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THE APPLICATION OF SOCIAL MEDIA ANALYSIS FOR MARKETING AND BUSINESS

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Lappeenranta – Saint-Petersburg

2017
A statistical report published in January 2017 by Hootsuite, revealed that 3.8 billion people, that is close to 50% of the world’s population, are now Internet users and 2.8 billion of them actively use social media. These results have promising implications as well for society as a whole as for business. To date, business has realized the power of social media and is trying to benefit from it. Despite the huge popularity and the huge money allocated for social media efforts, utilization of social media still remains a challenging task for practitioners. At the same time, the issue of applying social media in the context of business and marketing is also a popular subject for academic research. However, in this field an academic/practitioner divide exists and most of the research is scattered. Therefore, the purpose of this work to propose an effective universal strategy of social media application. To achieve this goal design science research methodology was applied and a systematic literature review that contributes scientific knowledge, as well as highlights best practices, was conducted. This work also identifies trends and applications incorporated into social media marketing strategies within the framework. In the attempt to fill the gap between academics and practitioners, strategies are supported by real-life cases.
Опубликованный в январе 2017 года статистический отчет Hootsuite показал, что 3.8 миллиарда людей (50% всего населения планеты) пользуются интернетом, причем 2.8 миллиарда из них являются активными пользователями социальных медиа. К настоящему моменту, бизнес осознал силу социальных медиа и активно пытается извлекать выгоду из них. Несмотря на огромную популярность и значительных бюджетных затрат, выделяемых на деятельность компаний в социальных медиа, эффективное использование онлайн платформ остается сложной задачей. В то же время, применение социальных медиа в контексте бизнеса и маркетинга является популярным предметом и академических исследований. Однако, большинство этих исследований разрознены и фокусируются на каком-либо одном аспекте. К тому же, в этой области существует «разрыв» между направлениями усилий практиков и теоретиков. Цель данной работы предложить стратегию эффективного использования социальных медиа в виде теоретического фреймворка. Чтобы достичь поставленной цели, применяется методология проектирования научного исследования (design science research methodology) и проводится систематический анализ литературы, по результатам которого определяются лучшие практики в области. Идентифицированные тренды являются основой для предложенной стратегии, которая так же подкрепляется реальными примерами.
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CHAPTER 1. INTRODUCTION

In this chapter paragraph 1.1 dedicated motivation and problem identification. It introduces the background information about the current role of social media for business, its benefits and challenges associated with social media, considered practitioners’ and academics’ viewpoints. In the paragraph 1.2 formulated research questions based on the insights from the previous paragraph are presented. Paragraph 1.3 describes used methodology and the last paragraph 1.4 describes general structure of this thesis.

1.1 Motivation and Problem Identification

Nowadays, the Internet and social media in particular have become an integral part of society. It may be illustrated by a statistical report published in January 2017 by HootSuite, the leading social media dashboard, about social media and digital trends worldwide [1]. This report revealed that 3.8 billion people (50% of the world’s population) now are Internet users and 2.8 billion of them actively use social media. Furthermore, comparing with the previous year, global social media penetration has increased by 21%. These results have promising implications as well for society as a whole, as for business.

It is difficult to overestimate the role of social media for business. Every day in social media huge amounts of content is produced that can be analyzed and utilize for business purposes. For example, Socialpilot project reported that Twitter users send 500 million messages every day, 4 million “likes” in Facebook press per minute and Instagram users share over 95 million photos and videos daily [4]. Social media collects and, more importantly, stored users' opinions on a variety of topics - from everyday household problems, personal relationships, to the evaluation of producers of goods and services. Remarkably, that accordingly to the global Nielsen research [5], 70% of respondents completely trust consumers’ opinion posted online, 47% of Americans said that the most of all their decisions about purchases are affected by Facebook [6] and "interesting content" is one of the main reason why people subscribe to brand pages [9].

To date, business has realized the power of social media and is trying to benefit on it. Below are some recent statistics [2, 3, 7, 8] showing that firms actively attempt to be involved with social media:

- 83% of marketers actively undertaking social media efforts;
- 68% of marketers analyze firm’s social media activities;
• 63% of marketers surveyed spend 6 hours or more on social media and 39% more than 11 hours every week;

• Social media advertising budgets have doubled from $16 to $31 billion in the period from 2014 to 2016 and analysts predicted that expenditures will reach $35.98 billion in 2017.

Without a doubt, social media provides ample opportunities and major benefits reported by marketers [2, 3] are:

• 89% of marketers indicated that social media efforts increased exposure;

• 75% of marketers indicated that social media efforts increased traffic;

• 68% of marketers indicated that social media efforts increased number of loyal consumers;

• More than 50% of marketers who invested at 2 years and more in social media said that new partnerships were made.

Despite the huge popularity and the huge money allocated for social media efforts, utilizing of social media still remain challenging task. The survey [3] uncovered the most important social media questions (unchanged since 2014) that marketers want to be answered: What is the best social media tactic? What is the most effective way to communicate with customers in social media? How to find the target audience in social media? This questions indicated about problems with effective management of social media efforts. Here are more facts confirming lack of the competency on social media:

• 49% of marketers said that using social media does not increase sales;

• Only 45% of marketers said that their Facebook marketing is effective and all the rest don’t know or said that their social media strategy is not effective;

• Only 32% of marketers are actually successful at develop positive mentions in social media, word-of-mouth referrals and coverage;

• 40% of marketers said that social media marketing become more challenging in the last year;

In addition to uncertainty about choosing the appropriate strategy there are also different risks associated with social media, which further worsens the matter. Among the ones mentioned in
such risks as legal issues (laws on privacy or intellectual property), data protection and security, reputational risks and operational (decreased employee productivity). There is a lot of examples of brand fails in social media, which primarily harmed the reputation [21], [22], [23].

Actually, the situation is even more complicated by the fact that social media is rapidly evolving. Changes are associated with the new technologies, applications and features, market share and merging of platforms, ratings, audience growth and so on. For instance, the number of users accessing social media platforms from mobile increased almost on 900 million for two years from 2015 to 2017 and reached 2.549 billion [10], and, indeed, this expanded penetration of mobile trend considerably changing the way of people’s communication. “One of the greatest opportunities of a digitally connected world is the ability to have immediate conversations, wherever and whenever customers want”, said Penny Wilson, CMO, Hootsuite. Consequently, business should change their communication strategy to boost the engagement of customers in social media with accent to real-time interaction with them [11].

If we look at some recent changes it will be surprising how significant they are. One of the hot-trend aroused in 2016 is the live-video. The appearance of live streams on Facebook and later on other platforms (Periscope, Instagram, Snapchat) was a big coup, which led to a new ways of brand interaction with the audience that haven’t explored before. A large number of views receive training video; some companies post short videos that introduce users to new products or teach how to properly use their products. Live-video also gives some opportunities for things to go not as planned, like Mark Zuckerberg’s comedic live Q/A on Facebook that viewed 10 million times [20].

Brands continue to actively explore the messengers. A good example is the mass appearance of channels in Telegram. Mailing through channels in instant messaging achieve faster the target than a post in a social network. This is a new way of direct contact with the consumer, which gradually comes to replace the usual mailing list. Messengers are also attractive to marketers thanks to the availability of convenient bots that flexibly configure, evolve and instantly respond to user requests.

Another example of the battle to win the attention of users online - disappearing social content. This interesting trend was introduced by Snapchat in order to artificially increasing the value of content by quickly removing it after 24 hours. Despite some skepticism about using Snapchat for business at the beginning [14], [15], today it is a popular tool for marketing campaigns [16], [17].
These examples demonstrate that new tendencies appear very quickly and it may be difficult to predict which ones of them will dominate and which will not, whereas to be successful in social media, business need to keep up with the changes. The most marketers today focus on the new tech, but actually that the most important thing about social media evolution is the people [12]. The essence is not in technology itself, but in how deeply and qualitatively people use these technologies to interact, share, publish, create, and transact.

Social media is a "double-edged sword". On the one side, the behavior of consumers forms the development of social technologies. On the other side, this development changes consumers' behavior. This is an interrelated process. Thus, brands should analyze "atmosphere" in social media to be aware of the development and dynamics of trends among general public and customers.

Summarizing all of the above, the current reality is that the social media plays a huge role in the life of society and in the business in particular, and ignoring their existence will be a loss of competitive advantage. At the moment, business is trying to extract the maximum benefit from social media in various ways, but in addition to obvious advantages, there are also risks, and even big brands make mistakes. Furthermore, the world is constantly changing, so marketers and businessmen should understand that the tactics they use will not work forever. As was noticed earlier, to timely and properly adapt brand’s social media strategy, it is necessary to monitor not only new trends, but also monitor public opinion about these innovations. This is only the way to maintain efficiency.

All the above reflects the point view of the matter of practitioners. At the same time, the issue of applying social media in the context of business and marketing is also a popular subject for academic research. As will be shown further in this thesis, the number of articles regarding this theme is constantly growing year-to-year (Figure 1), which indicates the continuing interest of the scientific community. However, to the best of our knowledge, to date there exists only few review papers regarding social media research [19], [24], [25], [27], [32], [33]. Before proceeding to the formulation of research objectives of this thesis, these papers were analyzed to get quick notion about what already is done in the field as a whole and which the most general unanswered questions exist.

Firstly, as in other many studies, in the marketing field exists an academic/practitioner divide [18], and as was demonstrated in the paper [19], it is also true for social media research – the authors stated that to close the gap between practitioners and researchers is one of the most significant challenges in social media research. In this comprehensive study reviewed 194 papers
(the biggest number of papers across all review papers in the field) in the period of time from 2009 to 2013 to analyze the type of papers (data- or theory-driven, qualitative or quantitative approach, positivist or interpretive paradigm) and theoretical bases. They found that studies are extremely scattered (totally identified 43 different model, framework or theory) and the majority of studies about an implication of social media focused on one particular area. The important finding is the data-driven trend in the studies “highlights the stage of infancy in this research field where most efforts are made in reporting on the use of social media in particular domains rather than developing a generalizable framework, model or theory regarding social media usage”. Authors also call for future work to provide guidelines for practitioners and to answer such questions as:

- Do the studies into social media meet the needs of business?
- What are the models, frameworks, methods, techniques and tools can be applied in practice?
- Can we develop a comprehensive roadmap for explicit decisions for practitioners to appropriate social media for implementation?

In 2016 2 interesting studies were conducted to systemize from different aspect previous research – [32] and [33]. The first one focused besides social media also on mobile and digital themes and analyzed 160 articles. Authors identify three research eras and traced how changed key themes. Among their findings are:

- Companies still had little idea about obtaining actionable insights (“collecting the most important data, design appropriate analyses and connecting findings to tactics”) from data gathering in social media;
- A lot of academic work was not adopted by practitioners; there is a disconnect between marketers and academics;
- Inappropriate attention to some older topics, like investigations about online WOM and forms UGC, at the expense of newer, potentially important topics, like user engagement with “likes”.

In the second literature review collected 44 studies which further systemized by focus of study (firm/organization or consumer) and type of study (theoretical or empirical). In conclusion of paper emphasized:
• “The need for qualitative studies to better grasp recourse to social media marketing utilization within the framework of marketing strategies” [33].

Other review articles considered different aspects of social media research and they are listed below:

• [24] – focused on personal, social and mass communication theories used in studies and proposed casual-chain framework reflects user behavior in the social media;

• [25] – focused on antecedents of consumer engagement;

• [27] – discussed empirical, experimental and analytical models;

Therefore, we can draw 2 general conclusions from considered review papers on which will be formulated research questions in the next paragraph:

• Most of research are scattered and additional systematized literature review may contribute scientific knowledge;

• Firms need for a strategy within a framework of social media utilization.

1.2. Research Questions

This thesis has the purpose to conduct systematic literature review about the utilization of social media and on the results of it, propose an appropriate framework for firms. To achieve this goal there are two main research questions needed to answer:

• RQ1: What knowledge can be obtained with systematic literature review of the research area?

• RQ2: How this knowledge can be applied to a framework for utilization of social media?

1.3 Methodology

1.3.1 Choosing the methodology

In order to answer the research questions, in this thesis applied adaptation of Design Science Research Methodology (DSRM). DSRM is a methodology in which a researcher “answers questions relevant to human problems via the creation of innovative artifacts, thereby contributing new knowledge to the body of scientific evidence”. [28]. The produced abstract artifacts (design science knowledge) can be in different forms – frameworks, methods, models, constructs, architectures or design theories [30]. The main advantage of DSRM is that it
addresses real practical problems and at the same time contribute to the body of scientific knowledge [29]. As was noted in the previous paragraphs, in the research about utilization of social media for marketing and business the practical and academic perspectives should be considered in the relationship, therefore, DSRM is enough suitable for this purpose as it combines both dimensions.

There are various DSRM process models, descriptions and diagrams for different areas of application, but all of them have several similar process steps [29]. The methodology used in this thesis based on the proposed in [31] process model for Information System research which distinctive feature is that it uses synthesize of the prior literature about the topic. A distinguishing aspect of this model is the possibility to initiate the research from different contexts (entry points):

![DSRM Process model proposed in [31]](image)

**Figure 1** – DSRM Process model proposed in [31]

Below considered how research with given topic “Application of Social Media for marketing and business” conducted with DSRM.

1.3.2 *Adaptation of Design Science Research Methodology*

Previously, on the information from surveys and review papers, in the paragraph 1.2 was described role of social media for marketing and business. There are also discussed several problems faced by practitioners and academics, which further summarized in the Research Questions paragraph. Therefore, using Problem-Centered Initiation was defined problem and showed importance, which constitute the first activity on the diagram – “Identify Problem & Motivate”.

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“Define Objectives of a Solution” is the second activity that put the question “What would a better artifact (in this case, framework) accomplish?” and here is the second research entry point – Objective-Centered Solution. To answer before mention question will be conducted systematic literature analysis (SLA), results of which will be analyzed and therefore will provided “theory” for the next stage.

Finally, the third activity will produce an artifact which will be based on conclusions from previous stage. Actually, as defined problem at the paragraph 1.2 needed practical and academic dimensions, there will be 2 artifacts: – one of them will be a framework, which in its essence will be some structured suggestions for firms about utilization of social media, and the other will be an inferences from systematic literature analysis.

The three last stages are not in the focus of this thesis ant further work needed in this direction.

Finally, resulted diagram of the methodology process is on the Figure 2:

![Figure 2 – Adopted DSRM Process model proposed](image-url)
1.4. Structure of the thesis

Chapter 1 presents the general idea of the thesis: describes the motivation and problem identification, defines research questions and methodology. Chapter 2 dedicated systematic literature review, which main parts are bibliometric and in-depth analysis. Chapter 3 contains a description of the proposed framework and its constituent parts. Chapter 4 discuss major findings, limitations, and proposal for the future work.
CHAPTER 2. SYSTEMATIC LITERATURE REVIEW

In this chapter, the paragraph 2.1 describes the methodology of conducted systematic literature review, introduces its objectives, the phases of analysis and used tools. The paragraph 2.2 shows how the collection of the articles was received and paragraph 2.3 dedicated the bibliographic analysis. In this section analyzed publication years, keywords, bibliographic coupling and citation counts are presented. In paragraph 2.4 in-depth analysis based on the results of the paragraph 2.3 is conducted.

2.1 SLR Methodology

As was noted in [39], SLR allows to summarize the existing studies, identify gaps in current research and provide a background for a framework of new activities. Therefore, SLR is an appropriate method which helps to answer both research questions, extract new knowledge from research and develop a novel framework for utilizing social media for marketing purposes.

This SLR aims to create a comprehensive picture of the social media research agenda and get insights about utilization of the social media for the marketing and business. To achieve this goal there are following questions needed to be answered by SLR:

- Q1.1: What are the main directions of studies and current trends in the field?
- Q1.2: What are the most influential studies?
- Q1.3: What are the gaps in studies?
- Q2: What are the managerial applications and best practices in social media?

In order to conduct SLR, this thesis applied a bibliographic analysis of documents. A bibliographic analysis is a set of statistical and mathematical methods which measure the quantity (the productivity of a research), quality (performance of research output) and structural (connections between documents) metrics of publications [42].

As was shown in Chapter 1, the field of interest is extremely popular in the scientific community and there is a vast amount of individual research studies. There exist several automated instruments which help to conduct bibliometric analysis study by providing statistical insights and network analysis of publications [34], [35], [36], [37].

This research used two specialized tools. The first one is the cloud-based bibliometric analysis service NAILS which intended to identify core publications, publication trends and common
research themes [34]. This tool takes into account three important measures: in-degree in the citation network, citation count provided by WOS and PageRank citation weighing. These measures are capable of highlighting fundamental articles. The system works only with Thomson Reuters Web of Science Core Collection. The second is the computer program VOSviewer (version 1.6.5) for creating maps based on network data and for visualizing and exploring these maps [38]. It allows creating a map based on bibliographic data read from WOS database.

There are three main phases of SLR:

- Receiving dataset collection. At this phase keywords and parameters for search query are defined; dataset from WOS database is also downloaded;

- Bibliometric analysis. At this phase following metrics are analyzed: the number of publications per year, keywords co-occurrences, and their average distribution by years, citation count; conducted topic modeling and network analysis; formed the list of important documents for the deeper analysis. The results of this phase answer the questions Q1.1 and Q1.2;

- In-depth analysis. This phase conducted the content analysis of documents accordingly clusters identified by network analysis; results are aggregated to the table, where listed key findings and gaps in researches by clusters; based on this information highlighted the main managerial applications and best practices. Thus, results of this phase answer the questions Q1.3 and Q2.

2.2 Receiving dataset collection
Firstly, the dataset was received from Web of Science (WOS) database
https://www.webofknowledge.com for all records satisfying the following conditions:

- Keywords for topic search: “(Market*) AND (Analy*) AND (Social Media*)”
- Timespan: 2000-2017
- Document types: all documents

The search string was selected based on the title of this thesis and with intend to retrieve the bigger amount of documents, which topics include some variations of the title’s words. This query allows appearing such keywords as “marketing”, “analytics”, “analysis”, etc.

In the paper about the history of question [26] was noted that the term “social media” appeared in the early 2000s, therefore the range of years was chosen between 2000 and 2017. There are 1089 search results and they were saved to the text files with full records and cited references.
WOS allows downloading only 500 records in the single file so there were three files downloaded.

2.3 Bibliometric analysis

2.3.1 Publication years’ analysis
The distribution of a number of documents published between 2000 and 2017 was received with NAILS. The archive comprised of source text files was uploaded to the NAILS server and report provides an analysis of the records was obtained. Figure 3 gives an overview of the number of articles and other publications per period in question. This figure indicates that there are almost no publications until 2009 and after 2012 there is a rapid growth of the number of scientific studies in the field.

![Figure 3 – The number of publication in the period 2000-2017 years](image)

2.3.2 Keywords macro level analysis and LDA topic modeling
The aim of the keywords macro level analysis is to provide a general view of popular research themes. For this purpose were used NAILS and VOSviewer.

2.3.2.1 Analysis with NAILS
At the first step, results were obtained with NAILS. On the Figure 4 are the most important keywords sorted by the number of documents where the keyword occurs and by the total number of citations.
NAILS also identified the six clusters of topics derived from common words of abstracts with Latent Dirichlet Allocation (LDA) topic modeling (Figure 5). This method reveals in the collection of documents a set of hidden themes – topics – that is “a distribution over terms that is biased around those associated under a single theme” [40]. In contrast to the clustering model used below in VOSViewer, where each document is associated with one cluster, in LDA each document considered as a set of multiple topics.

Figure 4 – The most important keywords from NAILS
Resulted six topics contain some duplicate and plural words. That is by the reason it’s high concurrency and strong interconnectedness of themes. Therefore, topics were named with the accent to the unique words and thus defined following directions in publications: Topic 1 – Tourism; Topic 2 – Commerce; Topic 3 – Health; Topic 4 – Twitter and Data Mining; Topic 5 – Business; Topic 6 – Social Media Marketing.

<table>
<thead>
<tr>
<th>Topic 1</th>
<th>Topic 2</th>
<th>Topic 3</th>
<th>Topic 4</th>
<th>Topic 5</th>
<th>Topic 6</th>
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<td>purpose</td>
<td>apps</td>
<td>financial</td>
<td>paper</td>
<td>marketing</td>
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</table>

**Figure 5** – The topic modeling output from NAILS

Altogether, these results allow identifying some interesting patterns.

Firstly, analyzing popular keywords, it may be noted, that the most interesting platform for studies is Twitter (Figure 4). This is remarkable, especially in the context of the data provided in [3]: the most efforts of marketers concentrated on the Facebook (93%) and since 2015 usage of Twitter among marketers even declined. In addition, it is worthy to note that quite popular research related to philosophy (epistemology, philosophy of science, ethics). These facts are among the indicators of the problem described in the Introduction about the discrepancy between the point of attention of academics and practitioners.

Twitter also considered as the major platform for research in social media, which utilize data mining techniques, because these terms (actually, the next by popularity on Figure 4) appeared together in the Topic 4. In addition, there is highlights its popular usage – financial and stock area.

Secondly, from the topic modeling output, the most detached theme is the health, but, at the same time, it’s not quite popular – there are no related words in Figure 4. We also discovered, that for health applications utilized tweets.
Topic 2 addresses to the commerce: terms indicated that firms and brands are interested in implications of social media for increasing customers’ purchases.

Topic 5 and Topic 6 contain words “social”, “media”, “marketing”, “communication”, but the first reveals presence studies concentrated on the management and business context, whereas the second is about users’ and brands’ content, like posts on the Facebook.

Further, Figure 4 and Figure 5 show that the most popular industry appeared in analyzed documents – tourism sector. However, according to the same survey [3], the percentage of the tourism industry is only 5% that again address to the academics-marketers separation. Topic modeling also reveals that keyword “tourism” often occurs in the “cultural” context and the only country which appeared among all these keywords and exactly in this topic (Topic 1) is the China. This fact allows to infer it is mainly Chinese social media studies related to the touristic sector and that may explain why study [3] shows such low involvement of practitioners from this industry – this survey was conducted in the USA.

2.2.2.2 Analysis with VOSviewer

At the second step, we conducted co-occurrence keywords analysis with VOSviewer. This tool identified 3987 distinct keywords from 1090 records from the dataset, 3079 (78%) of which are appeared only once. Although for the next step the same keywords in meaning were combined (for example, WOM, word-of-mouth, Word of Mouth), it is clear that social media researchers define their studies in vast different and that a considerable amount of fragmentation exists. For each keyword, the total strength of the co-occurrence links with other keyword was automatically calculated and the 500 items with the greatest total link strength were manually selected (combining alike keywords). These 500 keywords presented in the Appendix A. VOS clustering technique identified six clusters of selected keywords and in Table 1, the most occurred 20 keywords from each cluster. The LinLog/Modularity method was used as the normalization option for the strength of the links between keywords. This method performed by VOSviewer in the same way as in the LinLog layout technique and the modularity clustering technique described in [41].

<table>
<thead>
<tr>
<th>Clusters (Color – Name)</th>
<th>Keywords</th>
</tr>
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<tbody>
<tr>
<td>Yellow – Social Media as Phenomenon</td>
<td>social media, internet, communication, information, marketing, online, web 2.0, technology, advertising,</td>
</tr>
</tbody>
</table>
Visualization of the resulted co-occurrence network with different colored clusters is in Figure 6. The size of items corresponds with its occurrence in the documents and thickness of lines corresponds to the strength of links. There are 10230 links and the total link strength is 15828 and on the figure showed 200 lines of them. The distance between keywords correlates their relatedness. Thus, keywords that located near one another have a tendency to appear in the same
document and central items co-appear with a wider range of items than items on the map’s periphery.

Figure 6 – The network visualization of the most appeared keywords

The overlay visualization (Figure 7) is the same as network visualization except that elements are colored differently correspondently to their “scores”. In this case “scores” are years and colors indicate the average year of publications where these keywords appeared. The color bar below indicates the accordance between colors and years.

Generally, NAILS topic modeling output is not strictly corresponding to the clusters identified by VOSviewer, because these techniques are different in nature and themes in the study area are deeply overlap. However, several categories of themes can be distinguished which reflect main directions of research thematic.

From Figure 4 it can be seen that the central keyword the “social media”, belonging to the yellow cluster, is strongly related to technology terms (“internet”, “communication”, “online”, “web 2.0”, and “technology”). To the same cluster belong marketing terms (“advertising”, “marketing”, “industry”, “strategy”, “tourism”, “hospitality”) and this duality reflect at the same
time on what social media based as phenomenon and also its applications. This cluster named “Social Media as Phenomenon”.

The next by popularity keyword is the “Twitter” from the green cluster. There are appear terms related to data analysis techniques (“big data”, “data mining”, “machine learning”, “opinion mining”, “classification”, “sentiment”, “prediction”). The green cluster precisely corresponds with the terms from Topic 4 on Figure 6 and confirms that Twitter the most popular data source in such studies as opinion mining and sentiment analysis. This cluster named “Twitter and Data Mining”.

Another social network “Facebook” is belong to the red cluster and enters the top five the most popular keywords. This cluster corresponds with the Topic 6. It is related to the terms “social media marketing”, “community”, “participation”, “e-commerce”, “engagement”, “consumers” etc.). These keywords show another specificity of the Facebook as the marketing tool, that distinguishes it from Twitter – marketers use online communities in the Facebook for the customer engagement, whereas to the Twitter applying data mining techniques for the knowledge extraction. This cluster named “Social Media Marketing”.

The center of the turquoise cluster is the “word of mouth” and this cluster generally reflects studies dedicated to the investigations of the “impact” of WOM on the “sales”. There are such related keywords as “review”, “user-generated content”, “blogs”, “persuasion” and terms of dissemination aspect – for example, “diffusion”, “dynamic”, “information cascades”. This cluster named “WOM”.

The pink cluster is related to the business and firms and corresponds to the Topic 5. Typical keywords occurred there is “performance”, “organizations”, “customer relationship management”, “business”, “services”, “competitive advantage”, “entrepreneurship”. This cluster named “Business”.

The last blue cluster is comprised of the less connected with each other terms like “customer”, “consumption”, “health”, “perceptions”, “YouTube”, “culture”, “choice”, “television”, “attitudes”, “food”, “adults”, but all of them may characterize the “customer” in different ways, therefore, cluster named “Customer” partly correlates with the Topic 3. This variety of terms reflecting possible directions of studies in the field of social media not related directly to the marketing, but dedicated, for example, to the health applications or culture questions.

The Figure 7 describes knowledge development in the field. On the screenshot not displayed all of 500 keywords, but they are accessed by zoom and was classified by periods of years manually:
• 2013: “online communities”, “e-marketing”, “market research”, “attitudes”, “blogs”, “ties”, “persuasion”, “attractiveness”, “website”, “attention”;
• 2015: “word-of-mouth”, “online reviews”, “Facebook”, “reputation”, “text analysis”, “Twitter”, “sentiment analysis”, “big data”, “web analytics”, “social media monitoring”, “event”, “online news”, “mobile marketing”;

The keywords, which appeared mainly in 2013 are indicated about general interest for using social media as a platform for internet marketing. Further, 2014 showed appearance techniques for analysis social media and its specific applications; there is the accent on the customer-brand relations. 2015 characterized by the most number of all selected keywords; there is attention to the social media monitoring, data analysis, word-of-mouth effects and mobile trend. By the 2016 accents shifted to the studies about the underlying mechanism of customer decisions and, thus, was identified one of emerging trend.
2.3.3 Citation count and network analysis

The citation count metric shows the contribution of an author to the scientific field, but not allow to find the fundamental articles, which interconnected with a greater number of publications, but may be cited rarer. Therefore, in this section combined both approaches.

Firstly, conducted analysis with NAILS and obtained the list of the most important and influential papers, identified by citation count and networks metrics. Secondly, to highlight detailed interconnections between publications, was applied bibliographic coupling with VOSviewer. All the documents are assigned to the several clusters, in each cluster was identified the most fundamental documents, created maps of resulted network and list of publications by clusters. If the document didn’t belong to any of cluster, it was excluded. After that, results of NAILS and VOSviewer were combined and formed the final list of literature for further in-depth analysis.

2.3.3.1 Analysis with NAILS

The results of citation analysis of authors, which identified top 25 productive authors’ contribution to social media research, showed in Figure 8. The older publications are expected to have more citation count and more recent fewer.
The most important studies selected by the same tool are listed in the Appendix F. These articles and other document types are identified below using three importance measures: 1) in-degree in the citation network, 2) citation count provided by Web of Science (only for papers included in the dataset), and 3) PageRank score in the citation network. The top 25 highest scoring papers are identified using these measures separately. The results are then combined and duplicates are removed. Results are sorted by in-degree, and ties are first broken by citation count and then by the PageRank [4]. There are 43 documents from the WOS database and 29 documents from other sources. For papers and other references that not among the 1090 records downloaded from WOS were found with google search engine databases where they were published and citation count. Besides WOS there were following databases: Elsevier, Wiley, The American Medical Association (AMA), Association for Computing Machinery (ACM), Journal Storage (JSTOR), INFORMS, The World Advertising Research Center (WARC), Morgan & Claypool (M&C).

2.3.3.2 Analysis with VOSviewer
VOSviewer allows to creates maps of the bibliographic coupling. Bibliographic coupling is a similarity measure, which assesses a relationship between documents. If two documents both

Figure 8 – The most cited authors
citing the same one or more publications, then these two documents are bibliographically coupled. This relationship is illustrated in Figure 9.

![Figure 9](image)

**Figure 9** – The bibliographic coupling between two documents

For each document, the total strength of the bibliographic coupling links with other documents was calculated and the 500 documents with the greatest total link strength were selected. VOS clustering technique identified five clusters of selected keywords. As normalization option for the strength of the links between keywords was used the LinLog/Modularity method.

The Appendix B shows received documents sorted by the total link strength and the visualization of the resulted network is on the Figure 10. VOS clustering technique identified five clusters of selected documents: 31 documents in the first cluster, 31 documents in the second, 33 documents in the third, 32 documents in the fourth, 18 documents in the fifth, totally 144 documents. 20 documents from each cluster with the most the total link strength presented in the Appendix C. The size of items corresponds to the strength of the bibliographic coupling links of documents. There are 28836 links and the total link strength is 43482 and on the figure showed 200 lines of them.

Figure 11 presents the bibliographic coupling overlay map where different colors and sizes of items correspond the number of citations and in the Appendix D are 20 the most cited documents from each cluster. Duplicates of both tables were removed and aggregate results in the Appendix E.

Finally, were combined results from VOSviewer and NAILS. There was removed documents that are earlier than the year 2000, that appeared in the list through references, and removed duplicates. The Appendix G include set of 189 the most important documents for further in-depth analysis.
Figure 10 – The network visualization of the bibliographic coupling analysis of documents
Figure 11 – The overlay visualization of the bibliographic coupling analysis of documents
2.4 In-depth analysis

This section thoroughly analyzed results of the previous stage and comprised of the following steps:

- Analysis of keywords of each cluster to get a general overview about obtained classification;
- Content analysis of documents and aggregation of the key information from them to the table according to the clusters;
- Analysis of the key information to identify managerial applications and best practices.

2.4.1 Keywords analysis of the clusters

In the first step, in order to analyze with VOSviewer each cluster by occurrences of keywords, were created five .txt files. These files contain only those records, which correspond appropriate clusters. To describe each cluster in general terms were selected the most cited keywords and keywords with the most link strength. Results presented as density diagrams on Figure 10, Figure 11, Figure 12, Figure 13, Figure 14, where the higher occurrence means closer the color of items to red and the distance between the elements shows how often the words appeared together.

![Figure 10 – Most common keywords of Cluster 1](image-url)
**Figure 11** – Most common keywords of Cluster 2

**Figure 12** – Most common keywords of Cluster 3
As expected, the most common and central term is the “social media” for each cluster. The “word of mouth” is the second popular item occurred in the clusters 3, 4, 5. The rest of the words are for the most part unique for each cluster, which allows it to be associated a specific theme.
More precisely, set of words form cluster 1 indicates that this cluster connected with research in social media marketing and the main considered platforms here are Facebook and Twitter. Keywords “social network sites” and “purchase intention” are located close to each other, which indicates that in these articles terms considered in the interrelation. Overall, this cluster is about the content analysis of SNS, analysis consumer behavior and purchase intentions and, therefore, can be named “Social Media Marketing”.

The second cluster mainly addressed to the specific techniques of data mining field – sentiment analysis, text mining and opinion mining. Common words there show that as the source of data typically used user-generated content from Twitter and one of the most popular tasks is the forecasting for the stock market. Thus, cluster 2 can be called “Twitter & Data Mining”.

The cluster 3 mainly dedicated to the impact of UGC and accented how reviews effect on the sales and can be named “WOM & the sales”.

The cluster 4 we called “Relationship marketing” because it is the third common word after “social media” and “Facebook” here and, generally, articles of this cluster consider such terms as loyalty, trust, and consumer engagement.

The last cluster directly connected with impact of WOM on the tourism industry and therefore it can be called “WOM & the tourism”.

In the section 2.2.2 of this chapter was conducted the macro analysis of 500 most occurred keywords with VOSviewer and conducted topic modeling with NAILS of the words from abstracts of the documents. All these methods allow detecting main directions of studies in the social media field. Generally, they are not strictly matching to each other, but, obviously, there is some kind of correlation. The comparable table is presented below.

Table 2 – Comparison of research directions identified by different methods

<table>
<thead>
<tr>
<th>NAILS topic modeling</th>
<th>VOSviewer 500 keywords</th>
<th>VOSviewer keywords from clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism</td>
<td>Social Media as Phenomenon</td>
<td>WOM &amp; the tourism</td>
</tr>
<tr>
<td>Commerce</td>
<td>WOM</td>
<td>WOM &amp; the sales</td>
</tr>
<tr>
<td>Twitter &amp; Data Mining</td>
<td>Twitter and Data Mining</td>
<td>Twitter &amp; Data Mining</td>
</tr>
<tr>
<td>Social Media Marketing</td>
<td>Social Media Marketing</td>
<td>Social Media Marketing</td>
</tr>
<tr>
<td>Business</td>
<td>Business</td>
<td>Relationship marketing</td>
</tr>
<tr>
<td>Health</td>
<td>Consumer</td>
<td></td>
</tr>
</tbody>
</table>
2.4.2 Content analysis

The content of early selected articles was analyzed and key information from these documents were summarized in the Appendix H. The table contains following columns: Author, year; Keywords; Research Objectives/Questions; Design/Methodology/Approach; Findings; Further Research Directions.

2.4.2.1 Identification of managerial application

Analyzed set of papers uncover plentiful areas of applications of social media analytics for marketing. The overwhelming majority of research concentrate on one specific method of using social media and do not consider them in the broader context. At the same time, there is a potential opportunity to apply SMA to solve many tasks for different divisions of the company. Nevertheless, there are a few papers considered social media in this vein. In the second the most important article in the Appendix F was shown that social media can be described as a new element of so-named promotion mix which includes advertising, personal selling, public relations, publicity, direct marketing, and sales promotion. Authors argued that managers should take into account the content producing by consumers in the social media when they develop their integrated marketing communication strategy. This idea reflected in the proposed new communication paradigm (Figure 15) – in the traditional sense social media allows companies communicate with customers, but also allows customers communicate with each other whereas managers cannot directly control the flow of information disseminating through social media.

![Figure 15 – The new communication paradigm](image-url)
Analysis of the whole set of selected papers (Appendix H) revealed that possible managerial applications of social media generally correspond to the agents highlighted on the Figure 15. The major associated with social media activities mentioned in the documents listed below:


There are also identified several separate trends, appeared in the analyzed papers. Among them:

- The influence of eWOM, opinion leaders and online reviews [51, 52, 56, 57, 71, 74, 76, 77, 80, 81, 82, 83, 86, 89, 93, 96, 97, 99, 100, 106, 108, 114, 115, 117, 119, 124, 132, 34, 135, 136, 138, 141, 143, 145, 149, 159, 166, 168, 173, 175, 176, 177, 181, 185, 186, 190, 193, 200, 201, 203, 204, 205, 208, 214, 219, 220, 225, 232, 234, 235];


- The real-time monitoring and analytics [47, 59, 62, 68, 77, 85, 87, 90, 91, 108, 115, 119, 120, 130, 184, 186, 205, 216, 234];

- The customer support in social media [63, 79, 83, 84, 91, 46, 92, 106, 111, 117, 122, 123, 124, 132, 135, 136, 141, 157, 159, 172, 202, 204, 205, 227, 232];

- The product adoption [99, 115, 128, 146, 186, 201, 233].

These managerial applications in the documents appeared in a number variety of contexts – for example, some studies focused on the usage in particular industries (music [89, 256], sport [96, 174], health [155], etc.) or dedicated to the algorithms for analysis of social media [146, 149, 161, 162]. At the same time, all they are united by focusing on different ways how to increase the effectiveness of each listed activity with instruments which provides social media. These identified particular trends can be applied for different aspects of marketing strategy within the proposed framework.
CHAPTER 3. FRAMEWORK PROPOSAL

In this chapter the framework based on the findings from Systematic Literature Review is presented. The Identified managerial applications and trends of social media utilization are used for the proposal of strategy for marketing and business. Therefore, this chapter answers the second research question – How knowledge obtained from SLR can be applied to a framework of social media application? The chapter organized as follows: firstly, introduced a general description of the framework and, further, in each paragraph consistently described its constituent parts.

3.1 Description of framework

The proposed framework is founded on the following principles:

- The framework, in essence, is the set of strategies of social media usage for business;
- Identified in the systematic literature review the managerial applications form the basis for the framework;
- The managerial applications are considered as the area of responsibility of corresponding firm’s agents;
- Identified in the systematic literature review scattered trends are incorporated into the strategies for firm’s agents.
- To fill the gap between academics’ and practitioners’ viewpoints, the elements of strategies are supported by real-life cases.

In the previous chapter were identified two main areas of utilization of social media which correspond to the firms’ typical agents – Advertising and Promotion, and Reputation Management. In Figure 16 presented the general idea for the proposed framework.
3.2 Advertising and Promotion.

The main direction to which the most efforts of studies are directed is the increasing the effectiveness of the promotion of product and advertising with using of SM. At its core, an online promotional marketing campaign is the same as offline and requires typical steps. Generally, any marketing campaign strategy can be considered as a flow of several steps [45], [46], but in meaning, they boil down to three stages: preparation, conducting and analysis of results. On the preparation phase, as described in [43], there is a need to:

- Define objectives;
- Identify target audience;
- Choose the platforms.

The first step means identification of the major purposes of business on SM, the goals that company seeks to achieve by integrating marketing efforts and SM. At this phase, company formulates a message for customers that intends to convey. The objectives for using SM will provide the foundation for developing online marketing strategy [126].

In the second step needed to look for the target audience and determine who are all these people. In other words, find an ideal customer and his personal characteristics like gender, age, preferences and etc.

The identification of the target groups and their demographics allows choosing appropriate SM platforms. It is crucial because the right choice helps to save money and resources of business. However, 75% of the companies do not know on which platforms their most important customers are talking about [239]. It is well-known that different platforms attract different users and therefore at this step needed looking for the sites where target audience concentrated.

For example, according to ISL (Figure 17), Facebook user growth is declining in the ages of teenagers and young adults [240]. This is a critical fact to soak in for all businesses that are
targeting this audience. As regards, Twitter (Figure 18), over one-third of the users are under the age of 29 [241]. This platform is much more popular amongst mid-aged and younger adults. However, users over the age of 45 tend to prefer Facebook.

![Facebook demographic data](image)

**Figure 17** - Facebook demographic data

![Twitter demographic data](image)

**Figure 18** – Twitter demographic data

Instagram, as a photo-oriented platform, is mostly used by the youth. By the data provided The Social Habit (Figure 19), more than 87% of Instagram users are under 34 years old [242]. It means, if a firm target more mature clients, then it is worth to exclude Instagram from possible platforms for promotion. In contrast to this, Instagram should be at the core of the social media strategy if the target group is young.
Compared with other platforms, Pinterest is a little bit more distinguished in nature. Firstly, it is a woman-oriented platform (Figure 20) – over 80% of the users on Pinterest are women [243]. The Pinterest demographic is older: the majority of its users are between 25-44 ages and more than 20% older than 45 years old. Since Pinterest is especially popular among older women, the majority of the content directed toward that specific audience. For instance, a significant amount of content created on Pinterest is related to cooking, interior items, and fashion. Thus, if firm specialized on these topics or have target audience comprised of mature women, then it is worth to increase social media presence on Pinterest.

There is one more aspect that may influence the selection of platform for promotion. It is related to the type of content. So, Twitter firstly is a channel for new consumption, social networks like Facebook is the place for uniting friends, Instagram is intended for photo content and YouTube for video. But at the same time, the place of content and consumption generation may not coincide. For example, opinion leaders of the popular Russian social network Vkontakte are YouTube bloggers (Figure 21). The first column here is the author’s name, the second link to the Facebook profile, the third is the number of followers and the last column – EI – means...
engagement index reflects how actively users repost, like and comment. In other words, content created on the YouTube actively consumed on the another platform Vkontakte.

**Figure 21** – The most popular authors of the Russian social network VKontakte

Another illustration of the “migration” of users between platforms also can be seen in the Russian segment of the Facebook. In similar Figure 22 listed the most popular authors from LiveJournal blog platform but, as at the previous instance, place of consumption UGC in differ. It is remarkable, that listed opinion leaders in Figure 21 – stars among youth auditorium, whereas opinion leaders in Figure 22 mainly writing about political themes.

**Figure 22** – The most popular authors of the segment of the Facebook
These examples show two key points. Firstly, even the business select one specific platform based on the demographic orientation and type of content, it is maybe worth to consider additional platforms by the reason of the “migration” of users and interdependencies between platforms. Secondly, the identification of opinion leaders and analysis of the content of their posts may reveal some helpful insights about directions of discussions on the selected platform.

After firm objectives, target audience, and platforms, there is also worth to take into account one more aspect. As was shown in the previous chapter, one of the most important trends is the real-time social media monitoring and this is true for both practitioners and academics. Indeed, Social Media are specifically good as a channel in that allow quickly change advertising messages and banners, creatives, change the conditions of competitions or improve them. They provide possibility in the real time control the effectiveness of the campaign and correct if necessary. Therefore, described in Figure 23 strategy for promotional marketing and advertising is considered in the vein of real-time analytics and the three-stages process of the preparation, conducting and analysis of the results of the marketing campaign. This approach allows improving the effectiveness of social media strategies because include monitor of perception of promoted message, which may help to identify problems related to the product, and also recommends to conduct an analysis of results to validate platforms and message for further campaigns.
3.3 Reputation management

The second by popularity area of managerial applications in the analyzed studies is connected to the brand’s reputation. This is the crucial direction where both practitioners and academics make significant efforts. As was shown in the previous chapter, there exists a big number of studies about the influence of online reviews, eWOM and opinion leaders. The importance of its area for business maybe showed by the following facts: accordingly, to the global Nielsen research [5], 70% of respondents completely trust consumers’ opinion posted online; 47% of Americans said that the most of all their decisions about purchases are affected by Facebook [6]. In other words, available information about products in social media significantly affected to the customers’ choice and firms are interested in having a positive information background around them.

There were mentioned several possible sources of risks in social media, that may damage firms’ reputation: fake or negative reviews and posts on forums discussions; spamming; “troll” messages; on-line petitions; anti-branding behavior and criticism [77, 82, 176, 188, 236]. Overall, the majority of risks associated with negative word-of-mouth from consumers. However, the firm may suffer reputational losses by their own inappropriate actions – for example, poor timing of posts or wrong response strategy [154].

The main problem that is often emphasized in the studies is that the brand almost cannot influence the content that consumers post. At the same time, the removal of negative content is
detected and damages the reputation, as it was occurred with Nestle when the company started to delete comments about using palm oil in their products [218]. Actually, to encourage users to create positive information about brand shared in social media, the best way is being active, interesting and honest [125]. The appropriate illustration for this principle is the creative strategy used by food delivery service for pets Feed the Beast. The Instagram of this company https://www.instagram.com/feedthebeastru/ mainly consist of the content produced by their customers. Feed the Beast reposts photos with feedback from their clients and, therefore, not only promotes and stimulates these positive reviews, but also receive good content for the firm’s account (Figure 24).

![Figure 24 – Brand reposts consumers’ reviews and photos in the Instagram](image)

The second aspect, which complicates the situation with eWOM is the fact that in the social media any information disseminating very fast and without immediate reaction from the firm it will reach to a large audience. As was noted in the [237], “ignore social media and allow conversations to happen without awareness or participation” is the big threat for firms.

As for instance, there is a real-life case that occurred with a charity event to help flood victims in the Far East held by the Russian TV channel “Channel One”. Sergey Lazarev, pop-singer and opinion leader in the Russian segment of Twitter made the post: “I explain, almost 50 percent of the amount of deduction from your SMS in the campaign "All the world" for the Far East goes to mobile operators !!!!” [243]. The information began to spread (Figure 25, left), but official refutation from mobile operators arrived too late (Figure 25, right). In this figure, the first tweet includes mention of the channel name, and the second contains the corresponding hashtag. Thus, the inaccurate information published by the top author spread widely (Figure 26) with result kept people from participating in the charity event [244].
Figure 25 – The tweets about charity event to help flood victims: criticism (left) and official refutation (right)

Figure 26 – The number of messages related to the charity action by the time

This is example shows how it is important to monitor any related mentions in the crowd of brands name or hashtags and react to the negative as soon as possible.

Besides on-line monitoring of possible negatives, as instruments of improving brand reputation may be considered another popular trend from analyzed documents – customer engagement with brand and customer support in social media. For instance, in the research paper [245], conducted a survey among 3531 customers, was shown that engagement with social media activities positively related to the firm’s reputation. The real-life illustration of such social media activity is the community of joggers under the auspices of Nike in a Russian social network Vkontakte, which charitable races are periodically covered in the media [246]. Nike conducts training with professional instructors in the open air. The schedule of the training sessions, photos and discussions are posted on the front page of the group. Another kind of user’s engagement to enhance online reputation is the using viral video [247], [248].

It is also recently appeared new trend, which some companies already started to use – Social Customer Support. For example, JetBlue Airways respond to customers which post a public @reply on Twitter (Figure 27). This is especially good practice for airlines because delays are often and are one of the main reasons of customer frustration.
Krystal @TalkativeK · 18 мая
Hey @JetBlue what's up with my flight being "disrupted" out of O'Hare this morning?

JetBlue Airways♂ @JetBlue · 18 мая
What's your flight number? We can take a look.

Krystal @TalkativeK · 18 мая
906

JetBlue Airways♂ @JetBlue · 18 мая
Looks like that flight was cancelled for maintenance. Have you been rescheduled?

Krystal @TalkativeK · 18 мая
Yes, for tomorrow but is there anything else today?

JetBlue Airways♂ @JetBlue · 18 мая
If you want to DM your confirmation code we can take a look!

Krystal @TalkativeK

В ответ @JetBlue

I'm very appreciative of the customer service I received this morning. It's been a long day but I was able to get home sooner. Thanks Whit!

Figure 27 – The example of customer service in Twitter
Referring again to the academic literature, in the one of the most influential papers [130] was concluded, that business should develop their strategies in social media based on the that “customers want firms to listen, appropriately engage, and respond”. Summarizing these practical and academics viewpoints, the strategy for the reputation management should be based on the following principles: real-time searching what stakeholders say; maintaining the online dialogue with them to provide customer support and preventing the dissemination of negative information by quickly responding; engaging customers by building relationships and stimulate them sharing positive about brand. The scheme in Figure 28 reflects this idea, which is the part of framework regarding the reputation management.

![Real-time monitoring](image)

**Figure 28** – Strategy for the Reputation Management

Summarizing all above, besides particular tips for each agent, the common and major element for both strategies is the real-time monitoring. For the advertising agents it allows to track the clients’ opinion about promoted message and quickly correct if it’s necessary. For the reputation management and PR, it opens following possibilities: (1) provide customer support in social media instead of using call-center, which is, actually, cheaper and more effective [54], and (2) rapidly handle with appeared negative, which may damage the reputation.
CHAPTER 4. CONCLUSION

This chapter discusses the key findings of this research, notes some limitations and contains a proposal for the future work.

4.1 Findings, limitations and future work

The findings of this thesis regard to the bibliometric analysis of 1089 documents and to the proposed framework based on these results.

The key outcomes are:

- Identified the main directions of research about the topic (WOM, data mining, social media marketing), the industries to which this research are applied (tourism, stock market, health), the emerging trends in the studies (underlying mechanism of customer decisions), and list of the most fundamental papers in the field;

- Despite the growing number of publications about social media applications for marketing and business, there exists gap between directions of efforts between practitioners and academic research;

- Content analysis of the most influential papers shows that all social media utilization generally may be applied to the two agents of any firm with corresponding responsibilities: advertising agency - advertising and promotion, public relations - reputation management. There is also identified the important trends, which further was incorporated into the framework’s strategy. Among them: the influence of electronic WOM, opinion leaders, and online review; the benefits of customers’ engagement with brand; the real-time monitoring and analytics; the improving quality of product through monitoring consumers’ opinion; the customer support in social media; the product adoption;

- The common element for strategies of both agents is the real-time monitoring. The clue element of the strategy for the advertising and promotion division is to conduct research about target customers and platforms where they concentrated, taking into account opinion leaders. Three-stages strategy and real-time monitoring of perception of the advertising message allow to quickly correcting the strategy. The clue elements of the strategy for reputation management are: (1) constantly monitoring information field about a brand and react with appearance negative as soon as possible; (2) encourage
clients to social media activities to stimulate them to create positive content about a brand.

The main limitations of this study regard to the obtained dataset of publications. Firstly, for the initial set of documents was used only WOS database and one search query with defined keywords from the title. We do not conduct an additional search with keywords, identified as particular directions of research. Secondly, there is a possibility, that the most recent papers reveal significant improvements for the field, but they may be missed, as for content analysis were selected the most influential papers, which older, but more cited and connected with the bigger areas of research. Therefore, future work may consider these limitations. In addition, the proposed strategies within the framework should be tested on the real case-study.
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