

## DID E-INSURING FAIL AND WHY?

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### ABSTRACT

Some years ago, the coming of the Internet into business and households has been welcomed as a new way to sell insurance. A brief look on the reality of the business reveals that expectations have been overly optimistic. Only a very small percentage of policies is indeed taken out online. One factor we feel is responsible is that insurance requires a particular marketing approach. Based on the concept of simplification, we offer an explanation for the apparent failure of online insurance sales and a perspective for future success.

### INTRODUCTION

By the mid-nineties, almost everyone seemed to be very optimistic about the prospects for insurance enterprises on the Internet. At that time, Internet use began not only to spread over businesses, but also over private households. Therefore it was just natural to immediately perceive it as a new marketing instrument.

Forecasts were generally very high-flying by that time. Some years have passed since then, giving us the opportunity to assess the development. Now has it become true what early reviews predicted as a "technology explosion" that is driven by the Internet and that "business may never be the same" in the insurance industry [8]? Or is the insurance industry indeed "the Amish of financial services" [36], that missed the opportunities of the Internet? In the following, we will outline an answer to these questions. To this end, we first describe the hopes that have been placed in the Internet and the actual status quo. Based on the assessment of the differences, we may safely conclude that online selling of insurance as well as possible other applications of the Internet for insurance purposes have not been a success so far. Adding to most present analysis of the reasons for this apparent failure, we focus on the cognitive process of simplification and its role in insurance decision-making. Broadly speaking, it turns out that distribution of insurance requires that the risk in question is mentally available to the decision-maker. This however, is not the case regarding the common presentation of insurance on the Internet. We conjecture that herein lies one of the critical factors for success or failure of this medium of mass communication for the purposes of insurance distribution.

### EARLY EXPECTATIONS

Given the particular situation in major insurance markets at the time when the Internet first began to become widespread in businesses and households, it is quite

understandable that many perceived it as an urgently needed opportunity for the insurance industry.

In the European Union, deregulation was on the advance to create a single insurance market. As a consequence, formerly isolated and protected national markets became open to newcomers, either through cross-border sales or through the founding of subsidiaries under the single-license rule. Old-established companies therefore feared competition from foreign insurance enterprises.

In the United States, the development on the technological side coincided with a state of affairs in the insurance industry, which was described by increased global and domestic competition and the pressure to downsize and reduce expenses [20].

Given these circumstances, the perspectives were clear [20]. Insurance enterprises should exploit the Internet, in particular the World Wide Web: (1) to sell insurance, especially by offering auto insurance quotes, life insurance quotes and specialty products; (2) to establish relationships, in particular, to bring consumers in touch with products that meet their needs, thus substituting the Internet for the prevailing distribution by agents, (3) to connect customers and agents, in order to keep at least that part of the agents that insurers do not want to abandon, (4) to allow customers to report claims, (5) to furnish the public with financial information about the company and (6) to offer some amusement to the visitor, for instance games, life expectancy calculators and else.

While the last point of this list may sound a little peculiar from today's perspective, other thoughts are in fact quite reasonable. Krohm's [20] analysis obviously focuses on the interaction between the insurance enterprise and its customers. His approach then is to support this interaction by the means of the Internet without changing the basic processes. Other ideas [e.g. 34] went beyond that scope, suggesting for instance to use the Internet for communication within the insurance company, or for capital investment and reinsurance business.

The potential of this medium was generally only crudely assessed. When authors wrote about "a network of 35 million or more computers with millions of pages of information" [8], they gave the impression of practically unlimited opportunities. However, at this time, most statistics about Internet use were notoriously speculative [20].

Bit by bit, insurance companies appeared on the Internet with their web pages, but these presentations were in fact quite poor. In a survey in the European Countries, the United States and several other countries, Theil [34] found that in most cases, insurance enterprises presented only modest information about the companies, only few provided viewers with descriptions of their products and only single insurers offered quotes or other service.

## STATUS QUO

Today, about one percent of insurance in the United States is sold on the Internet [19] [25]; roughly the same number applies for (Western) Europe [14]. Online sales are mostly limited to smaller policies and few lines of coverage [29]. It seems difficult to pass this result off as a great success. In fact, insurance agents as a very traditional form of insurance distribution, enjoy by far more popularity among consumers [19].

Other possible uses of online presentations by insurers do not seem to be much more important. In fact, they even play only a marginal role in accounts of this topic (for instance [23] [24]).

Despite these disappointing facts, many are still enthusiastic about the Internet as the future channel of communication between insurance enterprises and their customers and as a promising sales outlet. Holzheu, Trauth and Birkmaier [14], for instance, expect that by the year 2005, online insurers will have a market share, mostly in personal lines, of about 5 to 10 percent in the United States and 3 to 5 percent in Europe. Morgan Stanley Dean Witter [25] even go beyond these figures, forecasting that 15 percent of term life insurance and 15 percent of all automotive policies will be sold over the Internet by the year 2003. For the same time horizon, Klauber [19] expects that the penetration of insurance on the Internet will be between 2 percent (conservative scenario) and 10 percent (aggressive scenario).

The methods of forecast have not improved at all. While Morgan Stanley Dean Witter [25] largely maintain silence about the reasons for their estimate, Holzheu, Trauth and Birkmaier [14] stick to the idea that the present penetration of Internet access in businesses and households, its growth rate and the volume of Internet sales of financial services other than insurance are the basic ingredients of prediction. In doing so they put insurance on the same level like other financial products. However, this might not be justified, as the much-varying status quo for retail stock brokerage, consumer banking and consumer insurance suggests [19]. Some others (for instance [12] [31] [33]) focus on technological change as the driver of future development. The basic message is, that in the near future, Internet access will not only become more widespread, but also much more convenient. Additional convenience will bring the success that we do not see today.

More basic research approaches focus on the general advantages of communication on the Internet and on the core characteristics of insurance in order to deduce whether insurance is suitable for being marketed on the Internet or not. For instance, Klauber [19] and Ginalris [12] argue that intangible goods, such as insurance, are easier sold over the Internet than tangibles. They explain that people are used to assess the quality of tangible goods physically, which is difficult to do on the Internet. Insurance and other intangible goods on the other hand are so abstract in nature that this problem does not evolve. On a more detailed account, Holzheu, Trauth and Birkmaier [14] raise doubts that all insurance products equally qualify for being presented online. They think that coverage that can be described and rated by only a small

number of parameters would suit electronic distribution best.

Liang and Huang [22] point out that such products will be especially successful on the internet that help consumers reduce transaction costs. Based on this idea, Kiang, Raghu and Shang [18] compare various products regarding their suitability for online selling. They come to the conclusion that transaction complexity is high for insurance products, which in their model would imply that they fit well for being sold on the Internet.

## PROBLEMS

Customer dissatisfaction with the Internet products and services offered today is one of the most popular explanations for the absence of success. Analysis of the reasons for dissatisfaction is often very cursory: "Insurance frustrates online shoppers" ([24], similarly: [23]), is a typical example. Spencer [32] is more specific, when she concludes that the lack of saving opportunities, because policies over the Internet are not cheaper than if they are purchased elsewhere, is a main reason for not buying online. Trembly [36] thinks that enormous price differences between various suppliers make the online offers appear dubious. A German survey identifies the small number of products offered online and the minimal amount of information given as central problems [1].

Apart from these complaints, there are a number of arguments that in fact should be reassessed. For instance, it has been noted that intangible goods are especially suitable for being marketed on the Internet. However, the reverse may hold, as intangible products may require a higher amount of explanation, which is not offered on current World Wide Web pages.

Also, one might doubt that the reduction of transaction cost enhances the attractiveness of online selling. Now it may be true that transaction costs may decrease on the part of the insurance enterprise, but it is actually quite questionable whether they are indeed reduced on the part of the customer.

We would like to add a point to this very colorful debate. The beginnings of the argument have been touched in some of the analyses mentioned earlier. It has been noted, for instance, that intangible products may require more explanation regarding their use than tangible goods. Now insurance is most commonly described as very demanding (for instance [9]), partly because of its complexity, partly because it involves a high amount of uncertainty. In particular, insurance involves uncertainty regarding (1) potential loss sizes, (2) potential loss probabilities, (3) the actual extent of risk transfer and (4) the future insurance premium.

Certainly, we do not claim that insurance is the only product that comprises uncertain elements. One could argue, for instance, that the online-buyer of a book does not know whether this book will actually meet his or her expectations. In fact, some products that involve in fact a very high amount of uncertainty, in particular stocks are sold quite successfully online, at least in the United States [25].

There are, however, significant differences between insurance and other products comprising uncertain elements:

Insurance is usually associated with high exposures. In essence, insurance is best suited for risks entailing low probabilities and high losses. Therefore a wrong decision may have a considerably larger impact on an economic entity's financial status than in the case of most other products that are sold online.

Insurance involves multiple and interdependent uncertainties. Stocks, for instance, while possibly also having a large loss potential, are relatively easy to judge for a consumer. The reasons for success or failure are manifold, and they usually are not easily accessible for the customer. However, if somebody decides to buy stock, whether on the Internet or not, he or she is likely to know that this as a specific type of gamble. In many countries, rules of market conduct require the seller to inform the customer about the possibility to lose, and everyday experience teaches us that such losses indeed happen. About the same holds for insurance, but not entirely. For instance, insurable losses are relatively infrequent and they are often not very obvious. Loss of income provides a good example. Furthermore, uncertainty relates also to loss sizes and kinds of loss. In some cases, loss is difficult to measure in monetary terms, while this is the standard on the stock market. Many insurance contracts exclude particular losses; they often state deductibles and limits of coverage, so that it may not be clear to the customer to which extent risk is actually transferred. And, finally, upgrading for bad losses results in higher future insurance premiums if a claim has been filed in an earlier insurance period.

Except for a few short-term insurance contracts, like for instance travel insurance, most policies are concluded over a longer period of time. In the case of some personal lines of insurance, time between the conclusion of the contract and the possible receipt of a benefit from it may extend over several years.

On the whole, the specific features of insurance, high loss potential, high level of uncertainty and long-term impact of related decisions give rise to specific attitudes. The particular way of behaving in the context of insurance is expected to require special business relations.

Gefen [11] takes a similar view, when he comes to the conclusion that successful e-commerce requires trust in the online seller, which in turn is affected by familiarity with the Internet vendor and its processes. However, we believe that this approach falls short of explaining consumer's attitudes towards insurance.

Rather, we go on from the fact that insurance decisions are regarded as particularly complex. It has been shown (for instance [35]) that in such situations, people exhibit a specific behavior, which is commonly termed as simplification. In essence, reduced representations of the problem put less cognitive strain on the decision-maker and are therefore preferred.

There are two well-established approaches that explain the process of simplification. One is based on connotative distance, called representativeness, recently [17] also referred to as judgment by prototype. The other approach departs from the insight that not all information is equally retrievable from memory. It is based on associative distance and named judgment by mental availability.

In short, if people apply the representativeness heuristic, they compare a given object with the prototype of its class [38]. If object and prototype do not correspond, the object

is regarded as exceptional. A tendency to ignore it in subsequent judgment is the consequence.

In the case of insurance, we can put this principle in concrete terms as follows:

Loss sizes tend to be underestimated. Representativeness is generally believed to produce intermediate rather than extreme judgments [3]. If we bear in mind that insurance is most efficient for large loss potentials, the decision-maker would disregard exactly these rather extreme losses and focus on comparatively lower loss sizes instead.

Low probabilities tend to be neglected. Kahneman and Tversky [16] argue that there is a threshold effect regarding low probabilities. Low probabilities are therefore either completely ignored or overvalued. On the other hand, high probabilities tend to be underestimated. This, too, is a consequence of the regression to the mean, which is invoked by representativeness.

Full insurance is regarded as archetypal. Consequently, people dislike deductibles and limits of coverage (for instance [26]) or do not notice the difference between contracts [10]. Insurance policies that offer only a limited loss transfer from the insured to the insurer, either through limits and deductibles or because of underinsurance, are more likely to be turned down.

Given the extent of simplification for even more simple problems, we assume the decision-makers do not assess variable insurance premiums properly and rather take a fixed premium as a first guess

Clearly, when loss sizes are underestimated, risk tends to be underestimated as well. The case is not that clear for the effect of representativeness on probability judgment. Bearing in mind that insurance is suitable for low-probability losses in the first place, the threshold effect leads to the opposing pattern of either neglecting or overweighing risk. Furthermore, policies that do not meet the consumer's expectations concerning a complete risk transfer and a foreseeable premium will likely be turned down. Therefore, there is a strong overall tendency that if the transaction is judged by representativeness, people will take out less insurance than under ideal conditions, when all information is available and processed properly.

The picture is a lot different when judgment is influenced by mental availability. This heuristic has been shown to result in overestimation, especially for risks that are vividly described and for recent events. On the other hand, if an event is not mentally available, decision-makers will probably neglect it [13]. Combs and Slovic [6] and O'Guinn and Shrum [27] show that mental availability can be influenced, for insurance by mass media. Under judgment by availability, the problem either to insure a risk or to assume it, will be assessed as follows:

Recent or vividly described events will be overestimated, either through overrating loss size, loss probability or both. While limited risk transfer and variable premiums are unpopular in principle, they might be accepted, if the advantages of such an agreement are made clear.

Obviously, there is the potential that insurance decisions that are made under the influence of mental availability will result in comparatively high amount of insurance. Indeed, there are a number of examples for this hypothesis. For instance, Johnson et al. [15] provide both, anecdotal and experimental evidence. Kunreuther et al. [21], Urbany,

Schmit and Butler [40] as well as Browne and Hoyt [5] come to similar results.

As can be readily seen, representativeness and mental availability may lead to quite contrasting results. Tversky and Kahneman [39] hypothesize that these two heuristics will be employed alternatively. From the nature of mental availability, we would expect this effect to be relatively short-lived. Therefore, we assume that usually, judgment by representativeness prevails, while judgment by availability will come to force under special circumstances. As a consequence, risks are generally underestimated, an effect which may be reversed in presence of judgment by availability.

Practically, this implies that for successfully marketing insurance, one has to overcome the latent reluctance to purchase insurance (for instance [7]). This insight culminates in the popular proverb "insurance is sold, not bought". The traditional channels of distribution offer the possibility to influence the buyer's decision accordingly. As an example for many others, Dorfman [9] stresses that an insurance agent's top priority duty is to give advice to the customer concerning the risks he or she faces, and to motivate him or her to purchase insurance. The traditional channels of distribution are characterized by direct ways of communication, often in a face-to-face conversation [2] [19] [30]. Thus, the agent has the possibility to immediately respond to the questions of the customers and thus, may clear up any doubts.

The present manners, in which insurance enterprises present themselves and their products on the Internet, are far from this. Therefore, we believe that – certainly in addition to other factors – selling insurance over the Internet is not successful, because the way to interact does not sufficiently help to properly judge risks, the transfer by insurance, and the ability to retain risks. The only element that seems to attract online buyers of insurance is that they hope for lower premiums [32], which, in turn, has motivated insurers to abandon their Internet sales strategy [28].

## POSSIBLE REMEDIES

While we do not claim that other issues, such as technical problems, bad online presentation and missed chances do not need to be taken seriously, we believe that the particularities of insurance also have to be considered.

The essence of the preceding section was that insurance is mainly sold in presence of mentally available related events. Internet technology certainly offers possibilities to support mental availability of risks. Actually, web pages offering multimedia presentations of risks may even go beyond or complement the possibilities of traditional communication [4]. There are many applications to think of, for instance short movies of accidents, results from risk research, to name only few.

However, insurance enterprises do not take advantage of these possibilities so far. Munich Re and Swiss Re are good examples: Both companies are renowned for their strong research focus and for their numerous publications on risky situations and how they can be met. However hardly anything of that can be found on the companies' web pages. This may, in part, come from the fact that the customers of reinsurance companies are primary insurers

or other reinsurers and as such they are perhaps more aware of risk.

## CONCLUSIONS

Confronting what many hoped from the Internet with respect to insurance marketing with the present status, it becomes apparent that to date, insurance is far from being successfully marketed online. Insurance does not only lag behind compared, for instance, to books, flowers and other goods that are often sold over the Internet, but also compared to other financial services that involve large sums of money, for instance stock brokerage.

The reasons for this development are undoubtedly manifold. However, we feel that the online presentations of insurance companies do not fit the particularities of the product, a point little discussed so far. Past research has shown that simplification of decision problems, influenced by heuristics like representativeness and mental availability play an important role. We have adopted this concept to insurance decisions. As a result, mental availability of a particular risk is identified as a key to purchase insurance. Consequently, insurance enterprises may be more successful with Internet sales if they make use of availability in their online presentations.

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