relatively more favourable experience, clearly showing an advantage when making use of this data gathering tool.

In addition to these studies, EIOPA has carried out research in relation to consumer behaviour in digital sales for insurance products. While also not specifically focused on

[138] ibid.

disclosure requirements or IBIPs, this study offers insights into the benefits and challenges that digitalisation brings to the sales journey. One of the tools employed in this study included an online behavioural experiment which also analysed marketing techniques such as banner ads, time limited offers and optional add-ons or automatic renewals[139]. Digitalisation offers a higher risk of exploiting behavioural biases, which EIOPA refers to as dark patterns.[140]

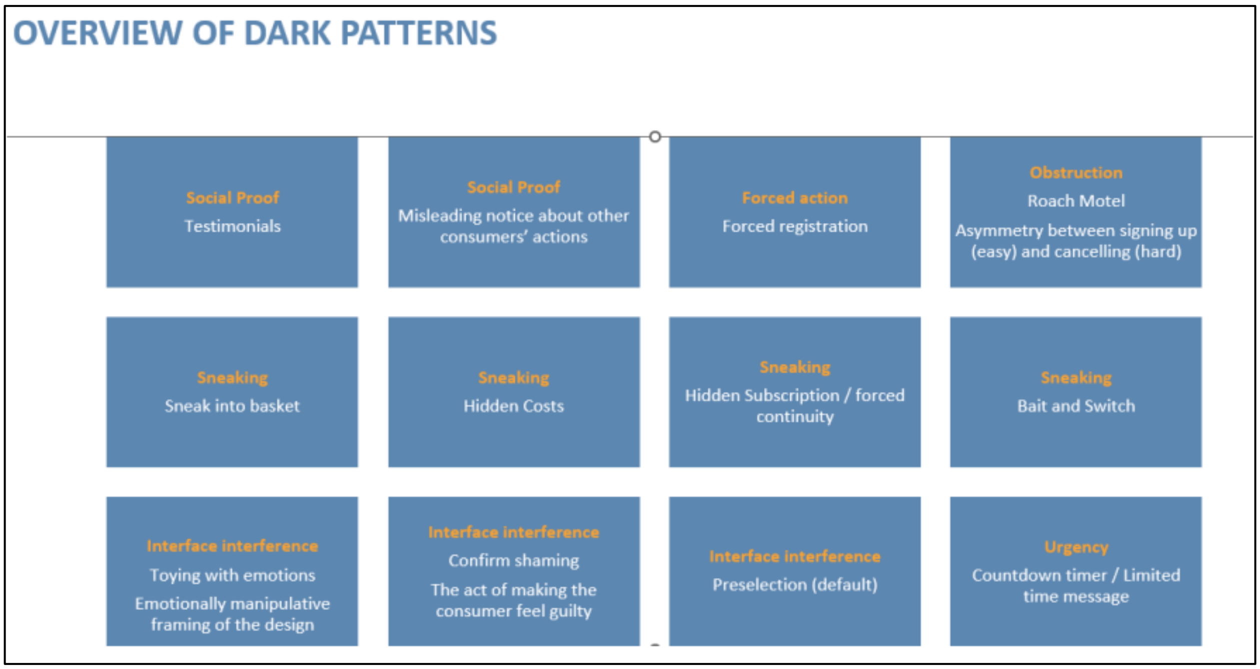

Figure 6: EIOPA's overview on dark patterns[141]

Despite this, it appears that EIOPA has not carried out such testing with respect to disclosure requirements for insurance-based investment products, even though data continues to outline difficulties regarding the sale of IBIPs. EIOPA's 2024 consumer trends report[142] highlights that over half of consumers (55%) that have an IBIP do not feel that their product

139 Joint Committee of the European Supervisory Authorities, 'Report of the JC SC CPFI Workshop on Behavioural Insights' (2024) JC 2024 42.
140 European Insurance and Occupational Pensions Authority, 'Dark Patterns in Insurance: Practices That Exploit Consumer Biases' (*EIOPA*) <https://www.eiopa.europa.eu/tools-and-data/behavioural-insights-insurance-and-pensions-supervision/dark-patterns-insurance-practices-exploit-consumer-biases_en> accessed 21 February 2025.
141 ibid.
142 European Insurance and Occupational Pensions Authority, 'Key Findings from the 2024 Consumer Trends Report' (2025).

is offering them value for money and that 15% of consumers choose not to purchase or renew an IBIP simply because there is difficulty in understanding the product.

When considering the efforts of other European Supervisory Authorities, it is noted that the European Securities and Markets Authority does not appear to further engage in similar types of research. Though within its strategy document for 2023-2028, ‘information/disclosure’ is highlighted as a main area of priority of the Authority. ESMA outlines that it intends to simplify product disclosure and stimulate the use of clear language, where it is then acknowledging that it is still exploring how disclosure layering may contribute towards these objectives.[143] In the meantime the Authority is reviewing its guidelines for the suitability questionnaire that is carried out between distributors and clients before the provision of PRIIP, for investment firms to incorporate behavioural considerations when they manufacture their questionnaires that are used to collect information from clients during the suitability assessment.[144]

The European Banking Authority also does not appear to carry out dedicated consumer behaviour testing.

Nonetheless, the Joint Committee of the European Supervisory Authorities held a workshop on behavioural insights in February 2024, following which a report was issued sub-titled ‘How could supervisory authorities make use of behavioural insights in their day-to-day supervisory and policy work?’.[145] A noteworthy contribution towards this report is the reference made to a review conducted by the Bank of Italy, the banking regulator in Italy, who outlined how behavioural economics and neuroeconomics were used by supervisory authorities. The Bank highlights that neuroeconomics, that is the methodology of collecting neurophysiological data from test participants, remains underutilised. Where there is an effort to integrate behavioural economics, this is generally limited to focus groups or

[143] European Securities and Markets Authority, ‘ESMA Strategy 2023 2028’ (Publications Office of the European Union 2022).
[144] Joint Committee of the European Supervisory Authorities, ‘Report of the JC SC CPFI Workshop on Behavioural Insights’ (n 138).
[145] ibid.

questionnaires that ask test subjects about their feelings and perceptions towards certain aspects under review. However, the flaw with this methodology has already been discussed within this dissertation. The Bank of Italy emphasises that "neuroeconomics can support the design of pre-contractual information and documents". While acknowledging the benefits that these types of data gathering tools have to offer, it does not appear that these have been utilised for this objective.

Another international body that has carried out work in this area is the Organisation for Economic Co-operation and Development ("OECD"), particularly highlighted through its report titled 'Applying Behavioural Insights to Consumer and Competition Policy and Enforcement'.[146] This report is an attempt to outline, acknowledge and explore behavioural biases across different economic sectors and argues that policymakers and those that enforce policy can design more effective interventions by analysing such biases. The report however is limited to an exploratory study and does not in fact carry out such data collection itself.

Overall, it is noted that regulators remain constrained by traditional survey methodologies.

4.8 Consumer Testing in IBIP Disclosures: Lessons from Elsewhere

Provided the limited evidence of consumer behaviour analysis conducted, not only for the shaping and framing of disclosure regulation for IBIPs but also in the context of insurance and financial regulation in general, the following part of this chapter will further seek to outline and compile further case studies that have successfully utilised consumer behaviour.

There are a number of independent studies that showcase and support the argument that there is merit in carrying out consumer behaviour analysis experiments in more detail than questionnaire and focus groups. In one such study, Ceravolo et al. utilised eye-tracking on

[146] Organisation for Economic Co-Operation and Development, 'Applying Behavioural Insights to Consumer and Competition Policy and Enforcement: Workshop Issues Paper' (2023) DSTI/CP(2023)6.

a sample of non-professional investors where the analysis of the data obtained clearly revealed that information processing and how the attention of readers is distributed are influenced by the way information is presented.[147] This study argues in favour of the importance of studying the instant, unconscious reactions of investors' behaviour when they are presented with financial product documents. Moreover, in their systematic review of literature on studies using eye-tracking in the context of financial decision making, Borozan et al. confirm that while the technology is relatively unexplored, the methodology is a tool to understand different consumer processes.[148] This tool has been interestingly further supplemented by analysing brain activation areas through the use of fMRI in a study by Hausler et al.[149] where the data essentially revealed that differences in brain activity and differences in information search processes are very closely linked, therefore tracking such brain activity can be used as an indicator to analyse how information is processed.

The private sector has also taken it upon itself to tap into these data collection tools. An insurance law firm, Browne Jacobson LLP, coordinated its efforts with experts within the University of Nottingham to apply eye-tracking testing in an effort to write insurance policies that are easier to read and understand.[150] This study showed that test subjects had longer eye fixation on certain words which were taken to be the words within the policies that were the most difficult to understand. The results of this study were able to extract certain words or phrases, such as "provided that" or "in so far as" which caused unnecessary difficulty to comprehend. It also emphasised that the focus should therefore be on using phrases of less difficulty and not using excessive punctuation to break down the semantics of a narrative. This study therefore showcases a clear example within the insurance industry

[147] Maria Gabriella Ceravolo and others, 'Presentational Format and Financial Consumers' Behaviour: An Eye-Tracking Study' (2019) 37 International Journal of Bank Marketing.
[148] Miloš Borozan, Cannito Loreta and Palumbo Riccardo, 'Eye-Tracking for the Study of Financial Decision-Making: A Systematic Review of the Literature' (2022) 35 Journal of Behavioral and Experimental Finance.
[149] Alexander Niklas Häusler and others, 'Gain- and Loss-Related Brain Activation Are Associated with Information Search Differences in Risky Gambles: An fMRI and Eye-Tracking Study' (2016) 3 eNeuro 1.
[150] Charlotte Anscombe, 'Eye-Tracking Software Makes Insurance Policies Easier to Understand' (*University of Nottingham*, 4 June 2018) <https://www.nottingham.ac.uk/news/pressreleases/2018/june/eye-tracking-software-makes-insurance-policies-easier-to-understand.aspx> accessed 21 March 2025.

where behavioural analytics can be deployed to create changes to information provided to consumers, data which otherwise would not have been accessible if the study did not make use of such data gathering tools. An example of how such a methodology could have been applied can be highlighted locally. The Malta Financial Services Authority issued its publication regarding a thematic review of product exclusions and Product Oversight and Governance requirements, where the findings highlight that information provided to consumers often consisted of vague words, long sentence structures and use of technical words.[151] The report does not highlight the methodology that was used to elicit these conclusions, other than the documentation requested was reviewed by the Authority. It is being argued that such reports would be more effective and trustworthy should they be backed up by evidence of consumer behaviour analysis.

An increasing amount of evidence is being published that outlines that these relatively novel data gathering tools provide insights to provide more effective information. Disclosure is after all, a method to disseminate information and therefore a line of communication between the insurance manufacturer and the consumer. The private sector in general, albeit in sectors which are less or differently regulated, such as food products or the automotive industry, appears to have grasped and utilised these methodologies more than the financial services industry and specifically regulators thereof. Chygryn et al. demonstrate how marketers have taken advantage of these tools to elicit which type of design for the packaging of a food product is more appealing to consumers, by reading into the influence of colour and the arrangement of certain elements within marketing materials.[152] Zito et al. analyse how non-profit organisations such as UNICEF may also utilise a range of tools in tandem, being EEG, GSR and eye-tracking to measure emotional responses, where their marketing communication, namely fliers, was then adapted which

[151] Malta Financial Services Authority, 'Thematic Review of Product Exclusions and POG Requirements'.

[152] Olena Chygryn, Kateryna Shevchenko and Oleh Tuliakov, 'Neuromarketing as a Mechanism of Communication with the Consumer: The Case for Small Business' (2024) 15 Marketing and Management of Innovations 26.

resulted in a verified increase of 35% in donations from their target audience.[153] González-Mena et al. showcase how experiments can reveal the direct relationship between how websites are designed and facial expressions[154], also confirming that interactive tools on websites improve memorability. In this respect, looking back to how regulators have imposed certain website disclosure requirements on insurance manufacturers of IBIPs, for example through Articles 3 to Article 5 of the Sustainable Finance Disclosure Regulation, there does not appear to be any real substance to justify this regulatory requirement. The way the regulation is written means that the disclosures can be placed anywhere on the website, without any consideration of ease of accessibility, clarity or user-friendliness. This has in fact turned out to be a supervisory outcome highlighted by the Malta Financial Services Authority who carried out an assessment on these website disclosures, without however considering consumer behaviour tools such as eye-tracking or facial recognition. On further mention of the SFDR, just a few years after its implementation, there are reports that concretely indicate that its provisions are too complex, it is not working as intended and that it should be revised to incorporate labelling.[155] Kalkova et al. demonstrated that consumer behaviour techniques can be used to implement better and effective labelling[156], and therefore going forward, following the failure that seems to be the SFDR, there lies an opportunity to look into consumer behaviour from a new perspective.

Therefore overall, there appears to be a very strong argument that these data gathering tools result in tangible positive results across different sectors, and can therefore be adapted for IBIPs. It so seems that the utilisation of these tools and methodologies by

[153] Margherita Zito and others, 'Assessing the Emotional Response in Social Communication: The Role of Neuromarketing' (2021) 12 Frontiers in Psychology 625570.
[154] Guillermo González-Mena and others, 'Neuromarketing in the Digital Age: The Direct Relation between Facial Expressions and Website Design' (2022) 12 Applied Sciences.
[155] David Ramos Muñoz, Marco Lamandini and Michele Siri, 'The Current Implementation of the Sustainability-Related Financial Disclosures Regulation (SFDR)' (Policy Department for Economic, Scientific and Quality of Life Policies 2024).
[156] NN Kalkova and others, 'Neuromarketing Study of Consumers' Cognitive Perception of Labeling Information on a Product's Package' (2020) 128 Advances in Economics, Business and Management Research.

regulators of the financial industry could also result in more effective disclosure for consumers.

4.9 New Approaches to Regulatory Disclosure and Burden Reduction

Throughout most of the studies mentioned above, an acknowledgement for the need of better methods of disseminating information has been made. Effective regulation and disclosure contribute towards maintaining customer trust and building investor confidence. There are arguments though that the regulatory framework has become too complex and overly detailed.[157] Information overload is a real phenomenon which causes inefficiency, waste of time and decreased productivity.[158] Experience within the insurance industry shows that consumers that are faced with too much information get confused and are distracted from the most important parts of all the disclosures that are provided.[159]

Recent reports by Mario Draghi[160] and Enrico Letta[161] have arguably shaken the bloc to act to create a more effective single market, including for example, the importance of assessing the impact of co-legislators' amendments before a final decision is taken, and simplifying regulations. The European Commission reacted to these reports by creating an 'EU Compass' that will steer the Commission's work, with one of the main pillars being 'simplification'.[162]

Moreover, on 24 May 2023 the European Commission released its Retail Investment Strategy package.[163] This initiative is part of the broader 2020 Capital Markets Union Action Plan, which aims to both enhance retail investors' access to financial markets and

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157 Insurance Europe, 'Insight Briefing: Better, Not More, Information for Consumers' (n 3).
158 Bawden and Robinson (n 11).
159 Insurance Europe, 'Insight Briefing: Better, Not More, Information for Consumers' (n 3).
160 Mario Draghi, 'The Future of European Competitiveness' (2024).
161 Enrico Letta, 'Much More Than a Market - Speed, Security, Solidarity' (2024).
162 European Commission, 'An EU Compass to Regain Competitiveness and Secure Sustainable Prosperity' (*European Commission*, 29 January 2025) <https://ec.europa.eu/commission/presscorner/detail/en/ip_25_339> accessed 22 March 2025.
163 Directorate-General for Financial Stability, Financial Services and Capital Markets Union, 'Retail Investment Strategy' (*European Commission*, 4 May 2023) <https://finance.ec.europa.eu/publications/retail-investment-strategy_en> accessed 23 March 2025.

strengthen their protection.[164] The RIS introduces a legislative package that proposes amendments to several key EU legal frameworks. It includes an Omnibus Directive that would revise the Insurance Distribution Directive, Markets in Financial Instruments Directive II, Solvency II Directive, Alternative Investment Fund Managers Directive, and Undertakings for Collective Investment in Transferable Securities Directive, as well as a separate Regulation to amend the PRIIPs Regulation that has thoroughly been discussed above. The Commission's proposed amendments to the IDD include altering disclosure requirements and stricter rules around marketing communications for IBIPs. For example, under the proposal, insurers and intermediaries would be required to include clear and appropriate risk warnings in all marketing materials for high-risk products to ensure that retail investors are properly informed about the potential for financial loss. The rules also aim to improve transparency around costs and charges by requiring firms to disclose the full breakdown of costs and their expected impact on returns. This includes an obligation to provide annual statements detailing fees, third-party payments, and product performance. In addition, the Commission proposes introducing a standardised, user-friendly insurance product information document for life insurance products not covered by the PRIIPs regulation. This would complement the existing IPID for non-life products and the KID used for IBIPs, creating greater consistency in how product information is presented across the insurance market.

While the Commission’s proposed amendments to the IDD aim to enhance consumer protection through improved disclosure and marketing standards, there still appear to be limitations on how they will be implemented that may stifle their effectiveness. The concept that better-informed consumers will make better financial decisions is not always correct, and as thoroughly discussed within this dissertation, behavioural finance research consistently demonstrates that more information does not always result in rational

[164] European Commission, ‘Capital Markets Union 2020 Action Plan: A Capital Markets Union for People and Businesses’ (*European Commission*) <https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/capital-markets-union/capital-markets-union-2020-action-plan_en> accessed 22 March 2025.

decision-making, especially when individuals are faced with abstract concepts like future risk indicators or cost structures.

The proposal to create a KID for life products outside the scope of the PRIIPs regulation appears to be juvenile in the sense that there are already numerous concerns with how the current KIDs for IBIPs are performing as a disclosure tool, so the question that arises is why, or how, should a template that has room to be improved be replicated for other similar lines of business?

The introduction of annual cost and performance statements for sure will generate a large regulatory burden on the companies that need to produce them. Therefore, although these are intended to provide ongoing transparency, it is questionable whether retail investors will engage with such disclosures in a meaningful way, where any arguments raised by the issues of these statements would be understood if the outcome is not aligned with the cost of producing them. It is generally accepted that many retail consumers do not read annual statements or, if they do, may not fully grasp the significance of what is reported. There is also the possibility that these documents will become superficial in practice; long, technical reports delivered to meet compliance requirements but largely ignored by the intended audience. If the documents fail to highlight key messages clearly and concisely, they may have little practical effect, and will be considered another failed regulatory burden.

The requirement to include risk warnings for particularly risky products also merits discussion. The effectiveness of such warnings depends heavily on their design and placement. There is a risk that poorly targeted warnings could create confusion or, paradoxically, encourage overconfident risk-taking.

The costs of implementing new reporting systems, training staff, and updating documentation may be significant. These compliance costs may be passed on to clients in the form of higher fees or reduced service offerings, potentially undermining the broader objective of improving value for money of products.

While the proposed amendments are well-intentioned and reflect a genuine desire to strengthen consumer protection in insurance distribution, they risk repeating a familiar regulatory pattern: relying too heavily on disclosure for the sake of disclosure, without addressing the more complex behavioural and structural factors that shape investor outcomes. It appears that there is a genuine, ongoing effort to simplify disclosure and reduce regulatory burden, yet the concept of consumer testing and behavioural analysis is very limited in the proposals herein. An opportunity to take into the consideration the irrational behaviour of consumers has presented itself for regulators to create or adapt disclosure with maximum effectiveness.

4.10 Ethical Considerations

If utilised correctly, techniques such as eye-tracking, and fMRI may offer profound insights into consumer behaviour by capturing neural and physiological responses to various stimuli. These techniques collect highly sensitive data that can reveal not only consumer preferences but also intimate details about an individual's cognitive and emotional states. While these tools may hold the key to refining disclosure practices for better consumer outcomes, their application understandably may raise ethical considerations since sensitive human responses need to be collected and analysed.

In this regard, to ensure that experiments are conducted ethically, The European Society for Opinion and Marketing Research (ESOMAR) emphasizes that participants should be adequately informed about the nature of the research and the data being collected to ensure there is explicit consent.[165] Test subjects must fully understand the nature of the data being collected, how it will be used, and the potential uses of the data.[166]

[165] ESOMAR and Global Research Business Network, 'ESOMAR/GRBN Guideline for Researchers and Clients Involved in Primary Data Collection'.
[166] European Commission and others, *State of the Art of Neuromarketing and Its Ethical Implications* (Publications Office of the European Union 2023) <https://data.europa.eu/doi/10.2838/663012> accessed 22 March 2025.

It can be argued that the insights gained from the application of consumer behaviour testing can be leveraged to craft disclosures that subtly influence the consumer sales journey, therefore potentially undermining autonomous choice, even if the intent is to enhance understanding of the information being provided. In the same way that marketers may use dark patterns to elicit responses, one may argue that disclosure based on consumer insights could infringe on the autonomy of the consumer. Regulators must be transparent to maintain public trust in research practices. Proposals for change, based on such studies, should be available for scrutiny to encourage understanding of the basis of such proposals and to ensure that results are not being inflated, misrepresented or exaggerated. This then however raises the risk that the same insights could be used by commercial entities for their own agendas and potentially exploit information dissemination techniques incorrectly, so a balance must be struck to safeguard consumers yet allow for peer reviewing.

In line with ESOMAR's guidance, since the target market for IBIPs may also include a cohort of consumers that are considered to be vulnerable, and therefore as part of the target market they would also be subject to data gathering, particular importance must also be given to their treatment during testing.

4.11 Conclusion

While the jurisdictions such as the UK and Denmark have made preliminary efforts to integrate behavioural research into their frameworks, other jurisdictions, perhaps following the lead of the Commission, based on the lack of evidence of consumer behaviour analysis, still approach disclosures from a compliance-focused, rather than a consumer-oriented perspective. The future of financial disclosure regulation should focus not only on compliance but also on ensuring that consumers genuinely understand and engage with financial information in a way that leads to informed decision-making.

Legislators and regulators have not tapped into information that can only be extracted through neurophysiological tools, and the disclosure regime is not reaching its intended targets. Disclosures are meant to impact buying behaviour by providing information, yet buying behaviour is not being adequately analysed when creating disclosure. There is a mismatch between outcomes and the tools used to build these outcomes.

The following chapter will highlight proposals based on the observations just discussed. A shift towards consumer data-driven financial disclosures could provide a more adaptive and effective regulatory framework, strengthening investor confidence and market integrity across the EU. To increase the effectiveness of financial disclosures, an EU-wide mandate for consumer testing could be established, ensuring that all disclosures are validated through empirical behavioural research, before being adopted for regulatory use.

CHAPTER 5 – CONCLUSION AND RECOMMENDATIONS

"Behavioural insights can be used to design more effective disclosure documents for consumers."[167]

5.1 Conclusion

To answer the main research question of how legislators and regulators are applying consumer behaviour analysis to establish regulatory disclosures for IBIPs, this dissertation has established that such application is negligible and underwhelming.

After outlining the main provisions of disclosures within the regulatory framework, mainly through the IDD, PRIIPs Regulation, SFDR and regulatory or implementing technical standards, and establishing that the current disclosure regime is underperforming, this thesis has examined and criticised the extent to which consumer behaviour analysis has been utilised. This dissertation has highlighted the tools that can be used to carry out effective consumer behaviour analysis, such as fMRI and eye-tracking, and concludes that these have not been adequately engaged by legislators.

Consumer testing remains heavily limited to traditional data collection methods such as focus groups, where clients are allowed to rationalise their thoughts, and provide inaccurate reasons for making certain decisions. Where consumer testing has been mandated within legislation, such as Article 33 of the PRIIPs Regulation, how this must be done is undefined, and therefore the primary motivation of addressing behavioural insights is not reached. Attempts at tests focus on 'how' information could be provided, with a disregard to the 'what'. Behavioural analysis is not extensively mandated nor wilfully utilised, despite regulatory bodies such as EIOPA that are increasingly acknowledging the importance of utilising methodologies that can adequately capture subconscious decision-making data.

[167] EIOPA (n 14).

Typically, regulatory consumer testing, when done, has relied heavily on traditional methods such as surveys, questionnaires, and focus groups. While these methods provide preliminary insights, they are severely limited in capturing genuine consumer interaction and the cognitive complexities of financial decision-making. They fail to account adequately for cognitive biases such as information overload, framing effects, and overconfidence. These are issues consistently highlighted throughout behavioural economics literature and specifically within the discussions presented earlier in this thesis. Case studies in similar industries such as mortgage providers or sustainability ratings evidence the benefits of carrying out such analysis, and therefore these should be adapted to the disclosure regime, not just for IBIPs, but eventually the wider insurance and financial services industry.

Without consumer behaviour testing, there is a risk that regulatory disclosures continue to fall short of their goals and fail to reach their primary objectives that genuinely enhance decision-making through information sharing. Previous exercises have repeatedly not offered substantial changes to the regime and therefore it does not seem sensible to carry out consumer testing with the same, ineffective tools. Results from other sectors indicate that neurophysiological tools can lead to tangible changes in disclosure and therefore cannot be ignored any longer.

5.2 Recommendations

To address these shortcomings, the introduction of an EU-wide harmonised consumer behavioural analysis framework is recommended as a critical policy reform, ensuring that all disclosures are validated through behavioural research using neurophysiological tools before being approved for regulatory use. In the spirit of creating a harmonised level playing field for consumers and investors across the bloc, and in line with the European Union's efforts to create standardised templates for key information documents, it is proposed that such analysis is heralded and implemented primarily at European Level.

A common, enhanced, understanding of 'consumer testing' should be established to ensure that traditional methods of data collection, which are shown to be ineffective, are not utilised without being supplemented by neurophysiological tools. These experiments should also be carried out as field experiments, to match the real-world intricacies of the customer journey.

As described within this thesis, the Commission has shown that at times it does not provide the ESAs with the amount of resources, or scope for work, as would be required or requested by the ESAs themselves, leaving the ESAs with no choice other than to gather structured qualitative feedback. This was a clear example where a craving was shown to carry out consumer testing to a wider extent than requested by the Commission, where the Commission however did not align with the Authorities' intentions and goals. The Commission must understand the implications of not dedicating enough resources or time for enhanced consumer testing to be carried out. Disclosures are not reaching their goals, and it may therefore be argued that this is the result of inadequate consumer testing. A larger investment before the provision of new disclosure, or adaptation of existing ones, to test whether such disclosures will actually reach their goals, may ensure that these will not have to be rethought time and time again, because real world results after adaptation would show that they would not be working as intended. This saves time for the Authorities in the long run, as further resources would need to be dedicated to providing input on the implementation of the disclosure framework and proposals to fix them. The shortcomings observed under Article 33 of the PRIIPs Regulation notably illustrate the need for proactive consumer testing. Historically, consumer testing within regulatory frameworks like PRIIPs has been conducted retrospectively, after disclosure formats and contents had already been legislatively mandated. This has resulted in disclosures that remain largely ineffective in practice. Therefore, a key recommendation is that robust consumer testing must be conducted proactively, guiding disclosure design rather than merely validating existing frameworks post hoc. A very important concern to keep in mind is that while legislators would hence be re-engineering the disclosure framework, it is the consumer who is left with disclosure that is not adequately assisting them as they potentially could.

To support these policy recommendations effectively, it is proposed that the ESAs establish, possibly through the Joint Committee, a dedicated behavioural finance task force. This specialised body would be responsible for overseeing consumer testing across the EU, ensuring adherence to methodological standards, conducting periodic reviews, and proposing continuous enhancements to regulations based on behavioural evidence. Such a task force should be composed of individuals who are involved in the areas of policy making, marketing, communications and neurophysiology, in order to ensure that the utilisation of such methods are done correctly and properly reflect the different areas of study and disciplines that are required to contribute towards effective disclosures.

From the analysis conducted during this dissertation, it appears that even there is a distorted level of the implementation of consumer testing efforts even between the European Supervisory Authorities. Therefore, the next step to implementing a consumer testing framework is to ensure that EIOPA, ESMA and the EBA are all ready to acknowledge the benefits of enhanced consumer testing and are equipped to carry out such testing if required. The tone, direction and mandate for this should be driven by the Commission, that generally mandates the ESAs to provide progress reports and feedback to the implementation of regulations. ESAs, when providing their feedback to the Commission, should do so on the basis of consumer testing that is considerate of irrational tendencies of consumers. The ESAs must be equipped, and given the space, to carry out these types of tests in the interests of retail consumers. EIOPA, ESMA, and EBA should collaborate actively in developing comprehensive and standardised best practices for consumer testing. Such coordinated regulatory action would provide clear guidance and detailed methodological standards, fostering uniformity in how consumer testing is conducted across EU jurisdictions. This needs to in turn trickle down towards the providers of financial services, who can utilise such methodologies in the creation of other informative documents, such as policy wordings.

As it is common practice and often mandated for the ESAs to collect feedback and information from the respective national competent authorities, these should also be empowered to consider utilising consumer testing in order to obtain data that is in line with their market specific characteristics. While it is acknowledged that Regulations must apply across the bloc in a harmonised manner, also to ensure that the risk of regulatory arbitrage is mitigated, the characteristics of the different jurisdictions within the bloc shouldn't be ignored and can be used to build the wider framework. Alternatively, when the ESAs carry out their testing, it is to be ensured that the methodology they employ features a sample of the European population that is in line with actual populations. It has been seen that basic consumer testing that has been carried out has been done so only on a small number of jurisdictions, which tend to have greater populations, effectively undermining the interests and characteristics of the consumers resident in other countries.

Crucially, the recommended consumer testing framework must integrate advanced neurophysiological tools to supplement traditional behavioural methods. Neurophysiological techniques, such as eye-tracking and functional Magnetic Resonance Imaging, offer powerful methods to capture unconscious consumer responses and cognitive processing in real-time. These tools can precisely identify elements within disclosures that genuinely capture consumers' buying behaviours. Policymakers should therefore consider mandating neuroscientific consumer testing, particularly for high-risk or complex financial products, to ensure that disclosures are designed based on actual cognitive processing capabilities.

Regulators should look at how adaptive or layered disclosures can optimise and tailor disclosure information, based on individual consumer interactions and preferences, thus continually enhancing consumer understanding and engagement. A durable 3-page document is arguably no longer in touch with today's technological advancements. Such systems could continuously refine disclosure formats, reducing cognitive load and increasing relevance, directly addressing issues such as information overload and lack of consumer focus. In addressing the problem of information overload, the introduction of layered disclosures and the concept of gamification presents promising strategies. Layered disclosure methods enable regulators and financial institutions to present the most critical information succinctly, with detailed explanatory layers accessible based on consumer interest or need.

Furthermore, a concentrated effort is needed to consolidate the findings of studies already carried out, many of which remain fragmented across various sources. Building on the foundation laid by this dissertation, future work should focus on bringing these insights together in a cohesive manner and ensuring the practical implementation of their results.

To emphasise trust in legislators and regulatory bodies, the results of such experiments should be made available to public scrutiny and review, while being sensitive to the ethical considerations outlined in this thesis. This will enhance investor confidence and provide empirical evidence to consumer lobby groups that disclosures are being crafted with behavioural patterns at the forefront of analysis.

In conclusion, this thesis firmly argues that meaningful IBIP disclosures across the EU can only be reached by adopting consumer testing methodologies that incorporate neurophysiological techniques. The resulting framework would significantly improve disclosure effectiveness, as it would be based on information elicited from the subconscious minds of humans, information that till now does not seem to have been accessed. Such an approach to disclosure will ultimately lead to improved financial decision-making, ultimately achieving better consumer outcomes in line with the EU's investment goals.

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