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VEDECKÉ PRÍSPEVKY

SCIENTIFIC CONTRIBUTIONS

Augmented Reality in Marketing

Eva Jelínková, Marta Nosková

Abstract

Digitalization, digital transformation, Industry 4.0, the Fourth Industrial Revolution – any of these terms carry along with them the possibility or necessity to apply digital technologies to the current form of business, the world and life. Augmented reality is one of these digital technologies. Augmented reality offers broad applications within both business and society. The aim of this paper is to systematically analyse the use of augmented reality in the context of marketing and find answers to the established research questions. For these purposes, a bibliometric study of publications listed in the Web of Science database was conducted. Using the Pareto principle, an analysis of abstracts in papers that obtained 80% of the total times cited was performed. The results are summarized and presented in a structured manner according to the types of immersion and marketing purposes. After a discussion of the findings, directions for future research activities in this field are suggested. The completed research shows an increasing interest in the area in question and suggests that AR has earned a strong place in marketing, either in the field of tourism and cultural heritage or in the area of positively influencing consumer purchasing behaviour.

JEL classification: M 31, O 30

Keywords: augmented reality, marketing, digitalization

1 Introduction

Digitalization, digital transformation, Industry 4.0, the Fourth Industrial Revolution – any of these terms carry along with them the possibility or necessity to apply digital technologies to the current form of business, the world and life. New digital technologies are currently driving the corporate environment and all of society, and the field of marketing is no exception. One of these new technologies – augmented reality – has emerged in the marketing environment as an unprecedented interactive technology that, due to its unique method of connecting physical environments and virtual elements, offers a major innovation in the access to commercially relevant content (Javornik I, 2016).

The aim of this paper is to systematically analyse existing literature in the field of augmented reality as a new digital technology and its use in marketing and to answer the research questions using a bibliometric study. After this brief introduction, the paper is structured as follows: First, a theoretical review is provided, which aims to provide readers with a contextualization of the topic of AR and its possible use in marketing. The research methodology is subsequently presented, and the next part of the paper presents the results of the completed bibliometric data study, e.g. the development of papers in each year, citation and keyword analysis, papers by journal or conference, and findings from the analysis of article abstracts. The paper is concluded with a summary of the findings in the researched area and recommended directions for future research activities in the field of AR in marketing.

2 Current State of the Solved Problem at Home and Abroad

The main concept of augmented reality (AR) lies in the fact that it allows marketers to combine digital information (e.g. text, images, videos) with objects and spaces in the physical world (e.g. product packaging, advertisements, street environments) to mediate a hybrid reality to consumers on the digital screens of smartphones or tablets or by using video projections (Scholz & Smith, 2016), the virtual content is then integrated into a user's perception of the real

world (Rauschnabel et al., 2022). Many of the world's largest companies – including Coca-Cola, McDonald's, and General Electric – have adopted AR in their marketing programs and use it to create interactive advertisements or packaging, or to improve retail experiences and develop immersive games (Scholz & Smith, 2016). The Pepsi company startled and amused Londoners with an AR advertisement in the form of an interactive bus stop in 2015 (Horáček, 2015). The bus stop looked completely normal, but instead of glass, there was a screen on the side of it that perfectly copied the city in the background. At certain moments, flying saucers flew across the sky, later a tiger walked along the pavement or someone hovered in the sky on a string of coloured balloons. The advertisement appeared as a part of the Pepsi Max campaign under the title Unbelievable, which the company used to surprise people with incredible phenomena.

Figure 1

Pepsi's AR advertisement in London



Source: (Horáček, 2015), modified 2023.

The question of topicality of the issue of AR in marketing is not only highlighted by professional sources or the daily press, but also by social media. The knowledge transfer channel (Lau, 2017) YouTube as a social medium with great and proven education potential (Godwin, Khan, & Yellowlees, 2017) offers countless videos on the use of AR in marketing (for example Wikitude, 2023; Marr, 2023). The whole area of immersive technologies, especially AR and VR and their use in enterprises, is a technological trend (Deloitte, 2023) that deserves further attention.

3 Research Design

A systematic bibliometric study approach with analysis of abstracts was used to answer the research questions; similarly, this approach has been used by authors such as (Machado & Martens, 2015; Manoharan & Singal, 2017; Tomašević, Stojanović, Slović, Simeunović, & Jovanović, 2020), who carried out systematic research in various areas of management. The methodological approach in this paper is a combination of these approaches. The formulation of research questions stands at the beginning of any research of this type; already in this phase of research, researchers must have a sufficient overview of the research area and the intended methodological aspect of the research (Machado & Martens, 2015). The bibliometric study itself is then carried out in 4 phases, which are:

1. keyword definitions,
2. database definition and article sourcing protocol,
3. search for papers,
4. data analysis of the created portfolio.

Thus, the basic research aim of this paper is to systematically analyse the existing scientific literature and provide answers to the research questions, which are:

- *What areas of marketing is AR used in?*

- *Is AR entering into marketing strategies?*
- *What are the suggestions for future research activities in the field of AR in marketing?*

In the first phase of research, it is crucial to define the keywords that will be used to search the database in order to find papers that are potentially relevant to the studied area. Based on the field of research and the established research questions, the defined keywords included augmented reality as such, the second word represented the second research area, i.e. marketing. Thus, the resulting keyword combination is "augmented reality" AND "marketing".

In order to create this study, the Web of Science database was chosen, as it is considered the world's most trustworthy global citation database and is not dependent on publishers. In regard to the relative novelty of the digital technology of augmented reality, the time horizon was not limited in any way. The search will be carried out based on the search protocol shown in Table 1. The search will be limited to the title of the source, abstract and keywords, i.e. topic. Before the analysis of abstracts is carried out, inclusive criteria include Web of Science Categories, in which results are required to fall under the fields of Business or Management.

Table 1

Article sourcing protocol

Database	Web of Science
Publication year	No restriction
Search field	Topic, i.e. title, abstract, keywords, keywords plus
Search string combination	"augmented reality" AND "marketing"
Search date	3 January 2023
Inclusion criteria	Area of interest: Business or Management

Source: own source, 2023.

The entry of the final limitation based on the article sourcing protocol is as follows: results for "augmented reality" (Topic) AND "marketing" (Topic) and Business or Management (Web of Science Categories).

The search for articles itself was performed according to the criteria established above as of 3 January 2023. Search results were exported into MS Excel using the Export Records to Excel, All Records on Page and Record Content Full Content functions. This method of reporting makes it possible to acquire search results including abstracts of papers, number of citations, year of publication and other criteria that are important for the following steps of the analysis. The acquired data is further processed using the following criteria:

- papers in individual years,
- citations,
- papers according to journal or conference,
- most frequently listed keywords,
- analysis of abstracts of the most commonly cited articles,
- most frequently mentioned words in the most commonly cited articles.

4 Research Results

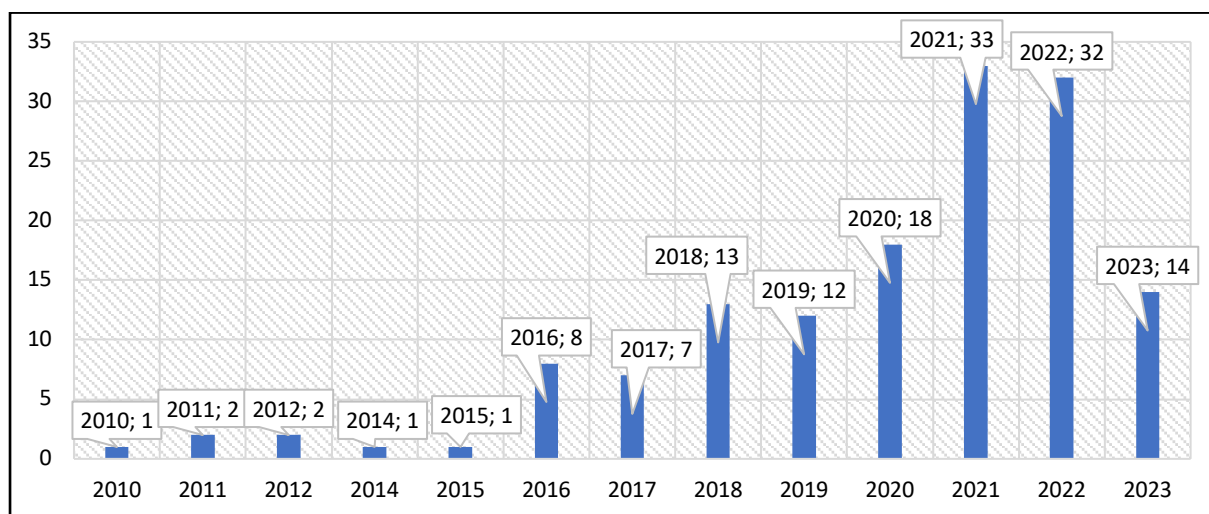
Based on the defined article sourcing protocol, the output of the search performed as of 3 January 2023 is 144 results in the Web of Science database in the area of interest - Business or Management. Before carrying out a limitation by area of interest, the total number of search results across all categories was 370 publications. From the total amount of 370 publication the field of Business is the area with the highest number of AR and marketing papers, with 120 publications (32.4%); the field of Management takes fourth position, with 38 papers (10.3%), while the areas of Computer Science, specifically Theory Methods (45 papers, 12.2%) and

Information Systems (41 papers, 11.1%), take second and third place respectively. The area of Business and Management in total of 144 publications is relevant for next research steps.

Figure 2 provides an overview of the development of the number of papers in individual years. The first paper from the field of AR in marketing dates back to 2010; the growing trend demonstrates increasing interest in this area. Due to the date that the research data were acquired, papers listed in the graph as 2023 are all in early access mode (3 January 2023). There is naturally a strong reason to suspect an increase in the number of papers over the course of this year.

Figure 2

Development of the number of papers in individual years

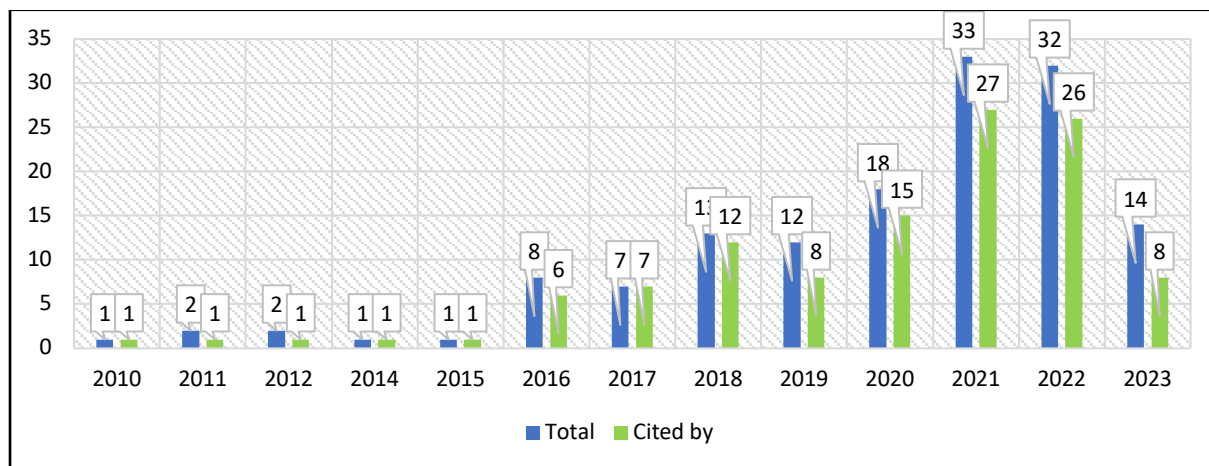


Source: own source, 2023.

Figure 3 provides an overview of whether or not the papers became a source of inspiration for other authors and researchers and whether they were cited or not. Most of the earliest papers became a source for further research work. In subsequent years, more than half of the papers are always used as well. The topicality of the issue is also demonstrated by the fact that even articles in early access mode, i.e. those from 2023, are already the source for further publications by more than half. Further development in the use of papers as sources for further research and development activities is expected in 2023.

Figure 3

Number of un/cited papers in individual years.

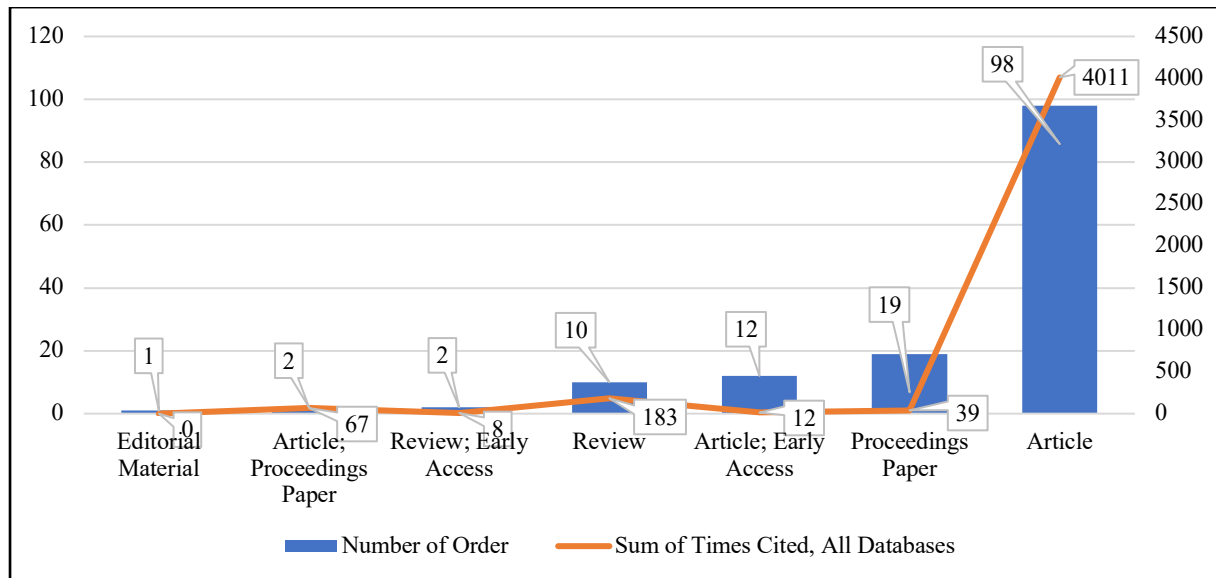


Source: own source, 2023.

Figure 4 provides an overview of what types of documents are represented in the analysed papers and how often these documents become a source of citations for further scientific and research work. The most frequent type of document are articles, with a total of 98 contributions, which also clearly generated the highest number of citations, with a citation count of 4,011 times cited out of a total of 4,320 for all categories.

Figure 4

Number of papers according to type of document and times cited.



Source: own source, 2023.

Table 2 provides an overview of journals or proceedings papers sorted by the sum of times cited and all databases from highest to lowest; it also gives information on how many papers were published in a certain journal or proceedings. The most frequently cited journal, which also had the highest number of papers, is the Journal of Retailing and Consumer Services. The table includes journals/proceedings whose sum of times cited reached a number greater than 10. The remaining 39 journals/proceedings were cited less (17) or not at all (22).

Table 2

Journals/proceedings by citations and number of papers.

Journal/Conference Proceedings	Number of papers	Sum of Times Cited, All Databases
JOURNAL OF RETAILING AND CONSUMER SERVICES	15	976
TOURISM MANAGEMENT	2	648
JOURNAL OF INTERACTIVE MARKETING	4	519
JOURNAL OF BUSINESS RESEARCH	10	386
JOURNAL OF THE ACADEMY OF MARKETING SCIENCE	5	328
BUSINESS HORIZONS	5	302
JOURNAL OF MARKETING MANAGEMENT	1	121
JOURNAL OF DESTINATION MARKETING & MANAGEMENT	4	109
PSYCHOLOGY & MARKETING	9	79
INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT	2	78
INTERNATIONAL JOURNAL OF RESEARCH IN MARKETING	1	78
AUSTRALASIAN MARKETING JOURNAL	2	73

experience (581), research (537), customer or customers (495 and 363), marketing (427), technology (361), reality (329), virtual (435) or augmented (264). Outputs of the analysis from full articles are shown in Figure 6.

5 Discussion

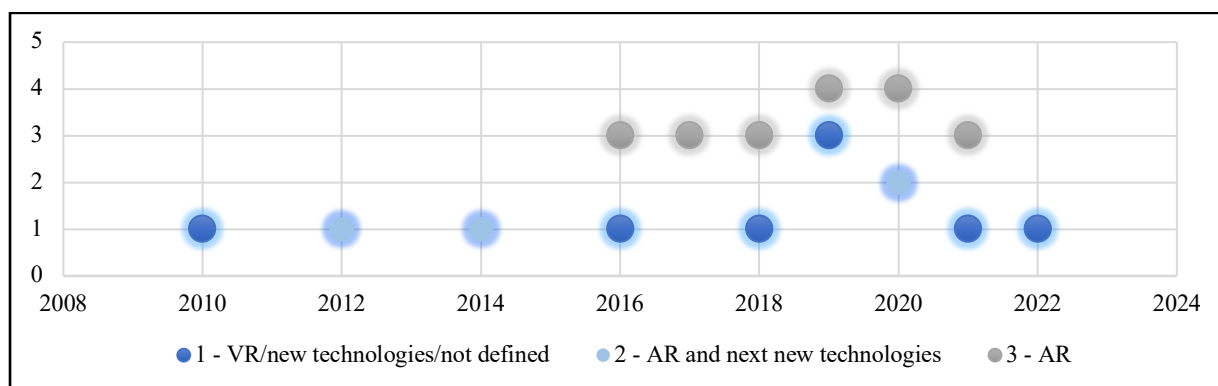
Based on the analysis of abstracts and in terms of the area of immersion and marketing they relate to, papers were classified into AR, VR, new technology, or undefined and in terms of the area of marketing, they relate to. The number of articles in the individual clusters in each year is captured in Figure 7. The first cluster included papers that were not related to AR as such, i.e. ones whose abstracts did not define whether they dealt with AR or not, or defined another area – mostly virtual reality (VR) or new technologies in general. This includes the earliest paper from 2010, which deals with virtual reality and its applications in tourism (Guttentag, 2010); the topic of tourism and cultural tourism in connection with VR is also dealt with in a paper from 2018 (Marasco, Buonincontri, van Niekerk, Orlowski, & Okumus, 2018). The third paper focusing on VR is a review based on text mining that deals with understanding the use of VR in marketing (Loureiro, Guerreiro, Eloy, Langaro, & Panchapakesan, 2019).

The second cluster includes papers that deal with AR in conjunction with other digital technologies, or AR in combination with VR. The papers explore the impact of these technologies on customers' purchasing experience (Poncin & Ben Mimoun, 2014; Hoyer, Kroschke, Schmitt, Kraume, & Shankar, 2020) and examine the impact on consumers and consumer perception (Pantano & Servidio, 2012). The authors Wedel, Bigne, & Zhang (2020) present a review of VR/AR applications and existing research in the field of consumer marketing.

The last and also most extensive cluster is the most relevant one in terms of the research objective and the established article sourcing protocol, i.e. one that deals with AR in conjunction with marketing. One of the areas of marketing in which AR is used is the field of tourism or cultural tourism; papers from 2018 focus on museum experiences (He, Wu, & Li, 2018) or cultural heritage destinations and enhancing the tourist experience through AR (Jung, Lee, Chung, & Dieck, 2018). A paper from 2020 (Cranmer, Dieck, & Fountoulaki, 2020) points to the fact that little is still known about the true value of AR in the tourism industry; the authors explore the dimensions of tourism-specific AR values, and the findings provide guidelines for strategy development, AR implementation and designing the tourism experience. Most of the papers (17) focus on AR in connection with marketing areas such as consumer behaviour, marketing campaigns, advertising, brand perception and consumer engagement.

Figure 7

Number of papers according to clusters in individual years



Source: own source, 2023.

Of the three articles published in 2016, two belong to a single author Javornik I (2016), Javornik II (2016), who approaches AR by studying the media characteristics of interactive technologies and showing to what degree they are indicative of current commercial applications. Based on a literature review of consumer reactions to these characteristics, the potential media effects of AR on consumer behaviour are discussed (Javornik I, 2016) and two applications of AR and corresponding consumer reactions to media characteristics of applications with/without AR are examined; here, the research confirms the positive impact of AR on consumer behaviour (Javornik II, 2016). Proof of the improvement of consumer engagement when involving AR is also found in the last paper (Scholz & Smith, 2016), which provides a framework to describe the active and passive components of AR and the basic design decisions that marketers must make when planning a campaign. By means of a framework and analysis, the paper develops eight practical recommendations using the acronym ENTANGLE, which marketers can use to design immersive AR experiences that maximize consumer engagement. Three papers were also published in 2017. The paper by authors Yim, Chu, & Sauer (2017) has the highest number of times cited from the AR and marketing cluster. It is a study that evaluates the effectiveness of AR as an e-commerce tool and shows that immersion mediates a better relationship between interactivity/liveliness and two resulting variables – usefulness and customer experience, in the state of AR compared to the web. The authors Hilken, de Ruyter, Chylinski, Mahr, & Keeling (2017) deal with a service augmentation strategy with the goal of improving customer experience with online services. They show that expanding AR-based services improves the customer's perception of value by simultaneously providing simulated physical control and integration into the environment. Authors Huang & Liao (2017) test psychological states (body ownership, sense of ownership control, and self-exploratory engagement) and psychologically illustrate the importance of using multisensory AR in e-shops.

The paper (Scholz & Duffy, 2018) published in 2018 highlights the potential of AR to transform the mobile shopping experience and create more meaningful relationships between consumer and brand. The authors explore which consumer-brand relationships can be made more effective via AR at the Sephora company. The findings show that a close and intimate relationship can be created by integrating an AR app into the consumers' intimate space. Thus, this study expands the focus of AR research from the immediate physical context, into which virtual information is embedded, to the broader spatial-symbolic context of where (i.e. in what locations) consumers use AR applications. Four papers published in 2019 continue to explore the impact of augmented reality on marketing, as the authors Carrozzi, Chylinski, Heller, Hilken, Keeling & de Ruyter (2019) interpret AR holograms as a new digital form of consumer products and explore their impact on psychological ownership. They have found that AR enables customers to feel psychological ownership of digital products, and they consider these products to be a new class of digital consumer products. The authors Rauschnabel, Felix, & Hinsch (2019) test how consumers perceive and evaluate the benefits and quality of the proliferation of AR applications and how this evaluation drives subsequent changes in the attitude towards the brand. The term “augmented reality marketing” is emerging. Authors van Esch, Arli, Gheshlaghi, Andonopoulos, von der Heide, & Northey (2019) highlight AR as a technology that, among other factors, has the potential to significantly change the ways in which individuals buy and consume goods. Their findings show that anthropomorphism influences consumers' experiences with AR and their attitudes towards brands that use AR. Furthermore, the findings suggest that brands benefit when managers make AR a key part of the retailing experience. Authors Perannagari & Chakrabarti (2019) completed a review that establishes a research agenda for scientists working in the area of consumer behavior and human-computer

interaction, recommending that marketers incorporate AR technology into their experience-based marketing strategies.

Three papers were published in 2020. Authors Hinsch, Felix, & Rauschnabel (2020) declare that AR as an innovative concept that enriches consumer perception of the real world via virtual content. They claim that research has already proven that AR has the potential to inspire consumers and improve marketing results, but only very little is known about the mechanisms AR employs to inspire users. Their research dissects the AR-inspiration relationship and shows how psychological inspiration (i.e. inspired-by) translates into behavioural inspiration (i.e. inspired-to). They use Lego Playground AR to empirically test their hypotheses and find that while nostalgia fully mediates the link between psychological and behavioural inspiration, the wow effect does not significantly do so with this relationship. Authors Park & Yoo (2020) examine the relationship between perceived interactivity and individuals' mental imagery and level of engagement. A survey in South Korea engaged a total of 302 female online consumers, who participated in a questionnaire survey after purchasing cosmetics products using AR on a mobile app. The findings enable digital marketers to create effective mobile shopping environments. Authors Chylinski, Heller, Hilken, Keeling, Mahr, & de Ruyter (2020) move the topic of AR in marketing into the field of marketing strategies and claim that recent advances in AR technologies have led to a growing interest in their application for marketing strategies and practice, i.e. for augmented reality marketing (ARM). Despite emerging publications on the topic, however, managers and academics are still struggling to formulate which experiences delivered by ARM are valuable to customers in a way that differs from other marketing approaches. In this paper, the authors review the emerging literature and define ARM as a customer interface for the application of digital marketing technologies in a physical environment and identify a unique set of digital capabilities that ARM offers outside the framework of traditional marketing approaches.

The last three papers are from 2021. Authors Nikhashemi, Knight, Nusair, & Liat (2021) use the term smart retailing as a new form of retail brand management, which is enabled by new technologies such as mobile AR apps with the goal of creating a better experience and value for customers. The study examines the chain of effects of AR's attributes on shopping. The research includes the customer's perception of benefits and psychological inspiration. The study (Kowalczyk, Siepmann, & Adler, 2021) examines the relative advantage of AR as compared to web-based product presentations. The authors develop a consumer response model and compare consumer responses to the IKEA Place app and the IKEA mobile website on smartphones. The results show that AR outperforms web-based product presentations by creating greater immersion and entertainment. In light of the fact that the intentions for AR apps to be used repeatedly stem from enjoyment and usefulness, retailers should improve system quality, product informativeness and conformity to reality to increase media usefulness and interactivity, thus enhancing enjoyment. To achieve high purchase goals, they should also increase interactivity, as this increases the popularity of products and ensures trust in selected products. A recent study (Barhorst, McLean, Shah, & Mack, 2021) examines AR from the perspective of flow theory and attempts to determine whether investments into AR technologies are justified and how the unique features of AR impact consumer outcomes. To achieve these goals, a commercially available AR application was used to conduct an online experiment among 500 participants.

6 Conclusions and Recommendations

The aim of this paper was to use a bibliometric study to map the topic of the new digital technology of augmented reality in marketing.

The procedure for the bibliometric study was set as follows: First, the research questions, article sourcing protocol and then the criteria that were the subject of analysis were defined. The results of the analysed criteria include, for example, developments in the number of papers in individual years, the number of cited or uncited papers, an overview of journals or proceedings by citations and a number of papers, or the most frequent keywords and keyword plus. The analysis of abstracts included the most relevant articles selected according to the citation count. The most frequently occurring words in the abstracts of these articles and in the full text were also analysed here. In the discussion, the findings from the analyses were summarized and the research questions were answered. Based on the defined article sourcing protocol, the output of the search performed as of 3 January 2023 is 144 results in the Web of Science database in the fields of Business or Management from the total count of 370 publications across all categories. The first paper from the field of AR in marketing dates back to 2010; the growing trend demonstrates an increasing interest in this area, more than 30 papers were published in the last two years, and the same trend is proved by cited papers.

In answering the first research question “What areas of marketing is AR used in?” the results of the bibliometric study and the findings of the analysis of abstracts demonstrate the fact that AR has earned a strong place in marketing, either in the field of tourism and cultural heritage or in the area of positively influencing consumer purchasing behaviour. Most of the papers focus on AR in connection with marketing areas such as consumer behaviour, marketing campaigns, advertising, brand perception and consumer engagement. AR holds a place not only in online commerce, e-commerce and digital retailing but also in brick-and-mortar stores, the potential of AR to transform the mobile shopping experience and create more meaningful relationships between consumer and brand is highlighted. The proof was also found of the close connection between marketing and psychology, in which the psychological aspect of the consumer must not be neglected when incorporating new digital technologies into marketing. The findings about the second research question – AR entering into marketing strategies - show that in recent years, the use of AR in marketing has seen a shift towards marketing strategies and the emergence of terms such as “augmented reality marketing” or “smart retailing”.

For future research activities, it would be interesting to build upon the research of authors Park & Yoo (2020), who in their paper “Effects of Perceived Interactivity of Augmented Reality on Consumer Responses: A Mental Imagery Perspective” examine the relationship between perceived interactivity and mental imagery and the level of the individual’s engagement. A survey in South Korea engaged a total of 302 female online consumers, who participated in a questionnaire survey after purchasing cosmetics products using AR on a mobile app. The findings enable digital retailers to create effective mobile shopping environments. It would also be useful to build on the work of authors Rauschnabel, Felix, & Hinsch (2019), Hinsch, Felix, & Rauschnabel (2020) who shift the field of AR in marketing to the level of ARM, or to continue on in the trend of “smart” areas, in which the concept of smart retailing is emerging in marketing as a new form of retail brand management enabled by new technologies like AR mobile applications (Nikhashemi, Knight, Nusair, & Liat, 2021). The goal of using AR or other new technologies in marketing is obvious – to create a better experience and value for customers.

This study has its limitations mainly resulted from the bibliometric analysis itself which focuses primarily on quantitative data to map the topic and prove its potential for further research. Another limitation is the adjustment of article sourcing protocol and inclusion criteria, as well as the author’s subjectivity while analysing the articles. However, as the two authors read the abstracts separately the objectivity should be guaranteed. In addition, the use of a single database or the focus only on the English language can represent another limitation, but it is a

standard procedure for this type of research. Thus, the results of this study should demonstrate a rigorous and comprehensive review of the literature on AR in marketing, providing valuable insights and represent the base for the next research activities in this area.

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References

- Ahmad, N., Naveed, A., Ahmad, S., & Butt, I. (2020). Banking sector performance, profitability, and efficiency: A citation-based systematic literature review. *Journal of Economic Surveys*. Vol. 34, Issue 1, pp. 185–218. ISSN 0950-0804.
- Antony, J., Psomas, E., Garza-Reyes, J. A., & Hines, P. (2021). Practical implications and future research agenda of lean manufacturing: a systematic literature review. *Production Planning & Control*. Vol. 32, Issue 11, pp. 889-925. ISSN 0953-7287.
- Barhorst, J. B., McLean, G., Shah, E., & Mack, R. (2021). Blending the real world and the virtual world: Exploring the role of flow in augmented reality experiences. *Journal of Business Research*. Vol. 122, pp. 423-436. ISSN 0148-2963.
- Carrozzi, A., Chylinski, M., Heller, J., Hilken, T., Keeling, D. I., & de Ruyter, K. (2019). How Shared Augmented Reality Augments Psychological Ownership. *Journal of Interactive Marketing*. Vol. 48, pp. 71-88. ISSN 1094-9968.
- Cranmer, E. E., Dieck, M. C., & Fountoulaki, P. (2020). Exploring the value of augmented reality for tourism. *Tourism Management Perspectives*. Vol 35. ISSN 2211-9736.
- Deloitte. (2023). *Tech Trends 2023*. <https://www2.deloitte.com/ch/en/pages/technology/articles/tech-trends.html>. [accessed 20.12.2022].
- Godwin, H., Khan, M., & Yellowlees, P. (2017). The Educational Potential of YouTube. *Academic Psychiatry*. Vol. 41, pp. 823-827. ISSN 1042-9670
- Guttentag, D. A. (2010). Virtual reality: applications and implications for tourism. *Tourism Management*. Vol. 31, Issue 5, pp. 637-651. ISSN 0261-5177.
- He, Z., Wu, L., & Li, X. (2018). When art meets tech: The role of augmented reality in enhancing museum experiences and purchase intentions. *Tourism Management*. Vol. 68, pp. 127-139. ISSN 0261-5177.
- Hilken, T., de Ruyter, K., Chylinski, M., Mahr, D., & Keeling, D. I. (2017). Augmenting the eye of the beholder: exploring the strategic potential of augmented reality to enhance online service experiences. *Journal of the Academy of Marketing Science*. Vol. 45, Issue 6, pp. 884-905. ISSN 0092-0703.

Hinsch, C., Felix, R., & Rauschnabel, P. A. (2020). Nostalgia beats the wow-effect: Inspiration, awe and meaningful associations in augmented reality marketing. *Journal of Retailing and Consumer Services*. Vol. 53. ISSN 0969-6989.

Horáček, F. (2015). *Interactive ads are increasing. Things address pedestrians and create illusions.* https://www.idnes.cz/ekonomika/zahranicni/interaktivnich-reklam-pribyva.A160114_145143_ekonomika_fih. [accessed 2.1.2023].

Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K., & Shankar, V. (2020). Transforming the Customer Experience Through New Technologies. *Journal of Interactive Marketing*. Vol. 51, pp. 57-71. ISSN 1094-9968.

Huang, T.-L., & Liao, S.-L. (2017). Creating e-shopping multisensory flow experience through augmented-reality interactive technology. *Internet Research*. Vol. 27, Issue 2, pp. 449-475. ISSN 1066-2243.

Chylinski, M., Heller, J., Hilken, T., Keeling, D. I., Mahr, D., & de Ruyter, K. (2020). Augmented reality marketing: A technology-enabled approach to situated customer experience. *Australasian Marketing Journal*. Vol.28, Issue 4, pp. 374-384. ISSN 1441-3582.

Javornik I, A. (2016). Augmented reality: a research agenda for studying the impact of its media characteristics on consumer behaviour. *Journal of Retailing and consumer services*. Vol. 30, pp. 252-261. ISSN 0969-6989

Javornik II, A. (2016). It's an illusion, but it looks real!' Consumer affective, cognitive and behavioural responses to augmented reality applications. *Journal of Marketing Management*. Vol. 32, Issue 9-10, pp. 987-1011. ISSN 0267-257X.

Jung, T. H., Lee, H., Chung, N., & Dieck, M. C. (2018). Cross-cultural differences in adopting mobile augmented reality at cultural heritage tourism sites. *International Journal of Contemporary Hospitality Management*. Vol. 30, Issue 3, pp. 1621-1645. ISSN 0959-6119

Kowalczyk, P., Siepmann, C., & Adler, J. (2021). Cognitive, affective, and behavioral consumer responses to augmented reality in e-commerce: A comparative study. *Journal of Business Research*. Vol. 124, pp. 357-373. ISSN 0148-2963.

Lau, E. K. V. (2017). Knowledge Sharing on YouTube. In den, L., Lu, W., Ting, IH. (eds) Knowledge Management in Organizations. KMO 2017. *Communications in Computer and Information Science*. Vol. 731, pp. 64–71. ISBN 978-3-319-62697-0.

Loureiro, S., Guerreiro, J., Eloy, S., Langaro, D., & Panchapakesan, P. (2019). Understanding the use of Virtual Reality in Marketing: A text mining-based review. *Journal of Business Research*. Vol. 100, pp. 514-530. ISSN 0148-2963.

Machado, F. J., & Martens, C. D. (2015). Project Management Success: A Bibliometric Analysis. *Revista de Gestão e Projetos – GeP*. Vol. 6, Issue 1, pp 28-44. e-ISSN 2236-0972.

Manoharan, A., & Singal, M. (2017). A systematic literature review of research on diversity and diversity management in the hospitality literature. *International Journal of Hospitality Management*. Vol. 66, pp. 77-91. ISSN 0278-4319.

Marasco, A., Buonincontri, P., van Niekerk, M., Orłowski, M., & Okumus, F. (2018). Exploring the role of next-generation virtual technologies in destination marketing. *Journal of Destination Marketing & Management*. Vol. 9, pp. 138-148. ISSN 2212-571X.

Marr, B. (2023). *4 Amazing Examples Of How AR Is Used In Business To Create A Better Customer Experience*. https://www.youtube.com/watch?v=uIsEZiP_Pwc. [accessed 2.1.2023].

Menegaki, A. N., Ahmad, N., Aghdam, R. F., & Naz, A. (2021). The convergence in various dimensions of energy-economy-environment linkages: A comprehensive citation-based systematic literature review. *Energy Economics*. Vol. 104, pp. 1-18. ISSN 0140-9883.

Nikhashemi, S. R., Knight, H. H., Nusair, K., & Liat, C. B. (2021). Augmented reality in smart retailing: A(n)(A) Symmetric Approach to continuous intention to use retail brands? mobile AR apps. *Journal of Retailing and Consumer Services*. Vol. 60. ISSN 0969-6989.

Pantano, E., & Servidio, R. (2012). Modeling innovative points of sales through virtual and immersive technologies. *Journal of Retailing and Consumer Services*. Vol. 19, Issue 3, pp. 279-286. ISSN 0969-6989.

Park, M., & Yoo, J. (2020). Effects of perceived interactivity of augmented reality on consumer responses: A mental imagery perspective. *Journal of Retailing and Consumer Services*. Vol. 52. ISSN 0969-6989.

Perannagari, K. T., & Chakrabarti, S. (2019). Factors influencing acceptance of augmented reality in retail: insights from thematic analysis. *International Journal of Retail & Distribution Management*. Vol. 48, Issue 1, pp. 18-34. ISSN 0959-0552.

Poncin, I., & Ben Mimoun, M. S. (2014). The impact of e-atmospherics on physical stores. *Journal of Retailing and Consumer Services*. Vol. 21, Issue 5, pp. 851-859. ISSN 0969-6989.

Rauschnabel, P. A., Felix, R., & Hinsch, C. (2019). Augmented reality marketing: How mobile AR-apps can improve brands through inspiration. *Journal of Retailing and Consumer Services*. Vol. 49, pp. 43-53. ISSN 0969-6989.

Rauschnabel, P. A., Babin, B. J., tom Dieck, M. C., Krey, N., Jung, T. (2022). What is augmented reality marketing? Its definition, complexity, and future. *Journal of Business Research*. Vol. 142, pp. 1140-1150.

Scholz, J., & Duffy, K. (2018). We ARe at home: How augmented reality reshapes mobile marketing and consumer-brand relationships. *Journal of Retailing and Consumer Services*. Vol. 44, pp. 11-23. ISSN 0969-6989.

Scholz, J., & Smith, A. N. (2016). Augmented reality: Designing immersive experiences that maximize consumer engagement. *Business Horizons*. Vol. 59, Issue 2, pp. 149-161. ISSN 0007-6813

Tomašević, I., Stojanović, D., Slović, D., Simeunović, B., & Jovanović, I. (2020). Lean in High-Mix/Low-Volume industry: a systematic literature review. *Production Planning & Control*. pp 1-16. ISSN 0953-7287.

van Esch, P., Arli, D., Gheshlaghi, M. H., Andonopoulos, V., von der Heide, T., & Northey, G. (2019). Anthropomorphism and augmented reality in the retail environment. *Journal of Retailing and Consumer Services*. Vol. 49, pp. 35-42. ISSN 0969-6989.

Wedel, M., Bigne, E., & Zhang, J. (2020). Virtual and augmented reality: Advancing research in consumer marketing. *International Journal of Research in Marketing*. Vol. 37, Issue 3, pp. 443-465. ISSN 0167-8116.

Wikitude. (2023). *7 ways to use AR in marketing*. <https://www.youtube.com/watch?v=m8z7PFtWz1s>. [accessed 2.1.2023].

Yim, M. Y.-C., Chu, S.-C., & Sauer, P. L. (2017). Is Augmented Reality Technology an Effective Tool for E-commerce? An Interactivity and Vividness Perspective. *Journal of Interactive Marketing*. Vol. 39, pp. 89-103. ISSN 1094-9968.

Analysis of the reputation management of insurance companies and identification of its most important factors

Frank Gerwald, Peter Dorčák

Abstract

The aim of this study is to identify and prioritize factors that determine the reputation of insurance companies in Germany and Slovakia. After gaining an overview of the state of the problem through a systematic literature search, the perspective of the insurers was examined. For this purpose, twelve semi-structured expert interviews were conducted with executives from the insurance industry, which were evaluated qualitatively. Subsequently, the perspective of customers was examined by means of an online survey, which was answered by 224 insurance customers in Germany and Slovakia. The quantitative evaluation of the results was carried out by applying exploratory and confirmatory factor analysis. The most important factors for the formation of a positive reputation were identified as the speed of feedback and processing, as well as well-trained and motivated staff. The research has shown that in the insurance industry, different factors determine reputation compared to other industries. The earnings and financial strength of insurers are more important to customers than their presence on social media, while the perception of social responsibility is more of a hygiene factor.

JEL classification: M310, M370, L140.

Keywords: reputation; reputation management; insurance; CRM; customer loyalty.

1 Introduction

Building a good reputation is an undertaking that must be understood as a long-term investment. Companies with a positive reputation are assumed by stakeholders to be above-average performance. At the same time, the strategic competitive position is improving, making it easier for the company to make higher profits, consolidate customer and supplier loyalty, and reduce transaction costs. A high reputation also reduces the incidence of crises and economic fluctuations. As valuable as a positive reputation for the company is, it is fragile. A long-term reputation can be destroyed within a few moments and reversed. After the destruction of a previously good reputation, a recovery of the good values is only possible in the long term and with great effort. In order not to get that far, a targeted reputation management on the part of the company is needed.

For a company to manage its reputation in a targeted manner, it must first determine which factors have any influence on the perceived performance at all. Because massive investments in reputation-building measures are only amortized if the management of the company assesses the relevance of the individual factors in the same way as the stakeholders. The discussion on reputation management gains additional momentum due to the advancing digitalization. The influence of customer reviews on online portals and social media is steadily increasing, as the user gets their say on many platforms. User reviews are of high importance as their opinions are considered neutral by other users. Reputation is also formed online, and companies need to find a way to monitor and analyze their customers' online feedback.

A company's reputation among its stakeholders is a valuable asset and one of its most valuable success factors (Pollák, Dorčák and Markovič, 2021). From the stakeholder perspective, the reputation of a company provides an assessment basis for the estimation of the company's contribution to its own and the common good (Helm, 2007). Specific performance characteristics of individual companies are increasingly easier and faster copied by competitors,

while the reputation as intangible value is difficult to take over by competitors (Kirstein, 2009). Building a positive reputation requires a lot of resources and patience. It is difficult to build, but at the same time it is at the constant risk of damage. A single poor communication decision is enough and the build-up of the reputation of many years has been destroyed. There is a risk that positive developments will turn to the opposite and that the annoyance of individual customers, including through social media, will ensure that long-term business goals cannot be achieved (Ternès and Runge, 2015). According to a study by the Federal Association of Information Industry Bitkom, 87 % of consumers aged 14 and over are registered on social networks (Bitkom, 2018). The average Internet user works with three social networks in parallel (Bitkom, 2018). Based on these figures, it is possible to derive the extent of the reach of stakeholder opinions through digital media. Once negative corporate experiences were spread among friends and acquaintances, stakeholders today have the opportunity to express their anger worldwide in real time. Examples of the German insurance industry were provided here by ERGO and Debeka insurance, which caused the displeasure of their customers and the mockery of the media through excessive incentive trips and a lazy handling of data protection regulations. Due to the unprofessional handling of the crisis, the reputation of the corporations has been severely affected, the negative effect has been amplified and the brands have been damaged to this day.

To minimize these risks, it is incessant for insurance companies to install systematic reputation management. The sensitive structure of the reputation requires active and strategic management as well as responsible communication with all stakeholders and it reflects the corporate culture internally and externally (Ternès and Runge, 2015). Building a strong reputation is an ongoing investment that requires management time and resources and must reflect the reality of the company in order to succeed (Fearnley, 1993). Corporate reputation is a particularly sensitive construct that requires active and strategic management (Ternès and Runge, 2015). Managing reputation means understanding the cosmos of experiences of internal and external stakeholders (Fearnley, 1993). Abdullah and Abdul Aziz point out that the two dimensions of corporate reputation and stakeholder relationships cannot be managed without considering the value of corporate social responsibility, as a company is part of a social community and its environment. Keeping the balance between economic values and the moral obligation of the environment has become a mandatory obligation for all companies (Abdullah and Abdul Aziz, 2011).

The research of the specialist literature has shown that there are extensive investigations on the topic of the reputation of companies. While research at the beginning looked at the effects of reputation independently of individual industries, in recent years, individual industries such as the automotive or travel industries have been looking more closely. For the area of corporate reputation at insurance companies, the literature research revealed that the topic has only been investigated rudimentarily so far and has therefore only been researched incompletely. Various scientific work deals with the factors relevant to measuring reputation across industries, but none of the reviewed research focused on the specifics of the insurance industry. The research question underlying this study is: What factors determine the reputation of insurance companies and what is the relationship between these factors and the reputation perceived by customers? In order for a company to manage its reputation in a targeted manner, it must first determine which factors have any influence on the perceived performance at all. Because massive investments in reputation-building measures are only amortized if the management of the company assesses the relevance of the individual factors in the same way as the stakeholders.

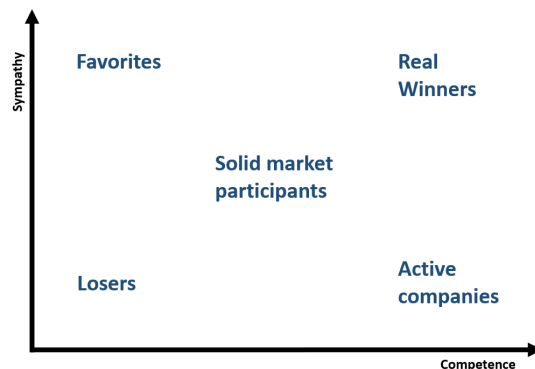
2 Current State of the Solved Problem at Home and Abroad

In the literature there is a wide range of research into the question of what exactly reputation is. The consensus of all descriptions is that the reputation as an intangible enterprise value is an extremely fragile element that any organization has at its disposal. A company's positive reputation has an impact on many areas of the business environment. It helps to ensure that the company is valued, respected, and perceived positively by customers, investors, suppliers, and employees (Farooq, 2016). At the same time, a high reputation reduces vulnerability to economic crises such as the 2008 financial crisis. The sharpening of the company profile makes it easier for companies to stand out from the competition in the perception of customers and create unique selling points (Ternès and Runge, 2015). The battle for young talents has long begun in the insurance industry. In the choice of employer, in addition to the question of remuneration, the reputation of the company is increasingly a decisive criterion. For employees, the pride in the company, the work carried out there and the company's values are an essential element of self-expression (Ternès and Runge, 2015). The recruitment of well-qualified and motivated employees increases business results and brand value in the medium term (Ternès and Runge, 2015).

In scientific literature, there are differentiated approaches to the definition of reputation. In the early 1990s, various authors formulated their different definition approaches. Thus, Hall described that in his view, the emotions and knowledge of individuals determine the reputation of companies (Hall, 1992). For Dozier, reputation arises on the one hand from the immediate experience of the stakeholders, but also from a continuous communication process (Dozier, 1993). Thus, while Hall and Dozier use both affective and cognitive perspectives to define reputation, Fombrun is limited to a primarily affective perspective (Kirstein, 2009). A few years later, he published his approach, according to which reputation is the overall assessment of a company by its stakeholders, which is composed of all the affective reactions of customers, investors, employees and the public (Fombrun, 1996). A different approach to the definition, however, see Gray and Balmer. For them, the reputation of companies is more of a valuation of company characteristics (Gray and Balmer, 1998). This view does not consider the affective components but focuses on the conscious perception of the stakeholders.

Cannon and Schwaiger also designed a two-dimensional view of the company's reputation in 2004. They label the two constructs with the terms sympathy and competence as Figure no. 1 shows. With sympathy, they describe the degree to which people see a company as sensitized to non-profit issues. Competence stands for the degree to which the company is able to produce high-quality products and services, thus operating a stable and profitable business (Cannon and Schwaiger, 2004).

Figure 1
Classification of corporate reputation



Source: Own presentation based on: Cannon H. – Schwaiger, M. 2004, Accounting for Company Reputation, p. 301

With this view, Cannon and Schwaiger link to the presentations of Dozier and Hall, who also consider the affective and cognitive perspectives. Even with high research and development budgets, it is increasingly difficult for the insurance industry to achieve high profit margins through product differentiation strategies and market segmentation. As soon as an insurer identifies and fills out a market gap, the competition copies the idea and reinforces the displacement competition. With increasingly similar portfolios of companies, the reputation is therefore becoming increasingly important (Cannon and Schwaiger, 2004).

To ensure a scientifically clean description of the concept of reputation, the concept of reputation must be distinguished from the concepts of identity and image (Barnett, Jermier and Lafferty, 2006). The identity is based on the corporate culture and arises from the inside of the company. It consists of current practices, company history, corporate values, and behavior (Melewar, Karaosmanoglu and Paterson, 2005). Walker also draws on the stakeholder's point of view to distinguish between them. While corporate identity is an internal view (what do we think we are?), the corporate image is an external view (what do we want, how others see us?) (Walker, 2010). Reputation is understood as a collective term that refers to the view of all stakeholders on corporate reputation, including identity and image (Davies, et al., 2001). Partial considerations of corporate reputation can be found in psychology, sociology, philosophy, economics, marketing and other fields of science (Pollák, Dorčák and Markovič, 2021). From a sociological point of view, Fombrun and van Riel (1997) describe the corporate reputation as an aggregated assessment of the performance of companies in relation to the expectations and norms of stakeholders in an institutional field (Fombrun and van Riel, 1997). When assessing reputation, account must be taken of cultural and institutional differences that affect the reputation of companies. Looking at the reputation of companies, for example, can deliver different results for the same company between the US and Europe (Gardberg and Fombrun, 2002). The assessments and requirements of stakeholders are strongly influenced by their experiences and cognitive attitudes (Abdullah, 2009). Corporate reputation goes beyond mere image formation through individual public relations actions. Reputation must be earned by various stakeholder groups. To become visible and unmistakable as a company, stakeholder relationships must be given top priority in the creation of services (Abdullah and Abdul Aziz, 2011).

3 Research Design

3.1 Characteristics of the research object

In this article, it is investigated which factors have a significant influence on the formation of reputation – the focus is exclusively on the insurance industry. The German primary insurers

and their retail business are examined, as commercial customers often have other ways to make decisions and have to follow decision criteria, which, for example, stipulate compliance rules. The view of the insurers was queried through twelve expert interviews. The experts work at various primary insurers in different departments at various hierarchical levels. Primary insurers were able to generate contributions of just under EUR 226 billion in Germany in 2021, (Nguyen and Staffa, 2021) which illustrates the importance of this type of insurance for the economy. The customer view of the reputation of insurers was considered by an online survey of German and Slovak insurance customers, in which 224 customers participated. The overall economic importance of this sector can be seen from the fact that in 2021 in Germany, EUR 2714 per inhabitant was spent on insurance (GDV, Gesamtverband der deutschen Versicherungswirtschaft, 2022). Despite these conditions, most German primary insurers do not operate active reputation management but leave crisis management in case of reputational loss to chance, as demonstrated by the scandals of ERGO insurance and Debeka insurance.

3.2 Work steps

After the literature research in the first research phase, the perspective of insurers in the second research phase was examined by means of expert interviews. After a successful pretest, the view of the customers was examined in the third research phase and the results of the first two research phases were verified by a customer survey with a subsequent quantitative evaluation. The results of the various investigations were then combined and evaluated.

3.3 Type of data collection and its sources

The starting point of the research is a consideration of the current state of knowledge through literature research, which is one of the qualitative research methods. The approach aims to shed light on and compare the different scientific perspectives. The fundamentals of the research are scientific articles, studies, conference papers and specialist books. As part of the systematic literature research, the three phases of literature search, literature procurement and literature utilization were successively passed through. The first phase consisted of an unsystematic search for reputation management. The result led to an overview of the subject area. To proceed systematically, a search word list was created on the basis of the available results. The systematic search according to vom Brocke et al. was carried out using German and English terms (Brocke vom, et al., 2009). In addition, it was determined which databases should be used for the search. In a further step, twelve structured expert interviews were conducted to obtain practical data. The discussions took place with experts and executives from the insurance industry. A topic-focused guide with defined categories served as a survey tool and was previously verified with the help of a pretest. The various experts answered the questions independently in individual interviews. The guide was not used as a standardized process to consider sudden topic extensions that emerged during the interviews. This ensured that unexpected aspects find their place in the investigation. The guideline of the expert interviews served the structuring of the subject area as well as the investigation and thus has a central orientation function. It considers the principles of qualitative research, in particular the principle of openness.

The development of the online survey questionnaire was based on the findings of the previous two phases of research. The coding system developed with the results of the expert interviews, served as the basis for the development and formulation of the questions. After the evaluation of the expert interviews, it turned out that the factor perception of the quality of the products and services must be divided into the two factors products and services/support, as these sub-areas were assessed very differently by the interview partners. The present research on reputation in other industries assumes that these items can be summarized. However, since the insurance industry differs from the other sectors due to the strong legal regulation, it was

assumed that the items quality of products and services and support are also considered differentiated by insurance customers. This finding was considered in the survey before the pretest was performed. After the pretest showed the potential for optimization, some technical improvements were incorporated into the survey. The survey began on 30.6.2022 and lasted until 23.8.2022. A total of 224 insurance customers responded to the survey. In addition to the questions about the individual items and factors, some demographic data such as gender, age group and place of residence were also queried. By collecting these data, a cross-border comparison between Germany and Slovakia is possible – or a comparison between men, women and different age groups in the respective countries.

3.4 Statistical methods

From the literature research, factors that are held responsible for the formation of reputation were identified. These factors served as the basis for twelve semi-structured expert interviews. For orientation in the evaluation of the conversation records, the approaches of qualitative content analysis according to Mayring were used. Mutually affirmative statements were summarized and statements to the contrary were compared to disclose different perspectives. At the end of each interview, the interviewees were asked to weight the importance of the factors with the help of a Likert scale of 1 to 6. Meanings are shown in Table no. 1.

Table 1
Likert scale for weighting factors

Value	Meaning
1	Fully applicable
2	This is mostly true
3	Applies only partially
4	Rather, it is not true
5	This is mostly not true
6	Does not apply at all

Source: Own presentation

From these data, the respective mean of the factors with the corresponding standard deviations was determined. The results served as the basis for an online survey. In the course of quantitative research, the reliability of the questionnaire was initially confirmed by the calculation of Cronbach's Alpha. The result of 0.780 confirmed a sufficient reliability. To determine whether the data are suitable for factor analysis, the Kaiser-Meyer-Olkin-Measure (KMO) was determined for the individual variables. The KMO value indicates whether the individual variables are suitable for factor analysis. The data collected by the questionnaire are partially ordinal and partially nominally scaled. If a value is < 0.5 , the variable should be excluded. The result of 0.685 confirms that all variables are suitable for factor analysis. To uncover new relationships within the data set, to recognize correlations and to summarize the variables into new factors, factor analysis was chosen as a statistical method. This method reduced the complexity of the dataset. The survey is based on seven factors that are held responsible for the formation of reputation among insurance companies, which is why a confirmatory factor analysis was used at the beginning of the evaluation. The aim of factor analysis is to determine a factor structure that is stable and can be replicated in other investigations. With the help of the Scree Test, the eigenvalues were calculated. It has been specified that a variable must be higher than 0.30 to load on a factor. The variables were regrouped using the exploratory factor analysis. A number of five factors explain the reputation construct without having to exclude individual variables from the evaluation. The variables that were attributed to several factors in the analysis have always been assigned to the factor at which they had the highest value during the redistribution. A final evaluation by a renewed

confirmation factor analysis confirmed the number of factors. At the end of the online survey, insurance customers were also asked to weight the individual factors based on a Likert scale of 1 to 6.

4 Result of the Paper and Discussion

The results are detailed presented in Table no. 2 and show in almost all factors significant differences between the perspectives of insurers and those of insurance customers.

Table 2

Average customer view vs. insurer view

	General management quality	Responsibility in dealing with society and nature	Quality of insurance products	Yield and finance power of the insurer	Responsible handling of company values	Emo-tional address of stake-holders	Service quality
Mean Clients	1.77	3.38	2.92	2.78	2.41	2.94	1.82
Mean Insurer	2.17	3.00	1.50	2.83	1.92	1.92	1.50

Source: Own presentation

From the customer's point of view, overall management quality has the biggest impact on the reputation of an insurance company. This factor got the best value with a mean value of 1.77. There is a consensus between the insurance customers surveyed and the experts when assessing the importance of responsibility in dealing with society and nature. With a mean value of 3.38, this factor is even less important for customers than for insurers (3.0). This is even more astonishing as this topic has a strong presence in all media. Obviously, public reporting does not reflect the views of insurance customers. The biggest deviation in the assessments of the two target groups is the quality of the insurance products. This is considered by insurers to be significantly more crucial than by their customers. Obviously, customers do not deal intensively with the differences between the individual products. The differences are usually only small due to the strict legal requirements, so that they are not perceived by the customers. Since the customer's evaluation of the service quality factor is significantly better with a mean value of 1.82, it was useful to look at the variables originally grouped in one factor separately from each other in order to achieve a better discriminatory power.

While there is only a small difference between insurers and their customers when assessing the importance of an insurer's earnings and financial strength, the difference in the emotional approach of stakeholders (2.94 vs. 1.92) is significantly bigger. Among other things, this factor asked about the importance and use of social networks. The result correlates with the evaluation of the distribution channels, according to which Internet sales are significantly less used than personal sales (see Table no. 3). The responsible handling of corporate values is classified similarly by both groups. Although the interview partners consider the relevance to be even higher than the customers (1.92 vs. 2.41), this factor takes third place for both target groups.

Table 3

Distribution channels breakdown

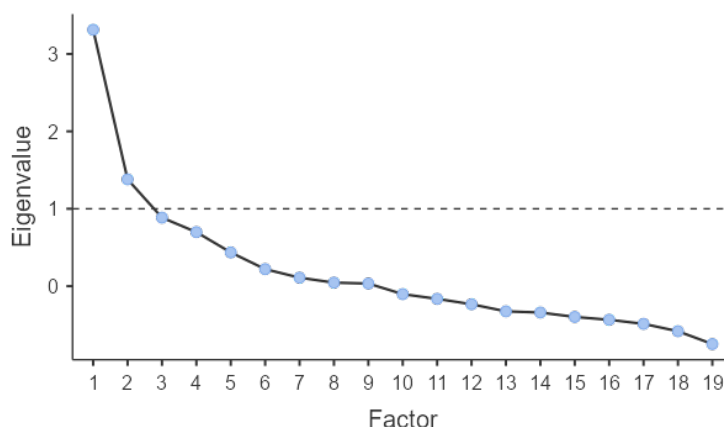
Levels	Counts	% of Total	Cumulative %
Internet + personal advice	122	54,5 %	54,5 %
Internet only	27	12.1 %	66,5 %
Only personal advice	75	33,5 %	100 %

Source: Own presentation

4.1 Determination of the number of factors

The aim of factor analysis is to determine a factor structure that is stable and can be replicated in other investigations. With the help of the Scree test, the Eigenvalues are displayed in diagram form. The Scree plot in Figure no. 2 has an optimal number of two to three factors. However, with a reduction to two to three factors, it is difficult to interpret the results in terms of content.

Figure 2
Scree Plot



Source: Own presentation

The evaluations showed that nine variables are not included in the calculation in a two-factor calculation. If the exploratory factor analysis is calculated with three factors, the variables of the insurer's size and financial strength of the insurer are included in the calculation, but the seven other variables are not considered here either. The variables were then regrouped using the exploratory factor analysis. Even in the exploratory factor analysis with four factors, seven variables are not included in the calculation. Although the variable disclosure of commissions with a low value of 0.360 is considered and the variables comparison portal quality testing and comparison before purchase form the new factor of social branding before completion, but the variable social media stands out. A manual reorganization of the variables in the context of the exploratory factor analysis showed that a number of five factors explain the construct reputation without having to exclude some variables from the evaluation. The variables that have been attributed to several factors in the analysis have now always been assigned to the factor at which they had the highest value during the redistribution.

A final evaluation by a renewed confirmation factor analysis in Table no. 4 confirms the presumption by showing the significance of the individual variables after being assigned to the newly formed factors. Only the variable competence slightly exceeds the significance value of 0.05. At the same time, the table gives an overview of the five newly formed factors and shows from which variables these have been compiled.

Table 4

Confirmatory factor analysis with five factors

Factor	Indicator	Estimate	P
Social responsibility	Sustainability	0.0988	< 0.001
	Digital communication	0.0942	< 0.001
	CSR	0.0901	< 0.001
	Values	0.0638	< 0.001
	Competence	0.0583	0.056
Social branding	Comparison portal quality testing	1.073	< 0.001
	Disclosure of commission	0.517	< 0.001
	Social media	0.419	< 0.001
	Comparison portals before purchase	1.076	< 0.001
	Comprehensible conditions	0.126	0.006
Speed	Speed of feedback	0.667	< 0.001
	Speed during processing	0.589	< 0.001
Earnings and financial power	Size of the insurer	0.785	< 0.001
	Financial power of the insurer	0.715	< 0.001
	Internationality	0.800	< 0.001
	Price	0.273	< 0.001
Staff	Education	0.330	< 0.001
	Technical equipment	0.802	< 0.001
	Employee satisfaction	0.462	< 0.001

Source: Own presentation

4.2 Weighting of newly formed factors

From the available data of insurance customers, a weighting according to the mean for the five newly formed factors was carried out. The basis for this was the criticism of existing studies, which was repeatedly found in the literature research, that no weighting of the factors took place and therefore a distortion of the results could be assumed. This work is intended to counter this criticism in such a way that a corresponding weighting of the individual factors takes place. The response and processing times reach the best customer rating with a mean value of 1.79. The factor speed is less important for the group > 70 years than for the other age groups. It includes the variable speed for feedback and speed during processing. However, it turns out that the expectation of the speed of insurers in Slovakia is even bigger than in Germany. A mean value of 1.68 in Slovakia is compared to a mean value of 1.83 in Germany. The mean values of the respective factors can be read from Table no. 5. With a mean value of 1.90, the staff factor has received the second-best value from the insurance customers. It can be inferred from this that it is crucial for customers to have a well-trained and competent person on the part of insurers as contact persons. This result correlates with the information provided by customers about their preferred purchasing channel for insurance. A share of 88 % of the people surveyed prefers both pure personal distribution and a combination of personal and internet sales. Although customers include the Internet in their decision-making to choose the right insurance, the well-trained insurance employee still serves as a valuable guide on insurance matters. Of the five factors examined, the social responsibility factor was rated by customers with a mean value of 3.05 (see Table no. 5) as least relevant to the formation of a corporate reputation. Both the results of the expert interviews and those of the customer survey are consistent. This is surprising given the omnipresence of this topic in media coverage.

Table 5

Weighting of the new five factors

	Speed	Earnings and financial power	Staff	Social responsibility	Social branding
Mean	1.79	2.81	1.90	3.05	2.58

Source: Own presentation

The social branding factor, which involves the use of social media, ranks with a mean value of 2.58 third place among the five factors. While social media is also pervasive in the everyday life of insurance customers, clients tend to rate the impact of social media on the formation of reputations of insurance companies only as mediocre. This distinguishes the insurance industry from other industries such as the hotel industry or the travel industry, where customer reviews have a bigger impact.

The most significant difference in the weighting of the factors between Slovaks and Germans is in the earnings and financial power factor. As Table no. 6 can be seen from it, this factor is weighted by Slovak customers of 2.10 compared to a rating of 3.06 on the part of German insurance customers. In addition to the financial strength of an insurer, the issue of social responsibility is also more important in Slovakia than for German customers (2.66 vs. 3.19). Nevertheless, the evaluation of the split parameter of residence confirms the other results to the effect that the factor of social responsibility in both countries gets the lowest weight for the formation of reputation.

Table 6

Statistics of the five new factors with the split parameter of residence

	Residence	Speed	Earnings & financial power	Staff	Social responsibility	Social branding
N	Germany	166	166	144	166	166
	Slovakia	58	58	53	58	58
Mean	Germany	1.83	3.06	1.94	3.19	2.65
	Slovakia	1.68	2.10	1.76	2.66	2.37

Source: Own presentation

There are small gaps between Slovaks and Germans in terms of speed, staff and social branding. There are no significant differences between nationalities.

4.3 Discussion

The results of this work show that other factors are crucial in the formation of reputation in the insurance industry than in the rest of the sectors. One of the reasons for this is the strong regulation by the legislator, which gives companies little room for maneuver to distinguish themselves from one another. Numerous research into the reputation of the automotive industry, the hotel industry, or the travel industry, however, there is no study that focuses solely on the reputation of insurance companies. This research gap is intended to close this study by calculating factors specifically geared to insurers for the formation of reputation.

The study compares the perspectives of specialist literature, insurers and insurance customers, looks for similarities and highlights differences. The results obtained are intended to enable insurers to install efficient reputation management and use their measures to improve reputation in such a way that they achieve the greatest possible success. This should be done by focusing on the five factors identified during the investigation. Efficient reputation management ensures that reputational damage does not occur in the first place, as any critical points are thus defused in advance. Reputation management is not a one-off short-term action, but an ongoing observation of the relevant factors.

The study has shown the factors that insurers need to work on in order to efficiently use their resources to build and maintain their reputation management. The biggest lever to improve reputation has been the response time for feedback and the speed of processing times. Insurers should follow best practice examples such as Amazon. Customers have had positive experiences regarding speed in other industries such as online mail ordering and also apply these expectations to insurance companies. The use of chatbots for customer communication has so far had the disadvantage that the performance of the bots was limited and that accordingly they were only used cautiously by the customers. Meanwhile, the performance of chatbots like ChatGPT has improved to such an extent that this technique can be a valuable support for insurers in their customer communication. The use of artificial intelligence can increase the response speed in customer communication and thus serve the important factor of speed in the formation of reputation. These bots can be a sensible alternative to the traditional FAQs on the websites of insurance companies, they can answer customer questions quickly and in high quality and thus represent a significant improvement in the possibilities of an automated response to customer inquiries. When customers engage in conversation with a chatbot, they have the expectation that this digitized process will become faster and easier for them than the manual process before. The strong legal regulation of the entire insurance industry makes it difficult for insurers to distinguish themselves from one another. There is only little room for maneuver when designing new products. If there is an innovation, such as cyber insurance, it is quickly copied by the other insurers. According to a Statista investigation, the share of sales of new products in 2021 had only a market share of 1.7 %, while the market share of counterfeit products was 17.3 % (ZEW, Fraunhofer ISI and infas, 2023). Insurance companies must have competitive products, but the distinction between the individual insurance providers by the customers takes place primarily through the accompanying services and support. Customers without insurance expertise can hardly assess the quality of the products or can barely identify differences and therefore rely on reviews on the Internet or on their insurance intermediaries. Insurers should therefore not focus their ideas and creativity solely on the area of product development, because the further development of existing products is not an innovation. The creative potential should therefore also be used for the development of innovative services, with the help of which a higher customer benefit is generated and at the same time the distinction and differentiation of the individual insurance companies can be achieved.

Only in the event of damage materializes the intangible product insurance and the insurer can only then prove its real performance. However, since a claim for the customer is always associated with a negative experience, insurers must ensure that customers have positive experiences with their insurance company even without claims. This can be done, for example, by promoting prevention, which ensures that no damage occurs at all. Such preventive measures can cover all areas of insurance, such as health prevention, accident prevention or the prevention of damage to residential buildings. Although such precautionary measures are not cost-neutral, they are usually cheaper than the otherwise occurring claims. Saved damage payments give scope for the design of premiums and thus increase the competitiveness of the companies. Insurers, who manage to differentiate themselves from the competition through unique services, can position themselves as partners of their customers and also offer added value for their customers.

Another result of the investigation is that 88 % of insurance customers do not want to completely dispense with personal advice from an insurance employee or insurance broker. This result correlates with the fact that the staff factor has turned out to be the second most decisive factor in the formation of reputation. Despite the continuous development of digital sales channels, customers do not want to completely give up personal contact with employees. It is important to support customers in the use of online services by competent staff and thus to

install a hybrid online model. The prerequisite for this is that the employees are well trained and that they are provided with modern technical equipment with which they can help the customers in the best possible way. The professional use of modern communication and work equipment is assumed by the customers as a matter of course. Well-trained, technically well-equipped, and satisfied employees are the business cards of a company and have a positive impact on the formation of reputation among insurance companies. Few insurers have a clear strategy in dealing with social media. These include the company's appearances on the rating platforms and comparison portals such as Check24 or Verivox as well as on social networks such as Instagram or LinkedIn. These appearances have often been neglected in the past because social media is not a sales channel of its own and success is difficult to measure in numbers. However, it is becoming increasingly important for insurers to integrate their social branding into the group's own communication policy, as contact with the customer is maintained permanently via social networks. Such platforms offer companies the opportunity to position themselves as partners for insurance issues, while distribution through these channels is not in the foreground. Here special promotions, innovations or similar can be pointed out quickly and cost-effectively and the large reach can be used. The online presence must be tailored to the rest of the marketing measures. The professional use of social media is imperative to get in touch with the younger generations. Insurers need to understand that social media is about more than numbers, data, and facts. It's about emotions that have a direct impact on the reputation of companies.

The earnings and financial power factor is of great importance, especially for younger customers. An insurer that is financially solid should also communicate this offensively to the outside world, as this criterion is particularly important for customers who have long-term contracts with high contributions, such as life or pension insurance. Customers depend on the insurer to be liquid even in decades when the insured sums are due from the contracts, so that his claims can be satisfied. The importance of income and financial strength depends on the type of insurance sought, which must be considered in communication with the target group. Every communication channel and target group need an individual approach.

The social responsibility factor is a hygiene factor that only becomes decisive for the reputation as soon as a company does not behave sustainably. While sustainability is relevant in the external presentation, there is a risk of dilution through greenwashing. When an insurer communicates its sustainability to the outside world, it must be sure that the measures described also actually meet the sustainability criteria expected from its customers. Companies cannot presuppose that their customers automatically support it if, for example, investments in nuclear or gas power plants are made under the guise of sustainability, just because the EU Commission has recently classified these two forms of energy as sustainable.

According to the interview partners and the customers surveyed, sustainability also includes paperless work. It is environmentally friendly and saves insurers costs at the same time. Lower paper consumption and digital solutions are increasingly being demanded by customers. The same applies to digital communication, which partially replaces or supplements direct customer contact. In many cases, it is more environmentally friendly to carry out a customer appointment by Teams than to drive to the customer in person. The willingness of the customers to do so is increasing, as the temporal aspect also plays an increasingly important role. Travel costs can be reduced, and travel times can be used for other activities. At the same time, digital communication pays for the speed factor, because it accelerates workflows and processes.

Insurance companies face the dilemma that the public pressure on sustainable investment is facing high expectations of customers in terms of return. An insurance company can no longer afford to make proposals for sustainable investment without accepting a reputational loss. Here,

insurers are in a tension area, because the investigation has shown that customers' willingness to invest in sustainable investments so far is waning if their return suffers from it. As a solution, it is recommended to let the client decide on it and offer them both options, as long as sustainable investments cannot achieve the same return as for less sustainable investments. As an example of this tension, investment in shares of energy providers that generate their profits from nuclear or gas can be cited. Although nuclear or gas power plants are now classified as sustainable by the EU, the public's view on this question is more differentiated. If an insurer advertises with a sustainable investment, it must comply with the CSR criteria that customers consider to be correct. If he does not meet the customer's feelings regarding the CSR criteria, or if the customers feel they are being deceived, there is a risk of reputational damage.

5 Conclusion

The knowledge gained from this study can serve the insurers to establish their own reputation management and to use the resources used for this as efficiently as possible. The importance of a well-functioning reputation management is growing in an increasingly interconnected environment. Small wrong decisions or communication errors can quickly have major negative effects on reputation. Once it took days for information to be passed on around the globe, it is now happening in real time, which applies to both positive and negative information. The companies must decide whether they use this fact specifically for positive reputation or whether they want to leave their public image to chance. The establishment of reputation management is not yet far advanced in the insurance industry, as evidenced by the poor reputation of the industry compared to other industries. So far, it has not been possible to anchor the importance of insurance for the entire economic cycle in the minds of customers. Here, both the general association of insurers and the individual insurance groups still face some challenges. The results of this study are intended to serve as a basis for insurers to build reputation management and inspire them to consciously deal with this topic and to actively influence their reputation in the future. From the multitude of stakeholders, this study looked at the customer's perspective. Further research is needed to determine whether the factors applied can be transferred to other stakeholder groups in the insurance industry.

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References

- Abdullah, Z., (2009). Beyond Corporate Image: Projecting International Reputation Management as a New Theoretical Approach in a Transitional Country. *International Journal of Economics and Management*, 3(1), pp. 170–183.
- Abdullah, Z. and Abdul Aziz, Y., (2011). Managing Corporate Reputation, Stakeholder Relations, and Corporate Social Responsibility: A Southeast Asian Perspective. *International Journal of Economics and Management*, 5(1), pp. 299–318.
- Barnett, M. L., Jermier, J. M. and Lafferty, B. A., (2006). Corporate Reputation: The Definitional Landscape. *Corporate Reputation Review*, [e-journal] 9(1), pp. 26–38. <http://dx.doi.org/10.1057/palgrave.crr.1550012>.

Bitkom, e. V., (2018). *Social Media & Social Messaging*. [online] Available at: <https://www.bitkom-research.de/system/files/document/Social_Media_und_Social_Messaging_2018.pdf> [Accessed 29 May 2021].

Brocke vom, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R. and Cleven, A., (2009). Reconstructing the giant: On the importance of rigour in documenting the literature search process. *European Conference on Informations Systems (ECIS)*, (161), pp. 1–14. <<https://aisel.aisnet.org/ecis2009/161>> [Accessed 27 June 2021].

Cannon, H. M. and Schwaiger, M., (2004). Accounting for Company Reputation: Variations on the Gold Standard. *Developments in Business Simulation and Experiential Learning*, 31, pp. 300–309.

Davies, G., Chun, R., Da Silva, R. V. and Roper, S., (2001). The Personification Metaphor as a Measurement Approach for Corporate Reputation. *Corporate Reputation Review*, [e-journal] 4(2), pp. 113–127. <http://dx.doi.org/10.1057/palgrave.crr.1540137>.

Dozier, D. M., (1993). Image, Reputation and Mass Communication Effects. In: W. Armbrrecht, H. Avenarius, and Zabel, U. (Hrsg.), eds. 1993. *Image und PR. Kann Image Gegenstand einer Public Relations-Wissenschaft sein?* Opladen: Westdeutscher Verlag GmbH, pp. 227–250.

Farooq, O., (2016). Corporate Reputation And Analyst Coverage: Evidence From Europe. *Journal of Applied Business Research*, [e-journal] 32(5), pp. 1301–1308. <http://dx.doi.org/10.19030/jabr.v32i5.9759>.

Fearnley, M., (1993). Corporate Reputation: The Wasted Asset. *Marketing Intelligence & Planning*, [e-journal] 11(11), pp. 4–8. <http://dx.doi.org/10.1108/EUM0000000001127>.

Fombrun, C. J., (1996). *Reputation: Realizing value from the corporate image*. Boston, Mass.: Harvard Business School Press.

Fombrun, C. J. and van Riel, C., (1997). The Reputational Landscape. *Corporate Reputation Review*, [e-journal] 1(2), pp. 5–13. <http://dx.doi.org/10.1057/palgrave.crr.1540024>.

Gardberg, N. A. and Fombrun, C. J., (2002). USA: For Better or Worse — The Most Visible American Corporate Reputations. *Corporate Reputation Review*, [e-journal] 4(4), pp. 385–391. <http://dx.doi.org/10.1057/palgrave.crr.1540159>.

GDV, Gesamtverband der deutschen Versicherungswirtschaft, (2022). *Versicherungsdichte der Erstversicherer in Deutschland in den Jahren 1950 bis 2021*. [online] Available at: <<https://onedrive.live.com/?auth=1&cid=9F6BF44B4766FC6B&id=9F6BF44B4766FC6B%212462&parId=9F6BF44B4766FC6B%211289&o=OneUp>> [Accessed 14 May 2023].

Gray, E. R. and Balmer, J. M. T., (1998). Managing Corporate Image and Corporate Reputation. *Long Range Planning*, [e-journal] 31(5), pp. 695–702. [http://dx.doi.org/10.1016/S0024-6301\(98\)00074-0](http://dx.doi.org/10.1016/S0024-6301(98)00074-0).

Hall, R., (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, [e-journal] 13(2), pp. 135–144. <http://dx.doi.org/10.1002/smj.4250130205>.

Helm, S., (2007). *Unternehmensreputation und Stakeholder-Loyalität*. Zugl.: Düsseldorf, Univ., Habil.-Schr., 2004. Wiesbaden: Deutscher Universitäts-Verlag.

Kirstein, S., (2009). *Unternehmensreputation: Corporate Social Responsibility als strategische Option für deutsche Automobilhersteller*. Zugl.: Hohenheim, Univ., Diss., 2008. Wiesbaden: Gabler.

Melewar, T. C., Karaosmanoglu, E. and Paterson, D., (2005). Corporate identity: concept, components and contribution. *Journal of General Management*, [e-journal] 31(1), pp. 59–81. <http://dx.doi.org/10.1177/030630700503100104>.

Nguyen, H.-T. and Staffa, V., (2021). *Insurance: - WZ 65.1 -*. [online] Available at: <<https://www.statista.com/study/46603/insurance-in-germany/>> [Accessed 29 April 2023].

Pollák, F., Dorčák, P. and Markovič, P., (2021). Corporate Reputation of Family-Owned Businesses: Parent Companies vs. Their Brands. *Information*, [e-journal] 12(2), pp. 1–16. <http://dx.doi.org/10.3390/info12020089>.

Ternès, A. and Runge, C. A., (2015). *Reputationsmanagement: Versicherungen*. Wiesbaden: Springer-Gabler.

Walker, K., (2010). A Systematic Review of the Corporate Reputation Literature: Definition, Measurement, and Theory. *Corporate Reputation Review*, [e-journal] 12(4), pp. 357–387. <http://dx.doi.org/10.1057/crr.2009.26>.

ZEW, Fraunhofer ISI and infas, (2023). *Anteil von Marktneuheiten und Nachahmerinnovationen am Gesamtumsatz der Branche Versicherungen und Finanzierungsdienste in den Jahren von 2008 bis 2021*. [online] Available at: <<https://de.statista.com/prognosen/999877/deutschland-online-abschluss-von-versicherungen>> [Accessed 29 April 2023].

Implications for customer solutions in a post-COVID era

Günther Maier

Abstract

The sales environment and specifically business-to-business sales have changed significantly in the last couple of years. The pandemic crisis has especially caused disruption regarding sales strategies. The sales force, sales managers and entire organisation face challenges fulfilling relevant goals expected by their shareholders. Research in this field underpins that solution sales have different downsides in and after relevant crises. During such downsides stakeholders play a relevant role in making firms more resilient. This article outlines the existing literature regarding solution sales with a focus on stakeholder groups. Based on the literature review, the author examines the communalities of solution sales in relation to disruptive events. In the last section of this article, the author mentions relevant gaps in the scientific literature and offers suggestions for future research directions.

JEL Codes: M 31

Key Words: stakeholder, sales process, solutions sales, crises, COVID-19

1 Introduction

Business-to-business (B2B) sales and strategy have significantly changed in previous decades. Scholars have observed a shift from product-centred sales to service-oriented sales (Bonney & Williams 2009). This evolution in sales has been recognised in different industries and other related sales fields, which suggests that customised solutions are more profitable than standard solutions. In 'standard' economic periods, customised solutions work for a standard business case. In that case, scholars have argued that customer solutions are promised as the growth engine for future sales (Bond et al. 2020). What happens, however, if 'standard' economic solutions do not work? What effect does disruption have on sales? Could solutions create downsides during disruptive phases (e.g., Covid-19)? The transformation from product-centred sales into service-oriented sales influences salespersons' behaviours for creating and conducting business with firms (Grewal et al. 2015, Kumar and Reinartz 2016). Moreover, digitalization has influenced the sales behaviours of buyers and sellers (Anderson & Wikström 2017). Scholars have noted many variables that influence everyday sales jobs.

2 Current State of the Solved Problem at Home and Abroad

The above-mentioned transformation has gained new leverage in sales and is generally positively related to firm performance when the economy is in a stable or growing phase of a business cycle. What happens, however, when firms lose business from one day to the next? What happens when firms cannot manufacture their products in time so that sub-suppliers are able to fulfil their responsibilities? What happens when firms have fixed price contracts with customers, but their sub-suppliers significantly increase prices for their products?

Companies struggle with their sales strategy during disruptive events. Such disruptive events include crises such as COVID-19. Especially companies that are supporting solution sales face challenges during these times.

To establish business in a fast-changing environment, it is necessary to understand the needs and goals of stakeholders. In disruptive times more uncertainties appear, thereby requiring a new, more resilient sales approach. Bond et al. (2020) recognise that future sales combined with solutions can have significantly risky variables. The stakeholders are one of these variables in

the solution process. The author discovered during the literature review that stakeholder management should be examined in order to gain more resilient solution sales.

The impetus of stakeholder management is the unpredictable sales environment and rebalances on the market (Freemen et al., 2015). Inspired by the research of Bond et al. (2020), the author investigates the following recommended research question.

- How can stakeholder groups contribute to organisational resilience?

The subject of stakeholder downsides is one part of the author's larger project to focus on variables and moderators that influence a firm's performance in relation to solution sales. In this article the author highlights an excerpt of the stakeholder influence from this larger project. The author carried out a systematic literature review and supplemented its findings with personal interviews and a quantitative survey. Finally, the present article summarises potential findings from interviewees and the literature review and offers avenues for future research.

3 Research Methodology and Methods

The present article is part of a larger research project in the field of solution sales and their relevant variables and moderators that could influence firm performance. One part of this project is the specific topic of downsides in solution sales. The infrequent research in the field of stakeholder management in sales processes has been recognised by other researchers such as Matthews et al. (2018). The author took the following steps to gain specific qualitative information and contribute to the existing literature.

To get an overview of solution sales, the author conducted a general search regarding solutions. After the general approach to the topic yielded insights in B2B sales and their relevant milestones, the author refined the search strategy.

In the second phase of the search process, the author combined search terms in a matrix to get more specific results related to stakeholder approaches and solutions sales. The following terms were used for the search process: *solutions, marketing management, crises, sales force, sales channel, sales cycle, sales process and sales solutions*. These terms were combined with *stakeholder and stakeholder approach*. The author used the following scientific sources: ABI/Inform, EMERALD Insight, ELSEVIER, GOOGLE Scholar, SAGE Premier and SPRINGER Compact. In total the search yielded 46 publications.

With the yielded publications, the author used these revealed information to establish questions for qualitative interviews. Through personal interviews of 10 selected Austrian and German sales managers and salespeople, the author obtained unique insights. To verify the qualitative outcomes of the interviews, the author used a large-scale survey with 300 participants. Since not all articles from the search process were relevant, the author selected 22 articles for this article.

4 Research Results

4.1 History of solution sales

As mentioned in the introduction, the author focuses on solution sales, also often referred to in the academic literature as 'customer solutions' or simply 'solutions'. To gain a complete coherence of the problem, the history of solutions is drawn down as a short in the following paragraphs.

Sales and the related potential of different strategies have been interesting for practitioners and scholars. Viio (2011) notes that, even in the nineteenth century, one of the first sales processes was defined as 'AIDA,' an abbreviation for Awareness, Interest, Desire and Action.

Since then, the sales process was enhanced gradually. Scholars such as Dubinsky (1980) refined the AIDA model as a seven-step model. This improved model includes the following sub-processes: prospecting, pre-approach, approach, presenting, overcoming objections, close and follow-up.

This article focuses on Dubinsky's seven-step model, which are the 'activities' in a sales process. However, the author suggests that future research could include the pro-approach and engaging phase. The pre-approach phase will be included in the author's larger research project. Important to this article is discovering whether unpredictable situations were recognised and considered from scholars in the past.

The author found rare scientific articles regarding adaption or resilience in sales processes. Moncrief and Marshall (2005) cite the differences between traditional and improved sales processes. They recognise that the market and the behaviour of the acting people has changed.

In the past, only buyers and the sales team were relevant actors. Increasingly, scholars have recognised that stakeholders are getting more important in terms of sales performance. These stakeholders should be included in the sales process (Ferrel et al. 2010). The outcome was that contemporary sales are becoming more relationship-orientated. Long term relationship between seller and buyer in general is tight connected with different stakeholder groups. The stakeholder perspective in terms of solution sales will be of utmost importance for future sales strategies. From the author's perspective, this stakeholder perspective underpins the importance of the customer-seller relationship which will lead to solutions at the end of the process.

In the last twenty years, several academic articles have appeared regarding various sales processes. These processes include different steps and stages of activities. The connection between these processes is that there is no defined start and end point. Viio (2011) argues that the sales process must be adjustable when changes occur more frequently than in the past. However, even if the sales process were adjustable, firms are struggling to maintain an efficient process. From the interviews the author observed that organisation structures are too inert to react in time. Management must provide agile and adjustable processes and structures.

Tuli et al. (2007) establish a four-step sales process that is mainly used and cited in the academic literature. The process delineates customer solutions. Four steps are covered: customer requirements, customisation and integration, deployment of products or services and post-deployment support.

4.2 Fundamentals of solution selling theory

In the following, the author summarises the most important information about customer solutions theory. These findings will be contributed through the stakeholder theory which is researched in depth.

Solution sales theory is primarily expressed in the academic literature as two types: resource-based theory (RBT) and transaction cost economy. Gligor et al. (2019) argue that these are the primary theories explaining supply chain management, marketing and sales management. RBT is mainly used to explain the strategic resources of an organisation. However, are these resources up to date? These resources can be distinguished as tangible and intangible. Tangible resources include physical assets such as financial and human resources, raw material, machinery and so forth. Intangible resources include organisational routines, behaviour of culture, knowledge, relationship with customer, customer experience, internal education resources and so forth.

In case that this article emphasises in solutions the author extends the theory part to the stakeholder approach. The author shows the close linkage between both theories and their

importance. The stakeholder approach that emerged in the 1980s, like the sales environment, has faced enormous changes. Currently, digitalisation and globalisation influence buyer and seller. Stakeholders in general are involved in the sales process. The stakeholders can be better defined according to their role than to the multifaceted individual. The term 'stakeholder' was established by the Stanford Research Institute in the 1960s. The term 'stakeholder approach' was mainly used in management practice. From an academic viewpoint, the founding concepts and theories of the stakeholder approach include corporate planning, system theory, corporate social responsibility and organisational theory (Freeman & Mcvea, 2001).

The first trials of solution selling were similar in the 1980s. Influence on companies with high-end engineered goods, complex products and services on one-offs or small batches, and integrated solutions was recognised since that time (Brady et al. 2005). B2B marketing is the process that occurs when 'products or services will be bought and sold between firms or organisations' (Bains et al. 2011, p. 515). In the case of B2B communication, the number of stakeholders is much larger than in governmental or business-to-business (B2C) cases. Therefore, it is of utmost important to know the stakeholder groups and their exact roles in the process.

Past academic investigations have focused mainly on traditional consumer-buyer relationships. In unpredictable times, firms have recognised a broader range of stakeholders in order to be successful (Evers et al., 2012). To consider a broader range of stakeholders, the author searched for definitions of stakeholders in relation to sales and solutions. Donaldson and Preston (1995, p 67) provide a suitable definition: 'Stakeholders are persons or groups with legitimate interests in procedural and/or substantive aspects of corporate activity'. With a background in historical and theoretical data, the author is in the position to examine the existing challenge in times of crisis to build the bridge to the existing problem in times of crises.

5 Discussion

Solution sales is broadly discussed in the academic literature. Regarding the author's investigation, the literature review shows that organisational level was the most important topic for researchers in the past (Worm et al. 2017). From the author's perspective, there are other characteristics relevant besides the organisational level, such the individual sales level or stakeholder level.

The author discovered that different variables can influence the performance of an organisation. Churchill et al. (1985) has recognised the great potential of variables and has performed a meta-analysis to verify the importance of different variables and moderators in sales. Due to disruptive events in the economy, Verbeke et al. (2011) has used this meta-perspective when investigating the period from 1982 to 2008.

In both meta-analyses, stakeholders were mentioned as one of the important variables that can influence the performance of a firm. However, the main goal in the past was to increase the financial output of a firm. In case that the economy was more or less on a stable development road and financial output was the main target in former times. COVID-19 illustrates that resilience could remove financial output as a main objective for firms.

The author's intention is to investigate the variables regarding stakeholders and evolve these variables in terms of resilience for disruptive situations such as crises. The following paragraph will highlight these variables in a more detailed form. As mentioned earlier in this article, the B2B sales environment, especially the solution sales process, includes many more stakeholders than do, for example, B2C business situations. Therefore, salespeople must know that the sale process and the decision-making unit (DMU) form the customer organisation. Which stakeholders are relevant for resilience? In product-centred business cases, there are mainly two

primary stakeholder groups: the customer, whereby we talk of a small group on the customer side (buyer), and the supplier. Customer and buyer groups have had direct communication and could be addressed directly.

To understand the different stakeholder groups in terms of solutions we have to answer following question. What is different in solution or service-orientated sales? There are primary, secondary, direct and indirect, internal and external stakeholder groups to manage. Salespeople are overloaded if they have to handle all these relevant stakeholder groups within their sales process — especially when organizations transform from a product-centred business into a solution-sales business. The author categorises the different types of stakeholders in a solution sales process as follows: suppliers, customers, employees, owners, investors, banks, communities, trade unions, government agencies and media. With the above revealed information, it is possible to categorize the stakeholder in a sales process and it will be easier to communicate in a more efficient way.

But what happened in the time of COVID-19. Firms which applied solutions in their organization struggled to keep on track with their performance. The author suggests examining how stakeholder groups could influence the resilience of sales. Throughout the literature review, the author found rare articles which directed in the same interesting topic to scholars. Bond et al. (2020) argue that research should be conducted on B2B in a post-COVID-19 economy. He claims that stakeholder groups could be a critical input variable for more resilience and faster recovery after unpredictable economic situations. Long-term goals should be considered. Customer and supplier should know their organisation targets and find alignments between their business strategies. Customer success management (CSM) is the new role model and should be enforced in organisations.

The author is working on a larger project in which solution sales are screened for different variables and moderators. Relevant stakeholders (internal and external) are one set of groups that could influence sales performance. To gain relevant input, the author performed qualitative interviews and a quantitative survey with German and Austrian B2B companies. The author focused on stakeholder groups in the customer DMU as well as the internal non- salespeople who support the sales team. Based on the interviews and the large-scale survey, the research reveals that, especially when B2B companies work in a solution business, it is of utmost importance understanding the strategy of each stakeholder. It is not enough to know the employees and their functions in their organisations. Both companies must understand the philosophy and the long-term strategy as well as the organisational behaviour — which supports Bond et al. (2020).

Moreover, the survey revealed that companies see the contribution in solutions on the long-term relationship, which is aligned with CSM. Despite market competition, customers have realised that the financial benefit is indeed important but not enough in the long run. If employees can guarantee delivery times, quality and service support in the long-term will be honoured from both sides.

Solutions should increase performance so why could we face downsides in disruptive times? Bond et al. (2020) has explained an example and argue that solutions could harm firms in times of crises when different products or services cannot be delivered in time. He mentions that companies struggle to sell their product or service and lose profit as well as reputation — for example, when a solution provider sells a truck rental with the option to ‘pay per kilometre’ and the truck stands still in case of the pandemic situation. Such a disruptive event can lead a firm to the edge of existence.

How can firms reduce the risk of losing money, profit or reputation? One outcome of the large-scale survey was the idea to create long-term partnerships among suppliers, manufacturers and customers. These stakeholders should have a common understanding of the business strategy and risks as well as share their goals. Only if the stakeholders can find a common understanding of the business and goals, can they then find strategies to become more resilient and reduce their partial risk.

For example, one interviewee commented: ‘We deliver specially designed electric motors for LNG Tankers to drive the main compressor for regasification. If we have downtimes for this special motor, the customer cannot load or unload the LNG tanker and loses much money each hour. Through long-term partnership agreements, we installed a 24-hour service hotline and main spare parts kits on the tanker and arranged for service people to have special visa destinations for all harbours where these tankers dock’.

This example illustrates how the supplier reduced the risk of downtimes because he understood the strategy and the problems of the firm. Furthermore, the interviewee noted that these special motors were not the least expensive ones on the market, but that in the long run, they offered more benefits and a better reputation. Through this partnership between stakeholders and the interconnection between different organisational levels, they found a common strategy to reduce the risk of disruptive situations on the market. Customer and buyer stakeholders with different responsibility levels as well as engagement of sub-suppliers have created a specific solution which suits to both sides of the sales process.

Hollebeek et al. (2022) confirm that stakeholders may have to agree on reliable solutions even under consideration of specific conditions. To make the statement clearer. The end product may not be the least expensive, but considering possible risks, it would have more benefits than other products or services.

To find a common understanding among different stakeholder groups could be important for future B2B sales partnerships. Service-oriented business could increase, and crises could appear. Therefore, long-term partnership relations will become increasingly important. Management and stakeholders are interested in supporting long-term relationships and long-term success, which means sustainable business. This form of cooperation requires an examination of the needs of all stakeholders and open communication about strategies, which fosters CSM. The stakeholder approach is closely connected to many subcategories in the sales process. Furthermore, it is important to know stakeholder management theories in order to use solution-sales patterns in the sales process. The author proposes that sales will increase when salespeople use a stakeholder approach in their daily routines.

Consequently, the author recommends carrying out future research and qualitative interviews with managers from different fields in B2B sales industries in different countries. Furthermore, the author suggests investigating a broader range of stakeholder groups. For this article, not all relevant stakeholder groups were considered.

6 Conclusion

The author reviewed the existing literature of solution sales and their related sales processes. Most of the articles focus on the organisational level rather than the stakeholder or individual levels. Recent situations such COVID-19 or the invasion of the Ukraine show that solutions can also create negative effects on organizations transforming from product-centred sales to solutions sales. Such downsides are rarely investigated in the academic literature.

This article explains the solution sales processes and related theories. Furthermore, it shows the link to stakeholder groups and their potential in sales processes. Market as well as customer

behaviour have changed and will change in the future. Alignment of long-term strategies between buyers, customers and suppliers could have great potential in case of firm resilience.

Bond et al. (2020) recognise the need to conduct more research in the field of sales. The author therefore contributes this article in case that results from a survey from Austrian and German B2B companies will be discussed in terms of resilience and risks of solution sales.

There can be no common solutions for all B2B companies regarding their future business; however, it will be increasingly important to include a broader group of stakeholders.

Acknowledgement

This paper is part of the author's larger doctoral thesis contributing to the academic literature and practical information for sales managers and CEOs.

References

- Andersson, S. and Wikström, N. (2017), "Why and how are social media used in a B2B context, and which stakeholders are involved?", *Journal of Business & Industrial Marketing*, Vol. 32 No. 8, pp. 1098-1108. <https://doi.org/10.1108/JBIM-07-2016-0148>
- Bains, P., Fill, C. and Page, K. (2011), *Marketing*, 2nd ed., Oxford University Press, New York, NY.
- Bond, E. U., de Jong, A., Eggert, A., Houston, M. B., Kleinaltenkamp, M., Kohli, A. K., Ritter, T., & Ulaga, W. (2020). The Future of B2B Customer Solutions in a Post-COVID-19 Economy: Managerial Issues and an Agenda for Academic Inquiry. *Journal of Service Research*, 23(4), 401–408. <https://doi.org/10.1177/1094670520960230>
- Bonney, F. & Williams, B.C. (2009). "From products to solutions: the role of salesperson opportunity recognition", *European Journal of Marketing*, Vol. 43 No. 7/8, pp. 1032-1052. <https://doi-org-1c1lg75pa1e30.digibib.fh-burgenland.at/10.1108/03090560910961506>
- Brady, T., Davies, A., & Gann, D. (2005). Creating Value by Delivering Integrated Solutions, in: *International Journal of Project Management*, Issue 23 (July), S. 360-365. <https://doi.org/10.1016/j.ijproman.2005.01.001>
- Churchill, G. A., Ford, N. M., Hartley, S. W., & Walker, O. C. (1985). *The Determinants of Salesperson Performance: A Meta-Analysis*. *Journal of Marketing Research*, 22(2), 103–118. <https://doi.org/10.1177/002224378502200201>
- Donaldson, T., & Preston, L. E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *The Academy of Management Review*, 20(1), 65–91. <https://doi.org/10.2307/258887>
- Dubinsky, A. (1980). "A factor analytic study of the personal selling process". *Journal of Personal Selling & Sales Management*, Vol. 1, 26-36. DOI: 10.1080/08853134.1981.10754192
- Evers, N., Andersson, S., & Hannibal, M. (2012). Stakeholders and Marketing Capabilities in International New Ventures: Evidence from Ireland, Sweden, and Denmark. *Journal of International Marketing*, 20(4), 46–71. <https://doi.org/10.1509/jim.12.0077>

Ferrell, O. C., Gonzalez-Padron, T. L., Hult, G. T. M., & Maignan, I. (2010). From Market Orientation to Stakeholder Orientation. *Journal of Public Policy & Marketing*, 29(1), 93–96. <https://doi.org/10.1509/jppm.29.1.93>

Freeman, R. E. (2015). Stakeholder theory. *Wiley encyclopedia of management*, 1-6. <https://doi.org/10.1002/9781118785317.weom020179>

Freeman, R. & Mcvea, John. (2001). A Stakeholder Approach to Strategic Management. SSRN *Electronic Journal*. DOI: 10.2139/ssrn.263511

Gligor, D., Bozkurt, S., Russo, I., & Omar, A. (2019). A look into the past and future: Theories within supply chain management, marketing and management. *Supply Chain Management*, 25(1), 170-186. doi: <http://dx-doi-1org-1b4nwnqea0a31.digibib.fh-burgenland.at/> 10.1108/SCM-03-2018-012

Grewal, R., Lilien, G. L., Bharadwaj, S., Jindal, P., Kayande, U., Lusch, R. F., et al. (2015). Business-to-business buying: *Challenges and opportunities*. *Customer Needs and Solutions*, 2(3), 193-208. doi: <http://dx-doi-1org-1b4nwnqd21463.digibib.fh-burgenland.at/>10.1007/s40547-015-0040-5

Hollebeek, L. D., Kumar, V., & Srivastava, R. K. (2022). From Customer-, to Actor-, to Stakeholder Engagement: Taking Stock, Conceptualization, and Future Directions. *Journal of Service Research*, 25(2), 328–343. <https://doi.org/10.1177/1094670520977680>

Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36-68. <https://doi.org/10.1509/jm.15.0414>

Matthews, R. S., Chalmers, D. M., & Fraser, S. S. (2018). The intersection of entrepreneurship and selling: An interdisciplinary review, framework, and future research agenda. *Journal of Business Venturing*, 33(6), 691-719. <https://doi.org/10.1016/j.jbusvent.2018.04.008>

Moncrief, W. C., & Marshall, G. W. (2005). The evolution of the seven steps of selling. *Industrial Marketing Management*, 34(1), 13-22. <https://doi.org/10.1016/j.indmarman.2004.06.001>

Tuli, K. R., Kohli, A. K., & Bharadwaj, S. G. (2007). Rethinking Customer Solutions: From Product Bundles to Relational Processes. *Journal of Marketing*, 71(3), 1–17. <https://doi.org/10.1509/jmkg.71.3.001>

Verbeke, W., Dietz, B., & Verwaal, E. (2011). Drivers of sales performance: A contemporary meta-analysis. Have salespeople become knowledge brokers? *Journal of the Academy of Marketing Science*, 39(3), 407–428. <https://doi.org/10.1007/s11747-010-0211-8>

Viio, P., (2011). *Strategic Sales Process Adaption, Relationship Orientation of the sales process in a business-to-business context* Hanken School of Economics - Departement Marketing. https://helda.helsinki.fi/bitstream/handle/10138/28134/237_978-952-232-150-3.pdf?sequence=1

Worm, S., Bharadwaj, S.G., Ulaga, W. et al. (2017) When and why do customer solutions pay off in business markets?. *J. of the Acad. Mark. Sci.* 45, 490–512. <https://doi-org-1001f35d20ff6.digibib.fh-burgenland.at/10.1007/s11747-017-0529-6>

RECENZIE

REVIEWS

Decoding the Green Future: A Comprehensive Review of 'Eco-Innovation in the Slovak Republic'

Peter Štetka

Title: Eco-Innovation in the Slovak Republic

Authors: Daniela Rybárová, Mária Kmety Barteková, Slavka Šagátová

Reviewers: Ľudomír Šlahor, Katarína Remeňová

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'Eco-Innovation in the Slovak Republic' is a commendable effort by the authors to explore a topic of critical global importance. It is a well-crafted and concise volume of 115 pages, deeply rooted in comprehensive research and evidence-based insights.

The monograph efficiently uncovers the nuances of eco-innovation, setting up a strong theoretical foundation before venturing into the empirical aspects. The authors differentiate between traditional and sustainable innovations, thoroughly examining the characteristics, creation, and impacts of each. An extensive classification of eco-innovations is given, along with their role in business models, which provides a structured lens for understanding the subject matter.

An intriguing segment of the book discusses innovation capabilities and the innovative performance in eco-innovations. The examination of the specifics of eco-innovations in diverse areas, such as sustainable transport, aviation, and maritime, along with a cross-organizational approach to sustainable design, is enlightening. The authors astutely point out the barriers and risks associated with eco-innovation activities, thereby presenting a balanced perspective.

The research design is detailed and clearly articulated. The methodology, sample size determination, and survey parameters are well-outlined, which lends credibility to the findings. The comparison of the 2011 Flash Barometer 315 survey results with the 2021 survey in Slovakia is insightful, exposing the shifts in attitudes, brand awareness, and barriers to ecological innovations over a decade.

The final part of the book features a comprehensive discussion of the findings, allowing readers to better understand the implications of the study. The authors also assess Slovakia's position within the Eco innovation index, a valuable addition that situates the study within a larger context.

'Eco-Innovation in the Slovak Republic' is a crucial resource for policymakers, academicians, and entrepreneurs interested in understanding and implementing eco-innovations. It is a well-structured, in-depth exploration of eco-innovations in the Slovak Republic, shedding light on an area that, until now, has been underexplored.

The monograph is concise yet comprehensive, insightful, and replete with empirical evidence. The authors have demonstrated meticulous attention to detail and an impressive depth

of understanding. However, readers with less familiarity in the field might find certain sections, particularly the ones dealing with technical aspects of eco-innovations, a bit challenging.

Nevertheless, 'Eco-Innovation in the Slovak Republic' is a remarkable work and makes a significant contribution to the existing literature on sustainable and eco-innovations. The monograph is a testament to the authors' extensive knowledge and research acumen in this field. 'Eco-Innovation in the Slovak Republic' is a notably original scientific monograph due to several key attributes:

- **Focused Regional Examination:** It presents a unique, concentrated analysis of eco-innovation within a specific region, the Slovak Republic. Most literature in this field is either too general or focused on countries leading in sustainability. This detailed study of a country not often represented in mainstream research is quite novel.
- **Time-Based Comparative Analysis:** The authors' comparison of the 2011 Flash Barometer 315 survey results with the 2021 survey provides a longitudinal perspective that captures the dynamic nature of eco-innovation and related attitudes. This decade-long comparative analysis brings original insights into the changes and progress made in the field.
- **Extensive Categorization:** The monograph goes beyond surface-level analysis to classify different types of eco-innovations, their role in business models, and their impact. This provides a level of detail and a structured understanding that is not common in similar works.
- **Innovation in Diverse Sectors:** The authors delve into specifics of eco-innovations in sectors like sustainable transport, aviation, and maritime, broadening the scope of the analysis and offering readers a comprehensive look at how these innovations can permeate various industries.
- **Balanced Analysis:** The book doesn't merely advocate for eco-innovation but also lays out potential barriers and risks associated with its implementation. This balanced perspective is original in a field often dominated by either overly optimistic or pessimistic views.

In essence, the monograph is original due to its regional focus, time-based comparative analysis, in-depth categorization, broad sector-based study, and balanced perspective. It breaks new ground in the field of eco-innovation, and its scholarly contributions are sure to inspire further research in the area.

In conclusion, 'Eco-Innovation in the Slovak Republic' is a scientific monograph of significant merit. Its synthesis of comprehensive research, thorough exploration of theory, and evidence-based insights make it a compelling read. From its granular analysis of the different types of eco-innovations to its broad exploration across various sectors and its time-based comparative study, the monograph offers a holistic understanding of the landscape of eco-innovation in Slovakia. The authors' ability to balance advocacy for eco-innovation with a clear-eyed view of the potential challenges involved is particularly commendable.

Although the technical details might pose a challenge for those less acquainted with the field, this does not undermine the monograph's overall contribution to the literature on sustainable and eco-innovations. The authors' meticulous attention to detail, impressive depth of understanding, and novel regional focus make the monograph a valuable asset for policymakers, academicians, and entrepreneurs interested in understanding and implementing eco-innovations.

With its significant original contributions, 'Eco-Innovation in the Slovak Republic' not only fills a gap in existing research but also sets the stage for further exploration in the field. Its well-articulated findings make it an invaluable reference point for scholars, professionals, and anyone interested in the future of sustainable development. It is an essential read for those

wanting to grasp the evolving trends, challenges, and opportunities in the world of eco-innovation.

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Futurepreneurs are professionals that are driven by purpose and impact. They take on societal challenges and climate change with an entrepreneurial mindset and want to improve our lives. The GREENPACT project sets up partnerships between companies and futurepreneurs. The aim is to develop a certification scheme for a new generation of impact-driven top executives. To this end, the project develops joint action plans, pilot actions and a self-assessment tool.



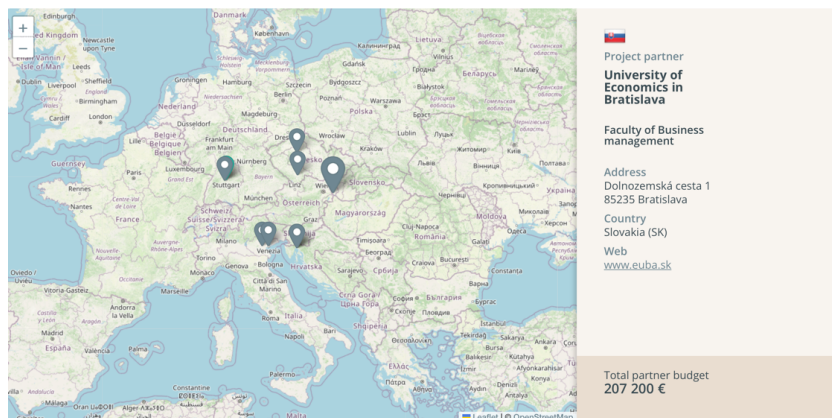
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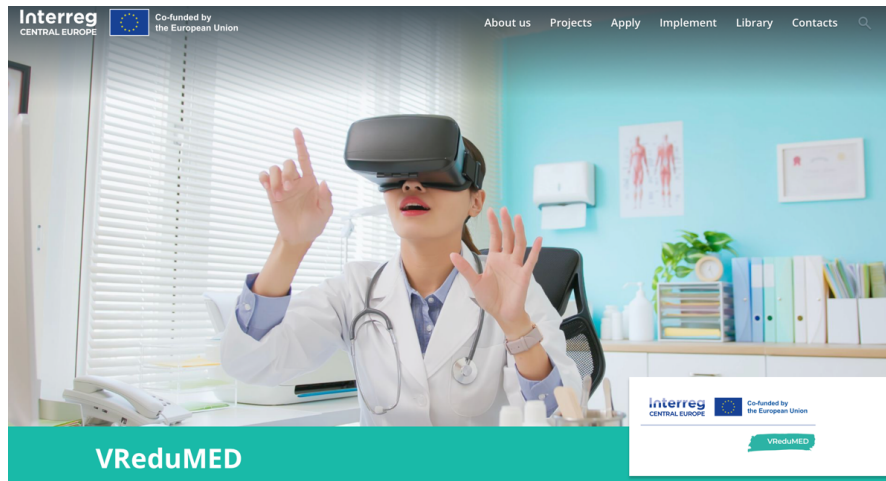
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Project overview

Virtual Reality Education and Training Solutions for Medicine Sector

Medical interventions are increasingly digitalised but training of health care staff is still lagging behind. The VReduMED project helps to untap the potential of virtual and augmented reality for their education. The partnership develops a roadmap for virtual reality training products and services and will publish a handbook on the integration of virtual reality into health care education. They also set up three regional virtual reality labs to test different virtual reality use cases.



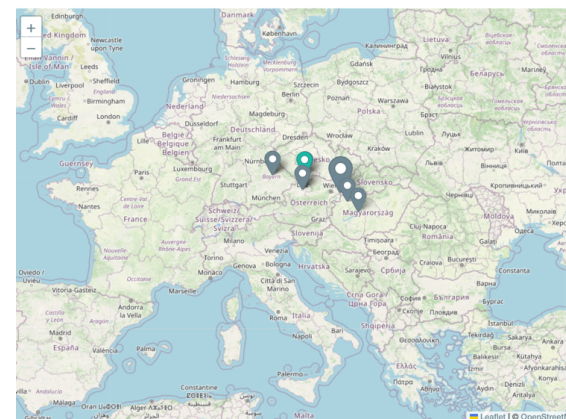
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