*Expert Views*

# Behavioral Insights on Life Insurance Product Design

## Consumers' View on the Value of Additional Benefits

Behavioral Science and Insurance Series

The Art & Science of Risk

**July 2024**

## Executive Summary

SCOR's Behavioral Science team in partnership with the Université Paris Nanterre undertook a research initiative to look deeper into the mechanism of how and why people make specific decisions when it comes to purchasing life insurance. This article, a part of this Discrete Choice Experiment (DCE) study series, focuses on three specific product features that appeal to our study participants – accident benefit and two types of survivor benefit. The basic product presented to study participants is a term life cover with a benefit of €100,000 upon death within the 20-year term. The optional accident benefit pays an additional €100,000 upon death by accident. The options for survivor benefit include a return of premium benefit that reimburses 50% of premium paid to those surviving to the end of the 20-year term or a funeral expense benefit that pays a benefit of €5,000 at the time of death if it occurs after the end of 20-year term.

### Key findings:

- Accident benefit: Study results revealed that participants show a strong positive utility for accident benefit overall and are willing to pay a higher premium to include it. The willingness to pay (WTP) is quantified as an additional premium of €3 per month on average for a term life cover that includes accident benefit.
- Return of premiums benefit: Study participants are divided on this benefit. 15% have a negative utility for this benefit, but 85% are willing to pay an additional premium to include this benefit in a term life cover. Those who have a high WTP for this benefit include retired participants and those who self-assess as being in very good health.
- Funeral expenses benefit: All participants have a positive utility for a survivor benefit in the form of funeral expenses. Participants are willing to pay a significant increment in monthly premiums on average of €8.50 per month.

The DCE approach is a survey method that investigates attitude to specific features within the context of the holistic product offering. It provides an innovative approach to product design research. The approach can be leveraged to investigate consumer attitudes to the features of life insurance products and to quantify the WTP for specific product features. As well as highlighting the results for specific benefit features tested in this study, this article demonstrates the depth of insight that can be gained through this methodology. This study was conducted in France with specific product features tested, but the approach could be applied in other markets to test product features of particular interest in the local market.

## Introduction: Consumer Willingness to Pay (WTP) for Insurance Product Features

Shopping for life insurance products is not an easy task. Consumers first need to understand the basic product and then navigate the variety of additional options available to them. These choices are not made in isolation and including one option often means foregoing another option. How do customers decide on the benefits to include?

Through a DCE study project conducted in late 2021, SCOR and Université Paris Nanterre explored what product features would appeal to potential customers and how much they would be willing to pay for a life insurance contract including these features. As part of this study, more than 1,000 participants from the French population were asked to make a series of 12 choices between pairs of life insurance contracts presented. The study was designed to replicate as closely as possible an online life insurance shopping experience by presenting products with different features and asking participants to select contract A, contract B, or neither of these. The product features investigated in this study are shown in Figure 1 on the next page.

In this article, we will focus on three specific product features (indicated with green arrows in Figure 1) that appeal to our study participants – accident benefit, survivor benefit in the form of return of premiums and survivor benefit in the form of a funeral expenses cover that continues after the end of the 20-year term.

Based on the choices of participants, the preferences for various product features can be determined. The study allows to compute WTP for a specific product feature. The WTP is presented as the average increase in monthly premium that a participant would accept for a product that includes a specific feature.

Attaching an additional benefit or feature to a term life insurance is viable if the WTP of the potential customer is equal to or exceeds the cost of providing this benefit. In this way the results of our study can inform product design by identifying which features customers value and providing a metric to determine if the pricing will meet customer expectations.

The findings of this study provide insights into the consumer view of the specific product features studied but also highlight the depth of insight that can be gained through applying this methodology as part of product design research.

*Figure 1 – Attributes & levels*

| Attribute | Levels |
|---|---|
| **Benefit payment method** | Specifies how benefits are paid. Two cases are possible:<br>• **Lump sum**<br>• **Income** |
| **Health information** | Indicates the health information that is requested when subscribing to the contract. Three cases are possible:<br>• **No information**<br>• **Declarative questionnaire**<br>• **Medical examinations and medical tests** |
| **Prevention Program** | Specifies the type of prevention program included in the contract. Three cases are possible:<br>• **No prevention program**<br>• **Annual medical check-up**<br>• **Personalized prevention program** |
| **Additional Benefits** | Indicates the additional benefits that you or your beneficiary can receive during the 20 years of the contract. Three cases are possible:<br>• **No additional benefits**<br>• **Payment of a daily fee for hospitalization (€50)**<br>• **Accident Benefit:** In case of death by accident, payment of an additional €100,000 to the beneficiary. This amount is paid in addition to the amount provided for in the contract. |
| **Survivors' Benefits** | Indicates the additional benefits that you or your beneficiary can receive after the end of the contract (20 years) if you are alive. Three cases are possible:<br>• **No benefits**<br>• **Return of Premium:** Reimbursement of 50% of the premiums paid. They are reimbursed if you are alive once the 20 years have elapsed.<br>• **Funeral expenses:** €5,000 will be paid to your family at the time of your death after the end of the 20 year contract to finance funeral expenses |
| **Monthly Premium** | Gives the amount you need to pay to the insurance company every month. Three cases are possible:<br>• **€26**<br>• **€37**<br>• **€48** |


## 1. Accident benefit

In our study, an accident benefit, also called accidental death benefit in the US, was defined as a double insurance benefit paid to the beneficiary for the insured's death by accident. The basic product is a 20-year term life insurance product offering a benefit of €100,000 on death and the accident benefit allows for an additional €100,000 benefit in the case of death by accident.

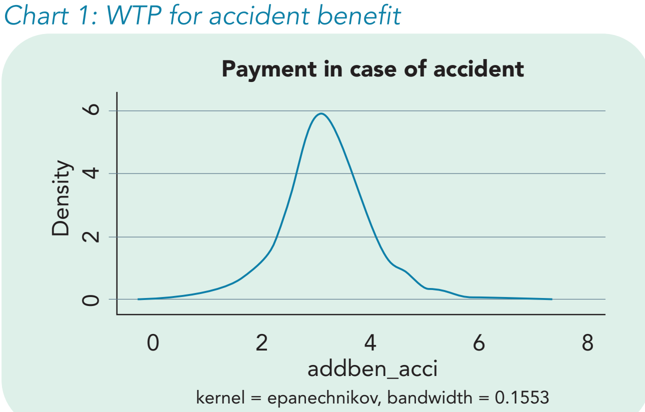
Study results revealed that overall participants show a strong positive utility for accident benefit. All are willing to pay an increased premium for a term life cover that includes accident benefit.

All respondents expressed a positive WTP, showing that this is a feature valued by everyone. Given that accident benefit has been positively viewed by all respondents, including this benefit is highly likely to improve the attractiveness of a term life insurance product.

The amount of WTP for the benefit was €3 per month on average. This is a significant increment in monthly premiums, which should be sufficient to meet the risk cost of accident benefit provided as a term insurance rider, subject to analysis of suitable age ranges.

In Chart 1 we see that WTP varies from 25c to around €7 with most participants willing to pay in the range of €2 to €4. Just over 12% (1 in 8) of respondents have a high WTP of greater than €4.

*Chart 1: WTP for accident benefit*




From a behavioral science perspective, the attractiveness of accident benefits can be explained by availability bias. Availability bias describes the use of information that most easily comes to mind rather than that which is necessarily the most representative. Perception and awareness of what poses the most risk to us are therefore affected by how easy it is for us to imagine the risky event and the consequence of the risk. Accidents tend to be high-profile and memorable, as we frequently read about them in the media and hear emotive stories.

This distortion of perception of the cause of death was recently investigated in data analysis by students at the University of California San Diego[1] and discussed in an article in Advisor magazine[2]. The analysis compares the causes of death we worry about (based on Google trends) to the causes of death we hear about in the media (based on The Guardian and The New York Times) to the actual causes of death and highlights a gap between perception and reality. Ipsos Perils of Perception Survey 2020[3] found that, on average, participants underestimate the proportion of deaths caused by cancers and cardiovascular disease and overestimate the proportion caused by accidents such as transport injuries, substance misuse, and violence. While accidents are the leading cause of death for younger ages[4], our study found that this benefit is popular across all age groups.

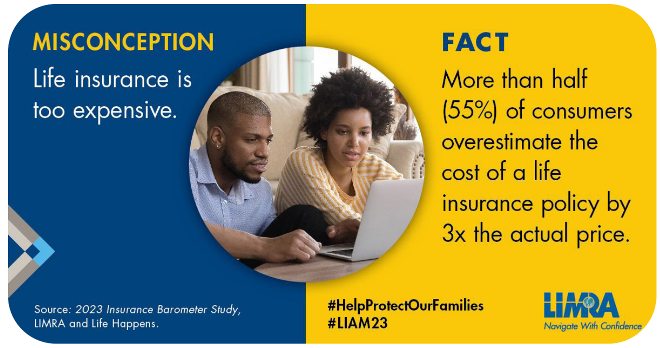
Considering these findings, accident benefits can play a critical role in the insurance industry's mission to narrow the life insurance protection gap. The 2023 Barometer report conducted in the U.S. by LIMRA and Life Happens[5] highlights that 100 million Americans do not have enough life insurance. The top reasons why study participants said they don't have life insurance were "it's too expensive" and "I don't need it right now." The attractiveness of the accident benefit highlighted in our DCE study can create an opportunity to address these concerns.

Let us put a behavioral science lens on these consumer perceptions. Present bias explains the tendency to focus on short-term rewards rather than taking a long-term view. It can be difficult for families to prioritize life insurance right now if the risk feels far into the future for a young healthy adult. However, accident benefit highlights a risk that could impact in the short term, which can help customers understand the immediate financial risks they would face if an income earner died suddenly.

Accident benefit coverage is less expensive than full life insurance mortality coverage. This makes it a potential introductory or gateway offer product to attract the interest of those who don't have life insurance as it is too expensive. It could be a particularly good fit for younger customers to put minimum protection in place until they can afford full coverage. In the same way, accident death benefit as a rider could help those who don't have enough life insurance. If a policyholder has chosen a lower sum insured due to affordability constraints, the opportunity to double the sum insured for the specific accident risk improves their coverage.

While cost is often highlighted as a key reason not to purchase life insurance[6,7], there is a lack of understanding of the true cost of life insurance. The 2023 Barometer study found that 55% of consumers overestimate the cost of life insurance by three times the actual price (Illustration 1). So, while accident benefit might get the attention of potential customers, it may just be the conversation starter. Customers may be surprised to find they can, in fact, afford comprehensive life insurance coverage, even at a higher sum insured.

*Illustration 1: Fact vs. misconception of life insurance cost (source: LIMRA International)*




Remark/SCOR Digital Solutions 2023/2024 Global Consumer study, which focused on the insurance purchase behavior of younger generations, also found that there is a noticeable difference between participant's self-perceived knowledge and a more objective measure based on their score in a quiz on Life & Health insurance. For example, 59% of study respondents rate their life & health insurance knowledge as "good" or "very good", but their average test score was only 5.47 out of 10. This overconfidence may lead to a reluctance to seek advice. If accident benefit can catch the attention of potential customers, it creates an opportunity for an advisor to educate them on the benefits of life insurance and make them aware of the true cost.

## 2. Survivor benefit

Survivor benefit is an optional life insurance benefit, primarily available for whole life or permenant life insurance policyholders but not typically part of a traditional term life insurance.

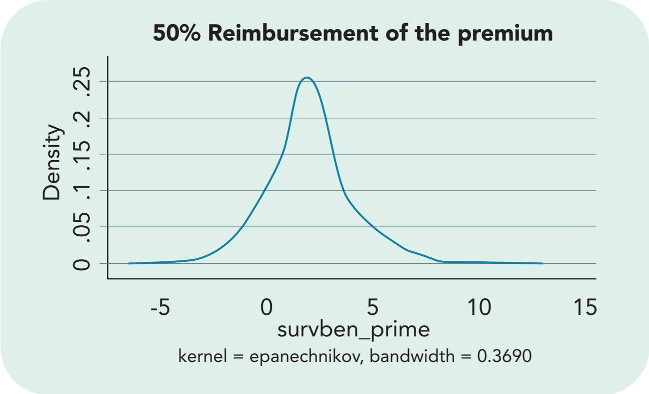
Term life insurance is primarily a protection product designed to offer affordable life insurance coverage for a defined period. The customer pays a premium for a set number of years (e.g., 20 years) and, if the policyholder dies during that time, a benefit is paid to the family. The product works on the principle that most people who take out this coverage will not die during the period. This is the essence of insurance – the pooling of risk. Many policyholders pay a small premium, and the small few who die will receive a large benefit to support their surviving families.

So, what do most policyholders get for the premiums paid for 20 years? In its simplest form, this product offers peace of mind, knowing that if you die your family will be taken care of financially. But is that enough? In our study, we find that a significant proportion of respondents had a positive utility towards survivor benefits, highlighting the desire to get something back after paying premium for 20 years. Two types of survivor benefit are considered in this study – return of premium and funeral expenses.

### 2.1 Return of premiums benefit

The return of premium benefit is a 50% reimbursement of premiums paid upon survival to the end of the 20-year term. Chart 2 shows the WTP for the survivor benefit in the form of premium reimbursement or return of premiums benefit.

*Chart 2: WTP for return of premiums benefit*




Study participants are willing to pay an average of €2 per month as an additional premium for this benefit. There is a wide variation in WTP, ranging from -€6 for participants who do not value this benefit to +€12 for participants who highly value the survivor benefit.

While overall respondents have a positive utility towards this benefit, almost 15% have a negative WTP (<€0) for this survivor benefit. On the other hand, 14% of study respondents are willing to pay an increment of €4 or more in the monthly premium for this type of survivor benefit. This group with a high WTP is found to include more retired participants, highlighting a specific target market for this type of survivor benefit.

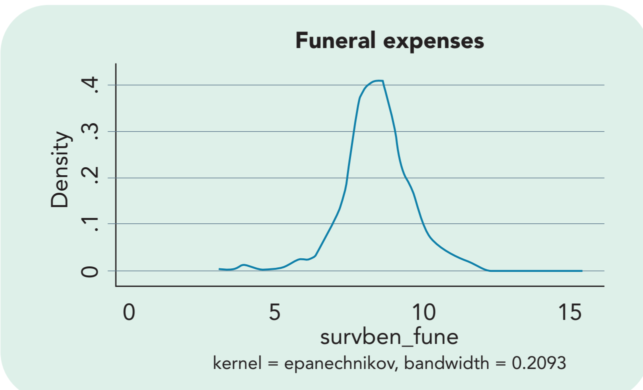
In addition, more of those who self-assess as being in very good health have a high WTP for this survivor benefit, suggesting it might appeal to those who believe their risk of claiming a death benefit within the cover period is relatively low. This could create a positive selection effect if this survivor benefit attracts low-risk customers. Optimism bias may be at play if potential customers don't think the risk event will happen to them and, therefore, don't appreciate the value of insurance. Survivor benefit is a feature that can help overcome this bias and create a product that is attractive to low-risk or self-perceived low-risk customers.

## 2.2 Funeral expenses

In this study, the funeral expense cover is a benefit of €5,000 on death after the end of the 20-year term period.

Chart 3 shows that the WTP for a survivor benefit in the form of funeral expenses is positive for all participants.

*Chart 3: WTP for funeral expenses*




The results show that all participants are willing to pay an additional monthly premium for this benefit, with a range from €3 to €15, an average of €8.50. This is a significant increment in monthly premiums, which should be sufficient to meet the risk cost of this reduced benefit on ultimate death, subject to analysis of suitable age ranges.

A factor to consider is the administration of this death benefit as it requires management of the product beyond the premium paying period. The cost of any form of survivor benefit relies on two key assumptions – interest rates and lapse rates. Interest rates will impact the investment income that can be earned on premiums over the period, and lapse rates determine the number of policyholders that will remain at the end of the contract and qualify for survivor benefit. The lapse rates will be impacted by the inclusion of the survivor benefit which gives policyholders an incentive to continue to pay premiums and keep the contract until the end.

While all respondents have a high WTP for funeral expenses, 27% of study respondents are willing to pay an increment of €9 or more in monthly premiums. This group classified as having a high WTP includes a higher portion of individuals who are concerned about the future, identifying that future-minded individuals are looking for a product that can continue to meet their needs beyond the end of the contract. On the other hand, respondents who have recently had medical treatment have a lower probability of having a high WTP for this survivor benefit.

In selecting the survivor benefit options, respondents' health status plays a significant role. We found more of those who self-assess as being in very good health have a high WTP for reimbursement of premium. It seems logical that those who view themselves as very healthy would expect to survive to the end of the contract and, as such, value a survivor benefit. Also, respondents who have had a recent medical treatment have a lower probability of having a high WTP for funeral expenses type of survivor benefit. This is an objective measure of health rather than the subjective self-assessment but indicates the presence of a health risk, which might explain less interest in a survivor benefit.

For both types of survivor benefit, those who are risk-seeking with respect to wealth have a lower probability of having a high WTP for this benefit. A survivor benefit will appeal to those who are more risk-averse and prefer to have a return under all circumstances. Many studies have shown a higher life insurance take up among the risk averse (Chang, 2004; Chen et al., 2006; Han & Hung, 2017; Pliska & Ye, 2007; Wang, 2019; Zhu, 2007). Therefore, the more risk averse group that tends to take out insurance may also be more likely to have a high WTP for a survivor benefit.

Though variation is observed between respondents, we observed a positive attitude towards survivor benefits, particularly in the form of funeral expenses.

Both survivor benefits have a similar monetary value as the 50% reimbursement of premiums is broadly equal to €5,000 for the average premium. The key difference is the recipient of the survivor benefit. The reimbursement of premiums would be paid to the policyholder at the end of the 20-year term, but the funeral expenses benefit would be paid to the beneficiary upon eventual death of the policyholder. In this way, the funeral expense benefits are more aligned with the intention of the policy – to provide for dependents upon death.

The attractiveness of survivor benefits is associated with the idea of getting something back. This resonates with the licensing effect in consumer choice, which proposes that as humans, we allow ourselves to do something bad (e.g. immoral) after doing something good (e.g. moral) first (Merritt et al., 2010). This has been studied in the insurance context[8] in relation to claims and the tendency to exaggerate claims (something bad) to get something back after paying premiums (something good). Survivor benefit can address the need to get something back and make the product more appealing by overcoming the tendency to think that premiums may be paid without receiving anything in return.

## Conclusion

Through this DCE research, we have seen evidence that accident benefit and survivor benefits are attractive to potential insurance customers. The study methodology allows the quantification of a WTP for these benefits, which supports product design and pricing decisions on the inclusion of these product features. In addition, the ability to review results for different subgroups allows insights to be refined for a specific target market.

By understanding the behavioral biases that impact consumer decision-making, we can gain a deeper insight into their preferences for insurance product features. Misperceptions of risk and availability bias appear to be at play when customers are seeking accident benefits. Consequently, this product feature may prompt risk awareness and help get customers the coverage they need for their families. Survivor benefits may improve the attractiveness of a life insurance cover by satisfying the need to get something back. A benefit on ultimate death or a return of premium at the end of term are features that address loss aversion and optimism bias, which may be impacting demand for insurance among young, healthy (or at least self-perceived as such) policyholders.

## Endnotes


1. https://owenshen24.github.io/charting-death/
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8. Frauke von Bieberstein & Jörg Schiller, 2018. "Contract design and insurance fraud: an experimental investigation," Review of Managerial Science, Springer, vol. 12(3), pages 711-736, July.

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