

Social Media Management Tools for Customer Service: A Review

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Abstract: The number of active social media users as of January 2024 reached 5.03 billion, accounting for 62% of the global population and growing consistently Year Over Year (YoY). One of the main reasons for this growth is the ability of social media platforms to foster inter-networking and to offer intuitive means for consumers to assert their impressions on business brands. In addition, this growth has been fuelled by various factors such as advances in smart phone technology, high-speed networks, cloud, and in recent times Artificial Intelligence (AI) proliferation. Given the impact such expressions can have on business brands at scale, it has become imperative for enterprises to monitor and analyse social media posts proactively and establish direct connects with consumers. Such connects could be in the form of marketing campaigns to boost sales, as well as analyse consumer trend and brand perception through social media analytics. Across the spectrum, consumers today expect instant responses to enquiries and resolutions to their issues, and given the collaborative nature of social media platforms, enterprises now need to incorporate strategies for social customer service, given the impact they can have on brands, in addition to contemporary channels such as Interactive Voice Response (IVR) systems and digital (email/chat) to improve overall Customer Experience (CX). The onset of Generative AI promises to render engaging and personalized experiences with interactive content, based on context and user behavioural analysis. This study aims to explore the key factors impacting the adoption of social media management tools for improving customer experience. By way of a systematic literature review on existing literature encompassing trends in social media channels in the wake of digitalization, corresponding impact on consumer behaviours and current customer service frameworks employed by enterprises, this study highlights the need for social customer service, an emerging topic, to become mainstream. Additionally, through gap analysis, the study postulates key factors that impact social customer service strategies, presented in the form of a conceptual framework. These factors include usability, response modalities, channel blending, technology framework and corporate governance. While the conceptual model needs to be validated empirically, the paper contributes by providing constructive insights to enterprises on factors to consider for adopting social media channels for customer service management, and improve overall brand equity.

Keywords: Customer experience, retail banking, cloud computing, social media management, social messaging, Artificial Intelligence.

INTRODUCTION

Essentially, social media is a collective term used for mobile and web-based applications that foster community inputs, public and private topical expressions, and conversations, as well as collaboration and content sharing. The evolution of social media channels has been characterized by constant innovation, technological advancements and transformation. This evolution could be characterized across multiple stages.

Early years (1990's) were characterized by online email and messaging forums, with platforms such as Bulletin Board Systems (BBS) and America Online (AOL).

This was then followed by platforms such as Friendster (2002), Myspace (2003), which introduced an open framework for communities and groups to interact and share perspectives, in the form of posts and documents. Social media was first used as a platform to keep in contact with friends and family, as a way for communities and groups to interact, including status updates and music content.

The emergence of Facebook (2005) allowed users to be connected through a digital community network, allowing direct messaging, presence, public and private posts, etc. This period also saw the onset of platforms such as LinkedIn, Flickr and WordPress, in the spheres of business community, photo-sharing and news.

This was then followed by the introduction of microblogging platforms, such as Twitter (now "X") and Tumblr. In the recent years we have seen the emergence of platforms like Pinterest, Snapchat, and TikTok, where the infusion of Artificial Intelligence (AI) and Augmented Reality/Virtual reality (AR/VR) started to take precedence, in addition to management of rich multimedia content.

The year 2022 saw the emergence of the Metaverse, a three dimensional virtual world, where people can meet, spend leisure time, collaborate, transact, and share ideas, as also the notion of Generative AI based on large language models (LLM's) in 2023 ; which promises to usher in a seismic shift in AI infusion.

To summarize, in particular in the last decade, with exponential growth in smart phones and better network accessibility, social media usage has seen rapid proliferation. As of January 2024, there were 5.04 billion social media identities worldwide, amounting to approximately 62 % of global population with 13 new users signing up to their first social media account every second (Datareportal, 2024). Social media is fast becoming a primary channel of communication and social interaction for consumers, and in particular consumer to brand engagement through social channels has increased by 40% (Forrester, 2021).

As such, its critical for enterprises to address consumer expressions on social media, for brand-building and upkeep, monitor overall brand trends and sentiments, as well as stay relevant in the ever-evolving digital landscape. Enterprises have therefore been actively engaged in adopting social media management platforms. Such platforms allow enterprises to monitor and analyse social media trends, create brand awareness through marketing campaigns, and create effective customer engagement strategies. Examples of such platforms include Hootsuite, Sprinklr, etc.

Cloud computing and associated technologies play a pivotal role in social media management platforms. Ingestion, processing and analysis of data is required at scale, primarily due to the type of datasets being processed (multimedia content, streaming sources) as also due to flexibility and security aspects.

This also allows the infusion of AI applications in social media, including use-cases such as sentiment analysis, conversational automation, identity management, AR/VR and more recently with content creation and summarization with Generative AI (Vishvesh, 2023).

Social Media management platforms have been used extensively thus far for brand building and promotion, marketing and trend analysis and insights.

Due to the very unique characteristics of social media channels, there seems to be a surge in the way consumers engage with social media channels, on customer service matters related product quality and services, in particular the low income/young consumer category (Abrás & Mattos, 2021) where the level of engagement is higher. From being a medium to post about experiences and feelings, It is increasingly becoming a channel of escalation for customers where other customer service channels like internet banking, contact centres are failing to address their concerns, thereby impacting customer satisfaction and behavioural intentions (Alshurideh et al., 2023). Such concerns if posted publicly could have huge Public Relation (PR) ramifications for enterprises if not addressed adequately (Rui & Seidmann, 2020).

The use of social media channels for general enquiries and frequently asked questions (FAQ's) is also on the rise. Key observations as summarized above tend to suggest that there is a compelling need for enterprises to effectively

address customer service matters on social media channels, in addition to employing them for brand building through marketing campaigns and insights. This study attempts to analyse the key factors for enterprises to consider for adopting social media tools as they embark on strategies for improving customer experience.

LITERATURE REVIEW

2.1 Literature selection and analysis approach

The study is primarily based on secondary sources of data. This includes scholarly papers from renowned journals, statistical data, and market research reports.

The last decade has seen many advances in social media channels and their adoption by consumers.

The literature review is structured in three areas a) Rise of social media channels and impact on consumers b) Digitalization and its impact on social media c) Adoption of Social media management platforms by Enterprises.

2.1.1 Rise of social media channels:

The emergence of Facebook (2005) allowed users to be connected through a community network, allowing direct messaging, presence, public and private posts, etc. This period also saw the onset of platforms such as LinkedIn, Flickr and WordPress, in the spheres of business community, photo-sharing and news.

Twitter (2007) ventured into the “microblogging” area fostering real-time collaboration. It allowed users to “follow” others, post updates up to 140 characters, and the “hashtag” concept allowed tweets to be organized by topics and trends.

Apple’s launch of the iPhone in 2007 bought about the flexibility and mobility aspect to consumer communication and collaboration (Mickalowski et al., n.d.). This gave a new dimension to social networking, which was limited to the desktop and personal computers thus far.

Pinterest (2010) was introduced as a photo-centric platform, enabling users to save and upload photos for experiences akin to personalised mood boards. Instagram (2011) bought in new, innovative ways to share photos and tag them, while TikTok (2017) revolutionized the ability for users to express their art by giving them the ability to create, share and promote videos. Instagram introduced Instagram reels (2020) to compete with TikTok. This has been followed by YikYak (2021) and Meta threads (2023). The proliferation of social media channels as a forum to create professional community networks, webinars, review sites was bought about by LinkedIn and Glassdoor.

Private social messaging channels

Although the original purpose of social media platforms was to foster networking and connection within public spaces and communities, they have also become increasingly prevalent in the domain of private communications.

This was revolutionized by WhatsApp, and then others like Facebook Direct Messenger (FBDM), WeChat, Line, etc followed suit (Wan et al., 2019). Messaging channels provide quick and reliable ways for consumers to engage with brands in intuitive, natural ways. Conversation history

is persisted, responses are in near real time, and they can be multimodal.

All these attributes make it imperative for businesses to consider social messaging channels for customer service, given the preference of consumer engagement channels, and the brand impact that can be afflicted.

Social messaging channels are rapidly emerging as popular customer engagement channels for consumer to business engagement, due to their ability to serve up multimodal content, trigger workflows, infuse e-commerce and provide reliable and frictionless options for customer service through rich API's (Meta, 2022).

Application of social channels during the COVID-19 pandemic

The coronavirus pandemic, commonly referred to as COVID-19, is a worldwide outbreak of coronavirus disease 2019 (COVID-19), which is brought on by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Given the evolving nature of study and research on the virus, and its impact and effects, the initial stages of the pandemic were marred by constant turmoil and changes, on medication infusion, vaccination, quarantine strategies and travel restrictions. As such, one of the main challenges during the COVID-19 pandemic was effective and rapid outreach to citizens about public health awareness, important updates and statistics, and answers to general enquiries. These challenges were effectively addressed by social messaging channels like WhatsApp which saw an upsurge in adoption during the pandemic by public health authorities (Gov.SG, 2020). Similar public communication and redressal strategies were adopted by health authorities of other countries, such as BNPB Indonesia (Rahmawati et al., 2023) and Malaysia (Ibrahim et al., 2024).

While both scheduled and crisis communication in health matters through social media channels had a positive impact, improving the speed of notification and response strategies, this was primarily through trusted and verified official social accounts. Numerous efforts on parts of individuals/motivated groups, to lend support through medication, food supplies and other emergency support also helped substantially in particular in community groups. However, malicious intent, and social media adoption thereof also brought about concerns of causing communal distrust and panic by way of spread of misinformation, fake news and misconceptions and remain topics of active deliberation (Wajahat Hussain, 2020), (Cuello-Garcia et al., 2020). Another construed effect was the fostering of anxiety and panic (Cho et al., 2020).

Emergence of social commerce on messaging channels:

The global Business To Business (B2B) ecommerce market is expected to growth at 14.5% compounded annually till 2026 reaching \$ 36 Trillion, while Business To Consumer (B2C) is also expected to grow at same rate, reaching \$ 5.7 Trillion by 2027 (Administration, 2024). Almost 40% of the e-commerce volumes are coming from mobile devices, driven primarily by advances in edge computing and benefits of mobility. Further, with improved security and

trust measures, as well as AI-infused recommendations and reviews, the customer journey life cycle from prospecting to purchase, and then to adoption is continually evolving digitally. Online purchasing numbers and consumer interest levels surged and are still high after a succession of restrictions and pandemic modifications to traditional shopping patterns. The reliance on both ecommerce and social commerce platforms is on the rise, and these recent purchasing behaviours are now becoming prevalent even in Generation Y (Millennials) and Generation X, in addition to generation Z. More individuals are using social media, international marketplaces, and additional websites to find and buy things. Even after the epidemic, these recently developed purchasing habits are already indicating a new era for internet retail as they become a more significant and permanent part of people's life.

Recent trends suggest the rise of social commerce platforms and potential convergence with e-commerce platforms ,in particular due the collaborative and engaging nature of social media platforms such as TikTok, Facebook and Instagram, which have a positive effect on perceived ease of use and interactivity (Qu et al., 2023).By reducing the friction between product discovery and purchase, social media platforms offer more engaging and personalized experiences to prospects, increasing significantly the likelihood of sales.

Social commerce trends are being observed significantly in retailing, but also picking up now in other verticals. For instance in banking, social media sites like WeChat in China, Line in Taiwan, and WhatsApp in India offer users access to a variety of banking services and products, including mobile wallets that facilitate quick and flexible point-of-sale (POS) transactions (Mombeuil, 2020).

Immersive, 3-dimensional engagements in the form of the Metaverse:

A novelty in the form of social community networking, providing users an immersive experience allowing them to meet, interact ,transact and collaborate in real-time in contexts of their choice is emerging with the Metaverse (L.-H. Lee et al., 2021). Combining digital and physical reality, the metaverse provides three-dimensional, immersive experiences powered by cutting-edge technologies like blockchain, artificial intelligence, augmented and virtual reality, spatial frameworks, and digital tokens.

The metaverse also allows for new, compelling ways for enterprises to collaborate, and market their products and services. For instance, the Gucci garden experience allowed users to don limited edition items virtually (Chan & O'brien, 2022) and the Samsung virtual store, which allowed users to undertake quizzes and earn unique Samsung wearable digital tokens. There are also forays into model smart city planning, for example Metaverse Seoul, which is an attempt to provide a virtual communication ecosystem for its municipal administration, and culture and education, for example Baidu's Xi-rang (Xu et al., 2022). In the context of retail banking, the metaverse promises to evolve customer communication in a new immersive way, enable cross border transactions and green loans via net zero carbon (Dubey et al., 2022).

In summary, enterprises are now evaluating ways to participate in the Metaverse initiative to either gain new customers or engage customers in new, compelling ways.

The metaverse attempts to bring in a new dimension to social networking in its current form, which is two dimensional in nature, through virtual, three dimensional, immersive experiences. Also, from a perspective of security, and decentralized operating framework, it allows users to take control of their own data and privacy matters.

2.1.2. Digitalization and its impact on social media adoption

This section details the impact of cloud computing, mobility and AI adoption, collectively referred to herewith as “digitalization” on social media adoption.

Cloud computing and associated technologies have matured significantly in the recent past.

The overall software architecture framework evolution, from monoliths to microservices, in itself is one of the most significant developments in software life cycle management (Hasan et al., 2023). This has transformed the software development life making it more agile, Application Programming Interface (API) based, and open, giving enterprises the ability to add new capabilities rapidly, at scale, and with efficiency. This, coupled with Cloud based Infrastructure/Platform as a service platforms (IaaS/PaaS) which provide computing resources at scale, has been the basis for the development of social media platforms, bulk of which are offered as Software as a Service (SaaS) solutions.

Social media analytics require vast tracts of datasets, both structured and unstructured, to be ingested and analysed at scale. Such tracts of datasets include text messages, multimedia files, streaming data, speech and video, etc and so on. The ability of cloud computing platforms to ingest, store and analyse such datasets has transformed the data analytics space. The “always on” nature of cloud computing resources, with the ability to initiate event-based, on demand workflows, and cognitive services provides the basis for AI infusion and predictive analytics. However integration with performance management platforms is still an evolving area for consideration (Sardi et al., 2023).

Further, the rise of high-speed last mile wireless and 5G broadband networks has facilitated streaming of bandwidth intensive content such as AR/VR, 3D and multimedia content, improving the usability and access of social media platforms. This will accelerate capabilities such as immersive content creation and real time interaction on platforms such as Metaverse and TikTok (Han & Zhang, 2020).

AI plays a pivotal role in social media platforms, with the ability to analyse consumer behaviour, interactions and preferences, and use the data for predictive insights, automation and the appropriate response and intervention strategies.

Recommendation AI is used to serve content, advertisements and choices in various platforms like

Facebook, Pinterest, TikTok YouTube. (Grandinetti, 2021) and in LinkedIn for job recommendations and people connections (Li et al., 2020).

Image processing ,deep learning and tagging is used in Pinterest to manage photo uploads, and facial recognition is used for example in platforms like snapchat to track features and overlay filters.

Advanced machine learning and cognitive AI are used to assess consumer sentiment and deliver conversational automation capabilities (J. Lee et al., 2020).

Factors such as consumer segmentation and personality traits processed through deep learning are also used to serve up personalized content on social media platforms (Yang et al., 2022).

Identification and classification of abusive text and content using deep learning is another application of AI infusion in social media platforms (Anand & Eswari, 2019).

These advances in social media technology, along with cloud and AI infusion, are ushering in unique, collaborative ways for consumers to engage and foster community networks. Such engagements are in the form of product/service reviews, feedbacks, trending posts, as well as request to resolve issues.

Onset of Generative AI and applications in social media channels :

With the onset of Generative AI based on large language models (LLM’s), it is now becoming possible to mine and analyse large tracts of data, and use it for different applications such as conversational automation, language transcription, and in particular content generation. For example, by analysing billions of images and their text captions, such models are able to generate images and even interactive multimedia content, which could be based on end user segmentation and behaviour context (Manovich et al., 2023). AI based image creation/editing tools (Instagram) as well as personalized AI stickers and characters employed by Meta AI based on Llama GPT algorithm.

In addition to content generation, by using LLM models to analyse consumer behaviours and purchase patterns across large tracts of data, generative AI can help to better understand consumer insights and preferences (Morandé & Amini, 2023).It can further enable personalized experiences and tailored recommendations, for example personalized feeds including text and multimedia content served up based on behaviour patterns, trends and preferences.

In the context of customer care, generative AI could help offer more conversational, human like engagement experiences.

In early 2024, Meta progressively introduced Meta AI across their set of products, in particular WhatsApp adoption (Meta, 2024). Built on LLM (Llama 3 model), it introduces a conversational interface in both personal chats/group chats to answer general queries, summarize conversations as well as create illustrative content, all rendered within native application interfaces.

Misuse of information, with malicious intent by way of AI

generated multimedia content through deepfakes has been one of the challenges faced with the evolution of AI. While these challenges could persist with Generative AI, but with proper supervised applications and using advanced algorithms based on LLM models, generative AI could help analyse and correlate content, at scale, spot potential deepfakes, unmask digital imposters and preserve the integrity of information (Sharma et al., 2024). Social media platforms could then identify/delist such content and avoid misuse of information.

Applications of generative AI based LLM models, to offer misinformation interventions, as well as provide personalized explanations tailored to individual users' beliefs, could provide effective ways to address misinformation on social media by improving user's critical thinking with access to facts (Gabriel et al., 2024).

2.1.3 Adoption of social media management tools

Public expressions on social media have a significant impact on enterprise brands and their market valuations. Studies have shown that Emotion in Social Media (ESM) have a direct impact on stock market conditions and consequently enterprise valuations (Ge et al., 2020). In particular, are the impact caused by influencer posts, case in point by Elon Musk. For example, his tweet in August 2018 to take Tesla private, fuelled the stock price to rise by 11%, while his tweet in May 2020 wiped out about \$ 13 billion when he quoted Tesla price to be too high. His endorsement of Dogecoin in February 2021 and encrypted messaging service Signal propelled its stock price to rise by more than 60% (Ante, 2021).

Influencer marketing is another widely used mechanism for product positioning and promotions as they tend to have a broad impact on consumer behaviour, in particular or purchase decisions and loyalty (Ao et al., 2023). Both industry and influencer segmentation have a direct correlation on the impact such influencer posts can make on enterprise marketing campaigns (Barnes & Rutter, 2019).

Social media management tools allow businesses to monitor public posts and expressions proactively, and device appropriate intervention and response strategies to consumer sentiment and emotions, thereby sustaining and improving overall brand perception. Given the impact social media posts can have on brand equity, it is becoming crucial for businesses to adopt social media management tools (Nanda & Kumar, 2021).

The tools also provide abilities to create and post content in the form of marketing campaigns, to create awareness about promotions and new scheme launches. Studies have indicated that mobilising such marketing campaigns tends to improve purchase intention (Wibowo et al., 2021) and brand loyalty (Laksamana, 2018).

2.2 Summary of Literature Review and gap analysis

The preceding section depicted systematically the current trends and framework of social media channels in the context of B2C engagements, their impact on consumer behaviours and brand valuation. Existing studies indicate

that most applications of social media management tools by businesses currently are in the realms of social listening, and (Ajina, 2019). Another application is to analyse social conversations and categorize them across different clusters to determine trends and patterns, achieved through social insights and analytics (Lappeman et al., 2020). Social media tools are also used extensively to boost sales and promote brand awareness by way of targeted marketing campaigns, and are shaped significantly by industry and policy guidelines (Appel et al., 2020).

To conclude, social media management by businesses today is primarily in the area of social analytics and brand management by way of digital marketing.

The rapid advances in cloud computing, mobility and AI infusion, as highlighted in preceding sections and the consequent impact on social media technologies are changing consumer expectations and behaviour patterns. They expect direct engagement with business brands, and instantaneous and personalized responses, across the entire spectrum of expressions, ranging from public posts on trending topics, to responses on specific enquiries and questions related to products/services. In particular are negative feedback and escalations, which could have a high bearing on enterprise brands and risk of consumers switching to alternate business brands. As such, it is crucial for businesses to adopt appropriate strategies for customer service engagements on social media channels. This however is still an evolving topic and warrants further study (Chuang, 2020).

A key aspect of providing customer service on social channels are response strategies which requires further study (Guo et al., 2020). This include response mechanisms (i.e. automated and/or human assisted), escalation strategies, content being used for responses and the preference and order of social channels involved. The content being used for responses depends on the nature of the social interaction (i.e. public or private).

Consumers today expect customer service engagements to be "omnichannel", implying a level of consistency and coherence across all social channels, including social (S. M. Lee & Lee, 2020). As an example, the engagement could begin by way of a consumer public post, with the conversation being deflected to a private message, and then subsequent follow-ups on other channels. This notion of omnichannel customer service requires not only the incorporation of all engagement channels, including social, but also the customer journey and situational context (Gerea et al., 2021), which could be aided by big data and AI. This has been accelerated further post the pandemic, which saw a surge in the uptake of social channels for customer service due to restrictions in other forms of engagement channels, in particular for addressing customer feedback (Mason et al., 2021).

Usability aspects for effective customer engagement on social channels, including topics such as responsiveness, accessibility and personal data privacy warrant further deliberation (de Oliveira Santini et al., 2020). In particular, how personal data is secured in transit and rest, and is crucial (Ramos et al., 2019).

The role of large language models and generative AI, in the context of conversational automation and content generation, from a social customer engagement standpoint is an evolving topic and requires further deliberation (Cui et al., 2024). The use of virtual, 3 dimensional experiences such as the metaverse to personalize engagements and improve customer experience is also an evolving topic

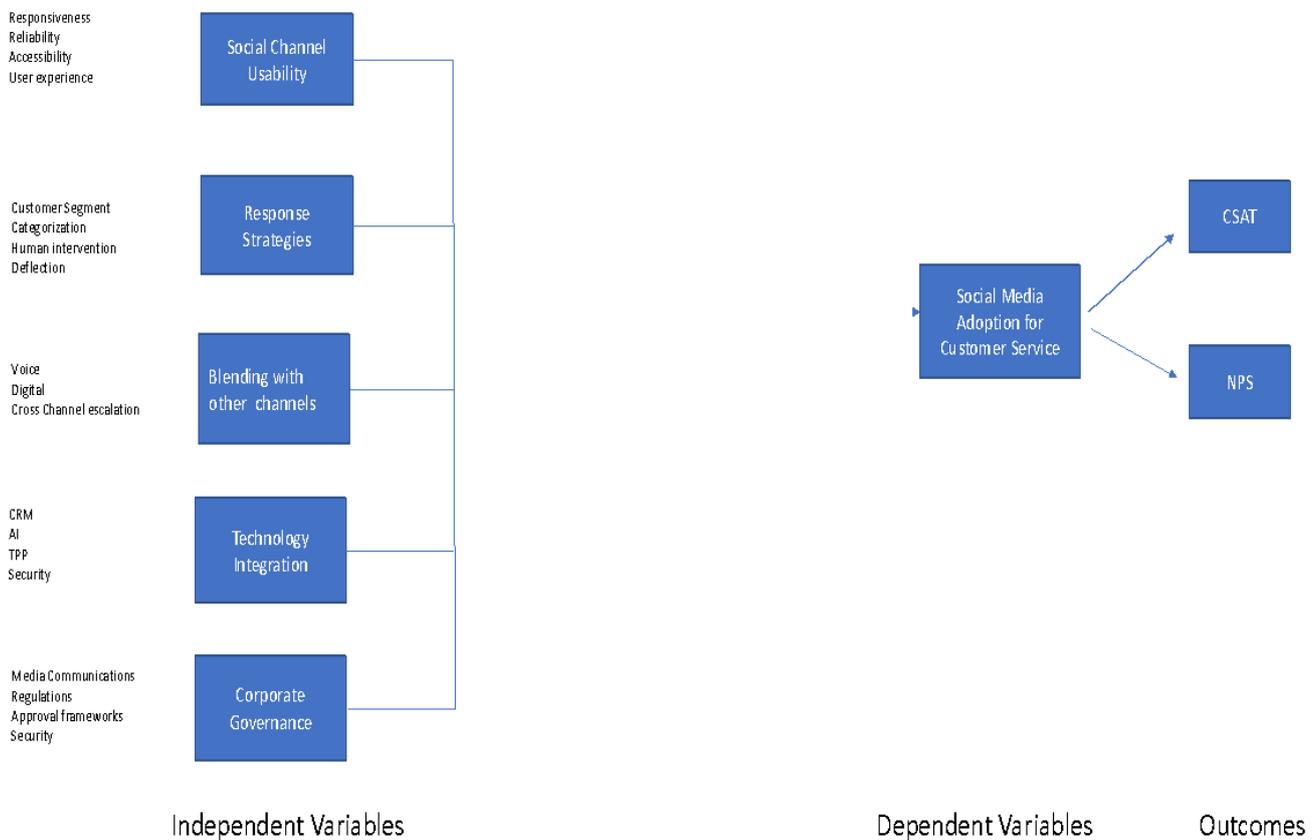
(Khatri, 2022).

To conclude, the adoption of social media management tools for customer service management by business brands is still an emerging topic, depending on various considerations as mentioned above. These considerations are detailed in the form of a conceptual framework below.

Conclusion: Discussion and Conceptual Framework

The adoption of social media channels for providing customer service requires careful consideration around various factors such as infusion of customer service agents/personnel, technology integration aspects ,blending of social channels with other customer engagement channels, response strategies and governance aspects.

These considerations are depicted in the form of a conceptual framework as shown below



The above conceptual framework has been developed following an extensive literature review on the evolution of social media channels, their impact on enterprise brand valuations, and the applications of social media management platforms in enterprises. The review highlights the importance of employing social media channels for customer service, and proposes key factors that enterprises should consider for their adoption in the form of a conceptual framework. These key factors are propositions constitute independent variables. The dependent variable is social media adoption, whereas outcome variables or measures are CSAT and NPS.

These are explained below:

Social Channel Usability:

Broadly, this refers to the usability aspects of social media channels, in terms of convenience, accessibility, reach and the rich collaboration capabilities that they offer for consumers to contribute in community networks as well as to engage with enterprise brands.

Response strategies:

This is a very broad but important aspect that enterprises need to incorporate for responses to social media public and private expressions. These include customer segmentation and type (e.g. influencers, followers), keywords and categorization, response mechanisms, i.e. employing automated chatbots versus human assisted responses, timing, as well as deflecting public posts to private conversations depending on the interaction type and context.

Blending with other customer service channels:

Customers expect seamless experiences across different engagement channels, such as voice, virtual, digital, physical and social. Enquires could originate on online channels, but could be followed up on social channels, and as such there is an expectation for consistency of context and responses.

Technology Integration:

The usage of social channels is now expanding to commerce, transactions, enquiries where there is a need to integrate enterprise applications and AI with social media channels.

Governance:

In the context of social media engagement, considering it could be in public or private domains, there is a need to moderate the nature and quality of responses by enterprises through appropriate corporate governance mechanisms.

Outcome measures:

There are various ways through which social media adoption amongst enterprises could be evaluated. This would depend on specific business objectives in the context of customer service management for which social media channels could be employed. The measures could be related to operational efficiency, with metrics such as "Average Handling Time" (AHT), and "resolution rate". They could be related to customer sentiment (positive/negative), as also related to customer engagement rates and brand impact, with metrics such as Some "impressions", "engagement rates", "amplification rates", and so on. However, given that this is still an evolving topic, the study considers "Customer Satisfaction Score (CSAT)" and "Net Promotor Score" (NPS) as these metrics are the most widely accepted for customer experience management.

CSAT:

Essentially this is a metric which measures how satisfied customers are with a business brand and/or the service offered by it.

NPS:

Essentially this is a metric that measures customer loyalty. It's is useful in predicting future customer relationships.

4.0 Contributions:

Improving CX is a top priority for business today in the wake of digital transformation, and this study provides valuable insights on the key considerations for businesses for adopting social media platforms for customer experience management. By conducting a comprehensive analysis on existing literature on social media evolution, adoption by consumers and business brand impact, the study identifies the need for enterprises to focus on social customer service, in addition to marketing and insights. This is still an emerging topic, and the paper further qualifies the need for social customer service by articulating the change in consumer behaviour patterns in the wake of digitalization, and the uptake of social media channels. The paper further presents key considerations on employing social customer service strategies, which are depicted in the form of a conceptual framework. In particular, recent trends in AI proliferation, including Metaverse, and Generative AI, and their possible applications from a perspective of social customer service are discussed. These would be beneficial to enterprises who are currently in early stages of evaluation of such technological advances and perceived business benefits.

Overall, a careful evaluation of the above considerations could assist enterprises to employ appropriate customer service strategies in B2C scenarios, on social media channels. This would ultimately help enterprises in improving better brand recall, engagement and higher customer attach rates.

These considerations form the basis for the following propositions:

Proposition 1:

How does the usability aspects of social media channels impact their adoption for customer experience management?

Proposition 2 :

How do social media response strategies impact their adoption for customer service?

Proposition 3 :

What is the impact of blending social channels with other customer service channels to improve overall customer experience?

Proposition 4:

What is the impact of technology integration aspects on adoption of social media channels for customer service?

Proposition 5:

How do corporate governance frameworks impact the adoption of social media channels for customer service?

As a topic of future investigation to further extend this study, researchers could validate the above propositions through appropriate modelling techniques.

5.0 Limitations:

The study is based on secondary sources of data, primarily in the form of research papers, market research reports and statistical data. The study formulates a conceptual framework based on extensive literature review of such secondary sources, which may need to be validated empirically through appropriate techniques and primary sources of data. This could be an area of future research.

Considering the evolving nature of the topic, liberties have been taken to cite literature references across various geographies, and as such results could vary based on different countries and customer demographics.

Furthermore, customer enquiries and feedback could vary based on the type of social media channel sampled, for example expressions on public mentions and posts and conversations on private messaging channels. These aspects would need to be factored in for further studies.

While customer experience management is a broad topic encompassing all business segments, there could be nuances in the application of factors as cited above depending on the business type/business vertical.

REFERENCES

1. Abras, A., & Mattos, G. G. C. (2021). Get Them While They Are Young. *Journal of Financial Services Research*, 59(1), 97–113. <https://doi.org/10.1007/s10693-020-00339-4>
2. Administration, I. T. (2024). *Ecommerce growth forecast : 2024 and beyond*. <https://www.trade.gov/ecommerce-sales-size-forecast>
3. Ajina, A. S. (2019). the Role of Social Media Engagement in Influencing Customer Loyalty in Saudi Banking Industry. *International Review of Management and Marketing*, 9(3), 87–92. <https://doi.org/10.32479/irmm.8060>
4. Alshurideh, M. T., Al Kurdi, B., Alhamad, A., Hamadneh, S., Alzoubi, H. M., & Ahmad, A. (2023). Does social customer relationship management (SCRM) affect customers' happiness and retention? A service perspective. *Uncertain Supply Chain Management*, 11(1), 277–288. <https://doi.org/10.5267/j.uscm.2022.9.015>
5. Anand, M., & Eswari, R. (2019). Classification of abusive comments in social media using deep learning. *Proceedings of the 3rd International Conference on Computing Methodologies and Communication, ICCMC 2019, Iccmc*, 974–977. <https://doi.org/10.1109/ICCMC.2019.8819734>
6. Ante, L. (2021). How Elon Musk's Twitter Activity Moves Cryptocurrency Markets. *SSRN Electronic Journal*, 16, 1–28. <https://doi.org/10.2139/ssrn.3778844>
7. Ao, L., Bansal, R., Pruthi, N., & Khaskheli, M. B. (2023). Impact of Social Media Influencers on Customer Engagement and Purchase Intention: A Meta-Analysis. *Sustainability (Switzerland)*, 15(3), 1–15. <https://doi.org/10.3390/su15032744>
8. Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79–95. <https://doi.org/10.1007/s11747-019-00695-1>
9. Barnes, S., & Rutter, R. (2019). Using big data and AI to examine product engagement in social media influencer posts. *2019 4th International Conference on Information Technology, Information Systems and Electrical Engineering, ICITISEE 2019*, 6, 35–39. <https://doi.org/10.1109/ICITISEE48480.2019.9003991>
10. Chan, K., & O'brien, M. (2022). *What is metaverse how will it work?* <https://techxplore.com/news/2021-10-metaverse-1.html>
11. Cho, H., Li, P., Ngien, A., Grace, M., & Chen, A. (2020). *Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information. January.*
12. Chuang, S. H. (2020). Co-creating social media agility to build strong customer-firm relationships. *Industrial Marketing Management*, 84(June), 202–211. <https://doi.org/10.1016/j.indmarman.2019.06.012>
13. Cuello-Garcia, C., Perez-Gaxiola, G., & Amelsvoort, L. van. (2020). *Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information. January.* <https://doi.org/10.1016/j.jclinepi.2020.06.028>
14. Cui, Y. (Gina), van Esch, P., & Phelan, S. (2024). How to build a competitive advantage for your brand using generative AI. *Business Horizons*.

- <https://doi.org/https://doi.org/10.1016/j.bushor.2024.05.003>
15. Datareportal. (2024). *Social User Identities*. <https://datareportal.com/reports/digital-2024-global-overview-report>
 16. de Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48(6), 1211–1228. <https://doi.org/10.1007/s11747-020-00731-5>
 17. Dubey, V., Mokashi, A., Pradhan, R., Gupta, P., & Walimbe, R. (2022). Metaverse and Banking Industry – 2023 The Year of Metaverse Adoption. *Technium: Romanian Journal of Applied Sciences and Technology*, 4(10), 62–73. <https://doi.org/10.47577/technium.v4i10.7774>
 18. Forrester. (2021). *Predictions 2021: It's All About Empathy, Digital, And Virtualizing Customer Care*. <https://www.forrester.com/blogs/customer-service-predictions-2021/>
 19. Gabriel, S., Lyu, L., Siderius, J., Ghassemi, M., Andreas, J., & Ozdaglar, A. (2024). Generative AI in the Era of “Alternative Facts.” *An MIT Exploration of Generative AI*, 1–24. <https://doi.org/10.21428/e4baedd9.82175d26>
 20. Ge, Y., Qiu, J., Liu, Z., Gu, W., & Xu, L. (2020). Beyond negative and positive: Exploring the effects of emotions in social media during the stock market crash. *Information Processing and Management*, 57(4), 102218. <https://doi.org/10.1016/j.ipm.2020.102218>
 21. Gereaa, C., Gonzalez-Lopez, F., & Herskovic, V. (2021). Omnichannel customer experience and management: An integrative review and research agenda. *Sustainability (Switzerland)*, 13(5), 1–24. <https://doi.org/10.3390/su13052824>
 22. Gov.SG. (2020). *Gov.sg on whatsapp*. <https://www.gov.sg/article/govsg-on-whatsapp>
 23. Grandinetti, J. (2021). Examining embedded apparatuses of AI in Facebook and TikTok. *AI and Society*, Gillespie 2020. <https://doi.org/10.1007/s00146-021-01270-5>
 24. Guo, Y., Fan, D., & Zhang, X. (2020). Social media-based customer service and firm reputation. *International Journal of Operations and Production Management*, 40(5), 575–601. <https://doi.org/10.1108/IJOPM-04-2019-0315>
 25. Han, M., & Zhang, X. (2020). Prospects for the advancement of the TikTok in the age of 5G communication. *13th CMI Conference on Cybersecurity and Privacy - Digital Transformation - Potentials and Challenges, CMI 2020*. <https://doi.org/10.1109/CMI51275.2020.9322720>
 26. Hasan, M. H., Osman, M. H., Admodisastro, N. I., & Muhammad, M. S. (2023). From Monolith to Microservice: Measuring Architecture Maintainability. *International Journal of Advanced Computer Science and Applications*, 14(5), 857–866. <https://doi.org/10.14569/IJACSA.2023.0140591>
 27. Ibrahim, M. N., Sarmidi, N. Z. S., & Syed, M. A. B. M. (2024). COVID-19 outbreak and integration of social media in public health crisis communication: a case study of UMMC, Kuala Lumpur. *Journal of Hospital Management and Health Policy*, 8. <https://doi.org/10.21037/jhmhp-23-139>
 28. Khatri, M. (2022). Revamping the Marketing World with Metaverse – The Future of Marketing. *International Journal of Computer Applications*, 184(29), 1–5. <https://doi.org/10.5120/ijca2022922361>
 29. Laksamana, P. (2018). Impact of Social Media Marketing on Purchase Intention and Brand Loyalty: Evidence from Indonesia’s Banking Industry. *Textile Network*, 8(5–6), 34–35.
 30. Lappeman, J., Clark, R., Evans, J., Sierra-Rubia, L., & Gordon, P. (2020). Studying social media sentiment using human validated analysis. *MethodsX*, 7, 100867. <https://doi.org/10.1016/j.mex.2020.100867>
 31. Lee, L.-H., Braud, T., Zhou, P., Wang, L., Xu, D., Lin, Z., Kumar, A., Bermejo, C., & Hui, P. (2021). *All One Needs to Know about Metaverse: A Complete Survey on Technological Singularity, Virtual Ecosystem, and Research Agenda*. 14(8), 1–66. <http://arxiv.org/abs/2110.05352>
 32. Lee, S. M., & Lee, D. H. (2020). “Untact”: a new customer service strategy in the digital age. *Service Business*, 14(1). <https://doi.org/10.1007/s11628-019-00408-2>
 33. Li, S., Shi, B., Yang, J., Yan, J., Wang, S., Chen, F., & He, Q. (2020). Deep Job Understanding at LinkedIn. *SIGIR 2020 - Proceedings of the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval*, 2145–2148. <https://doi.org/10.1145/3397271.3401403>
 34. Manovich, L., Manovich, L., & Arielli, E. (2023). AI Image and Generative Media. *Artificial Aesthetics: A Critical Guide to AI, Media and Design*, 1–17.
 35. Mason, A. N., Narcum, J., & Mason, K. (2021). Social media marketing gains importance after Covid-19. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2020.1870797>

36. Meta. (2022). *WhatsApp for Business*. <https://business.whatsapp.com/>
37. Meta. (2024). *Meta AI*. <https://about.fb.com/news/2024/04/meta-ai-assistant-built-with-llama-3/>
38. Mickalowski, K., College, A., Mickelson, M., & College, A. (n.d.). *Apple's iPhone Launch: A Case Study in Effective Marketing*. 1–7.
39. Morandé, S., & Amini, M. (2023). *Open Peer Review on Qeios Digital Persona: Reflection on the Power of Generative AI for Customer Profiling in Social Media Marketing*. 2019, 1–12. <https://doi.org/10.32388/0QI028>
40. Nanda, P., & Kumar, V. (2021). Social Media Analytics: Tools, Techniques and Present Day Practices. *International Journal of Services Operations and Informatics*, 11(4), 1. <https://doi.org/10.1504/ijsoi.2021.10039351>
41. Qu, Y., Cieřlik, A., Fang, S., & Qing, Y. (2023). The role of online interaction in user stickiness of social commerce: The shopping value perspective. *Digital Business*, 3(2). <https://doi.org/10.1016/j.digbus.2023.100061>
42. Rahmawati, D. E., Rasyid, H. A. N., Misran, & Mina, F. L. P. (2023). Government Communication in Indonesia Through Social Media: Learning CERC in Dealing with Pandemic. *E3S Web of Conferences*, 440. <https://doi.org/10.1051/e3sconf/202344003006>
43. Ramos, R. F., Rita, P., & Moro, S. (2019). From institutional websites to social media and mobile applications: A usability perspective. *European Research on Management and Business Economics*, 25(3), 138–143. <https://doi.org/10.1016/j.iemeen.2019.07.001>
44. Rui, H., & Seidmann, A. (2020). Fast and fair: delivering customer service on social media. *Eprints.Lse.Ac.Uk*, 48(6), 1211–1228. <http://eprints.lse.ac.uk/88979/1/businessreview-2018-03-13-fast-and-fair-delivering-customer-service.pdf>
45. Sardi, A., Sorano, E., Cantino, V., & Garengo, P. (2023). Big data and performance measurement research: trends, evolution and future opportunities. *Measuring Business Excellence*, 27(4), 531–548. <https://doi.org/10.1108/MBE-06-2019-0053>
46. Sharma, P., Kumar, M., & Sharma, H. K. (2024). *EAI Endorsed Transactions Robust GAN-Based CNN Model as Generative AI Application for Deepfake Detection*. 10, 1–8. <https://doi.org/10.4108/eetiot.5637>
47. Vishvesh, S. (2023). Adopting Generative AI in Digital Marketing Campaigns: An Empirical Study of Drivers and Barriers. *Sage Science Review of Applied Machine Learning*, 6, 1–15. <https://journals.sagepub.com/index.php/ssraml/article/view/108/90>
48. Wajahat Hussain. (2020). Role of Social Media in COVID-19 Pandemic. *The International Journal of Frontier Sciences*, 4(2), 59–60. <https://doi.org/10.37978/tijfs.v4i2.144>
49. Wan, W. S., Dastane, O., Satar, N. S. M., & Ma'arif, M. Y. (2019). What wechat can learn from whatsapp? Customer value proposition development for mobile social networking (MSN) apps: A case study approach. *Journal of Theoretical and Applied Information Technology*, 97(4), 1091–1117.
50. Wibowo, A., Chen, S. C., Wiangin, U., Ma, Y., & Ruangkanjanases, A. (2021). Customer behavior as an outcome of social media marketing: The role of social media marketing activity and customer experience. *Sustainability (Switzerland)*, 13(1), 1–18. <https://doi.org/10.3390/su13010189>
51. Xu, M., Ng, W. C., Lim, W. Y. B., Kang, J., Xiong, Z., Niyato, D., Yang, Q., Shen, X. S., & Miao, C. (2022). *A Full Dive into Realizing the Edge-enabled Metaverse: Visions, Enabling Technologies, and Challenges*. 1–44. <http://arxiv.org/abs/2203.05471>
52. Yang, Q., Nikolenko, S., Huang, A., & Farseev, A. (2022). Personality-Driven Social Multimedia Content Recommendation. In *Proceedings of the 30th ACM International Conference on Multimedia (MM '22), October 10–14, 2022, Lisboa, Portugal* (Vol. 1, Issue 1). Association for Computing Machinery. <https://doi.org/10.1145/3503161.3548769>