BdV comments on EIOPA Big Data thematic review -
Consumer Associations Survey,
deadline: 14 September 2018

Introduction - Objective

On 15 March 2018 the Joint Committee of the European Supervisory Authorities (ESAs) published a report on the use of Big Data by financial institutions. The ESA's report identified a wide array of potential benefits arising from Big Data Analytics (BDA), both for the industry as well as for consumers. However, new regulatory and supervisory questions do also emerge requiring more indepth analysis and supervisory oversight going forward.

The objective of this thematic review is therefore to find answers to some of these questions and to gather better understanding about the implications of the use of BDA in decision-making processes, emerging business models and the different stages of the insurance value chain.

Full text of this thematic review of 29 June 2018 on EIOPA website:
https://eiopa.europa.eu/Publications/Other%20Documents/EIOPA%20Big%20Data%20Co nsumer%20Associations%20survey.docx.pdf

Chapter: Consumer complaints

Questions 1 to 5: no information available.

Chapter: Price optimisation and data accuracy

Q6: Yes

Explanation: On a general level in Germany consumers are very sceptical about the commercial use of Big Data for reasons of data protection (this does not prevent from contradictory behaviour for example in social online networks!). But nevertheless that is the reason why motor insurances have offered much less telematics-based tariffs in Germany than in other EU member states (e.g. UK, Austria or Italy). But if these

products are offered, price elasticity is included. That is the same for the disability and risk life insurance tariffs based on fitness trackers.

Q7: Yes
Explanation: This must be an obligatory part of the information duties of insurers and of distributors (as well in the pre-contractual phase as in the terms and conditions of the contracts). Without this transparency the customers cannot make an informed decision following to article 20 (1) IDD.

Q8: Yes
Explanation: Yes, the use of these factors could impair these obligations. The more Big Data are used by insurers the more customers may be segmented, as the JC Final Report on Big Data of 15 March 2018 correctly stated. The more details the insurers knows about the individual customer the more there is the danger - especially with regard to health data - that a necessary risk coverage (e.g. disability) is not offered or offered only with an additional risk premium (e.g. because of future health problems like diabetes or back pain which are only possible but not sure).

Q9: Yes
Explanation: State officials often profit from premium reductions in motor insurance. Even if there may be a statistical correlation that this group of persons has less indemnity claims compared to other professional groups, there is no evidence that actually they are better drivers ("correlation is not causation"). Solid data accuracy and valid data interpretation are absolutely crucial for any kind of tariff systems.
That is why we additionally stress JC's recommendations with regard to robust Big Data processing and algorithms: insurers have to "pay special attention to their policy in terms of processing of data gathered from social media platforms considering the varied level of understanding by consumers of privacy settings on social media accounts and the risks of inaccuracies in such data" (JC Final Report on Big Data, March 2018, p. 33).

Chapter: Insurance value chain

Q10:

Explanation: In principle it is possible that "usage-based insurances" may result in a stronger segmentation of customers in a positive way. Telematics-based motor insurances especially for beginners may sanction the risk-averse way of driving by a decrease of premiums and on the contrary a very risky way of driving by an increase of premiums. In the same way people with disability and risk life insurances based on fitness trackers may benefit from premium reductions (or home owners who implement smart house solutions against burglary, water or fire damages etc.).

But these positive outcomes are only possible under far-reaching prerequisites fulfilled by the insurers with regard to the promotion of public awareness, of consumer education and of consumer rights, especially of a high level of transparency towards the customers. If this is not the case this ever stronger segmentation will inevitably lead not only to the detection of high-risk customers but to their exclusion, no matter if it is justified or not.

If the segmentation and even individualization of customers and tariffs are overdone, this is contradictory to the principles of insurance itself. The basis of insurance is the law of the large numbers. Only if the collective basis for a tariff cohort is large enough, any kind of calculation of probability is valid enough (and based on that any kind of calculation of premiums). We definitely foresee the danger that Big Data will mostly be used either as marketing-gag or as a means in order to detect and exclude possible high-risk customers via the data which are collected by the distributors.

Q 11:

Explanation: On the one hand it seems to be possible that Big Data delivers more precise results than ever in order to identify target markets and to assign a customer to a target market. Maybe that for some individual cases the demands and needs of a particular customer will be met very closely.

But we are afraid that these cases will be exceptional examples. If the segmentation and even individualization of customers and tariffs are overdone, this is contradictory to the principles of insurance itself. The basis of insurance is the law of the large numbers. Only if the collective basis for a tariff cohort is large enough, any kind of calculation of probability is valid enough (and based on that any kind of calculation of premiums). We definitely foresee the danger that Big Data will mostly be used either as marketing-gag

or as a means in order to detect and exclude possible high-risk customers via the data which are collected by the distributors.

Q 12:

Explanation: In motor insurance it is possible that Big Data may be used in order to detect fraud like intentionally caused car accidents. Of course solid data accuracy and valid data interpretation must definitely be guaranteed. We have not yet got any information, if it is possible to detect fraud via usage-based contracts in other insurance classes.

But we do not see any correlation with regard to claims management. With regard to post-sales services there is even the danger of abuse of personal data: already now the birth of a child e.g. is used by distributors in order to sell extremely long-term life insurances to parents. Big Data will facilitate the access to these personal data.

Chapter: Benefits and risks

Q 13: Ranking from 1 to 7

    4 Personalized products and services

    5 Better customer experience

    6 Customer empowerment

    2 Financial inclusion

    1 Reduced premiums

    3 Risk mitigation and prevention

    7 Other

Explanation: BDA may provide for individually optimized premiums in exceptional cases. This kind of "positive" segmentation is only possible, if all the prerequisites of consumer protection, especially information and transparency, and data accuracy and data protection are fulfilled by the insurers. But we come to the assessment that the possible positive impacts exposed by the ranking are largely overestimated.

Q 14: Ranking from 1 to 7

      2 Financial exclusion

      4 Privacy issues

      3 Non-digital population left behind

      5 Less comparability of (individualized) products and prices

      1 Unfair treatment of consumers

      6 Data accuracy and spurious correlations

      7 Other

Explanation: As already outlined in our comment on Q 11, we stress that there is a fundamental contradiction between Big Data and the basic insurance law of large numbers. If the segmentation and even individualization of customers and tariffs are overdone, this is contradictory to the principles of insurance itself. Only if the collective basis for a tariff cohort is large enough, any kind of calculation of probability is valid enough (and based on that any kind of calculation of premiums).

Additionally we fully support the criticisms which have been outlined in Joint Committee Final Report on Big Data in March 2018:

- problem of data accuracy: errors and biases in algorithms, wrong correlations due to non-valid data especially in social media;
- lack of transparency: terms and conditions of "usual" insurance contracts are not fully understandable for most consumers, big data just adds another layer of confusing parameters;
- segmentation of customers: in case of fraud the detection of high-risk customers will be effective, but usually segmentation will lead to the exclusion of customers who only probably will be "high-risk" persons (especially with regard to disability and risk life insurances).

From our perspective the insurance industry is strongly divided with regard to its attitude to Big Data: either there is a rather naive faith in new technologies like IT or even AI ("Technikgläubigkeit") or Big Data will mainly be used as a marketing-gag. But there is the fundamental danger of abuse of Big Data for systematic risk-averse selection of possible customers: overly strong reduction of premiums for "good risks", overly strong increase of premiums for "bad risks" or even exclusion.

Q 15: Other issues

We again stress the danger that Big Data may just add another layer of opacity to products and may be misused as marketing-gag. Two additional examples shall underline our skeptical assessment:

- In motor insurance telematics-based tariffs are mostly offered for special target markets like young driver with high premiums, because they are high-risk customers. But via a wide-range market research it will usually be possible to find out another insurer which offers a tariff for this special target market which is less expensive even without using telematics-based tariffs.

- A severe example of non-transparent mechanisms of possible reduction of premiums is given by Generali in Germany. "Vitality" is a disability and risk life insurance product by which a policyholder may reduce his premiums by using a fitness tracker or making other sports activities. But the premiums are not directly reduced. Instead of this there is a system of bonus points which trigger a surplus and only by cumulating the surplus the premiums may be reduced. But neither the system of bonus points is clearly outlined in the terms and conditions of the contracts, nor the mechanisms for the collective accumulation of surplus are sure (for eg. if there are not enough customers with a "positive" medical behavior which only may generate any collective surplus). This is completely up to the discretion of the insurer, though in other sector of life insurances there are legally fixed mechanisms in order to guarantee at least a minimum surplus.

This lack of transparency has strongly been critized in a judicial scientific journal (cf. Professor Brömmelmeyer, in: Recht und Schaden 2017, pages 225-232). In consequence BdV lodged an injunction claim against Generali in July 2018.