



PATRICIA GOMES FERNANDES

STRATEGIES FOR THE SUCCESSFUL USE
OF DIGITAL VOICE ASSISTANTS

VOICE SEARCH MARKETING

Patricia Gomes Fernandes

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**Strategies for the successful use of
digital language assistants**

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Table of Contents

Acknowledgements.....	V
Abbreviations.....	VI
List of Figures.....	VII
List of Tables.....	VIII
1 Introduction.....	1
1.1 Problem definition.....	1
1.2 Research goal.....	2
1.3 Structure of the work	3
2 Basics of marketing.....	6
2.1 Meaning and tasks of marketing	6
2.2 Goals of online marketing.....	9
2.3 Online marketing concepts	12
2.4 Online marketing tools	16
3 Search Engine Optimization Challenges	19
3.1 Search engine optimization at the core of online marketing	19
3.2 Search engine optimization methods.....	23
3.3 Future challenges in online search.....	26
4 Voice technology and its impact on marketing.....	30
4.1 Technological development of voice user interfaces	30
4.2 Voice assistants and voice-controlled systems.....	35
4.3 Two voice assistants in comparison: Alexa and Google	44
4.4 Challenges and potentials of voice for marketing.....	51
4.5 Opportunities for Voice Search Marketing.....	58

5 Voice Search Marketing: Manufacturer recommendations	65
5.1 Integration into the marketing concept	65
5.2 Strategic partnerships	73
5.3 Product development	74
6 Final consideration	76
Bibliography	79
Appendix	88
Appendix II: Customer Journeys from Christina, Student	89
Appendix III: Customer Journeys from Mark, Head of Marketing	90
Appendix IV: Most asked on Alexa on various weeks	91
Appendix V: Interview guide for self-test (in German)	94
Appendix VI: Self-test with Amazon Echo and Google Mini	95
Appendix VII – Product results with Alexa vs. desktop search	119
Appendix VIII – Alexa Skills and Google Actions	122
Appendix IX – Amazon’s suggested utterances for Alexa	123
Appendix X – Simple instructions for creating skills	124
Appendix XI – Instructions for creating Google Actions	125
Appendix XII – Amazon search results for detergent	126
Appendix XIII – Alexa information about the detergent	127

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Abbreviations

AI	Artificial Intelligence
API	Application Programming Interface
ASR	Automated Speech Recognition
DL	Deep Learning
GPS	Global Positioning System
HTML	HyperText Markup Language
IVR	Interactive Voice Response
ML	Machine Learning
MMM	Modern Merchandizing Methods
NLU	Natural Language Understanding
SEA	Search Engine Advertising
SEO	Search Engine Optimization
SMART	Specific - Measurable - Achievable - Reasonable - Time Bound
SSML	Speech Synthesis Markup Language
STT	Speech-to-Text
TTS	Text-to-Speech
VEO	Voice Engine Optimization
VUI	Voice User Interface

List of Figures

Fig. 1: Structure of the work.....	4
Fig. 2: Five-step model of the marketing process.....	7
Fig. 3: Target pyramid of an organization or company.....	10
Fig. 4: The golden triangle of the Google search results pages.....	21
Fig. 5: How users perceive the new Google results page	22
Fig. 6: Use of voice control in Germany 2017.....	31
Fig. 7: Technology behind voice user interfaces	32
Fig. 8: Smart speakers by brand.....	36
Fig. 9: Global digital assistants market share in 2017 and forecast for 2020	37
Fig. 10: Global factors for the preference of voice assistants compared to websites in 2017	38
Fig. 11: Neuro-Insight study in 2017	39
Fig. 12: Survey on the benefits of digital voice assistants 2017.....	40
Fig. 13: Intended use of digital voice assistants 2017	41
Fig. 14: Use of voice assistants in Germany, by device, in 2018.....	42
Fig. 15: Frequency of using voice assistants in Germany in 2018.....	43
Fig. 16: Tools for self-test with Alexa and Google Assistant	45
Fig. 17: Use of digital voice assistants as a seller.....	56
Fig. 18: Voice Search Marketing.....	58
Fig. 19: 'Amazon's Choice' and 'Bestseller' labels on Amazon.de.....	61
Fig. 20: Course of work and results.....	77

List of Tables

Tab. 1: Website categories and possible goals 11

Tab. 2: Overview of the results of the self-test..... 47

Tab. 3: Strengths and weaknesses of digital voice assistants 48

Tab. 4: Challenges and potentials of voice 51

Tab. 5: Intent, utterances and slots in voice apps 63

1 Introduction

This chapter presents the research goal and the resulting problem definition of this work. Finally, the procedure and the structure of this work are explained.

1.1 Problem definition

Digital voice assistants have been spreading rapidly in American households since 2015 and have also been more and more widespread in Germany since 2017. Results or confirmations are in some cases no longer displayed visually, but with most voice assistants for the home, called ‘Home Assistants’, only verbally reproduced (e.g., Amazon Echo, Google Home, Apple HomePod, etc.). Most of these devices have neither a screen nor a keyboard, so that the only interaction possible is through human language. Around a third of Germans between the ages of 18 and 69 were already using a digital voice assistant in 2017.¹ According to current surveys and forecasts, the number of users of digital voice assistants worldwide will continue to grow. In 2016, the market intelligence company Tractica predicted that there will be around 1,831 million users worldwide by 2021.² Google CEO Sundar Pichai claims that 20% of searches are currently made using voice searches on Android devices.³ According to Gartner, 30% of web browsing sessions should be without a screen by 2020.⁴

Among the top 5 digital voice assistants is Amazon’s Alexa, which, according to statistics from IHS Markit, had the largest market share in 2017.⁵ Users of digital voice assistants are not only able to start a music playlist with a voice command, but can also call up almost any information from the Internet by voice input. Among other things, the new user interfaces enable hands-free ordering of products and services, as well as controlling the ‘smart’ home. Thanks to the convenience of voice control, digital voice assistants are becoming more and more popular.

Meanwhile, the increasing popularity of digital voice assistants is unsettling product providers. The results of the voice search are often limited to a single result in order not to overwhelm the user. In addition, the results are becoming increasingly

¹ Cf. Splendid Research GmbH (2017), p. 8.

² Cf. Tractica (2016): <https://de.statista.com> (As of 30 May 2018).

³ Cf. Gentsch (2018), p. 171; cf. Helft (2016): www.forbes.com (As of 30 May 2018).

⁴ Cf. Forni (2016): www.gartner.com (As of 30 May 2018).

⁵ Cf. IHS Markit (2017): de.statista.com (As of 30 May 2018).

personal, making it more difficult to acquire new customers and increase market share. For example, if someone asks, ‘next soccer game’, the results may vary depending on the user's team preference. Similarly, when searching for everyday products, the previously ordered article is suggested for re-ordering. This makes the customer experience much more convenient, but from the point of view of marketing and sales, questions are increasing as to how the visibility of a product, a brand or a company can be guaranteed under these circumstances. Voice search is a challenge, especially for companies that already have difficulties in finding themselves on the first page of search results in search engines.

Smaller retailers in particular who sell their products on Amazon are unsettled by the new market developments. By my own two years of experience in the Amazon digital video games and software team, frequently asked questions from vendors are ‘What do I have to do to get Alexa to suggest my product?’ Or ‘Can Alexa help me with customer loyalty? If yes, how?’. Similar questions can also be found in the Amazon Seller Central Forum, where third-party providers can exchange ideas with other sellers.⁶ With other digital voice assistants, too, the question arises as to how they choose their answers. The consequences of the spread of digital voice assistants for brands and product providers are therefore difficult to predict. In particular when searching for products on Amazon, vendors fear that voice assistants will not allow the display of advertising messages, as is currently the case on desktop and mobile devices. Knowledge of the internal functioning of voice-controlled systems is limited and not very widespread. The technical properties of Alexa are kept strictly secret by Amazon and the literature is often limited to the development of chatbots or Alexa-like voice computers. There is little technical literature that provides information on how companies can become ‘discoverable on these new user interfaces or how brands will interact with their customers in the future.

1.2 Research goal

The aim of this work is the creation of recommendations for manufacturers and product providers, which should contribute to the achievement of marketing goals in the era of digital voice assistant. Manufacturers who would like to have their

⁶ Cf. SellerCentral (2017): sellercentral.amazon.com (As of 30 May 2018).

products mentioned by voice assistants such as Alexa should receive information or instructions on how they can achieve this goal.

The main goal of this work was divided into the following sub-goals:

- Goal 1: Summary of the basics of marketing. The aim is to consider the role of marketing and how new technologies influence marketing strategies in order to later deal with what marketing can look like in a future with voice-controlled user interfaces.
- Goal 2: Analysis and evaluation of search engine optimization as an online marketing tool. The methods of this marketing activity should be presented so that it can also be assessed whether this instrument can still contribute to the achievement of marketing goals in the future.
- Goal 3: Collection of information about voice-controlled systems and a description of how they work. This information is intended to determine the effects of voice technology on marketing and thus contribute to the marketing literature. The aim is to show that certain marketing activities will remain relevant even in a future in which voice-controlled devices will change the interaction with web and app content.
- Goal 4: Completion of the recommendations for action to generate sales in the retail business in the context of voice search. Finally, the knowledge gained is to be summarized with regard to the needs of the manufacturer. The aim is to give vendors the opportunity to find answers to their questions and to get to know the necessary measures to achieve their business goals.

1.3 Structure of the work

The structure of the work is inspired by the concept of the sales funnel. This is a sales tool that is used in particular in the B2B area and in sales to, among other things, map the various stages in the sales process.⁷ A similar funnel is known in online marketing under the term 'conversion-funnel'.⁸ The funnel metaphor

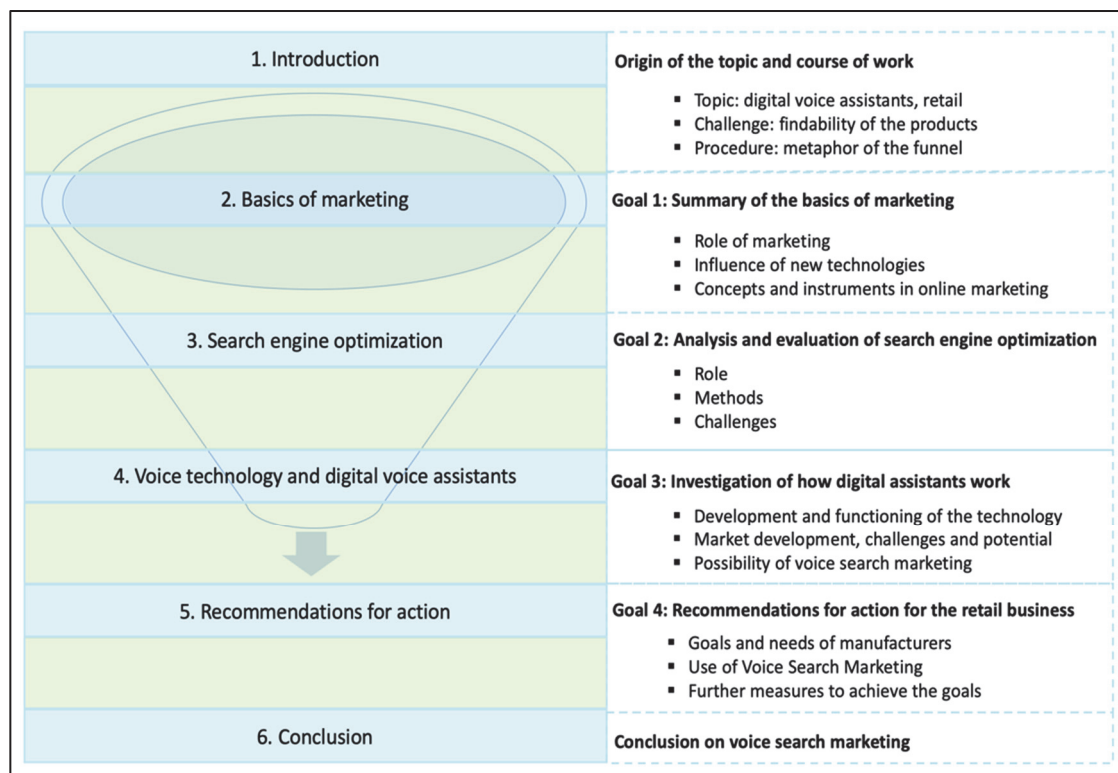
⁷ Cf. Kunz (n.d.): www.oberholzerkb.ch (As of 24 August 2018).

⁸ Cf. Krüger (n.d.): www.conversionboosting.com (As of 24 August 2018).

generally describes how potential customers are gradually selected until a deal is successfully closed.⁹

In this work, the idea of the funnel was adopted in order to gradually move from the basics of marketing to a presumably new branch of online marketing.

Using the metaphor of the funnel and the goals of this work, a subdivision into individual phases was carried out, in each of which work packages were derived. The following figure gives an overview of the structure of the thesis (see Fig. 1).



Source: own illustration.

Fig. 1: Structure of the work

In the first chapter the basics of marketing are summarized and thus in particular the tasks, goals, concepts and instruments of online marketing are recorded. Then the instrument of search engine marketing will be examined in more detail and its challenges highlighted. Subsequently, the functionality of digital assistants is determined in order to be able to evaluate the challenges and potential of these new user interfaces and to develop new tools for marketing.

Finally, the questions from Amazon vendors are taken up and answered using the newly gained knowledge. The results are general recommendations for action for

⁹ Cf. Online Marketing Lexikon (n.d.): www.unternehmer.de (As of 24 August 2018).

manufacturers who offer their products through retailers such as Amazon. In addition, with this work, a first contribution is made to a possibly new instrument of online marketing: Voice Search Marketing.