

DISRUPTION ANALYSIS OF A GERMAN INSURTECH

Maik Waschk

University of Library Studies and Information Technologies

Abstract: Can German InsurTechs be described as disruptive innovations? This scientific article deals with the derivation, examination and answer to this question. For this purpose, existing theory is applied to a real example company. Should we be interested in this case study? Yes, we should. The reason why the answer is important and what it means that Neodigital is ultimately not disruptively innovative is explained in this scientific paper.

Keywords: Disruption, Innovation, InsurTechs, Neodigital, Insurance.

Introduction

At the macro level, the insurance industry has a traditional history in Germany [1]. Furthermore, the insurance industry is also considered to be a lucrative and conservative industry that started to tackle digitalization issues later than other industries [2]. Expressed in figures, premium income increased from 36.000 million euros in 1980 to 220.964 million euros in 2020¹. In 2020, the insurance industry sales will account for 6,62 % of gross domestic product¹. In addition to the economic and social importance, the German federal government has classified the insurance industry as a critical infrastructure [3]. These facts result in a fundamental relevance to the research area of German insurance.

At the meso level, there is a diverse landscape of insurance providers in Germany, but the number has almost halved since 1980¹. In 2020, a total of 523 insurance companies in Germany offered insurance products as risk carriers under federal supervision¹. At the micro level, it can be seen that the insurance companies are structured differently and are relatively heterogeneous and are in lively competition with each other, with individual insurance groups sometimes having high markets shares [4]. In recent years, there has been a tendency towards cooperation in the insurance industry, sometimes even with ecosystems [4].

This scientific work is classified thematically at the micro level. Founders have recognized the digitization gap and are starting their own young insurance companies, so-called InsurTechs [5]. Investors apparently see potential in these business ideas and invest in these companies with venture capital [cf. *ibid.*]. There is no generally applicable and unambiguous definition of the term “InsurTech”. For Ricciardi an “(...) InsurTech definition should cover different concepts well beyond the idea of combining insurance and technology to include the native customer-

centric approach, as well as the potential that technology has to enable incumbents' value chain or to disrupt incumbents' consolidated business models." [6]. Ricciardi obviously connects disruption directly to InsurTechs and uses the terms of disruption theory. "Incumbents" therefore means "established companies" [6].

This scientific document deals exclusively with German InsurTechs (property/casualty insurers) with an insurance license. Since 2017, six insurance companies have been established². All of them offer their products only digitally³. One of these six companies is "Neodigital Versicherung AG" (hereinafter referred to as "Neodigital").

There are several important reasons why it is relevant to deal with the topic InsurTech. From the customer's point of view, there is a possibility that these companies offer more individual customized products at competitive prices³. The digital approach makes insurance products more accessible and processing could take place faster while eliminating paper consumption³. On the other hand, there are challenges of regulation and complexity of the insurance industry². Furthermore, the young companies create new jobs and, if they are profitable, are taxable.

So far, three scientific publications have been published as case studies on insurtechs. On the one hand via "Lemonade Insurance N.V." and one the other hand via "andsafe AG" and "DFV Deutsche Familienversicherung AG" [7], [8], [9]. In addition to the intention to contribute to closing the research gap with another relevant case study, I intend to associate the term with disruption and to examine the intersection. There is no general answer as to whether a company acts disruptively, but rather a case-by-case assessment must be carried out.

The specific goal of this scientific paper is to check whether Neodigital acts disruptively or has the possibility of being disruptive.

As early as 2017, the General Association of Insurance Companies in Germany saw the possibility of disruptive tendencies and shifts in market share⁴. So far, there are no concrete public scientific papers on the disruptive topic in the insurance industry. Rather, the term is used in different ways without scientifically sound research or derivations [10].

When I use the term disruption, I use the relevant and scientifically recognized theory by Clayton M. Christensen, a former professor at Harvard Business School [11]. His research and theory development were methodically derived and justified from qualitative case studies [12].

Christensen, Raynor and McDonald connect the term disruption with innovation and described this made-up word as follows: "(...) "Disruption" describes a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses. Specifically, as incumbents focus on improving their products and services for their most

demanding (and usually most profitable) customers, they exceed the needs of some segments and ignore the needs of others. Entrants that prove disruptive begin by successfully targeting those overlooked segments, gaining a foothold by delivering more-suitable functionality – frequently at a lower price.” [10].

Christiansen’s theory suggests that a company acts disruptively if it meets the following criteria [12], [13], [14], [15]:

- Activity in the low-end (low margins) or new-market field;
- smaller companies and often start-ups;
- the offer is initially less structured and kept simple, but is quickly optimized;
- the quality of the offer must be similar or equally good;
- the business models are often different;
- use of novel technology;
- niche markets are often used.

There are advantages if it is disclosed that InsurTechs act in a disruptive and innovative manner, since the InsurTechs then have the opportunity to use or master the opportunities and findings offered by theory. Furthermore, established companies can react accordingly to these findings or possible derivations for the German insurance provides landscape can be made. From the customer’s point of view, there are probably cheaper prices or new products with disruptive innovation.

There are also limitations to disruption theory. For example, a conceivable growth development can be predicted, but statements on concrete business successes are not given, because even loss-making companies can be disruptively innovative [10].

Research methodology

To analyze the disruption situation of InsurTechs, I adopt a qualitative case analysis research design. This research design is purposeful for this elaboration, because there are only a few scientific publications about InsurTechs. Because of this limitation it is necessary to get more information about this heuristic delimited research area to understand the topic deeper. The advantage of case studies is that the object of investigation, in its complexity and abstractness, also takes in the external circumstances. Eisenhardt classifies theories using this methodology as suitable and therefore appears to be useful [16]. Hering and Schmidt support this view [17].

Due to the fact that no scientific publications has made a final statement as to whether InsurTechs act disruptively, a comparison with other InsurTechs is not expedient. However, comparisons with established

insurance companies are used. This is necessary for the theory application [17]. Neodigital can be described as a typical InsurTech, so that other InsurTechs under federal supervision can also be inferred from the individual case.

The case study is applied deductively with a reconstructive approach. This means that the Christensen theory of disruption described in the introduction is applied to the selected company. Accordingly, an individual theoretical explanation is addressed with a new perspective. A similar choice with respect to the existing theory was also used, for example, by Häußermann and Kapphan [18]. It is therefore a linear procedure, with a clearly defined case [19].

The data collection method consists of non-reactive document analysis. The data used is specific secondary information about the object under investigation and was collected from various reliable sources.

Results

Neodigital was registered in the German business register in May 2017 and can be described as a start-up or young company⁵. In March 2018, the public limited company received a license from the supervisory authority to offer insurance products as a risk carrier⁶. An interview by board member Voss reveals that the company's original business model is similar to that of an established insurance company, with the exception that the interaction with customers takes place exclusively digitally, with the corresponding internal IT processes behind it and the necessary IT architecture⁷. In another interview, Voss goes into more detail about the technologies used and explains that no new technology is used, but that InsurTechs take the opportunity to start a new company with modern technology, such as artificial intelligence⁸. At the time of writing this scientific publication, the insurance company offers eight product lines⁹:

- personal liability insurance,
- household goods insurance,
- dog owner liability insurance,
- accident insurance,
- bicycle insurance,
- mobile phone insurance,
- homeowners insurance and
- horse owner liability insurance.

The products offered by Neodigital are typical, well-known products that have been offered by other insurance companies for years or decades. So Neodigital has no new market field activities. In order to identify possible activities in the low-end field, Neodigital's private liability

insurance product (without excess) is compared with offers from established insurance companies (the cheapest product). For this purpose, only the price per year and the sum insured (in brackets) for a 30-year-old single without children living in Berlin (zip code 10115) are compared. Table 1 shows the result^{10, 11, 12, 13, 14}.

Table 1. Private liability insurance comparison

Neodigital	HUK24	Allianz	ERGO	AXA
€ 25.00 (€ 5 m.)	€ 29.47 (€ 10 m.)	€ 50.12 (€ 15 m.)	€ 60.00 (€ 10 m.)	€ 30,89 (€ 5 m.)

A tendency towards the low-end field is seen. Neodigital does offer the product with a low sum insured, but for a significantly lower premium, especially since the premium costs 25.35 euros instead of 25 euros if the sum insured is increased by a further 5 million euros (10 million euros). It can be assumed that Neodigital does without margins in order to offer a cheap entry-level product. However, Neodigital offers a total of 24 variants (the comparable companies only two to four each), also at significantly higher prices, so that disruptive tendencies through a low-end area cannot be clearly identified. There is no simple product structure. Unless the company is already in the optimization phase. This scientific publication cannot answer that question. Looking at the table, however, it is questionable whether customers from established companies will switch providers because of the difference in premiums. According to the disruption theory, quality is crucial for this.

Bruhn describes quality as the executed sum of the requirements of service properties [20]. The quality cannot be clearly measured with the methodology used. Questionings or surveys of customers would be expedient for this. At this point, quality is related to general customer satisfaction, which also includes claims processing and product quality. For this purpose, independent reviews and public customer recessions are used in this elaboration, which reflect a mixed quality level. With 191 Google reviews, the company is rated 3.9 stars out of 5 on April 17, 2022¹⁵. What is striking, however, is that the conclusion process is rated positively, but the claims settlement is increasingly criticized. Check24, a sales partner of Neodigital, shows 4.5 out of 5 stars with 2,377 customer ratings on the same day¹⁶. For comparison, as of April 18, 2022, HUK24 was rated on Truspilot with 4.4 stars out of 5 out of 9,400 recessions¹⁷. Furthermore, the independent analysis company “Franke und Bornberg” determined that the basic products of private liability insurance were of insufficient quality¹⁸.

Another feature of disruptive innovation is the use of market niches. Trachsel explains that there is no universal definition of the term niche [21].

In the course of the competitive strategy, Michael E. Porter brings the term niche into the context of “concentration on focal points” and describes the market niche as a delimitation of areas in the sense of customers, products or territoriality [22]. Neodigital does not specialize in specific customers (e. g. senior citizens), offers typical products and, like other insurance companies, operates throughout Germany. Applying Porter’s definition, it is determined that Neodigital does not operate in any market niche.

Finally, the question arises as to whether the final result on the disruption of Neodigital can be transferred to the other InsurTechs under federal supervision. As noted in the introduction, only a case-by-case assessment can provide a concrete answer. However, it can be stated at this point that the business models and products of the InsurTechs under federal supervision are fundamentally very similar². These are facts that suggest a generality.

Conclusions/discussion

Christensen’s disruption theory was applied to the InsurTech “Neodigital”. For this purpose, the seven characteristics of disruptive innovation were analyzed. Overall, three characteristics do not apply to Neodigital at all and three characteristics are not clear or cannot be answered with this scientific elaboration.

Neodigital does not operate in a new market and it is also not clear that Neodigital operates in the low-end area. It is unclear whether Neodigital is already in the optimization process for the products, since otherwise the variety of offers is not simple and this disruptive feature does not apply. The quality of the company seems to be similar to that of established companies in terms of customer relationships, with criticism being expressed in particular in the claims and product areas. The business model is similar to that of an established company and no special new technology is used. Also, Neodigital does not operate in a particular market niche. The only characteristic that applies is that Neodigital is a smaller company.

In summary, it is stated that neodigital does not qualify as disruptively innovative. Overall, however, disruptive tendencies are recognizable, which this scientific elaboration cannot fully disclose. Despite the transparent and intersubjective approach with a wide range, there are restrictions on this result due to the depth of research.

If the disruption theory is correct, the established companies do not have to adjust or worry about losing market share for products that are not in focus and vice versa, this means that Neodigital does not poach any corresponding market share.

The empirical analysis can be performed again at a later time to reapply the features. If it turns out that neodigital should act disruptively

innovatively at a later point in time, these are certainly insights for the existing disruption theory.

At the current time, the results do not allow any further conclusions to be drawn about business success. If neodigital had been disruptively innovative, future success tests could have taken place.

Working on this topic further can be done with different approaches. On the one hand, another case study could be carried out with another InsurTech to compare the results. The more articles there are, the more research methods, such as meta-analysis, are conceivable. On the other hand, the results focus on the product “liability insurance” – it would be conceivable to extend this to other products as well. Furthermore, it would be desirable if the unclear characteristics were specifically worked up again in future scientific papers.

This scientific paper summarizes the state of research on Christensen’s disruption theory and applies it to a real German InsurTech. Due to the small number of such scientific contributions, these findings will make a contribution to science as well as practice.

Notes

¹ **GDV**. Statistisches Taschenbuch 2021. // <https://www.gdv.de/de/statistiken-der-deutschen-versicherer-2021-68840> (20 April 2022).

² **BaFin**. Aller Anfang ist teuer. // January 2021, Pages 26 – 28.

³ **BaFin**. Insurtech – Eine Einordnung. // January 2019, Pages 13 – 17.

⁴ **GDV**. InsurTech(s): Zwischen Konkurrenz und Partnerschaft, Makro und Märkte Kompakt. // February 2017.

⁵ **Unternehmensregister**. Registerbekanntmachung. // May 2017, <https://www.unternehmensregister.de/ureg/result.html;jsessionid=3AF36C471C688857CC85BE29409166D0.web01-1?submitaction=showDocument&id=19509869> (21 April 2022).

⁶ **BaFin-Unternehmensregister**. Lizenzeintragung. // March 2018, <https://portal.mvp.bafin.de/database/InstInfo/institutDetails.do?cmd=loadInstitutAction&institutId=5207> (21 April 2022).

⁷ **AssCompact**. Neodigital: “Keiner möchte zum Kodak der Versicherungsbranche werden“. // 30 April 2019, <https://www.asscompact.de/nachrichten/neodigital-%E2%80%9EKeiner-m%C3%B6chte-zum-kodak-der-versicherungsbranche-werden%E2%80%9C> (18 April 2022).

⁸ **Versicherungsbote**. Viele Systeme der Versicherer basieren auf der Technik der 90er Jahre. // 6 May 2019, <https://www.versicherungsbote.de/id/4879635/Voss-Interview-Personal/> (18 April 2022).

⁹ **Neodigital**. Produktübersicht. // <https://www.neodigital.de/kundenrechner/> (17 April 2022).

¹⁰ **Neodigital a**. Beitragsrechner Privathaftpflicht. // <https://www.neodigital.de/kundenrechner-privathaftpflicht> (17 April 2022).

¹¹ **HUK24**. Beitragsrechner Privathaftpflicht // <https://www.huk24.de/tarifrechner/ph/angebotsdaten> (17 April 2022).

¹² **Allianz**. Beitragsrechner Privathaftpflicht. // <https://www.allianz.de/recht-und-eigentum/privat-haftpflichtversicherung/rechner/#/> (17 April 2022).

¹³ **ERGO.** Beitragsrechner Privathaftpflicht. // <https://www.ergo.de/de/Produkte/Haftpflichtversicherung/Privathaftpflichtversicherung/abschluss#/marital-status> (17 April 2022).

¹⁴ **AXA.** Beitragsrechner Privathaftpflicht. // [https://entry.axa.de/dvtph/?ORGA NUMMER =8834002000&AKTIO#Start](https://entry.axa.de/dvtph/?ORGA%20NUMMER=8834002000&AKTIO#Start) (17 April 2022).

¹⁵ **Neodigital b.** Google-Reviews. // <https://www.google.com/> (17 April 2022).

¹⁶ **Check24.** Neodigital Haftpflichtversicherung. // <https://www.check24.de/privathaftpflicht/neodigital/> (17 April 2022).

¹⁷ **Trustpilot.** HUK24 reviews. // <https://de.trustpilot.com/review/huk24.de> (17 April 2022).

¹⁸ **Frank und Bornberg.** Insurtechs – Die Disruptoren der Privathaftpflicht (PHV)? // 6 February 2020 (17 April 2022).

References

1. **Koch, P.** Geschichte der Versicherungswirtschaft in Deutschland. 2012, Pages 15 – 63.
2. **Lohse Ute, Will Annemarie.** Rahmenbedingungen und strategische Herausforderungen für die Versicherungsbranche, in: Reich Michael, Christopher (eds.) Handbuch Versicherungsmarketing, 2nd edition, Springer-Verlag, 2019, Pages 3 – 5.
3. **BSI-KritisV.** Verordnung zur Bestimmung Kritischer Infrastrukturen nach dem BSI-Gesetz (BSI-Kritisverordnung – BSI-KritisV) Anhang 6 (zu § 1 Nummer 4 und 5, § 7 Absatz 7 Nummer 1 und 2) Anlagenkategorien und Schwellenwerte im Sektor Finanz- und Versicherungswesen, BGBl. I 2017, 1913 – 1918.
4. **GDV.** Anbieterlandschaft am Versicherungsmarkt: Ein Ausblick, 2018, Pages 4 – 32.
5. **Broichhausen Thomas, Winter Frederik.** Die Höhle der Versicherungslöwen, Versicherungswirtschaft, Februar 2020, Pages 70 – 73.
6. **Ricciardi Valentino.** InsurTech Definition as Its Own Manifesto, in: Van der Linden Sabine, Millie Shân M., Anderson Nicole (eds.) The InsurTech Book: The Insurance Technology Handbook for Investors, Entrepreneurs and FinTech Visionaries, 2018, Page 6.
7. **Zheng Yanfeng.** Lemonade: Juicy Flavor Insurtech, University of Hong Kong, 2019.
8. **Schröder Patrick.** Case Study: Der Digitalversicherer andsafe als Spin-Off des Provinzial NordWest Konzerns, in: Junker Christian, Baaken Thomas, Riemenschneider Frank, Schmidt Alexander, Petzold, Neele (eds.) Disruptive Innovation und Ambidextrie, Springer Verlag, 2021, Pages 117 – 121.
9. **Feess Frauke.** Der Einfluss disruptiver Geschäftsmodelle von InsurTechs auf das digitale Marketing von Versicherungen, in: Terstiege Meike (eds.) Digitales Marketing – Erfolgsmodell aus der Praxis, Springer Verlag, 2020, Pages 437 – 447.
10. **Christensen Clayton M., Raynor Michael, McDonald Rory.** The Big Idea – What is disruptive Innovation? Harvard Business Review, December

2015, Pages 46 – 53.

11. **Christensen Clayton M.** The Innovator's Dilemma: The Revolutionary Book that will Change the Way You Do Business, 1997.

12. **Schultz Christian.** Theorie der disruptiven Innovation, Wirtschaftswissenschaftliches Studium (WiSt), Magazin 7 – 8, 2019, Pages 4 – 10.

13. **Deer Tatjana, Georg Stefan, Heiler Chris.** Die disruptive Innovation durch Streamingdienste – eine Strategische Analyse der Marktführer Netflix und Spotify, Springer Verlag, 2021, Pages 1 – 5.

14. **Petzold Neele, Gathmann Anna S. S.** Disruptive Innovation und Ambidextrie, in: Junker Christian, Baaken Thomas, Riemenschneider Frank, Schmidt Alexander, Petzold, Neele (eds.) Disruptive Innovation und Ambidextrie, Springer Verlag, 2021, Pages 5 – 10.

15. **Jaekel Michael.** Disruption durch digitale Plattform-Ökosysteme – eine kompakte Einführung, Springer Verlag, 2020, Pages 1 – 14.

16. **Eisenhardt Kathleen M.** Building Theories from Case Study Research, Academy of Management Review, 1989, Vol. 14, No. 4, Pages 532 – 550.

17. **Hering Linda, Schmidt J. Robert.** Einzelfallanalyse, in: Baur Nina and Blasius, Jörg (eds.) Handbuch Methoden der empirischen Sozialforschung, Springer Verlag, 2014, Pages 532 – 533.

18. **Häußermann Hartmut, Kapphan Andreas.** Berlin: von der geteilten zur gespalteten Stadt? Sozialräumlicher Wandel seit 1990, Leske + Budrich Verlag, 2002.

19. **Thomas Gary.** A Typology for the Case Study in Social Science Following a Review of Definition, Discourse, and Structure. In: Qualitative Inquiry 17 (6), 2011, Pages 511–521.

20. **Bruhn Manfred.** Qualitätsmanagement für Dienstleistungen, Springer Verlag, 2016, Page 29.

21. **Trachsel Micha.** Nischenstrategie und ihre Bedeutung für den Unternehmenserfolg, Deutsche Universitäts-Verlag, 2007, Page 43.

22. **Porter Michael E.** Wettbewerbsstrategie: Methoden zur Analyse von Branchen und Konkurrenten, 12. Auflage, Campus Verlag, 2013, Pages 77 – 79.

About the author

Maik Waschk MBA is a doctoral student and researches the field of InsurTechs in Germany. He has experience in the banking and insurance sector as well as in management consulting and auditing. In addition, he is well versed in the IT field.

To contact the author: insurtechs@gmx.de