THE ROLE OF BUSINESS INTELLIGENCE IN SOCIAL MEDIA MARKETING AND ITS IMPACT ON FIRM PERFORMANCE

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ABSTRACT

Social media business intelligence assists business owners achieve more accurate data and assessments of existing and potential customers. Today, the COVID-19 pandemic has disrupted business operations globally, and various governments have implemented policies and grants to facilitate business recovery; however, the initiatives have brought limited success. Therefore, it is essential to adopt social media business intelligence tools that help predict potential sales and analyze key performance indicators through effective virtual data collection. By generating such data, a business will be better equipped to plan on past, present, and future marketing and consumer trends. In addition, business owners can design a personalized dashboard that integrates consumer data from diverse sources to counter competition and understand overall performance. Subsequently, business intelligence tools can facilitate organizing the data into clear visualizations that are easy to understand and interpret. Therefore, a business can respond swiftly to changes, understand the cause of the changes, and mitigate adverse impacts in time.

Keywords: *Social Media Marketing, Business Intelligence, Organizational Performance.*

1. INTRODUCTION

The coronavirus (COVID-19) pandemic has proved that the existing business approaches might not sufficiently handle unprecedented and fast-moving business variables. In addition to the devastating effects on healthcare services and people's health, the coronavirus pandemic has seriously impacted national economies individual businesses [1], [2]. For this case, social media marketers need to develop business management plans and intelligent business initiatives that are specific to the COVID-19 setting to overcome business disruptions posed by the pandemic [3]. A smart business and management plan will help social media marketers to communicate effectively with the consumers and other stakeholders within the marketing community [4]. Besides, social media marketers will be able to collect, interpret, and benefit from factual data to create practical business strategies that can beat the odds of COVID-19. The goal is to design and integrate working business intelligence strategies to enhance social media marketing operations and efficiency to maximize returns and enhance consumer satisfaction [5].

Additionally, social media marketing is the application of social networks and social media sites to advertise business products. Social medial provides an effective channel to engage with existing and potential customers [6], [7]. A business can also promote its vision, mission, culture, and brand through social media. Business intelligence tools have advanced business experience on social media by facilitating up-to-date consumer data collection, evaluation, and interpretation. Social media and business intelligence sustain brand awareness [8]. By consistently deploying virtual messages, businesses can maintain and support customer interests and preferences for the brand in the marketplace. Therefore, social media business intelligence offers a powerful instrument for business product promotion and brand exposure. According to [9], 93% of business enterprises in the US utilize social media platforms such as LinkedIn, Twitter, Instagram, and Facebook to market their products, enhancing consumer-to-consumer connections. Moreover, social media platforms offer a panel for real-time reviews and product feedbacks that promotes sales. Consumers can also enquire details from a wide range of customers achieving a comprehensive perspective on a product. For instance, product posts by opinion leaders and consumer peers can expand the number of customers. Therefore, social media avenues and business intelligence generate considerable virtual brand awareness to maximize returns during the COVID-19 pandemic.

2. THEORETICAL FRAMEWORK

2.1. Consumer Decision-Making Model

The consumer decision-making framework effectively explains social media consumer behavior and current marketing trends following the COVID-19 pandemic. [10] conducted a survey to evaluate social media consumer behavior of 327 US buyers. The study's outcomes indicate that, from the early days of the COVID-19 pandemic, US buyers have expanded individual utilization of social media sites to select, collect, and decide on the nature of products to purchase. Besides, the study showed that consumers have increasingly turned to social media to evaluate and make decisions on online goods and services [11], [12]. Therefore, the results suggest an increasing demand for social media marketing, and consumers have to decide on the best alternative strategies to physical shopping. Since the COVID-19 pandemic is a global crisis, the outcomes of this study on changing consumer habits can be generalized to a global perspective [13], [14]. However, the challenge remains for business operators to devise and adopt effective business intelligence strategies to adapt to the changing consumer behavior on social media [15].

2.2. The S-O-R Theory

According to [16], the S-O-R concept illustrates how external factors (stimuli) influence consumer behavior during the COVID-19 pandemic. According to [17] , an external stimulus (S) impacts an organism (O), eliciting a behavioral response (R). Therefore, the S-O-R theory effectively explains the current consumer shifts to social media shopping following the physical constraints of the pandemic. In this case, the pandemic has influenced consumers' cognitive and affective processes, leading to a change in purchase perceptions and habits.

3. LITERATURE REVIEW

[18] observe that social media platforms help users chat, share information, documents, and create a community. According to [19], users can integrate several data mining methods into social media marketing to facilitate efficient decision-making processes to benefit consumers and businesses. The study recommends the creation of a business intelligence dashboard that can help enterprises observe social media information in real-time [20]. In addition, [21] conducted research to determine the changes in consumer shopping behavior at the onset of the COVID-19 pandemic

using the S-O-R model. The outcomes indicate that the COVID-19 pandemic has influenced the emotional and cognitive behavior of social media consumers. However, do not offer a detailed perspective on online consumer behavior; instead, the research focuses on human behavior for preventive public healthcare. [22] suggest that social media marketing has gained significant importance following the COVID-19 pandemic. According to the COVID-19 pandemic has expanded customer behavior on social media. further observe that the COVID-19 pandemic offers a favorable chance to understand online consumer buying trends, especially social media, and devise practical strategies to overcome marketing and consumer limitations [23]. Moreover, posit that social media has become a podium to communicate, campaign, and promote products to a large consumer base [24]. [25] stated, social media requires monitoring and regular evaluation to comprehend the effects of social media campaigns on brand awareness. To create a productive social media marketing campaign, the researchers recommend observing customer needs, brand-adjacent terms, brand terms, competitors, and customer sentiments [26]. According to [27], social media monitoring can be done directly through the analytics section or by integrating business intelligence tools.

3.1. Government Influence in Business Operations during the COVID-19 Pandemic

The effect of the COVID-19 pandemic on business operations requires a global perspective and strategy since the pandemic has had a near-similar impact globally. [28] point out that the COVID-19 pandemic has led to a growth in social media marketing in the US- the most significant consumer spending economy globally. According to [29], at the beginning of 2020, the US encountered a massive healthcare crisis following the COVID-19 pandemic. The US government created the Coronavirus Aid, Relief, and Economic Security (CARES) Act with a $2.2 trillion consumer and business stimulus package in response to the COVID-19 pandemic's effect on businesses (Mason et al., 2021). However, many companies have not benefited from the grant, and most small, medium, and large enterprises have not recovered from the COVID-19 crisis [30]. Consequently, [31] state that the COVID-19 pandemic has transformed customer shopping experiences, product needs, and purchasing behavior in the US. In addition, the pandemic has influenced consumers' post-purchase satisfaction levels. With the rise in public healthcare issues, the US government issued various mitigation policies such as social distancing measures and lockdowns to control the spread of the coronavirus [29], [32]. Therefore, with most Americans confined to their homes, they turned to social media to interact and conduct online shopping [33].

As a result, consumers have extensively explored online avenues of accessing goods and services, leading to a substantial shift towards social media marketing strategies [34]. Therefore, innovative business operators can find profitable and viable opportunities on social media to gain a competitive advantage in the market and maximize profits during the pandemic [35].

Additionally, the COVID-19 pandemic has restricted business operations in diverse geographical locations. There is a need for an integrated strategy and business intelligence models to account for changing consumer needs and business trends [36], [37]. The Organization for Economic Co-operation and Development (OECD) analyzed the effects of the COVID-19 pandemic across 60 countries in diverse geographic locations globally. According to , the COVID-19 pandemic is the most prevalent public health emergency in living memory, resulting in significant financial crises in multiple countries [38]. After the onset of the pandemic, many businesses worldwide halted production, and product consumption reduced significantly [39]. While containment and lockdown measures continue to be lifted, most businesses still face the dilapidating effects of the pandemic. According to [40] , the global economic recession triggered by the pandemic requires more innovative strategies to overcome business failures. On SMEs, OECD reports that the pandemic has led to changes in supply and demand, limiting business operations during the pandemic [41], [42]. Today, most companies have experienced a considerable reduction in labor supply due to government measures such as quarantines and lockdowns. Besides, the supply chain has been interrupted, leading to shortages in intermediate goods [43], [44]. On demand, the COVID-19 pandemic has caused a dramatic decrease in product demand, and most businesses have been affected significantly [45], [46]. Moreover, various enterprises face significant liquidity shortages since consumers have little income to maintain surplus purchases.

The World Economic Forum (WEF) reports that Hong Kong faced massive business disruptions following the COVID-19 pandemic [47]. WEF and HKEX contributed to the revival of Hong Kong businesses and financial markets by offering insights on building sustainable business operations in Hong Kong. HKEX contributed emergency relief donations to help firms and consumers plan on recovery strategies [40], [48]. In addition, [49] stated that a Swiss company, The Adecco Group, a WEF partner, supported workers and businesses from various countries to alleviate the effects of the COVID-19 pandemic. According to [50], [51], the company carried out a study to compare macroeconomic indicators in twelve countries: Spain, Sweden, Switzerland, Netherlands, France,

Germany, Italy, Japan, UK, USA, Austria, and Belgium [52]. The goal was to assess COVID-19 mitigation measures by the governments. The research indicates that the governments that have successfully mitigated the economic effects of the coronavirus pandemic and the labor market responded swiftly with financial and business grants and supported employees stay in the workplace as best as possible [53], [54]. However, the study indicates that most businesses have not received the promised government grants and stimulus packages [55], [56]. Therefore, most business operations have not recovered; thus, there is a need for a more innovative business intelligence strategy to facilitate business recovery processes [57].

3.2. Business Intelligence in Social Media Marketing

The growth and development of social media sites has revolutionized the dynamics of the virtual market. Today, social media platforms integrate consumer social networks, a field of marketing experts, and opinion leaders [58], [59]. The digital and customized marketing promotional messages that pop up whenever a social media user accesses a site effectively attract and influence consumer perception about a particular service or product [60], [61]. The result has been a rapid change in consumer habits favoring social media purchases, especially during the COVID-19 pandemic [62]. However, most businesses have not yet taken full advantage of digital tools and other business intelligence strategies to benefit from social media platforms [63]. Therefore, it is essential to describe effective business intelligence strategies to help modern business operators reap better returns and overcome the constraints of the COVID-19 pandemic.

3.3. Sample Business Intelligence tools

Business intelligence (BI) tools are social media analytics tools to track social presence. Such tools include Sisense, SproutSocial, HubSpot, TapInfluence, SAP Business Objects, Datapine, BuzzSumo, Snaplytics, Curalate, Keyhole, Google Analytics, ShortStack, and SHIELDApp. A user can utilize a single or a combination to achieve more generalizable results [64], [65]. Businesses intelligence tools offer crucial business data on key metrics and performance indicators such as the response rate, post reach, post engagement, mentions, comments, shares, likes, retweets, active followers, location, demographics, and the traffic generated. Such metrics can generate crucial insights enhancing business operations [66], [67].

3.3.1. SAP Business Objects

According to [68], [69], SAP Business Objects is a business intelligence (BI) software that facilitates a comprehensive collection, analysis, interpretation, and reporting of interactive visualization data. SAP Business Objects analyzes customer experience, digital supply chain, and other key performance indicators [70]–[73]. In addition, SAP Business Objects offers a role-based and self-service structure that can help digital business owners to create personalized applications and dashboards.

3.3.2. Datapine

Datapine is a social media business intelligence tool that offers an all-in-one BI structure that promotes the collection and analysis of complex data [74]. As a self-service platform, Datapine helps users integrate different functionalities and data to perform advanced analyses to generate real-time and actionable business insights [75], [76].

3.3.3. Sisense

Sisense is a user-friendly business intelligence software that facilitates data analytics by all users regardless of their technical capabilities [77], [78]. Therefore, a business owner does not have to rely on the IT department to conduct online data analytics. Sisense promotes faster integration of data from Google Analytics, AdWords, social media, and Salesforce. The software uses an in-chip technology that enhances data processing in comparison to other tools [79]. G2, Gartner, and Dresner recognize Sisense as a leading cloud analytics tool [80].

3.3.4. SproutSocial

The software facilitates cross-channel social media analytics. It also analyzes performance on a single platform and compares business performance across multiple social media channels. SproutSocial can assess LinkedIn engagement, tally Twitter link clicks, track Facebook impressions, measure Instagram follower growth, and evaluate content performance on Pinterest, among other platforms [81], [82]. A user can easily organize the collected data in an easy-to-understand visualization structure [83], [84]. The Premium Analytics option can help users create a custom report that reflects the set key performance indicators. In addition, the platform offers customizable, and templates report structure options to allow the user to personalize social media metrics [85].

3.3.5. HubSpot

HubSpot helps link social media performance with business and revenue growth. Besides, it assists users in comparing business performance across multiple social media channels [86], [87].

HubSpot offers expansive visuals and graphs that break data depending on the session, length, impressions, and audience.

3.4. The Role of Business Intelligence in Promoting Social Media Marketing

As outlined [88], [89], various business intelligence (BI) tools can facilitate effective business operations during the COVID-19 pandemic [90]. Business intelligence tools effectively analyze market trends to keep up with competition and demand [91]. Besides, business intelligence tools help business owners collect and evaluate consumer data to derive crucial marketing insights. The goal is to facilitate strategic and tactical business decisions to overcome the constraints of the COVID-19 pandemic. According to [92], [93], business intelligence tools offer a pool of big data that helps small, medium, and large companies to discover growth strategies and opportunities. Data discovery strategies are also essential in resolving urgent issues such as the crisis posed by the present pandemic [94]. Therefore, a business can collect volumes of data in a single place, evaluate it, and forecast future opportunities and outcomes [95].

Social media can do much more than spread the word [96]. Social media business intelligence tools have the capacity to change the business course for the better by boosting proceed [97], [98]. According to [99], social media platforms contribute 33% of global internet usage. also establishes that social media users generate four million Facebook likes, 49,000 Instagram posts, and 473,400 tweets each minute. [100] further stated that, currently, there are 3.48 billion social media users globally, with over 2.5 quintillion bytes of data generated daily. In addition, [101] suggests that an average business spends about 26% of its total expenditure on social media marketing [102]. Therefore, by adopting a virtual business strategy, a business owner can collect extensive data from online users who interact with the business on social media [103].

Subsequently, a business owner can get data analytics such as demographics, how often a user views the page, location, and other vital details [104], [105]. Through this data, a business owner can generate crucial insights to understand up-to-date business trends and make data-driven predictions and practices that can alleviate COVID-19 setbacks [106], [107]. For instance, a business owner can make marketing changes to account for the generated demographics to align the brand with consumer needs [108]. According to [109], the analytics tab of a business social media page contains significant stats [110]. However, this can be a tedious and time-consuming process; therefore, business intelligence tools come in handy to directly and easily integrate social media data into the business intelligence platforms [111]. Therefore, a business owner can view

and analyze social media engagement analytics to understand business performance, sales, and leads generated within a particular period [112]. Social media gives insight into the existing competition by observing what others are doing or not doing. [113] suggested that social media allows businesses to follow competitors anonymously to understand the needed changes and opportunities [114]. A company can also learn from the mistakes of others to avoid pitfalls, develop efficient practices, and predict marketing shifts. Besides, social media offers insight into the customer's life; hence, understanding the community and followers to foster a loyal customer base [115], [116]. By understanding the existing followers, a business can conduct product trials and generate real-time feedback [117]. A business can also understand the demographics such as age, location, preference, and spending habits. Such insights are crucial in enhancing targeted marketing and improving customer service [118].

3.5. Solving COVID-19 Business Challenges Through Social Media Marketing BI

With the growing COVID-19 concerns and physical restrictions on in-person contacts and other mitigation policies, consumers have changed their purchasing decision-making strategies. According to [119]–[121], social media users seek to satisfy their physical and mental needs through virtual channels. Social media platforms offer attractive ads, images, and videos that capture a social media savvy's attention [122]. A study on the Gratification Theory suggests that Facebook users derived immense pleasure and satisfaction from sharing photos and videos [123]. The user's goal is to seek attention, affection, disclosure, share information, social influence, or a personal habit [124], [125]. Therefore, users are mentally absorbed in attractive Facebook visuals. As such, social media marketers have to understand business intelligence tools to understand consumer habits[126]. As a result, business owners can adopt and develop the art of designing customized and outstanding visuals that capture the attention of a potential customer [127].

Additionally, social media marketers have to understand the cognitive absorption of the users. According to [128], mental absorption suggests that most social media enthusiasts are deeply engaged in information technology and current social media trends to overcome COVID-19 limitations [129]. Therefore, social media marketers have to understand the real drivers of social media users into these platforms [130]. To tap into the large online presence, marketers should realize that users want a temporal dissociation from the busy physical schedules. Users want to immerse themselves in something that offers an escape from unpleasant realities, such as the COVID-19 pandemic [131], [132]. They want enjoyment and a feeling of satisfaction by

interacting with curious and creative content. In addition, social media users want to have a sense of control and anonymity over their online behavior[133], [134]. As such, by understanding such perspectives of a user through business intelligence, business owners can customize content to meet the users' needs [135]. Unlike website content that offers largely formalized content and visuals, social media marketing requires the use of quick-to-grasp visuals and content to account for the decreased attention span of the users [136], [137]. The content should also be creative and imaginative enough to evoke a need for user sharing to reach a broad customer base [138], [139]. In essence, integrated social media businesses promotional ads effectively influence the brand and products, impacting the consumer behavior and perceptions.
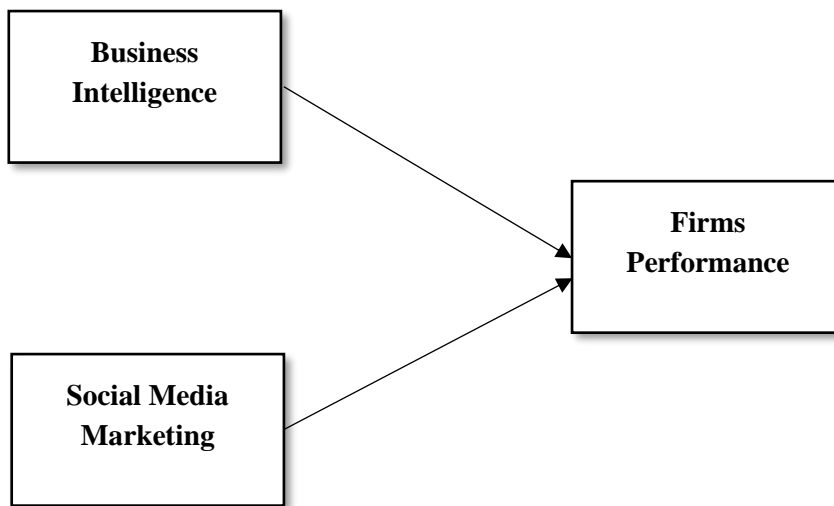
3.1. General Research Model

Figure 1: Conceptual Research Model

4. DISCUSSION

While considering the significance of business intelligence and social media marketing it can be said that, the customer intention to buy products and decision making to retain with specific product. The first step in a consumer decision-making process is realizing the presence of a product need. As explained through the S-O-R concept, when a stimuli such as a brand packaging or a promotional advertisement flashes on the platform, the user notices and responds. Depending on the quality and attractiveness of the marketing material, a consumer can perceive an unmet need

and feel compelled to click on the advert. The goal is to search for further info to try to solve the supposed want. For instance, a health-conscious person on social media who comes across a message alleging the insufficiency of essential minerals and vitamins in daily diet can be motivated to click on the ad to seek additional information. The target is to satisfy the perceived feeling of insufficiency by improving health through the recommendations in the promotional message. Therefore, business experts can utilize business intelligence tools to understand and activate customer product needs during the COVID-19 pandemic. The strategy is to customize promotional messages to trigger brand discussions that enhance positive opinions about the idea, services, or products.

Social media encourages the use of macro-influencers. According to Mason et al. (2021), macro-influencers are consumers with a huge customer base who can help improve brand awareness since they have substantial experience from using the products. Macros-influencers also understand the needs of the customers and the right promotional message and visuals needed to capture user attention. Elite influencers, such as brand ambassadors, athletes, celebrities, opinion leaders, and website marketers, post favorable information or a peer product reviews, resulting in widespread reach and use of the product. Most macro-influencers have millions of social media followers who can change their followers' consumer decision-making process upon a single favorable post. As such, businesses should adopt a macro-influencer strategy to overcome the marketing constraints of the pandemic.

Social media influences consumer post-purchase satisfaction. Consumer satisfaction is a crucial element in business operations to retain available customers. A customer is more likely to repeat the purchase behavior if satisfied by the previous experience. In physical shopping, customers have few options of expressing their satisfaction or dissatisfaction with a product. However, social media consumers can express their satisfaction during shopping and upon using a particular product directly and openly. The feedback generated is vital in helping business owners rectify to prevent the customers from moving to other options. If satisfied, most social media buyers turn to the platform to promote the product or the company. Therefore, since the COVID-19 pandemic has challenged customer service, social media marketing can reduce dissatisfaction by gratifying consumer product and emotional needs.

5. CONCLUSION

This research can conclude with essential outcomes, following the COVID-19 pandemic, consumers have modified their decision-making strategies related to product acquisition, purchase, and shopping. Consequently, social media marketing strategies have shifted to match the growing need for online shopping, adopting business intelligence tools that help recognize and analyze up-to-date business patterns. The aim is to get a wholesome visualization of consumer habits to help governments and businesses respond more efficiently to business uncertainties. A social media business intelligence system can structure the raw data generated from the set key performance indicators to determine business patterns and trends during the pandemic. For instance, most business intelligence tools can generate and present user data in intuitive visualization structures that are easy to read and interpret. In addition, since social media business intelligence tools help understand what customers want, a business can respond by shifting content design to be more relevant to followers' needs. Therefore, business intelligence tools facilitate the collection of crucial social media marketing data to create targeted adverts to promote products to the customers who need the products, mitigating the setbacks of the COVID-19 pandemic.

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