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ADVANCED ANALYTICS OF SOCIAL MEDIA DATA FOR MARKETING OPTIMIZATION

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ABSTRACT:

The exponential growth of social media platforms has generated vast volumes of user-generated data, offering unprecedented opportunities for data-driven marketing optimization. This study explores the application of advanced analytics techniques to extract actionable insights from social media data and enhance marketing performance. By integrating machine learning algorithms, natural language processing, and sentiment analysis, the proposed framework analyzes consumer behavior, engagement patterns, and brand perception in real time. The research emphasizes predictive and prescriptive analytics to support targeted advertising, customer segmentation, and campaign effectiveness evaluation. Experimental results demonstrate that advanced social media analytics significantly improve marketing decision-making by increasing customer engagement, optimizing content strategies, and maximizing return on investment. The findings highlight the strategic importance of transforming unstructured social media data into meaningful marketing intelligence, enabling organizations to achieve sustainable competitive advantage in dynamic digital markets.

KEYWORDS: Social Media Data Analytics (SMDA), Marketing Strategies, Systematic Literature Review (SLR), Platforms, Techniques.

INTRODUCTION

The enormous increase in the use of social media platforms in our daily lives has led to a rapid accumulation of heterogeneous and unstructured data, which shares multiple characteristics specifying Big Data (Bazzaz et al., 2021). To get new advantages and opportunities, researchers

from different disciplines have tried to analyze data using several techniques. Today Social Media Data Analytics (SMDA) is becoming an emerging and topical research area (Saggi & Jain, 2018). The main problem facing analysts and practitioners is that traditional analytical techniques have become inefficient and sometimes unable to manage this huge amount of data (Kaabi & Jallouli, 2019; Rusetski, 2014). This has created new opportunities, not yet fully exploited, to analyze Big Data in order to discover and extract information that can provide added value in different areas (Toivonen *et al.*, 2019). SMDA is defined as the process of using suitable analytical techniques, methods, and tools to collect and analyze social media data in order to solve specific problems and extract useful insights (He *et al.*, 2015; Wang *et al.*, 2020).

Among different areas, the concept of SMDA is widely applied nowadays, remarkably, in the field of marketing (Rathore *et al.*, 2020; Wang *et al.*, 2020). Despite that, the marketing literature still lacks studies aimed at improving Marketing Strategies through SMDA. It is true that many researchers have tried to adapt and extend analytical methods and techniques for social media data to satisfy marketing purposes, but rarely with a clear outline about the advantages that can be offered by each technique. There is still an ambiguity on the best choice of techniques for each type of data and each Marketing Strategy specifically. Thus, the relationship between SMDA and Marketing Strategies has not yet been sufficiently investigated. This study consists of a systematic literature review aiming to understand how SMDA can create value and provide benefits to Marketing Strategies by answering the following research questions:

Q1: What SMDA techniques and methods have been covered in previous research in the field of marketing?

Q2: Which Marketing Strategies have been mostly guided by these techniques?

Q3: What benefits does SMDA provide for Marketing Strategies?

Q4: What are the most used platforms and data types in SMDA for Marketing Strategies?

This paper is organized as follows: The next section presents the concept of SMDA and its use in Marketing. The second section briefly describes the concept of Marketing Strategy as well as its relationship with SMDA. The third section explains the methodology of this study. The fourth section presents the main findings and results. Finally, in the fifth section, a brief conclusion, limitations and some suggestions for future research are presented.

Social Media: Big Data, Analytics and Marketing

Social Media: A Big Data Generator

Social media allows users to spontaneously share unlimited data (information, images, videos, discussions, etc.) and generate a flow of very large data. For example, in 2021, every 60 seconds,

95,000 Stories were posted on Instagram, 500 hours of videos were uploaded on Youtube, and nearly 70 million private messages were added via Facebook Messenger and WhatsApp (Statista, 2021). Big Data originates from the dynamic and increased use of social media and other different sources (Gani *et al.*, 2015). Kitchin (2014) considered that social media data is a source of Big Data defined by a high rate of data accumulation, internal variability, variable veracity, and large volumes of data. In the same way, Bazzaz *et al.* (2021) indicated that social media data is characterized by the 5V's of big data: volume, velocity, variety, value, and veracity. In this context, researchers have generally referred to social media data as "Social Media Big Data" (Lynn *et al.*, 2015). Social media are among the main generators of Big Data and the dependence of users on social media leads to a huge volume of data (Laney, 2001). Stieglitz *et al.* (2018) argued for their use of Big Data literature in social media research by the fact that the two concepts share multiple characteristics. So, to understand how to manage social media data, it is important to know and understand how researchers have analyzed Big Data. In this sense, several recent studies were developed in order to discover the analytical characteristics of social media data that differ from Big Data.

Social Media Data Analytics (SMDA): Definition and techniques

SMDA is the process of extracting intelligence to meet given requirements and goals, through the processing and development of techniques and tools allowing the collection, analysis, reduction, and visualization of social media data (Lee, 2018; Wang, 2020). To analyze this huge data effectively, in order to obtain consistent results, it is important to make the right choice of analysis methods (Lv *et al.*, 2017). Therefore, many new methods and techniques have been widely used in recent years, including artificial intelligence, machine learning, classification tree analysis, regression analysis, genetic algorithms, sentiment analysis, topic modelling etc. (Amalina *et al.*, 2020; Chebil *et al.*, 2021). Based on Stieglitz *et al.* (2018), the main SMDA methods are statistical analysis, social network analysis, sentiment analysis, content analysis, and trend analysis. These methods cover a wide range of techniques that can be used separately or combined appropriately. Galetsi, Katsaliaki & Kumar (2020) have classified these techniques into eleven groups: Machine learning, modelling, social network analysis, optimization, visualization, simulation, data mining, web mining, text mining, forecasting, and statistics.

The application of these techniques to deliver useful information has become a challenge for researchers in several disciplines, especially in Marketing.

Social Media Data Analytics and Marketing

Among several disciplines, marketing is the most affected by the evolution of data (Tdan, 2018).

This context has pushed academics and practitioners in marketing to analyze social media data using several analytical techniques. For example, Pepsi and McDonald's used SMDA to derive competitive advantages (Grimes, 2013). Marriott, the multinational hotel company, analyzed their own tweets, Facebook posts and Instagram photos to improve their brand presence, as well as guest engagement (Golden & Caruso-Cabrera, 2016). Argyris *et al.* (2020) carried out a study aiming to increase consumer engagement with the brand using deep-learning algorithms to analyze data available on Instagram. Aswani *et al.* (2018) adopted SMDA to provide insights into customer perceptions from Twitter using network and content analytics. Benslama & Jallouli (2020) conducted a literature review to understand how social media data clustering techniques can help marketing decisions.

Social Media Data Analytics and Marketing Strategies

Marketing Strategies: Definition and classification

According to Ritonga *et al.* (2018), a company that does not properly study its marketing strategies risks losing its position in the face of difficult competitive conditions. Marketing strategies represent a path to achieve several marketing benefits (Wong, 2007). Several researchers have tried to find the most appropriate definition for the concept of "Marketing Strategy". According to Elansary (2006), Marketing Strategy is a process that includes all the strategies of targeting, segmentation, differentiation and positioning, to create, communicate and propose an offer to a target market. Vincent (2008) defines Marketing Strategy differently: "Marketing Strategy is the analysis and selection of target markets with the development and maintenance of an appropriate marketing mix to meet the target market's needs". Hong & Nguyen (2020) considered Marketing Strategies as a full plan consisting of all marketing goals. In recent years, several researchers have agreed that Marketing Strategies are not limited to the simple use of 4Ps, which must not operate in isolation, and that the Marketing Mix paradigm still remains valid for the Marketing Strategy concept but, at least, targeting, market segmentation or positioning must be included (Campbell *et al.*, 2020; Daniels *et al.*, 2021; Wong, 2007). In the same context, Armstrong *et al.* (2014) and Campbell *et al.* (2020) considered that Marketing Strategies are structured essentially around five categories: Targeting and positioning strategy; Product, service and brand strategy; pricing strategy; Channel and logistics strategy; and

Communications and influence strategy.

In recent years, Marketing Strategy has evolved remarkably in three major directions: Digital, Data analytics, and Developing Markets. The use of new technologies, including SMDA, has profound effects on Marketing Strategies (Grewal et al., 2020). Impact of SMDA on Marketing Strategies

Using SMDA to improve Marketing Strategies represents an important challenge for researchers. Indeed, in the last decade several studies, in which the SMDA have been applied to achieve Marketing Strategies objectives, have been published. To exploit competitive intelligence and to find market knowledge, Kim *et al.* (2016) analyzed textual data from Twitter using natural language processing and lexicon-based sentiment analysis. Pournarakis, Sotiropoulos & Giaglis (2017) analyzed Twitter data using data visualization (Word cloud), Latent Dirichlet Allocation (LDA), and Sentiment analysis to obtain inventory performance for Business-to-Business companies, and to help improve logistics strategy. Zhang, He & Zhu (2017) applied SMDA to identify useful customer knowledge. Marine-Roig *et al.* (2019) used Data Mining to analyze data extracted from travel sites in order to improve branding and positioning strategies in the field of tourism and destination. To help hosts improve their pricing strategies related to their property, Airbnb, the online marketplace, used Artificial Intelligence and Machine Learning techniques (Campbell *et al.*, 2020). In order to evaluate Marketing Strategies through social media, Yunus *et al.* (2020) used Krippendorf's Content Analysis to analyze two Instagram accounts of Grab, the most known online transportation provider application in Southeast Asia.

Although there are several articles talking about SMDA for a particular Marketing Strategy, the literature lacks studies encompassing the impact of SMDA on all types of Marketing Strategies and offering a global view of the analytical techniques that can ensure Marketing benefits. We attempt to fill this research gap through a Systematic Literature Review (SLR) on SMDA and Marketing Strategies.

Methodology

The SLR can identify research gaps and offer opportunities for future research (Paul & Rosado-Serrano, 2019). Such a review seems the most appropriate for the purposes of our study, thanks to its ability to produce a high-quality organization and synthesis of the literature (Wang & Chugh, 2014). The review process itself is "transparent, systematic, and reproducible" (Tranfield, Denyer & Smart, 2003). This review follows a three-step process: data collection, data analysis and data synthesis, as in Ng *et al.* (2020) and Vrontis *et al.* (2021).

Data collection

The search for articles was conducted in two major scientific databases: Science Direct and Emerald. This choice is justified by the fact that these databases offer the greatest coverage and are frequently chosen by state-of-the-art systematic reviews (Vrontis *et al.*, 2021). We identified a set of relevant keywords in relation to the key concepts of our study. Therefore, we used for article research a different combination between these keywords: "Marketing", "Social Media",

"Data Analytics" and "Strategies". We limited our search to articles written in English, published after 2015 (for topical articles), omitting conference proceedings, books, and other nonrefereed publications.

Then, as widely used in systematic reviews of the literature (Vrontis *et al.*, 2021), we read carefully the titles and abstracts of all identified papers. The review focused only on papers that (1) Mainly discussed SMDA; (2) Were in the context of Marketing and Strategies; and (3) Indicated the used SMDA method or technique. Papers that did not meet one of these criteria were excluded from this review. This step yielded 120 papers.

Data analysis

After filtering and selecting papers, we read the content of each paper in order to extract useful information for our topic (Danese, Manfè & Romano, 2017). For each article, we extracted and specified the used SMDA technique/method, the studied Marketing Strategies, as well as the Marketing advantages offered by the SMDA.

Synthesis

In this step, the extracted data were grouped into eleven background variables: title, author, year of publication, journal, field, firm size, Social Media Platform, Data type, Analytical technique/Method, Marketing Strategy, and major findings. In addition, the obtained Marketing Strategies from the previous step were classified, based on Armstrong *et al.* (2014) and Campbell *et al.* (2020), into five groups of strategies. Likewise, SMDA techniques were categorized into seven groups according to their nature.

MAIN RESULTS AND DISCUSSION

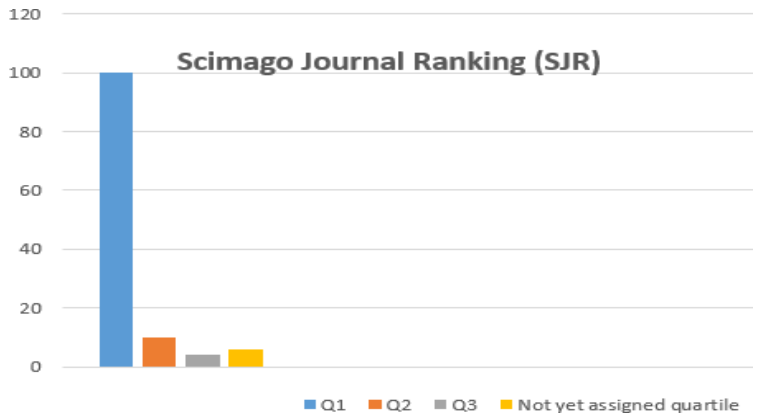

Figure 1. SLR Quality Assessment (Classification of journals according to their SJR)

The distribution of the journals present in our SLR database according to their classification on the Scimago Journal Ranking (SJR) permits us to check the quality of our obtained database

(Figure 1). SJR classifies the journals into quartiles, with the first quartile (Q1), which includes journals with excellent and very high impact, and the last quartile (Q4) which contains the journals with poor and very low impact. Therefore, we can confirm that our database is of very high quality, since 92% of the journals belong to the first two quartiles (Q1: 100 papers, Q2: 10 papers).

Regarding the size of the studied firms, of the 120 reviewed articles, only 40 indicated the size of the firms, and large companies significantly outperformed SMEs (small and medium-sized enterprises) in the use of SMDA for marketing purposes (89%).

In what concerns the publication date of the retrieved papers, results show that the topics of SMDA and Marketing Strategy won the greatest consideration in 2019 (31 papers), followed closely by 2020 (24 papers). Between 2015 and 2017, there was an upward trend with a slight decrease in the number of articles in 2018 (16 papers). The year 2021 displays a good number of articles although only five articles were found, since we only reviewed articles published during the first three months of the year (Table 1). These results show that SMDA and its impact on Marketing Strategies is an emerging issue that still needs more publications.

Table 1. The number of articles per year.

YEAR	2015	2016	2017	2018	2019	2020	2021	TOTAL
FREQUENCY	9	13	22	16	31	24	5	120

The classification of articles according to the fields shows that the most concentrated fields on the application of SMDA for Marketing Strategies are successively: "Tourism, Destinations, Hotels, and restaurants", "Media, Marketing and Advertising Services", "Technology" and "Agri-business and food industry". The other fields are not yet well involved in this process, especially the fields of "Real estate", "Bioenergy", "Entrepreneurship, Start-ups, Employability and recruitment", and "Medicine, health and pharmacy".

Regarding the most used platforms for marketing data analysis, we find in the first place, Twitter, which is used by 60 articles, followed by Facebook (37) and Instagram (13). The other platforms and their frequencies of use are displayed in detail in Figure 2. It is important to draw attention to the fact that the famous professional site LinkedIn was not used by any study in this review.

Figure 2 shows that textual social media data is the most analysed data type with a frequency of 99 out of 120. This shows that other types of data require more attention from researchers

studying SMDA and Marketing Strategies. This may be explained by the lack of analysis capacity of other types, such as videos, or by limited knowledge concerning the types of analytical techniques and their ability to provide useful knowledge.

Figure 2 brings together a detailed and rich list, extracted from our SLR, of SMDA techniques that have been used in providing important Marketing information. Future research can combine or apply these techniques separately on different types of data according to their requirements in order to discover new insights.

The most driven marketing strategies by SMDA are Targeting and positioning strategy (78), followed by Communications and influence strategy (23), Product, service, and brand strategy (17), Channel and logistics strategies (5), and Pricing Strategy (1). Our SLR identified, for each type of Strategy, the main Marketing advantages offered by the application of SMDA techniques, obtained from the 120 studied articles (Figure 2). In addition, the content analysis of SLR articles indicates that, unlike the rest of the strategies, the Targeting and positioning strategy takes advantage of TripAdvisor more than Instagram.

We have classified the different techniques used for each type of marketing strategy. Results show that Sentiment Analysis and Artificial Intelligence techniques are the most applied techniques for SMDA to provide knowledge to "Targeting Strategy and Positioning", and "Channel Strategy and Logistics", while Coding and Modelling algorithms are the most adopted by analysts for other types of Strategies (Table 2).

Table 2. Crossing of Marketing Strategies and Methods.

		Social Media Data Analytics Methods							Total (Strategies)
		Sentiment Analysis	Data Mining	Statistics	Coding and Modeling	Visualization	Artificial Intelligence	Simulation	
Marketing Strategies	Targeting and positioning strategy	28	22	11	15	3	27	0	78
	Communication and influence strategy	4	3	7	8	0	4	1	23
	Product, service and brand strategy	5	3	2	7	1	4	0	17
	Pricing strategy	0	0	0	1	0	0	0	1
	Channel and logistics strategy	4	2	0	0	1	4	0	5
Total (Methods)		38	29	19	30	5	37	1	120

The results illustrated in Table 3 demonstrate that to extract knowledge for Marketing Strategies, Sentiment Analysis is most applied in the following fields: "Agri-business and food industry", "Transport, air transport and airport", "Commerce and trade", "Automotive industry", "Media, Marketing and Advertising Services", and "Technology". Data Mining is also widely used in the sectors of "Commerce and trade", "Education and Culture", and "Tourism, Destinations, Hotels, and restaurants".

In addition, Coding and Modelling ranks first in the following fields: "Banking, Financial Sector and Insurance", "Education and Culture", "Politics and government", and "Media,Marketing and Advertising Services". The use of artificial intelligence dominates in these fields: "Education and Culture", "Entrepreneurship, Startups, Employability and recruitment", "Automotive industry", "Media, Marketing and Advertising Services", "Medicine, health and pharmacy", and "Clothing, Fashion and Beauty".

Table 3. Crossing of Fields and Methods

		SOCIAL MEDIA DATA ANALYTICS METHODS							
		Sentiment Analysis	Data Mining	Statistics	Coding and Modeling	Visualization	Artificial Intelligence	Simulation	Total (FIELDS)
FIELDS	Agri business, food industry	7	3	1	5	1	5	0	17
	Banking, Financial Sector and Insurance	2	1	1	4	0	2	0	7
	Commerce, trade	5	5	1	3	1	4	0	12
	Transport, air transport and airport	4	3	0	2	2	2	0	8
	Education and culture	1	3	1	3	0	3	0	8
	Entrepreneurship, Startups, Employability and recruitment	1	0	1	0	0	2	0	2
	Tourism, Hotels, and restaurants	5	8	7	6	1	5	0	25
	Automotive industry	4	2	0	3	1	4	0	8
	Media, Marketing and Advertising Services	8	2	3	8	2	8	0	23
	Medicine, health and pharmacy	0	1	0	0	0	2	0	3
	Politics, government	2	2	1	8	0	2	0	13
	Technology	12	3	0	2	2	9	1	18
	Clothing, Fashion and Beauty	2	1	2	1	1	5	0	8
	Others (Real Estate 1+ Bioenergy)	1	0	0	1	0	0	0	2
Total (METHODS)		38	29	18	30	5	37	1	119

Finally, the results show that the use of several analytical methods and techniques in many fields is still very poor, maybe not used at all, like Visualization in the field of "Banking, Financial Sector and Insurance", and Statistics in the field of "Technology" (Table 3).

To provide an overview of the SMDA process for marketing strategies, Figure 2 proposes an integrative framework mapping these research findings about how SMDA create value to marketing strategies including methods and techniques. Figure 2 also shows, in a global way, the steps of SMDA starting with Social Media platforms going to the marketing decisions and advantages obtained thanks to SMDA.

The global view of the studied process makes it possible to understand, in a simple way, the contribution of our SLR and facilitates the observation of several important results.

For example, by taking a look at Figure 2, we can quickly notice that Targeting and Positioning Strategies are the most guided strategies by SMDA compared to the strategies of the marketing mix elements. The same remark goes for SMDA methods. It is clear that some methods are negligible in terms of their use compared to others, such as Simulation Vs Artificial Intelligence.

CONCLUSION, IMPLICATIONS AND PERSPECTIVES

CONCLUSION

This study demonstrates that advanced analytics applied to social media data can play a transformative role in optimizing modern marketing strategies. By leveraging machine learning, natural language processing, and sentiment analysis, organizations can effectively convert large volumes of unstructured social media data into actionable insights. The findings confirm that data-driven marketing decisions lead to improved customer engagement, more accurate audience targeting, and enhanced campaign performance. Overall, advanced social media analytics provides a robust foundation for evidence-based marketing, enabling businesses to respond proactively to dynamic consumer behavior and competitive digital environments.

IMPLICATIONS

The implications of this research are significant for both academia and industry. From a managerial perspective, marketers can utilize advanced analytics to design personalized campaigns, monitor brand perception in real time, and optimize resource allocation for higher returns on investment. The study also highlights the importance of analytical capabilities and data literacy within marketing teams to fully exploit social media intelligence. From a research standpoint, this work contributes to the growing body of knowledge on data-driven marketing by demonstrating practical applications of advanced analytics in social media contexts. Policymakers and organizations may further use these insights to establish ethical guidelines and data governance frameworks for responsible use of consumer data.

Future Perspectives

Future research can expand this work by incorporating multimodal social media data such as images, videos, and audio content to enrich marketing insights. The integration of real-time analytics, deep learning models, and generative AI techniques offers promising avenues for predictive and prescriptive marketing strategies. Additionally, cross-platform analysis and longitudinal studies could provide deeper understanding of evolving consumer behavior over

time. As social media ecosystems continue to evolve, advanced analytics will remain a critical tool for achieving sustainable marketing optimization and long-term business value.

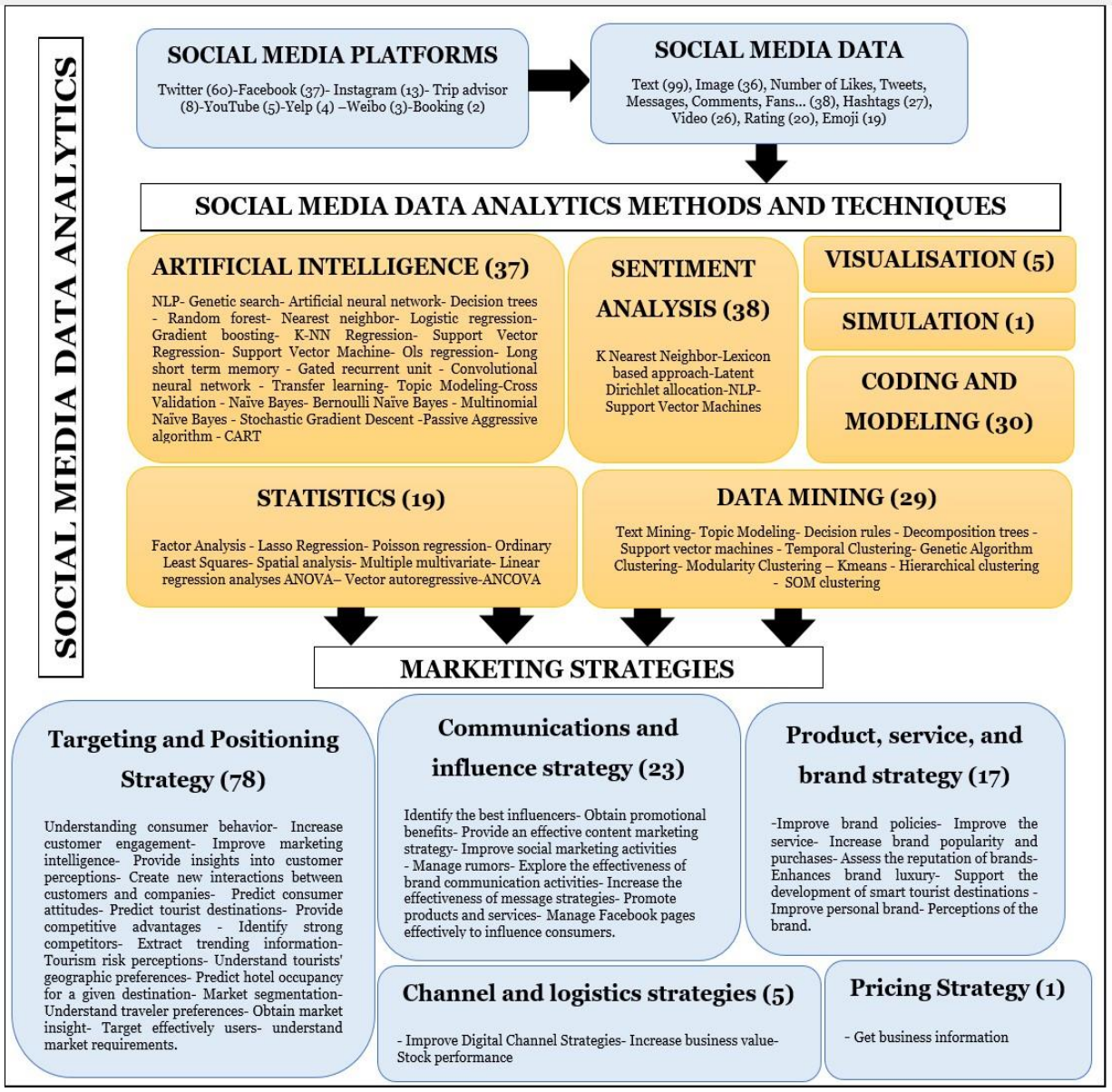

Figure 2. Social Media Data Analytics for Marketing Strategies: Theoretical Framework.

REFERENCES

1. Amalina, F., Targio Hashem, I. A., Azizul, Z. H., Fong, A. T., Firdaus, A., Imran, M., & Anuar,
2. N. B. (2020). Blending Big Data Analytics: Review on Challenges and a Recent Study. *IEEE Access*, *8*, 3629–3645. https://doi.org/10.1109/ACCESS.2019.2923270
3. Armstrong, G., Adam, S., Denize, S., & Kotler, P. (2014). *Principles of Marketing*. Pearson Australia
4. Aswani, R., Kar, A. K., Ilavarasan, P. V., & Dwivedi, Y. K. (2018). Search engine marketing is not all gold: Insights from Twitter and SEOClerks. *International Journal of*

Information Management, *38*(1), 107–116. https://doi.org/10.1016 /j.ijinfomgt.2017.07.005

5. Bazzaz Abkenar, S., Haghi Kashani, M., Mahdipour, E., & Jameii, S. M. (2021). Big data analytics meets social media: A systematic review of techniques, open issues, and future directions. *Telematics and Informatics*, *57*, 101–517. https://doi.org/10.1016/j.tele.2020.101517
6. Benslama, T., & Jallouli, R. (2020). *Clustering of Social Media Data and Marketing Decisions*. In M. A. Bach Tobji, R. Jallouli, A. Samet, M. Touzani, V. A. Strat, & P. Pocatilu (Eds), *Digital Economy. Emerging Technologies and Business Innovation,* 53–65. Springer International Publishing. https://doi.org/10.1007/978-3-030- 64642-4_5
7. Borden, N. H., Frame, S., Gordon, W. C., & Smith, C. W. (1954). An appraisal of census programs for marketing uses. *Journal of Marketing*, *18*(4), 331–360.
8. Borden, N. H. (1986). Marketing management: Analysis, planning and control. *Journal of Marketing*, *37*, 110.
9. Campbell, C., Sands, S., Ferraro, C., Tsao, H.-Y., & Mavrommatis, A. (2020). From data to action: How marketers can leverage AI. *Business Horizons*, *63*(2), 227–243. https://doi.org/10.1016/j.bushor.2019.12.002
10. Chebil, M., Jallouli, R., Bach Tobji, M., & Ben N'cir, C. (2021). *Topic Modeling of Marketing Scientific Papers: An Experimental Survey*, 147–171. https://doi.org/10.1007/978-3- 030-92909-1_10
11. Danese, P., Manfè, V., & Romano, P. (2017). A Systematic Literature Review on Recent Lean Research: State-of-the-art and Future Directions. *International Journal of Management Reviews*, *20*(2), 579–605. https://doi.org/10.1111/ijmr.12156
12. Daniels, R. A., Pemble, S. D., Allen, D., Lain, G., & Miller, L. A. (2021). LinkedIn Blunders: A Mixed Method Study of College Students' Profiles. *Community College Journal of Research and Practice*, *0*(0), 1–16. https://doi.org/10.1080/10668926.2021.1944932
13. Elansary, A. I. (2006). Marketing strategy: Taxonomy and frameworks. *European Business Review*, *18*(4), 266–293. https://doi.org/10.1108/09555340610677499
14. Galetsi, P., Katsaliaki, K., & Kumar, S. (2020). Big data analytics in health sector: Theoretical framework, techniques and prospects. *International Journal of Information Management*, *50*, 206–216. https://doi.org/10.1016/j.ijinfomgt.2019.05.003
15. Gani, A., Siddiqa, A., Band, S., & Nasaruddin, F. (2015). A survey on Indexing Techniques for Big Data: Taxonomy and Performance Evaluation. *Knowledge and Information Systems*, *46*, 141–284. https://doi.org/10.1007/s10115-015-0830-y

16. Golden, J., & Caruso-Cabrera, M. (2016). 'Why Marriott is so interested in your social media'. CNBC. Available at http://www.cnbc.com/2016/08/02/why-marriott-looks at-what-you-post-on-social-media-from-your-room.html
17. Grewal, D., Hulland, J., Kopalle, P., & Karahanna, E. (2020). The future of technology and marketing: A multidisciplinary perspective. *Journal of the Academy of Marketing Science*, *48*, 141–284. https://doi.org/10.1007/s11747-019-00711-4
18. Grimes, S. (2013). 'The rise and stall of social media listening. Information Week'. *Information Week*. Accessed 18 March 2013. Available at https://www.informationweek.com /information-management/the-rise-and-stall-of-social-media-listening
19. He, W., Wu, H., Yan, G., Akula, V., & Shen, J. (2015). A novel social media competitive analytics framework with sentiment benchmarks. *Information & Management*, *52*, 801–812. https://doi.org/10.1016/j.im.2015.04.006
20. He, W., Zhang, W., Tian, X., Tao, R., & Akula, V. (2018). Identifying customer knowledge on social media through data analytics. *Journal of Enterprise Information Management*, *32*, 152–169. https://doi.org/10.1108/JEIM-02-2018-0031
21. Hong, P. V., & Nguyen, T. (2020). Factors affecting marketing strategy of logistics business: Case of Vietnam. *The Asian Journal of Shipping and Logistics*, *36*, 224–234. https://doi.org/10.1016/j.ajsl.2020.03.004
22. Investopedia. (2021). 'What is Marketing Strategy?' Investopedia, December 2021. Available at https://www.investopedia.com/terms/m/marketing-strategy.asp
23. Kaabi, S., & Jallouli, R. (2019). *Overview of E-commerce Technologies, Data Analysis Capabilities and Marketing Knowledge.* In R. Jallouli, M. A. Bach Tobji, D. Bélisle, S. Mellouli, F. Abdallah, & I. Osman (Eds), *Digital Economy. Emerging Technologies and Business Innovation*, 183–193. Springer International Publishing. https://doi.org/10.1007/978-3-030-30874-2_14
24. Kim, Y., Dwivedi, R., Zhang, J., & Jeong, S. R. (2016). Competitive intelligence in social media Twitter: IPhone 6 vs. Galaxy S5. *Online Information Review*, *40*, 42–61. https://doi.org/10.1108/OIR-03-2015-0068
25. Kitchin, R. (2014). *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. SAGE.
26. Laney, D. (2001). '3D data management: Controlling data volume, velocity, and variety'.META Group.

    Lee, I. (2018). Social media analytics for enterprises: Typology, methods, and processes. *Business Horizons, 61*(2), 199–210.

27. Lynn, T., Healy, P., Kilroy, S., Hunt, G., van der Werff, L., Venkatagiri, S., & Morrison, J. (2015). Towards a general research framework for social media research using big data. *2015 IEEE International Professional Communication Conference (IPCC)*, 1–8. https://doi.org/10.1109/IPCC.2015.7235843
28. Lv, Z., Song, H., Basanta-Val, P., Steed, A., & Jo, M. (2017). Next-Generation Big Data Analytics: State of the Art, Challenges, and Future Research Topics. *IEEE Transactions on Industrial Informatics*, 1–1. https://doi.org/10.1109 /TII.2017.2650204
29. Marine-Roig, E., & Anton Clavé, S. (2015). Tourism analytics with massive user-generated content: A case study of Barcelona. *Journal of Destination Marketing & Management*, *4*(3), 162–172. https://doi.org/10.1016/j.jdmm.2015.06.004
30. McCarthy, E. J., & Perreault, W.D. (1987). *Basic Marketing*, 9th Edition. Richard D. Irwin, Homewood, IL.
31. McDonald, M. (1996), *Strategic Marketing Planning*, 2nd Edition. Kogan Page, London.
32. Mustapha, B. (2017). Effects of Marketing Mix Strategy on Performance of Small Scale Businesses in Maiduguri Metropolitan, Borno State Nigeria. *Journal of Marketing and Consumer Research*, *31*(2), 1–6.
33. Ng, S., Sweeney, J., & Plewa, C. (2020). Customer Engagement: A Systematic Review and Future Research Priorities. *Australasian Marketing Journal (AMJ)*, *28*, 235–252. https://doi.org/10.1016/j.ausmj.2020.05.004
34. Rathore, A. K., & Ilavarasan, P. V. (2020). Pre- and post-launch emotions in new product development: Insights from twitter analytics of three products. *International Journal of Information Management*, *50*, 111–127. https://doi.org/10.1016 /j.ijinfomgt.2019.05.015
35. Ritonga, H., Setiawan, N., El Fikri, M., Ritonga, C. P. M., Hakim, T., Sari, M., Rossanty, Y., & Nasution, M. D. T. P. (2018). Rural tourism marketing strategy and swot analysis: A case study of bandar pasir mandoge sub-district in north sumatera. *International Journal of Civil Engineering and Technology*, *9*, 1617–1631.
36. Rusetski, A. (2014). Pricing by intuition: Managerial choices with limited information.
37. *Journal Business Research*, *67*, 1733–1743. https://doi.org/10.1016 /j.jbusres.2014.02.020
38. Saggi, M. K., & Jain, S. (2018). A survey towards an integration of big data analytics to big insights for value-creation. *Information Processing & Management*, *54*(5), 758–790. https://doi.org/10.1016/j.ipm.2018.01.010
39. Statista. (2021). 'A Minute on the Internet in 2021', Statista, July 2021. Available at https://www.statista.com/chart/25443/estimated-amount-of-data-created-on-the- internet-

in-one-minute/

40. Stieglitz, S., Mirbabaie, M., Ross, B., & Neuberger, C. (2018). Social media analytics – Challenges in topic discovery, data collection, and data preparation. *International Journal of Information Management, 39,* 156–168. https://doi.org/10.1016 /j.ijinfomgt.2017.12.002
41. Paul, J., & Rosado-Serrano, A. (2019). Gradual Internationalization vs Born-Global/International new venture models: A review and research agenda. *International Marketing Review*, *36*(6), 830–858. https://doi.org/10.1108/IMR-10-2018-0280
42. Pournarakis, D. E., Sotiropoulos, D. N., & Giaglis, G. M. (2017). A computational model for mining consumer perceptions in social media. *Decision Support Systems*, *93*(C), 98–110. https://doi.org/10.1016/j.dss.2016.09.018
43. Tdan. (2018). 'The Impact of Big Data on Marketing' Tdan, November 2018. Available at https://tdan.com/the-impact-of-big-data-on-marketing/24044
44. Toivonen, T., Heikinheimo, V., Fink, C., Hausmann, A., Hiippala, T., Järv, O., Tenkanen, H., & Di Minin, E. (2019). Social media data for conservation science: A methodological
45. overview. *Biological Conservation*, *233*, 298–315. https://doi.org/10.1016 /j.biocon.2019.01.023
46. Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, *14*, 207–222. https://doi.org/10.1111/1467-8551.00375
47. Vincent, L. H. (2008). *Marketing strategy considerations in the commercialization of new technologies: An overview and framework for strategy development*. In G. D. Libecap & M. C. Thursby (Eds), *Technological Innovation: Generating Economic Results*, *18*, 173–200. Emerald Group Publishing Limited. https://doi.org/10.1016/S1048- 4736(07)00006-9
48. Vrontis, D., Makrides, A., Christofi, M., & Thrassou, A. (2021). Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*, *45*, 217–644 https://doi.org/10.1111/ijcs.12647
49. Wang, C., & Chugh, H. (2013). Entrepreneurial Learning: Past Research and Future Challenges. *International Journal of Management Reviews*, *16*, 24–61. https://doi.org/10.1111/ijmr.12007
50. Wang, Y., Deng, Q., Rod, M., & Ji, S. (2020). A thematic exploration of social media analytics in marketing research and an agenda for future inquiry. *Journal of Strategic Marketing*, *29*, 1–21. https://doi.org/10.1080/0965254X.2020.1755351
51. Wong, H. Y., & Merrilees, B. (2007). Closing the marketing strategy to performance gap:

The role of brand orientation. *Journal of Strategic Marketing*, *15*, 387–402. https://doi.org/10.1080/09652540701726942

52. Yunus, E., Susilo, D., Riyadi, S., Indrasari, M., & Putranto, T. D. (2019). The effectiveness marketing strategy for ride-sharing transportation: Intersecting social media, technology, and innovation. *Entrepreneurship and Sustainability Issues*, *7*(2), 1424– 1434. https://https://doi.org/10.9770/jesi.2019.7.2(44)
53. Zhang, Z., He, Q., & Zhu, S. (2017). Potentials of using social media to infer the longitudinal travel behavior: A sequential model-based clustering method. *Transportation ResearchPart C: Emerging Technologies,* 85, 396–414. 1 . https://doi.org/10.1016/j.trc.2017.10.005