Critical Analysis on Measuring Social Media Performance:
Applicability of the ROI

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ABSTRACT:
In light with the substantial importance of social media, this research paper highlights and examines the use of Return on Investment (ROI) in evaluating the performance of social media for businesses by understanding how to gauge the ROI of their social media efforts. ROI provides a quantitative measure of the return a company gets from the money and resources it invests in social media campaigns. However, measuring ROI for social media can be challenging and might need to be supplemented with other metrics as it requires tracking and attributing revenue generated from social media campaigns accurately. The paper commences with a comprehensive literature review of social media's definitions, importance, and objectives, followed by a specific emphasis on ROI in measuring social media performance. The study emphasizes that understanding how to measure ROI can help companies improve their marketing strategies in promoting products and services. The paper concludes with a proposed hypothesis statement addressing key questions and providing a roadmap for further research on this topic.

Keywords: Social Media, Return on Investment, ROI, Marketing, Businesses, Key Performance Indicators, KPIs, Advertising, Social Media Measurement, Brand, Social Networks

INTRODUCTION
Growingly, companies worldwide are leveraging social media, and it has eventually transformed into a significant business. According to “Statista”, social media spending in the US is expected to reach $94.4 billion in 2023 up from $80.6 billion in 2022, a 17.1% increase in a year-to-year basis. US social media spending has been growing at an average of 28.2% from 2018 to 2023. While social media advertising spending in Asia is expected to reach $119.6 billion in 2023 an increase from $ 99.8 billion in 2022, a 19.8% annual increase. It is projected that the compounded annual growth rate (CAGR) between 2023 and 2027 will be 10.22%. As a result, the total advertising spending is expected to reach $176.5 billion by 2027, with China leading the way as the country with the highest ad spending. A recent study by “Uswitch” revealed that Americans spent over 1,300 hours on social media in 2020. Facebook topped the list with 325 hours a year, followed by Instagram with 297 hours and Snapchat with 277 hours. According to Michopoulos and Moisa (2018), due to the increasing prevalence of internet use and social media involvement, businesses are now readily adopting social media technology to market their products and services through various social media platforms. As a result, social media content can be monetized for profit.

Looking back at historical events, it becomes clear that social media is not a passing trend. It has brought about significant changes in a
relatively short amount of time, impacting societal norms in both positive and negative ways depending on the specific context. Social media has revolutionized the way humans communicate and has also transformed the relationships between organizations, consumers, businesses, and brands, turning it into a crucial strategy for professionals in the business world. Properly applied, social media still has the potential to benefit both users and brands tremendously.

Consequently, it is claimed that companies can generate valuable insights to improve their marketing strategies for promoting products and services by understanding how to gauge the “Return on Investment: ROI” of their social media efforts (Misirlis & Vlachopoulou, 2018). This study will examine the use of ROI in evaluating the performance of social media. The measurement of ROI can vary from simple to complex, depending on an organization's goals and objectives.

By knowing how to measure the return on investment from social media, it is asserted that companies can produce valuable insights which can help to enhance marketing strategies in promoting products and services (Misirlis & Vlachopoulou, 2018).

In this paper, we will commence with a comprehensive literature review. The first part of this review will focus on the definitions of social media, its significance, as well as its goals and objectives. The subsequent section of the literature review will delve into the topic of social media performance, with a specific emphasis on ROI. Following this, prior to the conclusion, a hypothesis statement will be proposed within the framework of what has been ascertained in the literature review. This statement will address key questions and provide a roadmap for further research on this topic.

Literature Review
Social Media: Definitions and Importance

Evidently, the digital age and the introduction of social media have allowed customers to have a greater influence on marketing campaigns. The customer’s scope of influence got strongly enlarged. Prior to the digital era, customers had limited impact on the outcome of marketing campaigns, mainly because of the restricted reach. Nevertheless, social media has significantly broadened the extent of a customer's influence. As Shirky (2009) noted, social media has made it seem like every individual possesses a printing press with every book and a broadcast tower with every phone.

Social media is a term used to describe the use of web-based communication platforms, such as websites, mobile apps, and social networks, to allow users to interact, share information, and create online communities. In general, various definitions have been co-existing and found broad acceptance in literature; yet there is no single or commonly accepted definition for social media (Aichner, Grünfelder, Maurer, & Jegeni, 2021). However, almost all definitions of social media indicate the use of online or internet technologies. For example, according to Choi (2011) and Carr & Hayes (2015), social media may be best described as technology-based social connectivity with interactive, participatory and collaborative characteristics. Also, there is widespread consensus that Web 2.0 technologies played a significant role in the expansion and widespread use of social media. For example, Huang & Benyoucef (2013) describes social media as "online applications that are constructed using Web 2.0 principles and technologies," while Web 2.0 is both a platform and a concept that leverages collective intelligence. Similarly, Kaplan and Haenlein (2010) defines social media as a set of online applications that are based on the principles and technology of Web 2.0, enabling users to create and share their own content. Moreover, social media has been defined as websites which allow profile creation and visibility of relationships between users (Boyd & Ellison, 2007). In addition, as in the advertising front, the statistical evidence revealing the vast number of social media users provides compelling support for the effectiveness of social media as an advertising tool. Given its massive audience, social media presents a uniquely promising opportunity for advertising that is hard to match (Cray, 2012).

Online social media encompasses a variety of platforms, such as social networks, sites to share multimedia, virtual worlds, and rating sites. These platforms offer users the opportunity to share information and personal experiences with others regarding products, services, and brands. Social media tools such as tagging, posting, pinning, sharing, RSS, and tweeting weave together different parts of the web, creating a
more interconnected online experience. These tools are utilized to generate buzz and support viral marketing campaigns. Additionally, location-based services enable advertisers to track and potentially reach their target demographics and psychographics with immediate sales or location-based information.

**Importance of Social Media**

Reach, engagement, targeting and cost-effectiveness are major benefits of social media. The social media platforms have a large and diverse used base, allowing business to reach a large audience, as well as providing business with real two-way communication with customers fostering engagement and building brand loyalty. In essence, social media offers a range of benefits, including increased sales, improved cost efficiency, product development, and market research. It is becoming increasingly evident that social media can result in tangible cost savings, such as when user forums’ FAQs serve as a free alternative to a company’s help desk. Furthermore, social media can enhance the efficiency of market research efforts. For instance, marketers can leverage online prediction markets to source new ideas or extract insights from online forums where customers share feedback on product concepts and suggest ways to improve existing products (Hoffman and Fodor, 2010).

In addition, Vlachvei and Notta (2015) highlighted the primary benefits of using social media for small and medium enterprises (SMEs): brand building, community building, customer satisfaction and loyalty, and performance. Brand building involves increasing traffic, search ranking, and positive press. Community building involves engaging customers and creating content that matches their interests. Customer satisfaction and loyalty are improved through social media by acting as a channel for two-way communication, feedback, and listening to customers. Performance can be measured through increased sales, cost savings, and decreased advertising costs.

**Social Media Measurement: Return on Investment (ROI)**

Now that we’ve established a definition of social media and highlighted its significance for marketing teams, we will move on to examining social media performance measurement. Measuring social media involves analyzing and assessing the performance of social media campaigns and strategies. Proper social media measurement allows businesses to optimize their strategies, improve engagement, and ultimately drive better results. As businesses increasingly rely on social media to reach and engage with their target audiences, measuring the effectiveness of these efforts has become essential. However, with the constantly evolving nature of social media, measuring its impact can be a complex task. This has led to the development of various metrics such as the ROI, key performance indicators (KPIs), and other tools to help businesses evaluate the success of their social media activities.

Scholars assess social media performance differently. For example, Turner and Shah (2014) suggest that companies can assess whether social media customer service has improved efficiencies by comparing its cost to that of traditional customer service. Also, according to (Cray, 2012), measuring the effectiveness of a social media campaign as a whole is crucial for monitoring its impact, despite the fact that each campaign may differ in purpose and marketer. However, social media and the tools necessary for precise measurement are evolving rapidly. On the other hand, (Vlachvei and Notta, 2015) indicated that in order to measure the success of a social media program aimed at driving sales, metrics such as web traffic, time spent on the site, bounce rate, repeat visits, content acceptance rate, followers, social mentions, and share of voice should be taken into account.

The ROI from social media is the calculation of the profit or loss generated from a specific social media campaign, compared to the costs incurred. It can be calculated by dividing the net profit by the cost of the investment and multiplying by 100 to get the percentage. Also, the ROI is defined by Blanchard (2009) as the measurement of the expectation of return from an initial investment made in a program. In other words, each resource allocated in the social media space, whether it is talent, time or actual currency, is accounted for and referred to as the investment in a program: the specific results measure the return. Typically, it happens in a sequence of 1) investment, 2) action, 3) reaction, 4) non-financial impact, and 5) financial impact. The
financial impact is the metric that most businesses want and is most commonly referred to in the financial world as the ROI (Blanchard, 2009).

Return on investment can be calculated using the following formulas:

\[ \text{ROI} = \frac{(\text{Investment proceeds} - \text{cost})}{\text{investment}}. \]

Or (more specifically for advertising and marketing campaigns):

\[ \text{ROI} = \frac{\text{campaign net return}}{\text{campaign invested cost}}. \]

In general, the goal of social media ROI is to determine if the investment made in social media marketing is yielding a positive return, and to identify areas where improvements can be made to increase ROI. To improve social media ROI, businesses can focus on targeting their audience more effectively, creating high-quality content, and utilizing metrics to track performance.

Importance of Proving the ROI with Social Media Metrics

While firms may communicate the importance of investing in social media to their stakeholders or clients, it is often data and numerical figures that truly convince them. Measuring social media ROI is critical for several reasons, including:

- Identifying where resources and efforts are being used most effectively
- Highlighting areas where resources and efforts are being wasted, allowing for strategic adjustments
- Changing the perception of social media within an organization
- Demonstrating the potential impact social media can have across the entire business, not just marketing

In addition, measuring ROI is critical to improve the understanding of customers and audience by identifying what they care about and how they respond. For example, Coleman & Heriot (2014) developed a conceptual model of the social media marketing process that proposes key result measures for awareness, engagement, and performance for influencers, consumers, and customers. The study suggests that while measures of awareness and engagement may be similar across influencers and consumers, the proposed performance measures differ, as is also the case for customers. For influencers, the focus should be on outcomes such as the quantity and tone of reviews and recommendations, the size of their influence network, and the level of credibility. For consumers, performance should be measured by the rate at which they authorize further contact or convert into fans or members. For customers, the key performance indicators should be ROI-related items such as purchases, revenue, and profit.

Views on Social Media ROI

There are different goals or motivations for measuring social media performance and the effectiveness of social media for business purposes.

According to (Suryakumar, 2011), there are no ‘best practices’ for measuring a successful social media campaign. However, companies need to invest in infrastructure to make such a learning cycle possible. In order to thrive, organizations need to adopt more effective measurement techniques that directly tie back to revenue, profit, and the lifetime value of customers. This entails leveraging the development of technologies to facilitate growth and support these business goals.

Also, Moffitt and Dover (2011) sees that the ROI of social media is what clients ultimately want to know; however, it is difficult to precisely track. Tracking actions, not impressions, indicates the true value of the brand in terms of brand engagement, diversity, involvement and influence.

The exact numbers for the ROI of a social media ad can vary greatly based on factors such as industry, target, target audience, ad format, and campaign goals. However, according to “Wordstream”, some general benchmarks and averages for social media ad ROI are:

1. Facebook and Instagram: the average ROI for each of Facebook and Instagram advertising is $2.80 for every $1 spent.
2. LinkedIn: LinkedIn tends to have a higher cost per click (CPC) than other social media platforms, but it also tends to have a higher conversion rate. The average ROI for LinkedIn advertising is around $5.20 for every $1 spent.
3. Twitter: Twitter advertising typically has a lower cost per click (CPC) compared to LinkedIn, but a lower conversion rate. The
average ROI for Twitter advertising is around $1.80 for every $1 spent.

These are just rough estimates, and actual ROI can vary greatly based on many factors. It is important to measure and track the ROI of individual social media campaigns in order to determine the most effective strategies and maximize return on investment.

On the other hand, according to Hoffman and Fodor (2010), rather than solely focusing on social media marketing investments and assessing the resulting customer response, managers should prioritize examining consumer motivations for using social media. From there, they can measure the investments customers make in social media as they interact with a brand's marketing initiatives. Others, such as Kaske, Kugler, and Smolnik (2012), present an extended financial ROI model that incorporates longer term marketing and Customer Lifetime Value (CLV) concepts into a financial ROI formula.

In addition, other studies propose several key measures of consumer engagement as indicators of return, including metrics such as website visits, tweets, number of followers, product reviews. More comprehensive models emphasize the importance of measuring across various digital environments to gain a complete understanding of the value and the ROI associated with social media marketing initiatives. While these metrics may not directly impact the bottom line, qualitative social media activities can still have a lasting effect on long-term profitability. Examples of such suggested measures include: activity, tone or sentiment, velocity, attention and participation (Vlachvei and Notta 2015).

Moreover, Giffoi and Jobs (2012) developed a 3D conceptual model to address the complexities of social media measurement. They proposed an integrated unit of analysis approach to help organizations understand the current state of disarray and provided a practical set of business process steps and guidelines for implementing social media initiatives. Furthermore, the significance of relationship quality as a key measure of consumer performance was underscored in research examining the impact of brand community efforts on brand trust and loyalty via social media (Laroche, Habibi & Richard, 2013). The findings suggest that social media community building has a moderate to strong impact on how consumers perceive the quality of their interactions with the company.

Finally, Rodriguez, Peterson, and Krishnan (2012) conducted a study on business-to-business sales efforts to evaluate the impact of social media usage on various salesperson activities, including creating opportunities, understanding customers, relationship management, relationship sales performance, and outcome-based sales performance. The study found strong positive effects for creating opportunities, such as identifying and contacting potential new customers, and modest effects for relationship management and relationship sales performance. However, the impact on understanding customers and outcome-based sales performance, such as quota achievement, average customer revenue, and revenue gains, was not statistically significant (Vlachvei and Notta, 2015).

The Dilemma of Quantifying the ROI

The increasing popularity of social media has prompted marketers to incorporate it into their digital strategies. However, calculating ROI (in monetary terms) for social media campaigns poses a fundamental challenge. Unlike traditional campaigns where ROI is calculated based on monetary revenue earned, social media campaigns typically may not require an initial investment and the precise monetary return can be challenging to determine. This presents a dilemma when using the conventional equation to compute ROI. According to Uitz (2012), managers who use social media often lack knowledge of the exact financial returns of their marketing initiatives, which is problematic for marketing and advertising teams. Also, Fall (2008) argues that trying to measure ROI for social media is challenging because it involves putting numeric values on human interactions and conversations, which are inherently difficult to quantify. In addition, Hoffman and Fodor (2010) suggest that despite the abundance of blog posts, white papers, and case studies from social media experts and consultants attempting to answer the question of social media ROI, the answer remains largely unsatisfactory. This poses a challenge for managers who recognize the importance of social media but struggle to quantify its impact, especially when top management demands...
Oussama Diab

evidence of potential ROI before allocating marketing budgets. Moreover, according to Lal, Ismagilova, Dwivedi, & Kwayu (2020), even though ROI is a widely accepted measure of tangible outcomes from investments, an absence of empirical evidence persists, and a complete overview of the various interpretations of "ROI" for organizations that aim to achieve returns through social media implementation is yet to be established.

This tension between intuitive recognition and the need for quantifiable data explains the persistent questioning of ROI in emerging advertising media.

As a result, traditional ROI metrics may need to be supplemented with other qualitative measures to fully evaluate the effectiveness of social media marketing initiatives. For instance, Kaske, Kugler, and Smolnik (2012) offered a comprehensive framework to aid in the quantification of social media ROI, which was more detailed than the basic calculation method suggested earlier. This system represents one of the most expansive studies to date on the ROI of social media, providing a more nuanced approach to measuring the impact of social media campaigns.

The Use of KPIs as an Alternative to ROI to Measure Performance

Historically, Key Performance Indicators (KPIs) have been centered around financial metrics like sales revenue and profit. Nevertheless, in recent times, there has been a trend towards incorporating non-financial KPIs to evaluate performance. According to Gelles (2013), the lack of a precise measurement for social media ROI means that marketers can instead rely on key performance indicators (KPIs) to gain insights into the effectiveness of their social media strategies. By tracking metrics such as engagement, reach, and conversions, marketers can better understand how their campaigns are resonating with their audience and make informed decisions about future strategies. While KPIs may not provide a direct monetary value, they can still be useful in evaluating the overall success of social media campaigns.

The rise of non-financial KPIs can be attributed to several factors, including the increasing importance of customer experience, the recognition that employee engagement is critical to business success, and the rise of social media and other digital platforms as key channels for engagement with customers. As highlighted by (Seggie et al., 2007 cited in Uitz, 2012), there are accurate metrics that can measure the non-financial impact of the social media strategy and thus provide an insight into the overall effectiveness of a marketing campaign namely the key performance indicators (KPIs). In addition, as per Hoffman and Fodor (2010) study, the realm of social media presents marketers with exclusive prospects to create social media initiatives and KPIs that address three distinct objectives: 1) enhancing brand recognition, 2) fostering brand engagement, and 3) generating word-of-mouth publicity.

Framework

After explaining the main literature review for the main constituents of our topic, we will now define a hypothesis statement out of the literature findings. The hypothesis statement is a proposed testable answer to a question or problem raised from our literature review that can be verified or rejected. The aim of this research is to consider this hypothesis as an introductory conceptual research topic.

Some of the major questions that could be raised from the literature review are: How can we measure the success and effectiveness of marketing teams’ social media brand marketing campaign? Can the social media performance be quantified? Can this be done with the well-known financial ratio: the ROI?

In reality, social media provides a wealth of both qualitative and quantitative data for analysis. Advertisers often require both forms of data, whereas clients tend to prioritize quantitative data. However, for numerous marketers, qualitative metrics are just as critical as quantitative metrics. For instance, they may analyze what stimulated the conversation, gauge engagement, identify the most popular posts, and assess the sentiment surrounding their brand. These qualitative measures are often viewed as crucial as the quantitative measure of a brand's follower or fan count. Currently, the ROI of social media is still being evaluated by numerous marketers. Although impressions on social media platforms are measured, some actions are difficult to quantify but are still valuable. Simply having a high number of followers does not provide a
complete picture, but when customers engage through sharing and communication, it indicates a deeper connection with the brand. This, in turn, promotes message dissemination and empowers followers, demonstrating the qualitative impact of social media.

**Proposed Hypothesis Statement**

The return on investment “ROI” can be used to measure the social media performance using qualitative and quantitative data.

To test for this hypothesis statement, researchers, for example, may use regression analysis where the dependent variable is the ROI and the independent variables can be:

1. Quantitative data (e.g. number of followers, clicks, impressions, reach, leads, conversions, etc.)
2. Qualitative data (e.g. sentiment analysis, engagement rates, social listening, customer feedback, brand awareness, brand image, etc.)
3. Social media performance metrics (e.g. likes, shares, comments, retweets, mentions, etc.)

To expand on the above hypothesis statement, it is important to consider potential statistical limitations in the research methodology. These may include issues such as using an unsuitable sample, having a small sample size, or relying on outdated data. These limitations can prevent the research findings from being applicable to the wider population. For instance, if the sample only includes regional marketing agencies, it may not accurately represent the varied perspectives of social media across international agencies. Additionally, given the broad and constantly evolving nature of this research topic, it is critical to avoid relying on outdated data that may no longer be relevant to social media measurement.

**CONCLUSION**

The integration of social media into daily life is apparent, with social icons appearing everywhere. The measurement of social media performance is currently stagnant, with businesses lacking consistent metrics. However, measurement capabilities, especially using financial metrics such as ROI, are gradually becoming more precise and diverse.

While there is no unified standard for measuring social media performance and whether ROI is an effective performance measure, it is expected that hybrid metrics and KPIs will become more specific in the future. Brands are being pushed to be more transparent and honest with customers. Not all organizations can attribute revenue directly to social media, and value should not always be tied to monetary terms. Instead, metrics such as audience reach and engagement should be considered. Therefore, combining both quantitative and qualitative data would be an ideal approach to measuring social media performance for marketers.

**REFERENCES**


