

Digital Analytics: State of the Art, Chances and Challenges

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## Table of Content

<b>List of Figures</b> .....	<b>V</b>
<b>List of Tables</b> .....	<b>V</b>
<b>List of Abbreviations</b> .....	<b>V</b>
<b>1 Introduction</b> .....	<b>1</b>
<b>2 Theoretical Background</b> .....	<b>4</b>
<b>3 Research Design and Procedure</b> .....	<b>9</b>
<b>4 Literature Review</b> .....	<b>12</b>
4.1 The Literature Section.....	12
4.2 The Study Section .....	19
<b>5 Analysis</b> .....	<b>23</b>
5.1 Similarities and Differences between Web Analytics and Digital Analytics .....	23
5.2 Key Performance Indicators, Requirements and Business Success.....	26
5.3 Organizational Change Requirements .....	29
<b>6 Discussion</b> .....	<b>34</b>
6.1 State of the Art .....	35
6.2 Chances and Challenges.....	36
6.3 Limitations and Future Research .....	39
<b>7 Conclusion</b> .....	<b>41</b>
<b>Reference List</b> .....	<b>43</b>
<b>Ehrenwörtliche Erklärung</b> .....	<b>47</b>

# 1 Introduction

“Information is the oil of the 21st century, and analytics is the combustion engine.”

Peter Sondergaard, former EVP of Research and Advisory of Gartner Inc. (Gartner Inc., 2011)

The internet has become pervasive in our lives and is so tightly interwoven with our habits and routines that a life without it is hard to imagine. The sheer endless benefits and opportunities in personal life and business that come along with it have surged the demand for access and sparked growth around the globe. Today, the global digital population has exceeded the point of four billion people, marking a turning point in history with now over half of the world's population having access to the internet (Nathan McDonald, 2018; Statista, 2018a). The amount of data generated and the information available now has never been as high as it is today.

This trend of an ever increasing amount of available data is by no means new and processing and making sense out of it, is one of the most prevailing challenges companies face today. Peter Sondergaard (Gartner Inc., 2011) captures the essence of this situation as analytics provide a way to harness the power from the vast and unstructured amount of information available. Moreover, companies have always been particularly interested in understanding their customers' needs and wants because it is a key element to a company's survival in a competitive environment. Nowadays, this holds true more than ever before as disruptive technologies appear at an increasing pace and have the potential to completely flip a market on its head. The internet has enabled the possibilities to tap into this knowledge as the point of sale as well as the place for debate have steadily shifted towards the web over the last twenty years. Consequently, analytics are mandatory as "Analytics allow us to comprehend the reality of situations at a level of detail that would otherwise be impenetrable by our senses and our thinking." (Wheeler, 2016, p. 246).

The term for analyzing website data is Web Analytics (WA) and the underlying techniques, methods and tools behind it are still being refined ever since companies first started adopting WA. Though, with the rise of smartphones and tablets, a new digital landscape formed in which the personal computer is now no longer the primary computing device of people (Dave Chaffey, 2018; The Economist, 2011). As a consequence of this development, the demand for adaptation to these platforms led to new forms of customer interaction which in turn created non-traditional customer data that needed to be analyzed. On top of that came the numerous social media platforms with 2.46 billion users as of 2017, projected to further increase over the next years (Statista, 2018b). Gathering data and gaining meaningful insights from this multitude of channels proves a challenge for many companies and paved the way for the term Digital Analytics (DA) which strives to cover all digital areas of interest.

In light of this change and combined with the rise of importance of analytics, a holistic digital marketing strategy centered around Digital Analytics appears to have become the subject of discussion. The increasing amount of literature available in regard to not only Web Analytics but also Digital Analytics reflects the on-going demand to break down the complexity of the analytics task and the challenges that come along with it. Nevertheless, some aspects in the literature are better covered than others, as there is already plenty of literature focusing on frameworks and methods in regard to Web Analytics (Hausmann, Williams and Schubert, 2012, p. 128; Studer and Leimstoll, 2015, p. 6). Another complicating factor is the lack of a precise distinction between the terms Web Analytics and Digital Analytics, despite their characteristic of being similar in nature.

The overarching goal of this thesis is to assess the State of the Art of Digital Analytics and to present the Chances and Challenges in the professional world in respect of it. Moreover, the following research questions (RQs) help guiding towards this goal by narrowing down the scope while highlighting two of the most prevalent themes in the literature:

*RQ1: What are the differences and similarities between Web Analytics and Digital Analytics and how do other authors define the two? Can a universal Digital Analytics definition be concluded from the results?*

*RQ2: What is the role of Key Performance Indicators in relation to business success and which requirements do they need in order to get companies armed for their future challenges?*

*RQ3: What is the state of affairs regarding the analyst and the analytics team in the organizational context and which organizational and managerial requirements does it need in order for a Digital Analytics Strategy to thrive and deliver results?*

The research questions as well as the overarching goal will be answered by conducting a literature review that includes an investigation of studies related to the world of work so that a comprehensive understanding of the whole subject can be derived. The research design this thesis employs is guided by the research recommendations from Webster and Watson (2002) and vom Brocke *et al.* (2015).

This thesis consists out of seven chapters with the overall aim of providing an overview of Digital Analytics. Therefore, the hierarchy of the search terms used in this thesis is catered to this goal. Chapter two details the topicality of Digital Analytics while also providing the basic information on analytics and the most important definitions in regard to it. Chapter three lines out the research design and procedure and details the literature gathering process. Chapter four reviews the literature and studies. First, it portrays the articles and books, which directly contribute to the research questions proposed and visualizes this

evaluation. Second, it provides an overview of the studies used to support the consecutive chapters. In chapter five these findings will be analyzed in order to answer the underlying research questions of this thesis. The discussion takes place in chapter six and consists of an outline of the State of the Art, Chances and Challenges of Digital Analytics while also discussing the limitations and recommendations for future research. Chapter seven concludes this thesis by summarizing the results.

## 7 Conclusion

Digital Analytics is a field of on-going development and growing importance due to the significant transformation of the digital landscape currently taking place. And this evolution is not coming to a halt in the foreseeable future. Ubiquitous data is the catalyst for Digital Analytics and has the potential to provide unprecedented insights. As of today, in-depth customer understanding and optimized digital channels are the central product of Digital Analytics if practiced correctly. However, the barriers which prevent this are manifold. Rapid development of digital channels and devices, emerging technologies as well as the volatile nature of social media provide both opportunity and challenge for companies and sparked the idea for the thesis.

Over the course of this thesis, the State of the Art, Chances and Challenges of Digital Analytics were thoroughly examined. An extensive literature review and an investigation of studies formed the basis for this thesis while the analysis of the most prevalent challenges narrowed down the scope of the topic. In the search for answers, a distinction between Web Analytics and Digital Analytics was derived, the relationship between Key Performance Indicators and business success was determined and the key organizational and managerial aspects for a thriving Digital Analytics Strategy were explored and uncovered. Finally, the Chances and Challenges of Digital Analytics were elaborated and future research recommendations were derived on the basis of all knowledge gained.

As a successful Digital Analytics Strategy depends on a variety of factors, the fundamental change requirements have to always be determined on the basis of each individual company. Nonetheless, some key variables and conditions can be identified which are the prerequisite to successfully implement a Digital Analytics Strategy. In addition, they help to develop an understanding of which areas need the most attention.

The tools and technologies to practice Digital Analytics are available and they are not the limiting factor anymore. Now, the success of Digital Analytics depends on people and the culture it is embedded in. Therefore, it will not only require analytically skilled and data-savvy professionals but also managers who have to act as change agents by empowering and supporting their analytics teams to set the whole organization up for success. In this regard, data driven approaches to corporate culture will not only help to deal with and solve data-related problems on a long-term basis, but will also result in more productivity in businesses overall. Finally, building operational capability and driving change through all levels of the enterprise will be the key to success in the endeavor of establishing a holistic Digital Analytics Strategy.

Despite the plethora of possibilities to measure, it is important to keep in mind that Digital Analytics has its limitations and does not provide exhaustive information on both customers

and performance alike because the impact of marketing actions which are not performed on digital channels remain hidden.

To sum up, Digital Analytics is a crucial practice to make marketing measurable and customer behavior transparent and is ultimately the pathway to a data driven and future-oriented business. Finally, the one sentence that best describes the decisive factor, why one should engage with Digital Analytics is:

Digital Analytics creates relevance and relevance drives results.