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Gain framed and loss framed messages in the insurance industry: An empirical study on consumers behavior on insurance purchase.

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Abstract

The chances are that every person will have to handle insurance matters whether directly or indirectly in adulthood life. So, why does a subject that is so present in contemporary life lack specific studies in the marketing field? This paper offers an empirical evidence about important effects of message framing on consumers' purchase decisions for insurance services. It includes a survey quasi-experiment[1] designed to collect primary data comparing Gain Framed vs. Loss Framed messages and its effects on consumers' behaviors. As part of the findings is the evidence of how framing can result in the opposite direction from expected behaviors of insurers marketers tend to believe at the same time data has showed that consumers' willingness to share personal data with insurers might be a subject heavily explored by insurer underwriters when pricing insurance policies in the near future.

Keywords: insurance, marketing, advertising, gain framed, loss framed, willingness to pay.

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[1] Quasi-experiments do not use a perfect random assignment to treatment or control. In this case, I compare two treatments (loss-framed vs. gain-framed ads) and even though subjects are randomly assigned to these two treatments, the "treatments" vary in other dimensions than the focal variable (i.e., message framing). The decision to design my survey experiment in this manner was a deliberate choice to e trade-off external validity (i.e., realism) for internal validity (i.e., experimental purity). However, it is important to bear this caveat in mind when interpreting my results.

Table of Contents

List of Abbreviations

P&C	*Property and Casualty*
L&H	*Life and Health*
DV	*Dependent Variable*
IV	*Independent Variable*
WTP	*Willingness to Pay*
GF	*Gain Framing*
LF	*Loss Framing*
EVC	*Economic Value to the Customer*
H0	*Null Hypothesis*
H1	*Hypothesis 1*
H2	*Hypothesis 2*
H3	*Hypothesis 3*

1. Introduction.

The insurance industry is estimated to represent a $ 5.5 trillion market worth globally in 2021 alone when considering insurers premium collection (Rudden, 2022). For an industry with such an expressive value, considered to be some of the most traditional business in the financial market, this study will explore how marketing messages influence consumer perceptions and purchase intentions in the insurance industry.

To have a better understanding of marketing strategies on consumers perception and purchase behavior in the insurance industry, this study takes a closer look on consumers perception of insurance services (De Bettignies et al., 2006; Stroe and Iliescu, 2013; Lee, 2017; Krishnamoorthy and Jayakumar, 2020; Brawley et al., 2021) combined with an analysis on the message approach that insurers commonly use of a loss aversion psychology (Paraschiv and L'Haridon, 2008; Outreville, 2014; Pignataro, 2019; Guitart and Stremersch, 2021; März, 2019; Karle and Peitz, 2014) to advertise its services and in the hope to call the attention of consumers before they make a purchase decision.

It is with the context above that marketing professionals have been working for the insurance ecosystem market to attract consumers, by creating awareness of the companies and offering their services through creative ads and catchy jingles commercials during television prime time (Ganahl et al., 2003) and heavy investments both at online and offline level through an omnichannel marketing strategy searching to reach potential new clients (Hu and Tracogna, 2020).

This highly competitive industry background insurers then aim to reach the final consumer to sell an essential service (if not mandatory), making clients very likely to switch carriers purely based on a costly wise decision. As a result, insurers now need to consider a more holistic perspective on their client's retention, using metric-based tools (e.g., Customer Lifetime Value measurements) to manage their respective portfolio of clients on a current basis, so they select effectively their clients' segments and have a clearer view of potential new clients (Ryals and Knox, 2005).

As this study digs into the marketing strategies insurance corporations use to reach their targeted consumers, this paper will bring some new insights to the existing literature approaching the following research question:

- *How does the framing of marketing messages influence consumers purchase behavior in the insurance industry?*

In the pursuit of bringing new information to this question, this research will review previous studies on this subject and will conduct a qualitative survey research to collect supporting data to also bring additional insights as we unfold the related sub-questions from the main research question.

- *Do loss aversion ads make consumers have a higher perception of insurance needs?*
- *Can loss aversion ads increase consumer willingness to pay insurance?*
- *Do consumers exposed to a loss aversion ad more willing to take risk via higher deductibles/co-participation share, in exchange to a lower premium charge?*
- *Are consumers exposed to a loss aversion ad tend to be more willing to disclose personal/tracking data in exchange for better coverage and premium rates, as compared to consumers exposed to a gain framing ad?*

Once the survey results are interpreted, our hypotheses will be raised and conclusions on the findings will be shared properly in this research for peers' review.

2. Literature Review

2.1. Position and contribution of the study

This study gathers two existing subjects of academic research over the last decades. The first relates to marketing literature on how advertising affects consumer behavior before a purchase decision. The key idea in this literature stream is that marketers can leverage knowledge of consumer psychology to craft commercials that appeal to viewer's emotions, thereby influencing their purchase decisions (e.g., Guitart and Stremersch, 2021).

The second is a growing marketing literature focused on specific industries and contexts that deserve careful consideration due to their unique institutional characteristics. Examples of industries studied extensively in marketing include healthcare and life-sciences (e.g., Stremersch and Van Dyck, 2009), entertainment industries (e.g., Eliashberg et al., 2006), and banking (e.g., Ater and Landsman 2013), to name just a few. A more recent stream of papers in this literature focuses on consumer's perception of the modern insurance industry, even though most work remains concentrated in specialized journals rather than mainstream marketing journals (e.g., Eckardt and Räthke-Döppner 2010).

The relative lack of attention by mainstream marketing scholars towards the insurance industry means that it is not trivial to find top publications about advertising content in the context of insurance industry. This means that there is an important gap in the literature to be filled. Specifically, when considering how fast industries have been transformed in the technology spectrum and the way companies are doing business, this study might be relevant to refresh and validate the findings of previous literatures.

That said, this paper might be able to contribute in future papers to validate consumers behaviors after exposed to the marketing strategies focused on the insurance companies, or any other financial service such as banking, mortgage and pension plans. Including the results and findings of the marketing experiment study to be conducted and explained in more detail in the upcoming chapters.

Which is even more relevant in recent years, due to an increasing interest in evidence-based findings that advertising viewers can have their purchase decisions affected by the content they have been exposed to before a purchase. Effect that can be explained partially by a more developed

technology in targeting potential clients through cookies data and targeting them in social media or similar digital platforms.

2.2. Summary of the literature review

The literature review of this study as mentioned in the introduction is focused on previous literature mostly about insurance, marketing and some behavioral economics related matters. In the next section you will find the literature review table (Table 1) giving an overview of the papers, pointing out key factors of each of them that served as reference for the problem definition of my study paper.

Especially in recent years, it is possible to notice an increasing interest in evidence-based findings that advertising viewers can have their purchase decisions affected by the content they have been exposed to previously. This could be explained partially by a more developed technology in targeting potential clients through cookies data and targeting them in social media or similar digital platforms.

Overall, the reference literature presented in the next section demonstrates how academic researchers have been studying how consumers behavior might be influenced by external factors such as firms advertising campaigns different industries (Paraschiv and L'Haridon, 2008; Guitart and Stremersch, 2021). A special remark goes to Outreville (2014) paper that approaches the loss aversion effect specifically in the insurance consumers, which this study can be worth as a complementary material for future research.

2.3. Literature review table

Based on Palmatier (2016) academic recommendations, below you will find a table with the papers that have contributed as reference at the starting point of my research paper.

Table 1. Academic papers about marketing strategies and insurance industry.

Reference	Market Context	Industry	Theory Base	Moderators	Findings	Reference Count
De Bettignies, H.C., Lépineux, F., Tan C.K. (2006). The Insurance Business and its Image in Society: Traditional Issues and New Challenges.	Insurance business perception in society.	Insurance	Balance pros and cons of what the Insurance Industry practices demonstrates to society.	* Level of business transparency. * Level of audit practices.	Improvements in corporate governance of large insurers, through Corporate Social Responsibility (CSR).	8
Lee, K. (2017). Consumer perception, information provision, and regulation of insurance markets.	Consumers assessing information about insurance.	Insurance	Evaluate the most relevant aspects and motivations behind consumers decisions when choosing an insurance provider.	* Deductible level V Premium Charge. * Consumer over estimation of the Insured Value,	Consumers tendency to make decisions not based on numbers when comparing Deductibles V Premium. Owners bias in having a wrong assessment of its asset real value, typically overestimating it.	8
Krishnamoorthy, D., Jayakumar, S.K. (2020). A study on factors influencing consumer perception on general insurance.	Main factors influencing consumers perception about insurance in India.	Insurance	Study of the main factors policyholders consider when evaluating insurance satisfaction.	* Consumers service satisfaction. * Insurer reputation. * Socio-economic variables.	Based on the survey research conducted, India's market tends to weight more the service relationship when evaluating a service.	0
Brawley, A., Kwok, D., Lesarge, J., Nickerson, E. (2021). Promoting competition in P&C insurance. Reducing switching costs for Canadian consumers.	Consumers habits to change insurance providers in Canada.	Insurance	High rates of consumers switching companies increases insurers operational and administrative costs.	* Service levels. * Coverage levels. * Customer loyalty levels.	A highly competitive market with low product differentiation motivates consumers to switch companies at a faster rate.	0
Paraschiv, C., L'Haridon, O. (2008). Loss aversion: origin, components and marketing implications.	Consumer loss aversion behavior.	Marketing	Psychological impacts of negative outcomes on consumers' future decisions.	* Characteristics of the goods to be purchased. * Socio-economic variables. * Circumstances of the transaction.	Trade-off factors relevant in the findings: user experience, smooth payment process, adapting price strategy, delimitating budget categories.	17

10

Reference	Topic	Field	Research question	Variables	Findings	Citations
Outreville, J.F. (2014). Risk aversion, risk behavior, and demand for insurance: a survey.	Individuals risk aversion behaviors effects on insurance decisions.	Insurance / Behavioral Economics	Understanding individuals' behavior to assess a risk profile and how it influences willingness to insure.	* Socio-demographic. * Gender. * Age. * Family status. * Education level. * Race/ethnicity, religion. * Job occupation. * Behavioral habits.	Asymmetric information, uncertainty and incomplete information tend to contribute to risk aversion behaviors, hence increasing demand for protection alternatives like insurance. However, the study points out several limitations factors to be considered.	142
Guitart, I.A.; Stremersch, S. (2021). The impact of informational and emotional television ad content on online search and sales.	Advertisements triggering emotions from the viewer and their effect on sales.	Marketing	Emotional content in ads and its effects on consumers in the auto industry.	* Advertising content (informational v emotional). * Product positioning (price v quality).	Emotional content tends to result in higher sales of high price quality cars. While informational content worked better for low price quality segment.	9
Pignataro, A. (2019). The effects of loss aversion on deceptive advertising policies.	Deceptive advertisement potential influence on consumers' purchase decisions.	Behavior	Consumers loss aversion importance in the purchase decision, if ads might be misleading.	* Product quality. * Price sensitivity. * Consumer past experience.	Companies tend to create a conduct policy of best practices, in the attempt to avoid misleading ads. Since it degrades companies' brand reputation.	2
März, O. (2019). Competitive persuasive advertising under consumer loss aversion.	How to reach the loss averse consumer attention.	Marketing	Persuasive advertising model targeted to loss averse clients.	* Advertising proposition. * Consumer demand. * Product differentiation. * Price level.	The author proposes a model pursuing an equilibrium on the advertisement v product utility.	2
Karle, H., Peitz, M. (2014). Competition under consumer loss aversion.	Informed consumers v uninformed consumers behavior on purchase.	Behavioral Economics	Competitive advantage to attract the loss averse uninformed consumer.	* Consumers information level. * Consumers demand.	In symmetric markets, early information consumers tend to bring prices down due to higher competition. In asymmetric markets, where products are more complex or bought less frequently, consumers with less information about the product, firms tend to charge higher prices.	78

3. Institutional Context: The Insurance Industry

Given the lack of focus in the mainstream marketing literature on the insurance industry, in this chapter I offer a primer on the insurance industry and its origins. Insurance companies are among the largest spenders in marketing and advertising. The 2022 CMO Survey for instance identified banking & insurance as one of the top 3 sectors in terms of growth of their marketing teams (jointly with education and technology)[2]. Progressive alone – the largest spender in advertising within the insurance industry in the U.S. – spent $1.95 billion on advertising in 2020, 17.5% than it had spent in 2019 (S&P Global Market Intelligence 2021)[3]. In sum, the insurance industry is a highly relevant context in which to study advertising content. I now review its origins and specific institutional characteristics.

Modern day insurance services include all types of insurance policies, from Property & Casualty (P&C) lines mostly known for Home, Auto, Liability and Travel protection to Life & Health (L&H) services to be offered at an individual or a group/commercial levels. Depending on the country's governmental authorities, the acquisition of certain kinds of insurance might be optional or compulsory to its citizens and taxpayers (Trebilcock, 1988, Banks, 2004).

Once the insurance industry became an essential risk management tool to support modern society's development growth, by providing financial protection to companies and individuals willing to pursue economic growth when investing in new ventures. Hence, being exposed to foreseeable risks, but now knowing that if things go wrong along the way they will be protected by insurance in case of an unfortunate event covered by the insurance policy. However, it seems that over time this service being so essential it also became "commoditized" and consequently unattractive to consumers (De Bettignies et al., 2006). Partially explained by a low-profile industry that even though has plenty of technology implemented by the largest players on the backstage, most of these innovations do not reach the final consumer (Binder et al., 2021). Despite a large gap for disruptive innovation, a strong growing movement is on course to bring the consumers eyes through the Insuretechs initiatives (OECD, 2017).

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[2] CMO Survey (Chief Marketing Officer), is a marketing professionals association collecting and disseminating the opinions of marketing leaders in order to predict the future of markets, track marketing excellence, and improve the value of marketing in companies and in society.

[3] S&P Global Market Intelligence 2021 consists of an annual report published by Standard & Poor's with industries insights and outlooks

However, as a matter of a background the concept of insurance industry is mostly known nowadays have started formally in 1600's Europe, the concept of third party's risk transfer behind insurance operations is dated back to the ancient era with evidence suggesting that the Babylonian Empire (1894 BC – 1595 BC) already had contract agreements foreseeing loss compensations during commercial activities (Ungarelli, 1984).

Despite of risk transfer concept having been present for a long time in human history, to explain how the insurance timeline has progressed in our society throughout the centuries, we can also bring some historical events since insurance contracts started that helped to shape the way insurance was integrated into the western European society, from maritime mutual loans to fund merchant ships as part of the "Lex Mercatoria" in the Middle Ages (Martiskova, 2018). To the modern insurance as we know nowadays are accepted by the industry to have started in the UK, followed by the "Great Fire of London" in 1666. The aftermath of this event, Londoners started to create contracts insuring their property against fire in exchange to a premium collection (Read, 2016). Until the creation of the Lloyd's of London right after in 1688, primarily focused on marine risks related but then becoming the birth of reinsurance market still in operation now in modern days bearing the same essence (Lloyd's of London, n.d.).

Throughout history it is possible to assume that insurance operations were able to backup entrepreneurs and businesspeople in taking higher risks by knowing that part of their losses could be recovered by casualty events covered by insurance policies, that said with insurance payouts in non-catastrophic cases also meant a faster recovery for business activities. Another aspect that might be seen as having a secondary role not always visible at first sight, but in my understanding as important as the property/asset protection of the insured was the sense of liability that individuals were held accountable for against damages to third parties.

Liability risks intrinsic to business activities, despite being a matter of legal disputes between insurance law firms and legal courts around the world until the current days to define to what extension insurance policies should be responsible for. Existing literature has shown us that this concept of individuals being accountable for consequences of their acts, whether directly or indirectly, is a cornerstone for the concept of society laws created and developed over the latest centuries (Trebilcock, 1988, Hull, 2018, Deloitte, 2022).

To summarize in some practical events that have called global attention over the last decades, mainly on the news disruptions and their unfolding stories on the impacts on social, political and economic aspects, have also shaken the insurance industry on the backstage by being responsible for the highest insurance payouts, according to Mantra Labs ranking (Simon, 2019):

- 9/11 Terrorist Attack, 2001 (USD 40 Billion).
- Hurricane Katrina, Rita and Wilma, 2005 (USD 130 Billion).
- US Housing Financial Crisis, 2008; (USD 250 Billion).
- Fukushima Earthquake and Tsunami, 2011 (USD 35 Billion).

4. Theoretical Framework

4.1. Overview

To have a better understanding of how marketing messages influence consumer perceptions and purchase intentions in the insurance industry, we start from the point that that insurance services are intrinsically related to the possibility of a negative outcome. As Outreville pointed out in his empirical paper (2014) that asymmetric information tends to corroborate risk aversion decisions when selecting an insurance provider, this study takes a closer look if the way the message is transmitted to the viewer.

The loss aversion factor and respective role in the purchase decision process studied in previous theories (Outreville, 2014; Paraschiv and L'Haridon, 2008; Pignataro, 2019; März, 2019; Karle and Peitz, 2014) as part of my literature review for this study, will now be adapted to another terminology known as loss framed message to better address the comparison in this empirical study.

As a next step of this study, our first action is to identify whether marketers utilize a gain framed or a loss framed message approach to publicize the insurance service as our Independent Variable (IV) framing starting point. Then we will gather a series of real situations to test some external scenarios if it is possible to demonstrate through statistical analysis if the suggested variables can support evidence-based effects on the Dependent Variables (DV).

4.2. Research question and sub-questions

To begin explaining this study approach on how the framing of marketing messages influence consumers purchases behavior in the insurance industry, we agree that insurance products and services can be easily connected to the idea of losing something that belongs to you, maybe for this reason insurance companies are tempted to focus on negative outcomes when offering your services (Stroe and Iliescu, 2013). On the other hand, we also need to weigh the fact that insurance costs tend to become a current expense for all of us during adult life and have a higher importance as people age, have kids and accumulate assets during a lifetime (Lee, 2017). So, we can also agree that for a type of service contract that clients will have to face at least once a year when the policy

contracts must be renewed, it is expected that large insurance conglomerates would not focus only on the negatives outcomes of life.

This way to start breaking down our research question, the first step is to differentiate the 2 types of framing message insurers would use in commercial campaigns. Ganzach and Karsahi (1995) conduced an empirical experiment with a credit card service, describing the Gain Framing (GF) messages highlighting the positive attributes of the service offered and consequent benefits the user would gain by using the service, while the Loss Framing (LF) would emphasize the negative outcome and loss the user would have by not using this same service offered.

Once the message concept is clear, this study then digs into the implications these different types of messages can impact to influence a potential consumer during the decision process. The following sub-questions were elaborated to contribute on the answers to the research question and support the findings validation on the analysis of hypothesis.

- Do loss framed messages ads make consumers have a higher perception of insurance needs when compared to gain framed messages ad?
- Can loss framed ads increase consumer *willingness to pay insurance* in comparison to gain framed ads?
- Are consumers exposed to a loss aversion ad become more *willing to take risk* via higher deductibles/co-participation share on the insurance policy, in exchange for a lower premium charge?
- Are consumers exposed to a loss aversion ad more *willing to disclose personal data* in exchange for a better coverage and premium rates, as compared to consumers exposed to a gain framing ad?

Based on the above sub-questions we can then assume moderators and variables for the framework scenarios that should support the findings on the research question and the survey results. Hence, this study now is segmented as follows:

IV: Insurance Commercial Ads. Gain Framed message group and Loss Framed message group.

DV: *Willingness to pay for insurance, Willingness to take risk, Willingness to disclose personal data.*
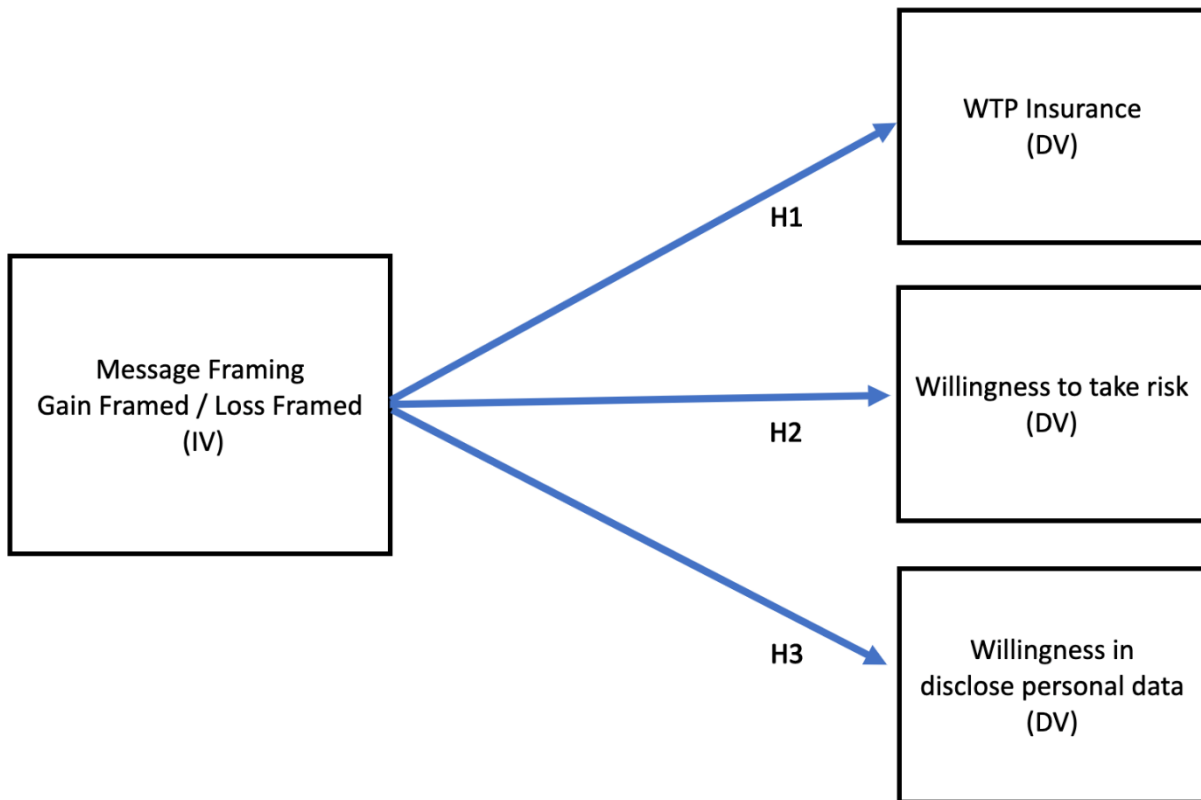

Fig.1: Research Theoretical Framework.

The above framework is intended to give a general overview of the research question. However, in the pursuit of finding evidence-based answers to the main questions, this study proposes the usage of moderators from the sub-questions raised to support any future findings and insights to be explained in more detail in the next chapters.

4.3.   Hypothesis Formulation

To establish the connection between the IV and DV to be tested with the dataset from the survey experiment to answer the following elaborated hypothesis:

Null Hypothesis (H0):

The null hypothesis (H0) in this experiment is considered in the scenario where there is no overall effect from the variables analyzed to the DV result observed, after running the proper tests conditions. In this case, this means that independently of the gain or loss framed message in the insurance commercial advertisement, the DVs suffer no significant effect.

Hypothesis I (H1):

- *Consumers exposed to a loss framed ad have a higher willingness to pay for an insurance policy than consumers exposed to a gain framed ad.*

To study the eventual effects of this study, Hypothesis I (H1) start with the assumption that there is direct effect on the consumers' *willingness to pay insurance* (DV), influenced by the loss framed message after consumers being exposed to the commercial ad. The metric utilized to test H1 is approached directly by one of the survey questions.

Hypothesis II (H2):

- *Consumers exposed to a loss framed ad have a higher willingness to take risk via deductibles level in the insurance policy than consumers exposed to a gain framed ad.*

All insurance policies present a deductible level, which essentially means the insured participation in the risk. This condition typically works as an indicative of how the policyholder is comfortable with the risk and influences the final insurance premium to be paid. Hypothesis II (H2) will test if there is significant interaction that can be observed from the data sample between the message frame (IV) and the preference of deductibles level pointed out by the survey participants.

Hypothesis III (H3):

- *Consumers exposed to a loss framed ad tend to present higher willingness to disclose personal data in exchange for better coverage and premium rates in comparison to consumers exposed to a gain framed ad.*

Another variable to be tested as a result of the message frame (IV) is a sensitive emerging subject in today's reality with the advance of technology and how people interact have modeled business development to consumers, that in the financial sector is being more present in the banking, health and personal insurance services. The privacy of individuals data collection has been heavily debated since the presence of social media and popularization of smartphones in everyday lives and questions of how the big tech companies are managing personal data. Considering that in the long run, this might even be a way to create digital identity profile segmentation based on personal information collected involuntarily (Beduschi, 2018).

Considering the insurance industry is one of the industries that can be affected directly (for good or bad) with the usage of these data, within this context Hypothesis III (H3) will investigate briefly the message frame can potentially influence consumers' *willingness to disclose personal data* information in exchange to better insurance rates.

5.   Data & Methodology

5.1.   Data type

When elaborating this survey experiment, the main idea was to gather qualitative primary data to test the hypothesis analysis based on the participants' answers. According to Miles et al. (2014) book addresses some of the best practices for qualitative data methods during scientific research, including market surveys recommendations in how to choose questions that will be more assertive in support your analysis and test your hypothesis afterwards.

That said, to explain in the rationale behind the survey construction, the idea of the experiment consisted in creating a loss framing group and a gain framing group to be randomly chosen when the participant accepted to the survey conditions. Both group members would then be asked to answer a series of multiple choices qualitative questions related to the stimulus they just watched and their preferences on insurance services attributes they consider the most during a decision process to choose an insurance carrier.

The survey consisted of 3 blocks (see Appendix A):

1.   A stimulus material. One message to the loss framing group and another one to the gain framing group, randomly selected and equally distributed among participants.
2.   Research questions. A series of questions to assess participants perception on insurance attributes, stimulus validation and variables to the research question analysis (see appendix).
3.   Socio-demographic questions. Assessment of general characteristics of the respondents.

5.2.   Participants and stimuli

To collect the primary data for this study, a survey experiment research was conducted consisting of 153 respondents. Due to the subject of this study, the focus group consists in economically active adults formed by young adults in academic life to middle-aged professionals from different regions mostly concentrated in the EU countries (Netherlands mainly) and the Americas.

As mentioned in the introduction, insurance products and services can be easily connected to the idea of losing something that you own due to unfortunate events. Bearing this in mind the survey stimulus to both groups consists in the participant watching a 30-second commercial advertisement about the same kind of insurance (personal car insurance). Despite the survey stimulus is designed over a car insurance context, all questions are applicable to any type of insurance (e.g., life, health, home) in a way that all respondents at an adult age can identify their consumer behaviors when making a purchase decision.

The survey was designed as a "survey experiment" with a between-subjects design, i.e., one where subjects are randomly assigned to one of two groups. The first group is a "gain framed ad" where subjects were exposed to a video stimulus consisting of a gain framed advertising message. The second group is a "loss framed ad" where subjects were exposed to a comparable video stimulus (i.e., for a comparable car insurance offer) but where the advertising message is framed as loss. They were played randomly for each new participant who clicked on the survey website link, so we could have an equal distribution from the total number of respondents.

Understanding that by manipulating two different content stimuli, it might bring implications affecting a pure experimental control (Cozby and Bates, 2019). In the Limitations section there will be more details on acknowledged implications.

Commercial ad #1:
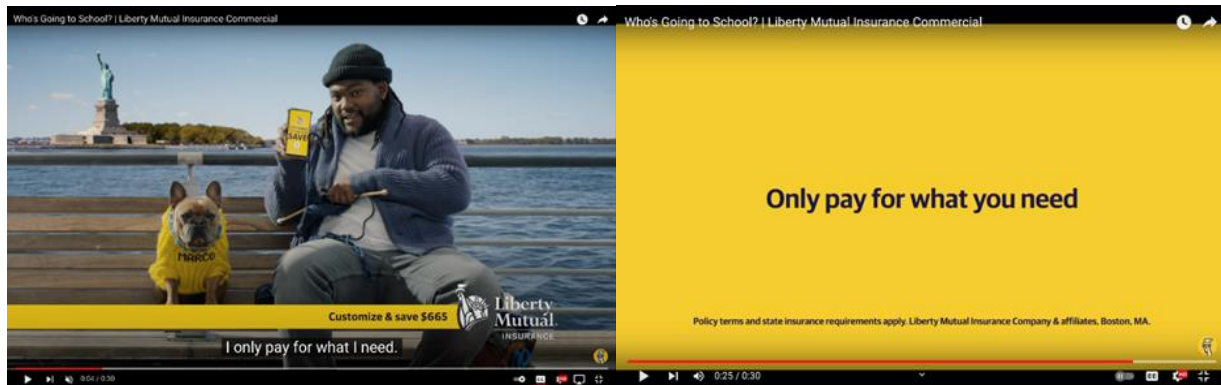
Fig.2: Gain framing message stimulus.

Commercial ad #1 from Liberty Mutual Insurance makes use of a gain framed message to communicate with the viewer with the following script:

The content consisted of a very charismatic character seated at an outdoor bench with his pet and knitting kit in hands, while saying the line:

"- Liberty Mutual customizes my car insurance. So, I only pay for what I need.

- ...and I do like to customize stuff."

Next, he starts to show a series of accessories he made himself customized to his dog.

During the entire time of the commercial the headline says, "Customize & save $665" and by the end of the video a final central message appears on the screen with the said "Only pay for what you need" with a vocal voice over, followed by the company's jingle.

This commercial presented a clear gain framed message by sending the message of saving clients' money with Liberty's car insurance in a very comic way and interest enough, does not show a car at any point during the ad.

Commercial Ad #2:
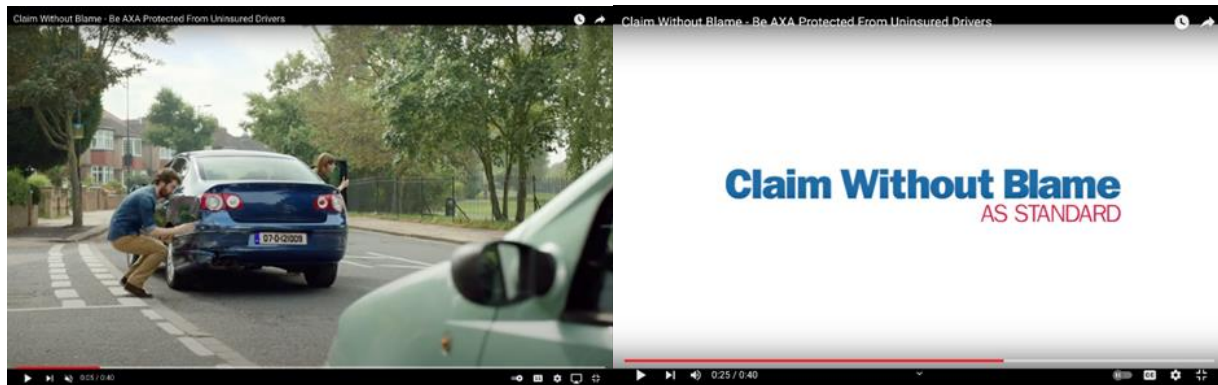
Fig.3: Loss framing message stimulus.

Commercial ad #2 from AXA utilizes a loss framed message to communicate with the viewer by simulating a real-life event mostly common in the traffic of large metropolitan areas.

In the scene, a couple is driving their car when they suddenly feel an abrupt bump hit from the car behind. Following the driving safety protocol rules for a car accident, the driver stops the car, and they get out of the car to check the damage. However, while the man seems very frustrated in seeing the car damages, the woman starts asking why the driver behind is not stopping nor leaving the car to support explanations. Remembering the viewer that for those who drive, we learn in driving schools that a general traffic rule, the driver behind is responsible to keep a safe distance from the car ahead.

The couple quickly realize that they have just been a victim of a hit and run accident, when the car behind simply decided to leave the scene and go away without assuming any consent to the accident.

Then a voice comes over explaining that if you have a car insurance policy from AXA, their policy provides coverage to uninsured drivers and AXA client wouldn't be penalized on their claim history.

"At AXA we don't think you should lose your no claim discount if you are hit by an uninsured driver. So, our claim without benefit means that you won't."

Followed by a closure message in the central screen "Claim Without Benefit AS STANDARD".

It is noticeable that this commercial message goes on a different way from commercial #1, by demonstrating a situation that all drivers are exposed when driving. Exposing the frustration of a car owner in having extra repair expenses, even not being responsible for the accident.

5.3. Data Collection

The data of this study consisted primarily of the collection through the survey specifically designed for this study, with some of the questions being key in the attempt to bring insights to answer the research questions and test the hypothesis. A key element related to data is the approach adopted in order to find robustness on the outputs for interpretation of the DVs involved on the hypothesis tests.

As mentioned previously, H1 takes *willingness to pay insurance* as the main effect from the variables. WTP is a subject extensively covered by literature, in which authors have developed different metric methods to measure WTP. This common terminology is used by researchers when trying to find that a price range consumers seem willing to pay for a certain product or service. Bearing in mind that WTP might differ from region to region, especially in emerging economy countries such as Brazil, Russia, India and China representing a huge consumer market, but each of them having very unique standards of culture and consumption values, likely affecting WTP in certain degree (Khanna et al., 2005, Krishnamoorthy and Jayakumar, 2020).

However, for this study we focus on the most acceptable methods empirically used by companies involve direct approach (open-ended questions) or indirect approach (choice-based conjoint analysis) measured by a hypothetical WTP or an alternative measurement is the actual WTP observed between an incentive-aligned direct approach and an incentive-aligned indirect approach (Miller et al., 2011; Hofstetter et al., 2021). This study decided to go with the direct approach with an open-ended question in the survey, in which a hypothetical scenario is presented so the respondent is asked to say the WTP amount in EUR (see Q6 from the survey in the Appendices).

Another aspect being considered is the Economic Value to the Customer (EVC) as part of a market strategy to understand consumers mentality on WTP for a certain products or services, based on the attribute relevance offered is perceived by the consumer (Anderson et al., 1993, Forbis and Mehta, 1981). Since the main goal of this study is not intended diving too deep on this aspect, but concepts above is approached briefly by the survey as additional variables to understand the

attributes relevance of insurance products during the purchase process (see Q5 and Q7 from the survey in the Appendices).

On H2 the DV tested is the *willingness to take risk*, which is represented by the deductible levels the policyholder selects and it has a direct effect on the insurance policy premium. Considering that deductible is a tool that private insurance companies use to balance their premium collections (revenue) and claims expenses (losses), previous studies indicate that deductibles acceptance vary depending on several factors such as group age, financial status, family members and other (Van de Vend and Van Praag, 1981). In this study, the deductible subject is also briefly approached in the attempt to find significant relevance of this aspect in comparison to coverage levels, premium amounts and importance perception from the consumer.

Finally, the H3 emerges from a relatively new subject concerning the capability of companies (public or private) to collect personal data from individuals. As mentioned in the hypothesis formulation, the insurance industry is one of the sectors that can have huge benefits by collecting data and using them to create digital risk profiles (Beduschi, 2018). However, these tools and the way information is managed have been subject of several disputes on data privacy of individuals in the hands of big corporations. In this study, we will also approach at a superficial level consumers' *willingness to disclose personal data* in exchange for better rate conditions on insurance policies.

6.   Results

6.1.   Hypothesis I

To test H1, a linear regression was run by isolating WTP as DV and bringing in the equation the variables rated by the respondents after watching the stimulus content and personal preferences they have when choosing an insurance service. This model is then tested to see the effect in both loss framing and gain framing groups in the attempt to observe any significant changes in the conditions.

$$WTP_{InsuranceLF_i}$$
$$= \beta_0 + \beta_1 LossFramingGroup_i + \beta_2 AdAppeal_i + \beta_3 Consideration_i$$
$$+ \beta_4 Recommend_i + \beta_5 DailyImportance_i + \beta_6 PersonalFeel_i$$
$$+ \beta_7 BudgetSensitive_i + \beta_8 AssetProtect_i + \beta_9 Liability_i + \beta_{10} SocialRole_i$$
$$+ \varepsilon_i$$

After running the above equation model to test *WTP Insurance* in the *Loss Framing group*, we found the following outputs.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.355[a]	.126	.024	194.180

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q1_AdAppeal, Q7_AssetProtection, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q6_WTP

Fig.4: H1 model summary output.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	467452.588	10	46745.259	1.240	.278[b]
	Residual	3242710.051	86	37705.931		
	Total	3710162.639	96			

a. Dependent Variable: Q6_WTP

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q1_AdAppeal, Q7_AssetProtection, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Fig.5: H1 ANOVA output.

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	320.854	130.542		2.458	.016
	LossFraming	−69.375	40.659	−.177	−1.706	.092
	Q1_AdAppeal	−30.642	25.741	−.146	−1.190	.237
	Q2_Consideration	46.003	31.447	.235	1.463	.147
	Q3_Recommendation	−46.073	30.612	−.235	−1.505	.136
	Q7_DailyImportance	.028	23.608	.000	.001	.999
	Q7_PersonalFeeling	12.365	26.112	.067	.474	.637
	Q7_BudgetSensitive	−26.293	23.144	−.137	−1.136	.259
	Q7_AssetProtection	32.335	28.864	.143	1.120	.266
	Q7_3rdPartyLiability	−7.215	26.332	−.035	−.274	.785
	Q7_SocialRole	19.872	25.823	.102	.770	.444

a. Dependent Variable: Q6_WTP

Fig.6: H1 ANOVA output coefficients.

As result after running an Analysis of Variance (ANOVA) regression test, we started our analysis based on the 12.6% variance coefficient presented (R-square). We can assume the regression model fit is considered relatively modest to low, once we find the model being able to explain a variability <15% to the observed sample on the DV (see figure 4).

The next step then, was to analyze the F-test coefficient in order to validate the existence of a main effect on the DV. By assuming a p-value = .278 we could then confirm we failed to reject H0 (see figure 5). Meaning that the quasi-experiment manipulation based on the message framing does not seem to represent a significant positive change on the respondents WTP insurance, so consequently, rejecting H1.

Despite the fact of when looking at the individual parameters for framing (Loss Framing), it stands out with a p-value above .05 but still below .10 (p-value = .092). Being the only variable coefficient that is marginally significant, that tend to be looked more closely in small data sample such as this quasi-experiment (see figure 6).

6.3.   Hypothesis II

For H2 the DV *willingness to take risk*, which is represented by the level of deductible the policyholder takes on the risk its own insured risk. By manipulating the available variables from the survey responders, the analysis data were run over the regression model again for the between groups subject.

$$Deductibles_{InsuranceLF_i}$$
$$= \beta_0 + \beta_1 LossFramingGroup_i + \beta_2 AdAppeal_i + \beta_3 Consideration_i$$
$$+ \beta_4 Recommend_i + \beta_5 DailyImportance_i + \beta_6 PersonalFeel_i$$
$$+ \beta_7 BudgetSensitive_i + \beta_8 AssetProtect_i + \beta_9 Liability_i + \beta_{10} SocialRole_i$$
$$+ \varepsilon_i$$

In this second model now testing H2, based on the Willingness to take risk which is represented by the variable Deductibles in the survey questionnaire.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351[a]	.123	.026	2.262

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q5_Deductible

Fig.7: H2 model summary output.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.686	10	6.469	1.264	.263[b]
	Residual	460.641	90	5.118		
	Total	525.327	100			

a. Dependent Variable: Q5_Deductible

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Fig.8: H2 ANOVA output.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.475	1.511		2.300	.024
	LossFraming	.469	.467	.103	1.003	.319
	Q1_AdAppeal	.607	.291	.247	2.088	.040
	Q2_Consideration	−.801	.355	−.352	−2.258	.026
	Q3_Recommendation	.399	.348	.173	1.145	.255
	Q7_DailyImportance	.268	.265	.127	1.011	.315
	Q7_PersonalFeeling	.057	.300	.026	.192	.848
	Q7_BudgetSensitive	.155	.258	.069	.603	.548
	Q7_AssetProtection	.173	.324	.065	.533	.595
	Q7_3rdPartyLiability	.104	.301	.043	.344	.732
	Q7_SocialRole	.008	.293	.003	.026	.979

a. Dependent Variable: Q5_Deductible

Fig.9: H2 ANOVA output coefficients.

This time after running the same regression model but now testing H2 based on the *willingness to take risk* as a DV. The first aspect noticed in the model is the variance on the DV keeping a modest to low level at 12.3% (R-square), with coefficients result showing no main effect interaction (p-value = .263), between the message frame and the deductibles level chosen by the participants (see figure 7 and 8).

H2 tests coefficients suggest no difference between the loss framing and gain framing group related to the main effect, since for both the existence is observed, but with no evidence this is caused by the framing of the message when the product is advertised. Although, by having a deeper analysis on the variables effect tested, it is possible to notice a strong interaction of the variables AdAppeal (.040) and Consideration (.026) of the service offered with the DV. This result can lead to the assumption that despite H2 is rejected by the data, these variables interaction related to the loss framing appeal and consideration with the *willingness to take risk* when choosing the level of deductibles might be a potential subject of investigation in future studies in the field but limited in this one due to the inexistence of post-hoc tests on consumers preferences in this quasi-experiment (see figure 9).

6.4.   Hypothesis III:

Finally, for H3 the study now approaches a relatively new subject affecting business across the board, with the insurance companies being one of industries that might have a great impact on business models for good or bad, as explained previously on this paper.

To test how respondents seem to behave about their willingness to disclose personal data to insurance carriers, in exchange for better insurance rates. We have tested the loss framing and gain framing group with the model as follows:

$$PersonalData_{InsuranceLF_i}$$
$$= \beta_0 + \beta_1 LossFramingGroup_i + \beta_2 AdAppeal_i + \beta_3 Consideration_i$$
$$+ \beta_4 Recommend_i + \beta_5 DailyImportance_i + \beta_6 PersonalFeel_i$$
$$+ \beta_7 BudgetSensitive_i + \beta_8 AssetProtect_i + \beta_9 Liability_i + \beta_{10} SocialRole_i$$
$$+ \varepsilon_i$$

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437[a]	.191	.101	1.240

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q7_DisclosePersonalData

Fig.10: H3 model summary output.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.607	10	3.261	2.122	.030[b]
	Residual	138.304	90	1.537		
	Total	170.911	100			

a. Dependent Variable: Q7_DisclosePersonalData

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Fig.11: H3 ANOVA output.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.109	.828		.132	.895
	LossFraming	.126	.256	.049	.494	.622
	Q1_AdAppeal	−.070	.159	−.050	−.442	.660
	Q2_Consideration	.166	.194	.128	.854	.396
	Q3_Recommendation	.129	.191	.098	.674	.502
	Q7_DailyImportance	−.067	.145	−.055	−.459	.647
	Q7_PersonalFeeling	−.038	.164	−.030	−.229	.819
	Q7_BudgetSensitive	.075	.141	.059	.531	.597
	Q7_AssetProtection	.515	.178	.341	2.904	.005
	Q7_3rdPartyLiability	−.004	.165	−.003	−.026	.980
	Q7_SocialRole	.068	.160	.052	.423	.673

a. Dependent Variable: Q7_DisclosePersonalData

Fig.12: H3 ANOVA output coefficients.

So again, we started by understanding the variance level presented by R-square (19.1%) and this time representing a relatively higher value than the first tests (see figure 10), but still considered a modest level. Followed by the F-test analysis coefficient with a p-value = .030, we reject H0 assuming that H3 is accepted (see figure 11).

This time with the regression model proving to have the existence of a main effect of the Loss Framing message to the DV. To investigate further the IV in the model if any significant interaction would be present, the coefficient table evidence us that the variable AssetProtection (p-value = .005) is the one with a strong interaction with the DV (see figure 12).

By accepting H3, it means to be supported by data that a Loss Framing message evidenced to present a main effect on the DV represented by the *willingness in disclose personal data*, which would mean a more information related to the risk profile so when insurers underwriters can have access to better information, insurance rates would be better priced for the policyholders.

7.   Discussions and Future Research

The results from the quasi-experiment data have showed us enough evidence to reject H1 and H2 but accepting H3 during the process of testing the variables primary data collected in the survey and its main effect on the different DVs suggested at the research question section. It seems interesting that differently from initially thought, the Loss Framing messages failed to demonstrate better results in consumers WTP when compared to Gain Framing messages in the insurance industry. In addition to the fact that our tests results have also rejected the idea that the message framing would influence consumers' *willingness to take risk* during the process of choosing an insurance policy. On the other hand, H3 demonstrated to be supported by data results in proving that a Loss Framing message would make consumers be more likely to present higher levels of willingness to disclose personal data.

The key findings we can highlight as part of this study research can be related to H1 and H3.

On H1 to our surprise from the initial findings, our results not only showed that Loss Framing messages did not seem to influence consumers WTP insurance, but it even represented a negative coefficient effect to the DV (Std. β = -.177). This result despite not representing a highly negative effect on the DV, could serve as an alert for insurers marketers that tend to advertise Loss Framing ads in the attempt to attract consumers attention by highlighting negative outcomes (Outreville, 2014). In a way that insurance marketers might be focusing more effort and marketing strategy on Gain Framing message when advertising and creating a connection to potential consumers.

On H3 which involves the most contemporary subject from this study, regarding users' data privacy and collection policies. The result of the tests checking consumers' *willingness to disclose personal data*, has shown that consumers tend to have higher w*illingness to disclose personal data* to insurance carriers if this might mean better insurance costs. As mentioned in previous literature, stating that lower costs in insurance premium is still one of the main drivers for consumers when choosing an insurance carrier (Lee, 2017, Brawley et al., 2021). This aspect combined with technology development on digital identity and how companies can create individuals' profiles based on digital data (Beduschi, 2018) seems to be a fruitful subject for further investigations and future research.

Especially when considering the spectrum of what will be the limit for big tech companies and financial services providers in banking and insurance industries, if they collect personal data to the extent where it is possible to create a risk profile of individuals and pricing them based on personal data collections and not being limited to voluntary information (i.e., Life & Health insurance and bank loans).

That said, further studies should take into account a larger sample and probably explore in detail the extent of how personal data will be collected and what the clear purposes from companies once they are collected.

8.   Conclusion

Considering that this research paper proposed to bring an empirical study in the attempt to answer the research question, I believe that this study has accomplished the goal in answering clearly and demonstrating the main findings, providing supporting information and raising questions to be explored for future research.

As a key finding related to willingness to disclose personal data, this is a subject in the core of a real-world concerning companies across the board and possibly shaping how transparent marketers should be managing this kind of subject with final consumers and more importantly, how companies will handle this information internally. Within this context, insurance industry being essential the way it is in modern society, it is definitely an industry that might be heavily implicated in their business model changes in the upcoming future.

For H1 and H2 findings, this is more related to an intrinsic insurance market particularity in the framing approach to consumers that the companies will naturally find their way towards marketing efficiency once their message framing does not seem to achieve the expected result in consumers behavior. While H3 findings leave a promising subject to be unfold that may look unavoidable to occur in certain degree in the insurance industry for both P&C and L&H lines of business as technology advances and consumers are gradually more integrated to technology on a daily basis and sharing personal data does not seem to slow down, when driving habits can be easily collected with connected cars and health data being tracked closely by smartwatches.

9.   Limitations

This study acknowledges that during the process of this work, some limitations were found, and it is important to advise the readers about these facts to properly weigh it when interpretating the data and findings.

Survey Design: One of the foreseeable limitations we can understand to be possible in this study is on the experiment design. Once the between group subject experiment conducted the survey consisted in 2 different stimulus (gain framed and loss framed) content, in the pursue to catch the respondent's attention during the survey. This change might uncharacterized a pure experiment design and potentially lead to a correlated unobserved effect.

The main issue on the unobservable is characterized by the fact we can never be sure about the existence of a potential of (Godfrey and Hill, 1995, Jacobson, 1990).

Data Sample: Another limitation this study is exposed to is related to the data sample. During the survey process, the survey platform configuration was set up to allow respondents to skip or leave incomplete answers. This way, from the official N = 153 participants data sample, when the survey was concluded it was found that this number included those participants that did not conclude 100% of the survey questions. The practical implication on the study is that when running the test analysis through the software, the data samples varied according to the variables (questions).

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11. Appendices

Appendix A. Survey questions.

Q1 - How **appealing** was this ad to you in offering the service proposed?

Likert Scale (1-5)

Q2 - How likely are you to **consider this company's** service/product in your next purchase?

Likert Scale (1-5)

Q3 - How likely are you **to recommend** this service to a friend/relative?

Likert Scale (1-5)

Q4 - How do you **perceive** the commercial message? (verification question)

Categorical (0; 1; 2)

Q5 - In regards to the service/product offered, please rate the following features based on the level of importance during your purchase decision process.

5.1. Coverage levels (collision, liability, road assistance, etc.)

5.2. Premium amount (cost of insurance)

5.3. Deductibles amount (customer's participation on a claim event)

5.4. Customer service / Claim assistance / App

5.5. Bonus / Benefits / Loyalty Program

5.6. Company's reputation

Likert Scale (1-10)

Q6 - In a scenario where you just bought a brand new entry level EV car at the cost of EUR 30,000. After quoting the insurance, you find out that the cost of insurance varies from EUR 100/month (most basic plan) to EUR 1,000/month (most comprehensive plan). What would be your willingness to pay insurance?

Ordinal (100 - 1,000)

Q7 - Based on the commercial message combined with your life experience, please answer the following questions:

7.1. Insurance affects my life on a daily basis.

7.2. Insurance brings me peace of mind.

7.3. Insurance costs compromise my budget.

7.4. Insurance policies protect my assets.

7.5. Insurance is important not only for me, but for anyone who I might cause a loss/damage.

7.6. Insurance plays a social role in modern society.

7.7. I'd be willing to disclose personal/tracking information to insurers in exchange to better cost conditions.

Likert scale (1-5)

Q1 - What is your gender?

Q2 - What is your age group?

Q3 - What is the highest degree or level of education you have completed?

Q4 - Country of Residence?

Appendix B. H1 Analysis result outputs

Table 2. H1 model summary output.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.355^a	.126	.024	194.180

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q1_AdAppeal, Q7_AssetProtection, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q6_WTP

Table 3. H1 ANOVA output.

ANOVA^a

| Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	467452.588	10	46745.259	1.240	.278^b
	Residual	3242710.051	86	37705.931		
	Total	3710162.639	96			

a. Dependent Variable: Q6_WTP

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q1_AdAppeal, Q7_AssetProtection, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Table 4. H1 regression coefficients output.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	320.854	130.542		2.458	.016
	LossFraming	−69.375	40.659	−.177	−1.706	.092
	Q1_AdAppeal	−30.642	25.741	−.146	−1.190	.237
	Q2_Consideration	46.003	31.447	.235	1.463	.147
	Q3_Recommendation	−46.073	30.612	−.235	−1.505	.136
	Q7_DailyImportance	.028	23.608	.000	.001	.999
	Q7_PersonalFeeling	12.365	26.112	.067	.474	.637
	Q7_BudgetSensitive	−26.293	23.144	−.137	−1.136	.259
	Q7_AssetProtection	32.335	28.864	.143	1.120	.266
	Q7_3rdPartyLiability	−7.215	26.332	−.035	−.274	.785
	Q7_SocialRole	19.872	25.823	.102	.770	.444

a. Dependent Variable: Q6_WTP

Table 5. H1 regression histogram.
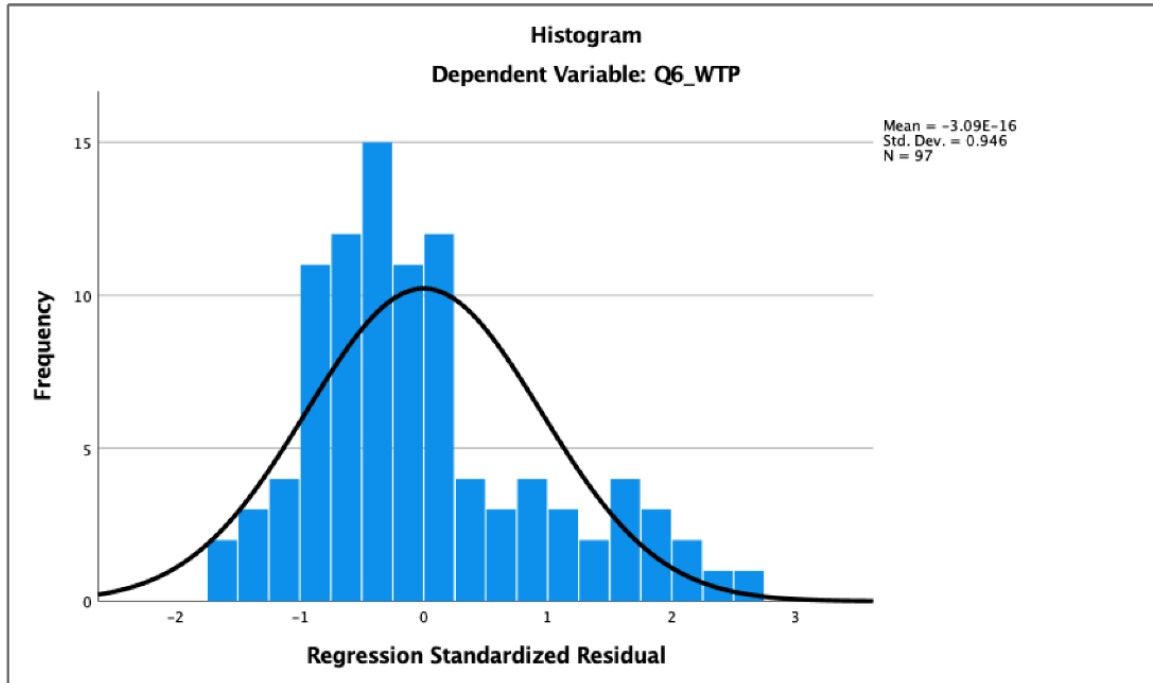
Appendix C. H2 Analysis result outputs

Table 6. H2 model summary output.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351[a]	.123	.026	2.262

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q5_Deductible

Table 7. H2 ANOVA output.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.686	10	6.469	1.264	.263[b]
	Residual	460.641	90	5.118		
	Total	525.327	100			

a. Dependent Variable: Q5_Deductible

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Table 8. H2 regression coefficients output.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.475	1.511		2.300	.024
	LossFraming	.469	.467	.103	1.003	.319
	Q1_AdAppeal	.607	.291	.247	2.088	.040
	Q2_Consideration	−.801	.355	−.352	−2.258	.026
	Q3_Recommendation	.399	.348	.173	1.145	.255
	Q7_DailyImportance	.268	.265	.127	1.011	.315
	Q7_PersonalFeeling	.057	.300	.026	.192	.848
	Q7_BudgetSensitive	.155	.258	.069	.603	.548
	Q7_AssetProtection	.173	.324	.065	.533	.595
	Q7_3rdPartyLiability	.104	.301	.043	.344	.732
	Q7_SocialRole	.008	.293	.003	.026	.979

a. Dependent Variable: Q5_Deductible

Table 9. H2 residual statistics output.

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.22	8.56	6.87	.804	101
Residual	−5.491	4.025	.000	2.146	101
Std. Predicted Value	−3.295	2.094	.000	1.000	101
Std. Residual	−2.427	1.779	.000	.949	101

a. Dependent Variable: Q5_Deductible

Table 10. H2 histogram
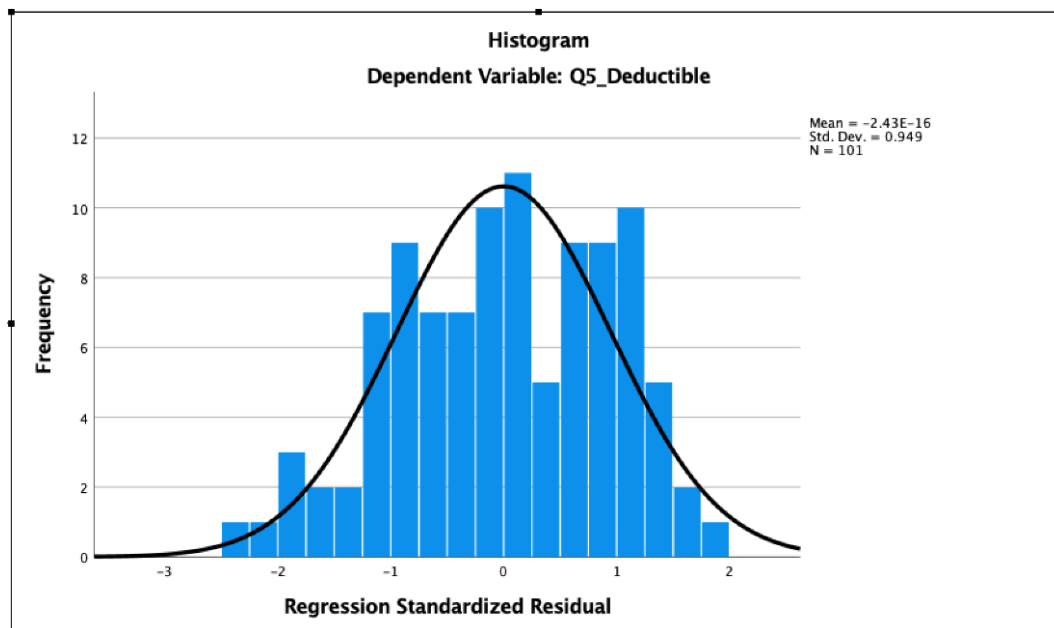
Appendix D. H3 Analysis result outputs

Table 11. H3 model summary output.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437[a]	.191	.101	1.240

a. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

b. Dependent Variable: Q7_DisclosePersonalData

Table 12. H3 ANOVA output.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.607	10	3.261	2.122	.030[b]
	Residual	138.304	90	1.537		
	Total	170.911	100			

a. Dependent Variable: Q7_DisclosePersonalData

b. Predictors: (Constant), Q7_SocialRole, Q7_BudgetSensitive, LossFraming, Q3_Recommendation, Q7_AssetProtection, Q1_AdAppeal, Q7_DailyImportance, Q7_3rdPartyLiability, Q7_PersonalFeeling, Q2_Consideration

Table 13. H3 residual statistics output.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.109	.828		.132	.895
	LossFraming	.126	.256	.049	.494	.622
	Q1_AdAppeal	−.070	.159	−.050	−.442	.660
	Q2_Consideration	.166	.194	.128	.854	.396
	Q3_Recommendation	.129	.191	.098	.674	.502
	Q7_DailyImportance	−.067	.145	−.055	−.459	.647
	Q7_PersonalFeeling	−.038	.164	−.030	−.229	.819
	Q7_BudgetSensitive	.075	.141	.059	.531	.597
	Q7_AssetProtection	.515	.178	.341	2.904	.005
	Q7_3rdPartyLiability	−.004	.165	−.003	−.026	.980
	Q7_SocialRole	.068	.160	.052	.423	.673

a. Dependent Variable: Q7_DisclosePersonalData

Table 14. H3 residual statistics output.

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.88	4.01	3.03	.571	101
Residual	−2.393	2.032	.000	1.176	101
Std. Predicted Value	−3.760	1.712	.000	1.000	101
Std. Residual	−1.930	1.639	.000	.949	101

a. Dependent Variable: Q7_DisclosePersonalData

Table 15. H3 histogram.

Histogram
Dependent Variable: Q7_DisclosePersonalData

Mean = −3.93E−16
Std. Dev. = 0.949
N = 101