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INTERVIEW WITH FRED CRIPE

The Sophistication of Insurance Pricing Process

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We are sharing with you an interview with Fred Cripe, senior advisor for PwC in the US, who has been involved in the insurance industry for the past forty years. We talked about the sophistication of pricing approaches, the impact of COVID-19 and the challenges ahead of insurers in the coming decade. Have a good read!

THE SOPHISTICATION OF INSURANCE PRICING PROCESSES

What are the challenges for US insurers in the sophistication of pricing approaches?

For insurers in the US, the main challenge in the sophistication of pricing processes is the balance between two seemingly conflicting objectives:

- On the one hand, the need to integrate Pricing with all the other facets of customer experience in their value proposition, which is a complicated - and sometimes cumbersome - process. This ranges from customer acquisition, to product design, products' features and benefits, as well as claims service to name a few. This way, everything is designed to attract target customers at the key shopping points, and manage them through their lifecycle with the company;
- On the other hand, the imperative to be nimble, in a market where we see profound changes in competitors' strategies and in consumers' behaviours, at an unprecedented, accelerated rate, from my industry experience.

How do companies succeed at meeting these contradictory objectives? Do some manage to do better than others, and how?

There are several success stories on the market. Of course, different companies have different strategies, different customers' target segments, hence different approaches.

We can identify two main organizational strategies:

- **The highly centralized approach to the market**: some carriers treat all of the US as a single market, with a very small core group of senior managers who set the strategy. All the tactics are done within this group, any problem or issues that arise tend to be company-wide. They solve them centrally and develop the solutions with a small team of talented people.
- **The more distributed approach to the market**: other carriers adopt state-oriented or local market-oriented solutions. They have empowered people, in many cases remote from their central office, to make quick changes in reaction to what is going on in the marketplace.

Those two strategies are both perfectly acceptable, depending on what the insurer's distribution system is, their value proposition and who their customers are.

Whichever approach they adopt, successful companies all have one thing in common: they start with a core strategy defining who their target customers are. Then, they build organizations that are nimble enough to execute on that strategy.

What major innovations in the pricing process have you seen in the past few years?

The first one is the **rapid expansion of more sophisticated pricing across the industry**.
Over the past fifteen years, modeling approaches have profoundly changed, due to two main drivers. One is much more sophisticated maths. The second is the ubiquitous use of data. Twenty years ago, there were only a handful of insurers who were really good at sophisticated pricing. Today, it has expanded both in terms of insurers' size, with small and medium-sized insurers becoming very good at it,and in terms of lines of business, moving from auto personal lines to all personal and small to medium commercial lines.

The second innovation is **the rise of telematics**. Today, technology gives us the ability to see not only how individuals drive their car, but also under what circumstances - traffic, road conditions and when. That combination of information is a much more powerful predictor of insurance losses than previous demographic information used (age, gender, marital status, where the car is garaged, the credit history).
Hence, the opportunity to get more granular in how prices are set and to provide feedback to customers to help them manage their risk, in a win-win combination for both the company and the customer, reducing risks and losses.

What is your take on the general enthusiasm of insurers to adopt new approaches to estimate risks and to adapt pricing strategies?

Insurers are much more enthusiastic about innovation now than they were forty years ago. I think there is a recognition that the competitive intensity of the insurance industry has heated up a great deal these past fifteen years.

Technology started to accelerate in ways that enabled the insurance industry to start changing. Subsequently, more and more insurers have embraced the idea of using technology, merging it in a way that really advances the state of the art of insurance pricing, customer service, claims handling and all sorts of different facets of the insurance business.

As a result, while in the past the race went to the big traditional insurers, nowadays, it is the smart and nimble carriers that manage to harness these technologies that are winning in the marketplace.

How is the COVID-19 pandemic affecting the general dynamic and the appetite for new pricing approaches?

The COVID-19 pandemic has clearly accelerated a series of changes that were already occurring. We are talking about a massive change in the US economy, in work commuting habits, in driving habits.

It all occurred over a period of eight months but it will continue into the future and have long-term effects. The ability to adapt quickly is going to be more important than ever for insurers. We are going to see more and more carriers starting to aggressively adopt different ways to be sophisticated in their pricing, to quickly reflect changes in the environment.

Let's take the example of the auto industry.
I believe that ten years from now, there will be fewer cars in the US and that their use will be profoundly different.
Work commuting patterns profoundly changed during the pandemic and will never go back to pre-COVID-19 levels. Fewer people will drive to work, rush hours will be less congested. That creates an overall change in the use of cars.
An already competitive industry is going to have a smaller market to pursue. Being able to be sophisticated in your pricing will no longer be a way to win in the market, it will be a way to survive.

What are the main tools for insurers to transform and be more nimble in terms of pricing sophistication?

There are multiple elements to this. If we have a look at the overall insurance cycle, we can identify three main stages for insurers to adopt a more nimble approach:

- It begins when an opportunity, a problem or a challenge emerges in the market.

  Companies that are doing great at pricing sophistication start with really good customer and competitor intelligence. They understand the market they are in and its changes upfront.

- Then comes the decision part. Is the company going to address it, and if so, how?

- Next is the solution development. If the company is going to develop a new rating plan, how long do they have to do it?
  This is the part where a lot of the opportunities lie today. In the past, the development time of a brand-new complete rating plan was well over twelve months. It is starting to compress down and will compress even more in the future.

The ability to quickly develop and implement solutions at scale, in production, will always be a key competitive differentiator.

AI is a polarizing topic in the insurance world, attracting both fascination and apprehension, especially in the actuarial world. Do you see it gaining momentum in the next few years?

There is a tendency for some to see AI as a threat instead of a tool. AI can free up time to make different sets of decisions that are important to the success of the company.

It reminds me of the time when I first started working in the insurance industry. How did companies run rating plans analysis then?
Young actuarial students like me would go to paper books full of premiums and losses. We would take those, find the right information, write it down on thirteen-column spreadsheets - papers spreadsheets - add up all the premiums for a particular category, add up all the losses and calculate a loss ratio.

We would do that for a number of different categories and then write the rate relativity. Then, someone would take that sheet of paper and type it up. We would determine the rate relationship based on that. That is how rating plan analysis was done forty years ago.

When it first became computerized, some actuaries were worried: what would they do now? There are a lot more actuaries today than there were forty years ago. Their work has not disappeared, on the contrary, it has expanded and shifted to something with a lot more value-added.

AI is going to do the same thing. Actuaries currently spend a lot of time developing one GLM (Generalized Linear Model) or GAM (Generalized Additive Model), or trying to decide between two models which one to put into production. AI can do a lot of this work and give actuaries the information they need to make the choices about which rating plan to implement.

AI will free actuaries up to do more of the 'art' and business part of actuarial science and less of the maths and purely technical part of it, increasing the meaning and the interest of their work.

You mentioned that telematics are giving insurance companies more data to better estimate risks and improve their pricing approaches. Do you expect other types of data to be increasingly used in the coming years, either because of regulatory alleviation or because of perception change?

I think we are going to see more and more individualization on all parts of the value chain: pricing, claims management, customer service, etc. The insurance industry will be more tailored to individuals' preferences and needs.

The insurance industry is moving away from its classic demographic approach, where they defined services and pricing according to demographic information: where people live, what the people who live there look like, age, gender, marital status.
Now, insurers can gather a lot more data about an individual's habits, both in their usage (how much a person drives, how well they drive, how crowded the roads are…) and through their online behaviours (what things they like, their social media presence…).
Combining these data will allow insurers to tailor insurance strategies at an individualized level by opposition to a broad customer segment, catering to one given customer's needs.

Based on your experience, is this trend the result of various evolutions in history? Were some changes considered impossible and then later implemented?

A lot of it is technology-enabled. It is going to expand rapidly.

I find it amusing that the modeling approaches we are using today are considered new and innovative! I took the Casualty Actuarial Society exam part 5 in 1983. One of the articles I studied on was about a GLM (Generalized Linear Model) approach to rate making. Nobody did it, because it was computationally intensive and there were no computers that existed then that could actually do those calculations.

Much of the knowledge that we are currently using has existed for a long time, though we have not been able to use it from a technological standpoint. As technology continues to advance, we are going to be able to use more and more approaches like data and AI sophistication-based rate making, that we can now leverage at scale in real life, rather than read about it in theoretical publications.

PERSPECTIVES ON THE FUTURE OF THE INSURANCE INDUSTRY

What challenges do you expect the insurance industry to face in the coming years?

The biggest challenge for the insurance industry is going to be monitoring how the world changes post-COVID.

We have gone from a world which was in a steady state and changing gradually, to a very abrupt, declining economic activity, as well as a massive change in the way people shop, work and commute. And, I am guessing, by the time the pandemic is over, we'll also face a dramatic drop in the number of small businesses in the market.

So as we come out of the pandemic sometime next year, multiple questions emerge. What will the world look like after that? How rapidly will it recover? What will the new normal be?

This is THE massive challenge for insurers in the coming years. They are going to need tools and processes to quickly react to those changes. This takes us back to nimbleness: companies that are going to do well are the nimble ones, that can adapt and switch directions quickly.

Who are the nimble insurers out there?

Being nimble is not a matter of size, or being an incumbent or a new entrant. The winners will be those that quickly sense that something is different, decide how to react and implement it quickly.

Shortening the insurance cycle, and doing it correctly, is going to be the hallmark of successful companies over the next five to seven years.

Do you see the acceleration we are experiencing as a game-changer for the industry?

Over the past decade, we have gone from walking slowly to running a 100-yard dash, to an olympic obstacle course. Now, partly because of COVID and partly because of change simply accelerating, we can only see the next obstacle when we get there, with extremely limited room for anticipation.

As a result, the amount of change coming is extraordinarily accelerated and is unpredictable. This is indeed a game-changer for the industry

A BIT MORE ON FRED CRIPE'S BACKGROUND AND PASSION FOR THE INSURANCE INDUSTRY

Can you share your background with us?

I started my career as an actuary and spent about half of my first thirty years in the industry doing one actuarial job or another. I then had different roles within the companies I worked for, from marketing to general management, also running profit centers.

In the last ten years, I have been consulting with small to large companies, on matters ranging from overarching strategies to entering new markets, whether international or in the US. I have helped European insurers launch in the US as well.

What makes you so passionate about this industry?

As I once described it to someone, a lot of people retire and play golf. I do not play golf. I love insurance, and that is what I do for fun!

I have this passion for insurance and I think it is enormously fun. Well done, it can have a really positive impact on people's lives. Badly done, it can be an enormous drag on their lives.

I take joy in seeing it done extremely well. We are at the threshold where the ability to do it really well is finally starting to be realized, and I am excited about it.

From all the roles you have had, what was your favorite one?

I am going to pick two.

My most exciting and fun time was running the product operations' organization for Allstate. I had an enormously talented team that was extremely focused and unified. It was a tremendous job in terms of intellectual challenge. I went to work with really smart people everyday, that kept me on my toes.

The other job that has been fun is my partnership with PwC. I work as a senior advisor to them. Once again, I get to work with extraordinary smart people, I get to see different problems every week or two. You can be working with a small company on what is their strategy to enter the state next to them, and then, the next week, you are working with a large multinational firm on what kind of pricing sophistication they should use in their emerging markets businesses. There is an enormous variation in the challenges and the amount of sophistication in clients that you are supporting. It is a new challenge every couple of weeks.