

## **SOCIAL MEDIA ANALYTICS AND SUSTAINABILITY OF ONLINE MALLS IN SOUTH-SOUTH, NIGERIA**

**MODEY** Celestine Ishabor

Department of Office and Information Management, Faculty of Administration and Management, Rivers State University

Email: [Modeycelestine@yahoo.com](mailto:Modeycelestine@yahoo.com)

### **ABSTRACT**

Social media analytics is believed to be a huge boon for businesses since it helps offer analysis of trends, patterns, issues, influential actors, customers' satisfaction or dissatisfaction, customers' perceptions as well as timely insights over the competition. It is also famous for the optimization of business processes, and helps generate growth, innovation and sustainability of opportunities. As businesses embark on their social media analytics initiatives, many strategic questions, such as how to operationalize social media analytics in order to drive the most value arise. This paper intricately discussed the concept of social media analytics with its identified attributes, the nature of sustainability with its measures, the nexus between social media analytics and sustainability of online malls. The study theoretically revealed that social media analytics significantly relates with business sustainability; hence the author recommended that Nigerian online-based malls with all sense of urgency should espouse social media analytics to enhance improved, smarter business decisions, and the overall sustainability of online malls in Nigeria.

**Keywords:** Social Media Analytics, Sustainability, Expansion Growth, Patronage & Online Malls

### **INTRODUCTION**

Through social media platforms, people can share their ideas, thoughts, feelings, pictures, and videos about different subjects and interact with other people. People's social media activities generate valuable data that can be used to discover users' behaviours, thoughts, emotions, and interactions. Recently there is a growing trend in using social media data in different research areas; also, this data has attracted the attention of many research fields related to real-world issues and events. "The process of gathering data from social media and analysing them to help decision-makers address specific problems" is called social media analytics (Lee, 2018). Social media data can be considered a data source for data-driven research. This data will help researchers gain information about the general public and apply the information to improve the quality of decisions and policies related to the general public issues and business goals.

Some review papers studied social media data analysis from different aspects. Ghani et al. discussed employing machine learning techniques to analyse social media big data (Ghani et al., 2019). The authors in (Al-garadi et al., 2018) discussed the application of big social media data analysis based on content analysis and network analysis. These applications areas included health surveillance, political campaigns, monitoring disasters, detecting threats, news sources, education sector, information diffusion, security, internet traffic, and human behaviour. Also, (Drus & Khalid, 2019) cited world events, healthcare, politics, and business as applications of Twitter data sentiment analysis. The authors in (Liu & Young, 2018) discussed social media data's ability to monitor physical activity by considering topic modelling, sentiment analysis, and social network analysis (SNA) as the approaches to study this data. In (Rousidis et al., 2019), Rousidis et al. presented a literature review of predictive analysis with social media by discussing current used techniques from 2015- 2019. They studied social media data as a predictive tool in the financial, marketing, and socio-political contexts.

The enormous growth of social media usage has led to an increasing accumulation of data, which has been termed Social Media Big Data. Social media platforms offer many possibilities of data formats, including textual data, pictures, videos, sounds, and geolocations. Generally, this data can be divided into unstructured data and structured data (Baars & Kemper, 2008). In social networks, the textual content is an example of unstructured data, while the friend/follower relationship is an example of structured data. The growth of social media usage opens up new opportunities for analysing several aspects of, and patterns in communication. For example, social media data can be analysed to gain insights into issues, trends, influential actors and other kinds of information. Golder and Macy (2011) analysed Twitter data to study how people's mood changes with time of day, weekday and season. In the field of Information Systems (IS), social media data is used to study questions such as the influence of network position on information diffusion (Susarla, Oh, & Tan, 2012).

According to Kaplan & Haenlein (2010), social media analytics (SMA) have become indispensable in today's digital age, due to the fact that; Facebook, Twitter and the likes are the main media for private communication, advertising and the dissemination of news. The term SM encompasses various interactive, collaborative, web-based applications and platforms. They have become particularly popular for private persons. The main drivers of this development were technological simplicity, low costs and the increasing use of mobile devices. (Beir & Wagner, 2016) were of the opinion that; the higher use of SM and the associated shift of communication to partially (public) virtual spaces also increase relevance in the entrepreneurial and organizational sector. (El-Haddadeh, Weerakkody & Peng, 2012) also shared a similar view when they asserted that the implementation of new technologies in the area of corporate communications and public relations promotes cooperation and the exchange of knowledge among employees within the company and maintains contact with customers, business partners and other stakeholders outside the company. The added value of SMA is not only a support of communication, but useful information can be drawn and analyzed from the generated data. However, different data formats of the platforms lead to a more difficult analysis, because (semi-) structured and unstructured data sets are created. For this reason, the research area Social Media Analytics (SMA) has gained enormous importance in recent years. SMA comprises the development and evaluation of informatics tools and frameworks to collect, monitor, analyze, summarize, and visualize social media data, usually driven by specific requirements from a target application." (Zeng, Cheng, Lusch & Li, 2010). The measurement of user behaviour and participation serves to record moods and opinions and to assess the influence of individual actors. The fundamental difference between SMA and traditional business analytics methods is that it uses real-time data rather than exclusively structured and historical data to gain insights into current issues while supporting effective decision making. SMA is used in a variety of scenarios and are used and developed independently in various disciplines.

Businesses and her leadership is faced with the challenge of making decisions on daily basis, so as to enhance the sustainability, profitability, patronage and expansion of their businesses, due to the crucial nature of these businesses to the nation's economy. Unfortunately, there is no commensurate growth in human cognitive abilities or in research budgets that would help in leveraging those choices from a list of alternatives. Decision makers and businesses alike also face growing scrutiny, political pressure alongside calls for transparency. Thus, the need to understand that the quest for sustainability is greater than ever, and so is the need to

understand the value of social media analytics. This paper was designed to theoretically review relevant literature on the relationship between social media analytics and sustainability of online malls in Nigeria. In doing so, this reviewer presents an initial step toward an integrated framework of social media analytics, which provides new insights into our understanding of the existing literature as well as a useful guide for future research. A conceptual framework of the interplay between social media analytics and sustainability of online malls is depicted in figure 1.

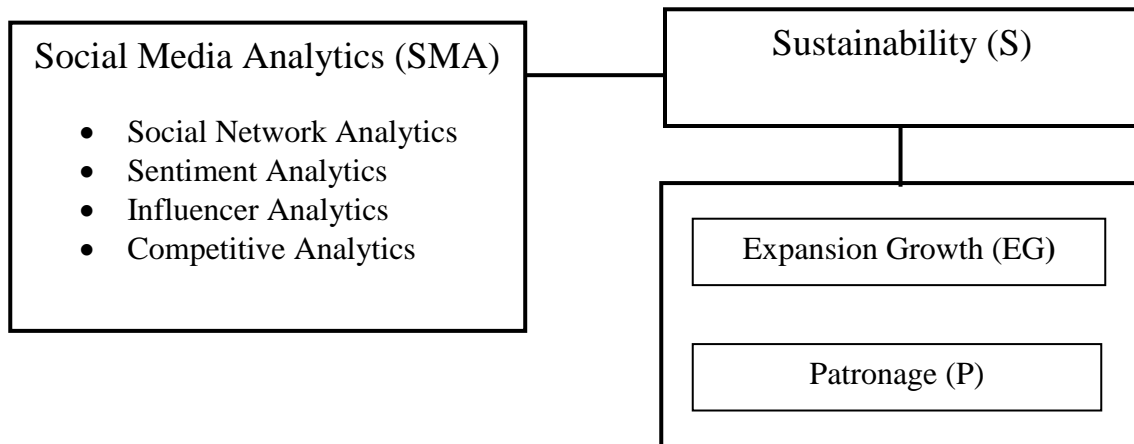


Figure 1: Conceptual Framework Depicting Social Media Analytics and Sustainability of Online Malls in South-South, Nigeria.

*Source: Researcher's Desk (2024)*

## THEORETICAL FOUNDATION

### Resource Dependence Theory (Pfeffer & Salancik 1978)

This paper was anchored on the Resource Dependence Theory by Jeffrey Pfeffer & Gerald Salancik in 1978 when they wrote their book titled: *The External Control of Organisations: A Resource Dependence Perspective*. The Resource dependence theory (RDT) is concerned with how organisational behaviour is affected by external resources the organisation utilises, such as raw materials. The theory was deemed appropriate for this study because it states that an organisation's ability to gather, alter and exploit raw materials faster than competitors can be integral to the attainment of organisational success. The RDT believes that resources are pivotal to organisational success and that access and control over resources is a basis of power. The RDT believes that resources are pivotal to organisational success and that access and control over resources is a basis of power. Resources are often controlled by organisations not in the control of the organisation needing them, meaning that strategies must be carefully considered in order to maintain open access to resources. Sequel to the above assumptions, what other lethal strategy to consider than through information gathering and subsequent business information analytics so as to have at our disposal new knowledge that will drive the sustainability of our businesses.

Overall, RDT is raised on the foundation of the above theory, and Pfeffer & Salancik (2003) stated that four basic propositions of RDT: the most important thing for an organization is survival, the organization usually does not possess such resources to maintain survival, the organizations must interact with others in the environment on which it relies to obtain resources, and the survival of an organization is based on the ability to control its relationship with others. Furthermore, the importance, use, and substitutability of resources jointly determine how much one organization is dependent on others (Allen, 1985). RDT mainly focuses on the interaction between organizations and environments, and the survival of organizations needs to access necessary resources from the external environment (Pfeffer & Salancik, 2003). RDT has been widely applied across various fields, such as business, public administration, organizational behaviour, and IS.

## LITERATURE REVIEW

### **Concept of Social Media Analytics (SMA)**

Social media is a web-based service which allows users to post through a profile as well as allows connections to other profiles. The increasing use of social media creates web online communities which enable people to be connected, allow communication and collaboration with each other (Das, 2015). Social media has been used as a communication tool in business, politics and other fields. (Stieglitz et al., 2014). There is an increase in the number of people who are using social media, the number of social media users was expected to be 2.77 billion in 2019 (Drus, 2019). These users of social media create a big amount of data structured and unstructured through different social media platforms. As there is a large amount of social media generated data. Organization needs automated tools to extract social media data and perform sentiment analysis to this huge amount of data so as to gain knowledge and insights (He et al., 2017).

According to Zeng et al. (2010) “social media analytics is concerned with developing and evaluating informatics tools and frameworks to collect, monitor, analyze, summarize, and visualize social media data, usually driven by specific requirements from a target application.” Stieglitz et al. (2014), pinpointed that “In a business setting, SMA might be considered a subset of business intelligence (BI) that is concerned with methodologies, processes, architectures, and technologies that transform raw data from social media into meaningful and useful information for business purposes.” It is conducted to assist in analyzing and understand Social media data which are obtained as structured as well as unstructured big data using different techniques such as web crawling computational of linguistics data, machine learning models and different statistics methods to analyze and get insight such as finding trending topics, finding sentiments opinions or on geographical information. (Xiang et al., 2017). The famous applications of SMA are on business activities, politics, and disaster management, journalism as well as in sports activities. Scholars have conducted several researches about social media analytics in various fields. This paper targeted to conduct review of various articles which explains social media analytics in various fields. With the intention to determine the methods used, which platform have been used and the area which the social media analytics has been performed or explained.

### **The Nature of Sustainability**

Van Marrewijk (2003) asserted that sustainability is an evolving field which, since the 1990s, has gained prominence in the mainstream of public consciousness and has obtained considerable scholarly and political attention. Issues about sustainable development have

changed the corporate landscape and emerged as key determinants of business success. Especially the largest companies adopt sustainability activities as part of their corporate strategy to obtain long-term benefits (employees, clients, pressure groups, communities, etc.), without compromising its ability to meet the needs of future stakeholders as well.” Sustainability is considered as not only addressing the needs of society but also as allowing the creation of enhanced value beyond the stakeholder’s needs. Businesses are expected to generate value by way of producing the goods and services demanded by society while generating profits and patronage for their owners as well as welfare for society. New market and social pressures are progressively ushering towards a transformation in the values of corporations’ activities, as well as in their horizons, and organizations are expected to be “good citizen(s).

Most research has focused considerable attention on sustainability activities of large enterprises and multinational firms and their institutional and pan-national contexts. The (European Commission, 2020) stresses that, although the significant role of SMEs for both economies and social structures is acknowledged by wider political, academic, and professional communities, academic research on sustainability in online malls is scanty. Online malls come in many different shapes and sizes. They are an eclectic mix of firms, which present different challenges and opportunities in implementing sustainability oriented actions. The statistical definition of SMEs differs from country to country, reflecting the economic, cultural, and social habits of each one, and is most often based on the value of assets or the number of employees. The European Commission defines SMEs as those that employ less than 250 persons and present a turnover below 50 million euros and/or a balance sheet total not exceeding 43 million euros. Furthermore, the complexity of operational, financial, or governance relationships between companies makes it difficult to accurately draw the line between an SME and a larger company in the current business environment. Online malls are likely to play a crucial role in the management of limited global social and environmental resources. Being the main form of business and employment, online malls are crucial actors for the construction of growth that is more inclusive and sustainable (OECD, 2019).

### **Expansion Growth**

In 21st century, developments all around the world spread very fast thanks to the globalization movements and information technologies. These changes and developments force businesses to grow and overtop their competitors. Growth is, in fact, a part of natural process of businesses, yet it has become a necessity in today’s conditions of competition. Businesses need to develop new products and services, find new market places and consequently grow. National and international businesses which are currently carrying on their activities need to perform internal and external environmental analysis and determine their growth strategies according to the analyzed data. In this study, alternative growth strategies were examined and objectives and types of these strategies were tried to be explained.

Though online malls as earlier established, offer substantial improvements to the lives of people by providing employment and contributing to a nation’s economy as a whole, there are also numerous benefits to be gained from successfully growing and sustaining businesses, especially in the case of Africa since businesses cannot always remain small but is expected to grow and expand with time. “For small businesses to effectively contribute to the economy, they should be able to evolve into efficient, well organized, technically competent,

well managed operations which respond to opportunities and challenges in their environment” UNCHS, 1996 (Ang, 1992). They should be able to provide reliable products with dependable delivery and quality conformity. They should be price competitive and continually improve on performance. They should focus on cost effectiveness, integrated quality action, collective customer responsiveness, information technology management and human resource management” [UNCHS, 1996 (Steel and Webster, 1991).

However though the general assumption lies in the fact that businesses must grow or die, it must also be understood that growth could turn out to be negative for the business, in which case the pros and cons for growing and expanding one’s business at every stage of the business life cycle must be weighed and approached strategically (Hess 2011, 3). Weinzimmer, (2001) supports this fact that the desire therefore for growth at all cost could cause irreparable damage to the business because the pursuit of growth for the sake of it could cause a company or business to lose sight of what is important, which is “sustainable value creation”.

Shuman (2007) poses the questions; why does it matter who owns the business? and why should we care if a business serves a local market or a global market?; the answers lies in Weinzimmer’s ( 2001) in the fact that firstly, growing businesses that increase their profits through sales growth are more valued by potential investors. He further adds that, companies are better able to sustain profits over a long period if the growth in profits is as a result of growing revenues. Growing revenues also means higher taxes to be paid which will in turn benefit government and nation as a whole. Again, growing a business offers the opportunity to realize economies of scale due to being a large size company (Weinzimmer, 2001). Weinzimmer pointed out that the advantages provided by economies of scale save cost through improved efficiency due to larger production facilities which will mean the ability to purchase larger quantities of raw materials.

### **Patronage**

Patronage is something for which virtually every organization strive, small firms want to get big, big firms want to get bigger. Indeed, organizations including the online malls have to be patronized. Customers have different reasons behind their patronage of particular brands; tastes, sincerity, efficiency, price and preference are some of the reasons that determine the patronage of businesses. It is therefore necessary to identify the determinant factors of patronage. It is very essential for online malls to investigate into these determinants in order to find appropriate marketing strategies that can induce new customers’ as well as retain the current ones. There has been a growing competition among online malls as the services offered are mostly similar; consequently, they are required to identify dynamics customers consider to make a choice among different providers. Safkli (2007) stated that the brain behind customers’ preference for services selection and patronization showed that the most important reason is confidence in service delivery. He listed a number of factors deemed to be of relevance in firms’ patronage to assess its level of importance. Subsequently, the main reason showed that the most effective reasons were service quality, efficiency and financial factors.

Kamakodi and Khan (2008) were also of the opinion that there were ten important reasons customers consider in making a decision to patronize a brand. Their study obtained responses from 292 clients of different businesses on the reasons that influenced their decisions to patronize the firms. Top on those reasons were; the safety of clients, accessibility to the

businesses, firm's reputation, personal attention, pleasing manners, confidentiality, proximity to work place, timely delivery of service and friendliness of employees'.

### **Social Media Analytics and Sustainability**

The reference research work of this field embraced social media analytics; however, the paper did not clarify how such analytics is implemented. Zeng et al. (2010) research provides great work about social media analytics as it exhaustively describes how social media analytics works. The quality of social media analytics available to an organization determines the level of business success and sustainability that will be attained. This is one of the reasons why data gathering and social media analytics is pivotal to an organization's quest for sustainability and that is also why social media analytics serves as a guide for meaningful decision making for all decision-makers as it extracts value from the data and analyzes insights that lead to better decisions and strategic business moves. All organisations rely on different decisions to drive their operations, and their performance hinges on the effectiveness of their choices in regards to the quality and intelligent nature of data generated. It is for this reason that firms of all sizes strive to achieve enhanced social media analytics with the view of improving the quality of their decisions and services. Effective decision-making demands precise and accurate strategies that would produce maximum success at all times; and the quality and outcome of the decision success depends heavily on the quality of available information. (Reeder, & Schechter, 2011).

### **EMPIRICAL REVIEW**

Zeina & Nasseh (2021) embarked on a study on Social Media analytics: Applications and approaches. They stressed that Business analysts can apply social media data for business exploration to get information about products, gain knowledge about corporate, evaluate the quality of services, and compare the services provided by different companies and businesses. The authors suggested that businesses should adopt the WEKA machine learning tool to develop the social media marketing strategy by predicting online consumer behaviour. The authors tried to provide suggestions to help businesses develop their business strategies by analysing and comparing the social media data content of the business competitors. Social media data provide a valuable source of data for businesses and industries which need this data to improve their business strategies by learning about general public for specific goals.

Stieglitz (2012) proposed the framework for analyzing political topics on twitter social media platform. The SMA techniques which were applied are trend analytics and sentiments analytics to find the meanings of those twitter comments. Udanor et al. (2016) used social media data from tweets regarding Nigeria election of 2015 to gain insight on how social media data can make impact on the political administration in developing countries. The results demonstrated how social media analytics has influence and major contributions on predicting different trends which influence economy of developing countries. However, the study used organisational network analysis (SNA) alone which did not strongly conclude on the predictions of the outcomes of political events. Another current study by Santander et al. (2020) adopted social media data from twitter to predict the Chile presidential election of 2017. The study used different models to predict the election including decision tree, random forest, Adaboost and linear support vector machine. The results of the models were compared to the original results; the predicted results of the models were almost the same to the original results.

Again, Shang et al. (2018) examined the application of SMA in community development activities, the study analysed the activities and described the structure of local communities using data collected from twitter by applying sentiment analysis and network analysis. Social media analytics applications have been appreciated in other areas like disaster management, climate change, supply chain, online media and agriculture. Dong et al. (2013) introduced the application of SMA in disaster management. The twitter comments sentiment analysis was performed to give evacuation information from the occurrence of hurricane sandy. Based on the forgoing discussions and from the review of relevant and empirical literature, it appears that there is a relationship between the predictor and criterion variable and on the strength of the above assertions, the author hypothesizes as thus:

**H<sub>A1</sub>:** There is a significant relationship between social media analytics and the sustainability of online malls in South-South Nigeria.

### CONCLUSION AND RECOMMENDATIONS

Social media analytics is considered as a relatively new experience among firms and has been increasingly used for competitive advantage and predictive analytics. The current research sheds light on the assessment of the current use of social media analytics among online malls and their possible motives in implementing the practice. Most studies in this area have only focused on the impact of social media analytics in politics, community development, and disaster management with very limited research on online malls. The relevance of social media analytics in enhancing the sustainability of online malls and the Nigerian economy cannot be ignored. This paper has extensively discussed the concept of social media analytics and its interplay with its identified attributes, the nature of sustainability with its measures, the sequence between social media analytics and sustainability. The study theoretically revealed that social media analytics significantly relates with sustainability of online malls; hence the author recommended that online malls in Nigeria should espouse social media analytics so as to attain quality, informed business decisions that will be crucial to their overall sustainability.

### REFERENCES

- Al-garadi, M. A., Mujtaba, G., Khan, M. S., Friday, N. H., Waqas, A., Murtaza, G. (2018). Applications of big social media data analysis: An overview. *2018 International Conference on Computing, Mathematics and Engineering Technologies (iCoMET)*. Sukkur.
- Ang, J. L. C., (1992). *Modernizing Small-Scale Industries and Businesses*. Asian Productivity Organization, Tokyo
- Baars, H., & Kemper, G. (2008). Management support with structured and unstructured data – An integrated business intelligence framework. *Information Systems Management*, 25(2), 132–148. <http://dx.doi.org/10.1080/10580530801941058>.
- Beier, M., & Wagner, K. (2016). Social Media Adoption: Barriers to the Strategic Use of Social Media in SMEs. In: *Proceedings of the European Conference of Information Systems*, 1–18. AIS, Istanbul
- Das, M. & Das, G. (2015). Structured analytics in social media. *Proceedings of the VLDB Endowment*, 8(12), 2046-2047. <https://doi.org/10.14778/2824032.2824135>
- Drus, D. & Khalid, H. (2019). Sentiment Analysis in Social Media and its Application: Systematic literature review. *Procedia Computer Science*, 161, 707-714, <https://doi.org/10.1016/j.procs.2019.11.174>



- El-Haddadeh, R., Weerakkody, V., & Peng, J. (2012). Social Networking services Adoption in Corporate Communication: the case of China. *J. Enterp. Inf. Manage.* 2(5), 559–575
- European Commission. User Guide to the SME Definition; Enterprise and Industry Publications; European Commission: Brussels, Belgium, 2017. Available online: [https://ec.europa.eu/regional\\_policy/sources/conferences/state-aid/sme/smedefinitionguide\\_en.pdf](https://ec.europa.eu/regional_policy/sources/conferences/state-aid/sme/smedefinitionguide_en.pdf) (accessed on 10 July 2020).
- Ghani, N. A., Hamid, S., Hashem, I. A. T., Ahmed, E. (2019). Social Media big data analytics: A survey. *Computers in Human Behaviour*, 101, 417-428.
- Golder, S. A., & Macy, M. W. (2011). Diurnal and Seasonal Mood Vary with Work, Sleep, and Daylength Across Diverse Cultures. *Science*, 333(6051), 1878—1881. <https://doi.org/10.1126/science.1202775>.
- He, W., Tian, X., Tao, R., Zhang, W., Yan, G. and Akula, V. (2017). Application of social media analytics: a case of analyzing online hotel reviews. *Online Information Review*, 41(7), 921-935. <https://doi.org/10.1108/OIR-07-2016-0201>
- Kamakodi, N. & Khan, B., (2008). An Insight into Factors Influencing Bank Selection Decisions of Indian Customers. *Asia-Pacific Business Review* 10(5), 274-292.
- Kaplan, A. M. & Haenlein, M. (2010). Users of the world, unite! The Challenges and Opportunities of Social Media. *Journal of Business Horizons*. 5(3), 59–68
- Lee, I. (2018). Social media analytics for enterprises: Typology, methods, and processes. *Business Horizons*, 61(2), 199-210.
- Liu, S., Young, S. D. (2018). A Survey of Social Media Data Analysis for Physical Activity Surveillance. *Journal of Forensic and Legal Medicine*, 57, 33-36.
- Reeder, R. & Schechter, S. (2011). When the Password Doesn't Work: Secondary Authentication for Websites, in *IEEE Security & Privacy*, 9 (2), 43-49.
- Rousidis, D., Koukaras, P., Tjortjis, C.H. (2019). Social media prediction: a literature review. *Multimedia Tools and Applications*, 79, 6279–6311.
- Safakli, O., (2007). A Research on the Basic Motivational Factors in Consumer Bank selection: evidence from Northern Cyprus. *Banks and Bank Systems* 2(5), 186-196.
- Santander, P., Alfaro, R., Allende-Cid, H., Elortegui, C. and González Arias, C. (2020). Analyzing social media, analyzing the social? A methodological discussion about the demoscopic and predictive potential of social media. *Quality & Quantity*, 54, 903-923. <https://doi.org/10.1007/s11135-020-00965-z>
- Shuman, M. H. (2007). *Small-Mart Revolution: How Local Businesses Are Beating the Global Competition* (2nd Edition). San Francisco, CA, USA, Berrett-Koehler Publishers.
- Steel, W. F. and Webster, L. M. (1991) *Small Enterprises under Adjustments in Ghana*. Technical Paper No. 138, Industry and Finance Series. World Bank, Washington, D.C.

- Stieglitz, S. and Dang-Xuan, L. (2012). Social media and political communication: a social media analytics framework. *Social Network Analysis and Mining*, 3(4), 1277-1291. <https://doi.org/10.1007/s13278-012-0079-3>
- Stieglitz, S., Dang-Xuan, L., Bruns, A. and Neuberger, C. (2014). Social Media Analytics. *Business & Information Systems Engineering*, 6(2), 89-96. <https://doi.org/10.1007/s12599-014-0315-7>
- Susarla, A., Oh, J.-H., & Tan, Y. (2012). Social Networks and the Diffusion of User-Generated Content: Evidence from YouTube. *Information Systems Research*, 23(1), 23–41. <http://dx.doi.org/10.1287/isre.1100.0339>.
- Udanor, C., Aneke, S. and Ogbuokiri, B.O. (2016). Determining social media impact on the politics of developing countries using social network analytics. *Program: electronic library and information systems*, 50(4), 481-507. <https://doi.org/10.1108/PROG-02-2016-0011>
- Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *J. Bus. Ethics* 2003, 44, 95–105.
- Weinzimmer, L. G. (2001). *Fast Growth: How to Attain It, How to Sustain It*. Chicago, IL, USA, Dearborn Trade, A Kaplan Professional Company.
- Xiang, Z., Du, Q., Ma, Y. and Fan, W. (2017). A comparative analysis of major online review platforms: implications for social media analytics in hospitality and tourism. *Tourism Management*, 58, 51-65. <https://doi.org/10.1016/j.tourman.2016.10.001>
- Zeinab, K. & Nasseh, T. (2021). Social Media Analytics: An Overview of Application and Approaches. *In Proceedings of the 13th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2021) - Volume 1: KDIR*, pages 233-240
- Zeng, D., Chen, H., Lusch, R. and Li, S.-H. (2010). Social Media Analytics and Intelligence. *Intelligent Systems*, 26(6), 13-16. <https://doi.org/10.1109/MIS.2010.151>