INDIAN INSTITUTE OF BANKING AND FINANCE (IIBF)

Macro Research Report

ON

"EMPOWERING FINANCIAL OUTREACH AMONG MASSES BY HARNESSING THE POTENTIAL OF SOCIAL MEDIA"

Submitted To:

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EXECUTIVE SUMMARY

The study *"Empowering Financial Outreach Among Masses by Harnessing the Potential of Social Media"* explores how social media can be effectively utilized by both private and public sector banks to enhance financial outreach, promote financial literacy, and increase customer engagement. The research focuses on understanding the role of social media in broadening the financial reach to the masses, particularly in Maharashtra, one of India's most economically diverse states. Through an analysis of 10 banks (5 private and 5 public sector) in five regions: Mumbai, Raigarh, Thane, Pune, and Nashik, the study investigates how banks utilize social media platforms to connect with customers and promote their services. The study involved a sample of 100 bank officers and 1,000 customers from these regions, carefully selected based on the presence of bank branches and ATMs.

The core objective of the study is to assess the effectiveness of social media in improving financial awareness, promoting financial products, and empowering individuals with the knowledge and tools necessary for better financial decision-making. This research also aims to examine whether social media can play a significant role in enhancing financial inclusion and fostering digital literacy, especially in rural areas where access to traditional banking channels might be limited.

To achieve these objectives, the research was designed to include both qualitative and quantitative methods. A structured survey was conducted to gather insights from two groups: bank officers and bank customers. Bank officers were asked about their strategies, challenges, investments and various social media channels and contents used for customer engagement and financial outreach, while customers were questioned about their experiences and interaction with banks on various social media platforms. This dual approach allowed the study to capture both institutional and consumer perspectives on the usage of social media in the banking sector.

A key aspect of the research was the development of several hypotheses that guided the analysis. The first hypothesis (H1) is that perceptions of banking institutions differ based on their social media presence and activity. The second hypothesis (H2) suggested that social media builds conversation trends in the banking domain, causing shifts in consumer sentiments. Hypothesis H3 proposed that social media has a direct effect on decision-making related to marketing tactics adopted by financial institutions.

The research methodology was grounded in descriptive statistics and correlation analysis to understand the relationship between social media usage and customer behaviour. Data was analyzed using frequency distributions and cross-tabulations to explore patterns and trends. The findings were further examined using hypothesis testing to evaluate the validity of the proposed hypotheses.

The study found that social media is increasingly becoming a powerful tool for both private and public sector banks to engage with customers, promote their products, and share educational content. However, private sector banks showed a more proactive approach in leveraging social media platforms such as Facebook, Instagram, and Twitter for customer outreach. These banks tend to use social media more effectively for personalized marketing, financial education campaigns, and direct customer engagement. On the other hand, while public sector banks have acknowledged the potential of social media, they lag in fully exploiting these platforms. Many officers from public sector banks indicated that there were challenges related to resource allocation, training, and the lack of a clear strategy for social media outreach.

One of the most significant findings of the study was the role of social media in enhancing financial literacy. Both private and public sector banks that regularly posted financial tips, product promotions, and how-to guides on social media platforms were able to reach a broader audience. Customers who interacted with these posts were more informed about digital banking services, government schemes, and personal finance management. In particular, YouTube and Facebook were popular platforms for educational videos and live webinars that helped demystify complex financial topics for a wider audience. For many customers, especially those in rural regions like Raigarh and Nashik, these social media initiatives were the first exposure to formal financial education.

Moreover, the research highlighted the regional disparities in the usage of social media for financial outreach. Urban regions such as Mumbai and Pune exhibited higher levels of social media engagement, with a significant number of customers regularly interacting with their banks on social media platforms. In contrast, rural areas, while showing some interest, had lower engagement rates. Customers in these regions often felt disconnected from the digital banking services offered by their banks and indicated a need for more targeted outreach programs. Despite this, the study found that when rural customers were exposed to well-crafted financial literacy campaigns, they showed a high level of interest and engagement.

The research also provided valuable insights into the role of bank officers in the adoption and implementation of social media strategies. Officers from private sector banks reported higher levels of familiarity and comfort with using social media for business purposes, and they tended to be more innovative in creating interactive campaigns. In contrast, officers from public sector banks often cited challenges in adapting to the fast-changing digital landscape. While they recognized the importance of social media for customer engagement, there was a noticeable gap in resources and training that hindered their ability to fully capitalize on the potential of these platforms.

Furthermore, the study examined the impact of social media on customer engagement with banking products. It was found that customers who actively engaged with their banks on social media were more likely to explore and use new banking products, such as mobile banking apps, digital wallets, and investment products. Social media campaigns that highlighted the ease of using these services and offered personalized advice received a positive response, particularly in urban areas where digital literacy was higher.

Based on these findings, the study suggests several recommendations for banks to improve their social media strategies. First, banks, particularly public sector ones, need to invest in training their staff and equipping them with the necessary skills to utilize social media effectively. A more structured and focused approach to content creation, with a greater emphasis on financial literacy, can enhance customer engagement. Second, banks should consider launching region-specific campaigns that address the unique challenges and needs of urban and rural customers. For example, banks can use social media to target rural areas with educational content about mobile banking, digital payments, and government financial schemes. Third, banks should encourage more two-way communication on social media platforms to foster trust and transparency with customers.

In conclusion, this study underscores the immense potential of social media in empowering financial outreach among the masses. By leveraging social media platforms, both private and public sector banks have the opportunity to engage a broader audience, promote financial literacy, and enhance customer satisfaction. However, the study also highlights the need for more investment in digital training, region-specific strategies, and increased collaboration between banks and customers to unlock the full potential of social media in the banking sector. As digital banking continues to evolve, harnessing the power of social media will be crucial in driving financial inclusion and improving access to essential banking services across India.

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GLOSSARY

- Financial Outreach – The process of expanding access to banking and financial services to a broader population, including underserved and rural communities.
- Social Media Engagement – The interaction between banks and customers on social media platforms, including likes, comments, shares, and direct messages.
- Financial Literacy – The knowledge and understanding of financial concepts that enable individuals to make informed and effective financial decisions.
- Digital Banking – The use of online platforms and mobile applications to conduct banking transactions, such as fund transfers, bill payments, and account management.
- Public Sector Banks – Banks owned and operated by the government that provide financial services to the public with a focus on financial inclusion.
- Private Sector Banks – Banks owned and operated by private entities that focus on profitability and customer service, often employing innovative digital strategies.
- Customer Engagement – The strategies and interactions used by banks to connect with customers and encourage them to use financial products and services.
- Hypothesis Testing – A statistical method used to determine if there is enough evidence to support a proposed assumption or hypothesis in research.
- Descriptive Statistics – A branch of statistics used to summarize and describe the main features of a dataset through measures such as mean, median, and frequency distribution.
- Correlation Analysis – A statistical technique used to measure the relationship between two variables, such as social media usage and customer behavior.
- Digital Literacy – The ability to effectively use digital platforms, including social media and online banking services, for financial and personal purposes.
- Financial Inclusion – The effort to ensure that individuals and businesses, especially those in underserved areas, have access to useful and affordable financial products and services.
- Social Media Marketing (SMM): The use of social media platforms to promote products, services, and brands to engage with customers and enhance business growth.
- Influencer Marketing: A type of marketing that involves partnering with individuals who have a large social media following to promote products and services.

- Marketing Tactics **–** Strategies banks use to promote their products and services through various channels, including social media, advertisements, and campaigns.
- Content Strategy – The planning and creation of digital content (such as videos, infographics, and blogs) to engage and educate customers on financial topics.
- Regional Disparities – The differences in access to financial services and engagement with digital banking between urban and rural areas.
- Chatbot***:*** An artificial intelligence-driven tool used by businesses to provide automated customer support and interaction.
- True Positive (TP*):* An instance that is positive and is predicted as positive.
- False Positive (FP): An instance that is negative but is predicted as positive (Type I error).
- True Negative (TN): An instance that is negative and is predicted as negative.
- False Negative (FN): An instance that is positive but is predicted as negative (Type II error).
- Confusion Matrix: A table that visualises the performance of a classification algorithm, showing the counts of true positives, false positives, true negatives, and false negatives.
- Engagement Rate: The percentage of followers who interact with content
- Sentiment Analysis: Algorithmic evaluation of emotional tone in text
- Share of Voice: A brand's visibility relative to competitors
- Reach: The total number of unique users exposed to content
- Impressions: Total number of times content is displayed
- Conversion Rate: Percentage of engaged users who take desired actions
- User-Generated Content (UGC)**:** Content created and shared by users, including reviews, testimonials, and social media posts, that contribute to brand perception.

CHAPTER 1.

INTRODUCTION

In today’s digital age, accessibility and financial knowledge are crucial to guaranteeing economic stability and prosperity for the public. The introduction of social media has completely changed the way that financial information is shared, even while more conventional financial outreach techniques like seminars, printed materials, and institutional programs have been crucial in educating the public. Social media platforms are an effective instrument for strengthening financial outreach, bridging the gap between financial institutions and the public, and promoting a financially literate society because of their wide reach and real-time interaction capabilities.

A key element of both individual and societal economic well-being is financial literacy. It includes knowledge of important financial ideas including debt management, investing, saving, and budgeting. Unfortunately, a sizable section of the world's population still lacks financial literacy, which contributes to unstable economies and bad financial decisions. Using social media for financial outreach offers a creative and expandable way to deal with this problem. Social media sites like Facebook, Instagram, YouTube, LinkedIn, Twitter, and Twitter provide financial professionals, organizations, and influencers a special chance to connect with a wide range of people by simplifying difficult financial ideas into interesting and readily readable material.

Accessibility is among social media's most persuasive benefits for financial outreach. Social media makes it possible for financial information to be openly and extensively disseminated, in contrast to conventional financial education approaches that could call for in-person attendance or access to pricey tools. Financial institutions may successfully interact with audiences of various demographics by using informative blogs, webinars, debates in real time, infographics, and brief videos. This raises awareness and motivates people to manage their money by taking proactive measures.

Social media also encourages individualized and interactive learning. Real-time discussion, question-asking, and clarification-seeking by users foster an inclusive financial learning environment. Peer-to-peer learning and experience sharing are made possible by online communities devoted to financial education, such as investing forums and personal finance groups. To make financial information more approachable and useful for the general public, financial influencers and thought leaders also utilize these platforms to share real-life financial success stories, offer professional advice, and dispel prevalent financial fallacies.

Financial outreach initiatives are further improved when artificial intelligence and data analytics are included in social media. To determine user preferences and provide tailored financial information, financial institutions might leverage social media algorithms. People may get immediate financial advice from chatbots and AI-powered financial advisers, which will help them make wise choices regarding their spending, investing, and saving patterns. This customized strategy guarantees that financial data is not only extensively accessible but also catered to the requirements of various audience segments.

The proliferation of social media platforms has led to a massive increase in the volume of data generated, encompassing various forms such as text, images, videos, and interactions between users. This has resulted in businesses recognizing the value of leveraging this data through social media analytics (SMA) to gain insights into customer behaviour, market trends, brand sentiment, and more. These insights gained from social media analytics can be used to enhance marketing efforts, improve customer engagement, identify emerging trends, manage brand reputation, and even drive product innovation. The banking industry has recognized the potential of social media's success and has integrated these technologies into their operations to improve product promotion, advertising, and strategic development.

The adoption of new products is critical to the development and viability of financial institutions in the ever-changing financial industry. Social media marketing is one such strategy that has grown significantly in importance in recent years. Social media encompasses a range of digital platforms for communication, such as email, blogs, wikis, websites, videos, and photo galleries, emphasizing virtual connections which eliminates the need to be physically present. The advancement and maturation of social media have expanded the array of channels accessible for the banking sector to leverage by enabling customers to engage with their banks for activities such as access to financial advice, opening new bank accounts, transfer of funds electronically, learning about new promotions and receive instant feedback on inquiries as well as complaints lodged.

By utilizing social media, banks can actively monitor their customers' activities, gaining deep insights into their requirements and adjusting to meet shifting expectations. This proactive approach enhances social care, showcases the bank's value, and enables personalized interactions with customers. Being in people's private spaces on Facebook, Myspace, LinkedIn, Twitter, and other sites is necessary to do that. In today's connected society, it is no longer an option to ignore the power of internet word-of-mouth. Customers' power to shape business strategy and affect company behaviour in unexpected and often unwanted ways has increased dramatically which includes the banking community as well. Within less than a day, a single, "entertaining," online complaint from a disgruntled client can spiral out of control and become a major issue. It is more important than ever to know what consumers are feeling, thinking, and saying about your business in real time in this climate. To improve client service, maintain their image, and gain a competitive edge, financial services organizations must make the most of social media. Social media makes information more accessible, humanizes customer service, and draws companies closer to their stakeholders. (Kumar & Dr., 2014)

1.1. Background & Overview

Artificial intelligence (AI) and data analytics have significantly improved the efficacy of financial outreach through social media. To provide individualized financial information that is catered to each user's requirements, sophisticated algorithms may examine user behaviour, preferences, and engagement patterns. Chatbots and virtual financial advisers driven by AI offer immediate assistance to customers with questions about personal finance, banking, and investing. This degree of personalization guarantees that financial education is not only widely available but also applicable and useful to various audience segments.

Social media platforms are posing a challenge to traditional techniques of client connection and product marketing. The introduction of digital technology has caused a major upheaval in the financial sector. Social media platforms are becoming efficient marketing tools for financial goods, offering chances to connect with a larger audience and successfully interact with consumers.

Using social media to its full potential for financial outreach is revolutionary for advancing inclusion and financial literacy. Financial institutions and educators may provide people with the information and resources they need to make wise financial decisions by utilizing social media's reach, accessibility, engagement, and data-driven customisation. Social media will play an increasingly important role in financial education as it develops further, opening the door to a world society where everyone is financially empowered.

Even though social media has many advantages for financial outreach, problems including false information, financial fraud, and data privacy issues still exist. Financial organizations and regulatory bodies must put strict safeguards in place to ensure the legitimacy of financial content and shield users from fraud in order to solve these issues. Promoting financial literacy initiatives supported by reputable organizations and forming alliances with reliable financial educators can assist reduce these dangers.

Technology breakthroughs and shifting customer preferences are causing a revolution in the banking sector. The purpose of this study project is to better understand and explore how social media marketing may be strategically used to increase the uptake of financial products.

1.2. Problem Statement

Social media has become a potent tool for sharing information and facilitating communication, making it an indispensable avenue for financial institutions to connect with both current and potential clients. Despite the evident benefits, there is a lack of extensive research on the optimal strategies for social media marketing of financial products. While social media has been characterized in diverse manners, its applications typically incorporate four prominent features: collaboration, sharing, community, and conversation.
Even though the prominence of social media is on the rise, there is still a gap in understanding how financial institutions can optimize these platforms to increase product adoption. To close this disparity, this study investigates practical methods for promoting the usage of financial goods on social media sites. This study attempts to bridge this gap by examining the nuances of effective social media marketing strategies appropriate for the financial sector and to understand and explore the strategic use of social media marketing to increase the uptake of financial products.

1.3. Objectives

The banking industry is currently confronted with a multitude of challenges across various aspects of its operations, encompassing shifting customer preferences, intensified competition, regulatory complexities, and the rapid pace of technological changes. The rising trend of social media adoption has been observed across several organizations and has appealed to the banking community as they provide target market information and enable them to develop and offer tailor-made services, which results in greater client loyalty.

Keeping this as the focus of our research, we propose the following objectives:

1. Examine perceptions built towards banking institutions through opinions and reviews presented on social media, i.e., assess popularity prediction.
2. Determine the user engagement rate with social media related to banking institutions, i.e., consumers engaged with the service development process, advertising, and online brand communities, and ascertain the best strategies to increase it.
3. Analyse conversation trends and customer feedback using social media analytics to understand shifts in consumer sentiment.
4. Provide recommendations on how financial institutions should improve the uptake of their products through social media marketing using dashboards.

1.4. Hypothesis

1. H1: Perceptions of banking institutions differ based on their social media presence and activity.
2. H2: Social media builds conversation trends in the banking domain, causing shifts in consumer sentiments.
3. H3: Social media has a direct effect on decision-making related to marketing tactics adopted by financial institutions.

1.5. Significance of the study

This study is highly significant for Indian banks as it highlights the transformative role of social media in expanding financial outreach, improving customer engagement, and driving financial inclusion. India, with its vast population and increasing digital penetration, presents a unique opportunity for banks to leverage social media as a powerful tool to reach unbanked and underbanked segments. Traditional banking models often face challenges in catering to rural and semi-urban populations due to infrastructure limitations, lack of awareness, and accessibility barriers. Social media bridges this gap by providing an easily accessible, cost-effective platform for banks to educate and engage with potential customers about various financial services, including savings accounts, loans, digital payments, and government-backed financial schemes.

Social media enables banks to establish direct and transparent communication with their customers, addressing queries in real time and resolving grievances efficiently. This fosters trust and encourages more people to participate in the formal banking sector. Additionally, social media marketing allows banks to conduct targeted outreach, ensuring that their financial products and services reach the right audience based on demographics, interests, and location. Social media campaigns are cost-effective and measurable, allowing banks to assess engagement levels, refine their strategies, and optimize outreach efforts for better financial inclusion.

The implication of this research lies in its ability to provide financial institutions, policymakers, and academics with insightful information on the dynamics of social media marketing in the financial industry. Banks and other financial institutions can leverage social media platforms to market their financial products. It will contribute to the academic literature on the intersection of social media and financial services. In an increasingly digital environment, the findings will help financial institutions make better judgments, become more competitive in the market, and eventually encourage the use of financial products. The findings will have practical implications for industry professionals and policymakers.

1.6. Limitations

1. *Limited Geographic Scope*: The results of this study may not be as broadly applicable to a larger population because it mainly focuses on a certain geographic area or demography. The effect of social media on financial outreach may change depending on the location or cultural setting.
2. *Data Accessibility and Availability*: The study may have limitations about the accuracy and completeness of the data because it relies on publicly accessible data from social media sites. Access to the data required for in-depth research may be limited by the ever-changing nature of social media algorithms and privacy laws.
3. *Rapidly Changing Technology*: The fast-paced nature of social media platforms and digital marketing trends can cause the findings of this study to become outdated quickly. As new platforms and tools emerge, their impact on financial outreach may differ significantly from the patterns observed during the study period.

4. *Subjectivity in Measuring Engagement*: Although the study looks at how well social media empowers financial outreach, gauging engagement—likes, shares, comments, etc.—may not accurately reflect the calibre of exchanges or the actual influence on financial inclusion and literacy among the public.

1.7. Organisation of the report

In the wake of India's push towards a digital economy, social media plays a crucial role in promoting digital transactions and cashless payments. Platforms such as Facebook, Twitter, Instagram, and WhatsApp provide banks with an avenue to educate customers. This study aims to explore the role and usage of social media by public-sector banks and private-sector banks in India.

The report is organized into several sections and subsections to provide a comprehensive understanding of the study. It begins with an introduction that outlines the problem statement, objectives, hypothesis, significance, and limitations of the study. This is followed by a literature review, which sets the context for understanding social media marketing of financial products. The report delves into various aspects of social media, its role in banking, and the strategies employed by both public and private sector banks in India. It also highlights the impact of social media marketing on financial products and the challenges faced by banks in leveraging these platforms. The research methodology section details the design, sample selection, and data collection methods. Data analysis is presented in two phases, followed by findings, recommendations, and suggestions. Finally, the report concludes with references and annexures for further insight.

CHAPTER 2.

LITERATURE REVIEW

Three sections of the study make up the review of the literature for the research.

i) Review of social media marketing in the financial industry.

*(*Dwivedi, Kapoor, & Chen, 2015*)* believe that in these highly technologically sophisticated times, social media is becoming a potent communication tool. It is regarded as a tool for interactive communication that facilitates communication between businesses, communities, society, organizations, customers, and similar entities. The research attempts to gather the body of information on SMM to give a summary of several studies that address different facets of this rapidly evolving media marketing tactic. (Sarigianni, Stefan Thalmann, & Manhart, 2015) proved that the introduction of social media into the workplace has raised the risks of information leaks, which can lead to a loss of competitive advantage. The authors distinguished three main risks to knowledge that social media poses. However, competition forces financial institutions to adopt social media and change their perspective. Financial institutions must thus

(Laksamana, 2018) attempted to look at how brand loyalty and purchase intentions are impacted by social media marketing. Social media marketing has been demonstrated to boost brand loyalty and buy intent, according to a survey that was developed using 286 answers from Indonesian retail banks. Therefore, brand loyalty is influenced by purchase intention. (Petra Maresova, 2015*)* examined how social media is used in the banking industry, specifically for customer service. Public data from social networks and the websites of the chosen bank institutions were evaluated as part of both professional and common data analysis. According to the data, social networks are increasingly widely used by banks to draw in both existing and new customers.

*(*Shvaher, Degtyarev, & Polyakova, 2021*)* believe that a financially knowledgeable customer will choose financial institutions' services with knowledge and responsibility. They examined several variables that affect the process of enhancing social media platforms' contribution to raising public financial literacy as well as the instruments used in different nations to build financial education infrastructure. (Mitic & Kapoulas, 2012) looked at the impact of how Web 2.0 and social media have affected relationship marketing (RM) in the banking industry. This research employed a qualitative case study methodology, documentation, and in-depth

interviews with senior management to examine bank operations in the Southeast European (SEE) area. Concerns regarding Web 2.0 security for banking, incompatibility with existing risk management requirements, and the lack of consumer interest in this kind of bank-to-bank connection were the main rebuttals to the poll. Despite not being completely discarded for the future, social media was thought to be more suitable for younger or smaller banks looking for creative methods to grow.

(Guzovski, Birač, & Smoljić, 2022) investigated how social networks influence communication and promotion with their clients and how the marketing activities of banks are facilitated. The study found that the social media presence of a bank is very important for its clients to view the bank's marketing activities. Social media improves communication and promotion among clients, facilitates marketing activities and provides feedback from clients through instant messaging. *(*Perdue, 2010) explained how a company can develop a social media marketing strategy to prove successful in the long run as all businesses are getting involved in social media to reach out to new audiences and strengthen their ties with existing customers. Instead of simply focusing on popular social media applications, companies need a set of guidelines with which they can effectively utilize various forms of social media as strategic marketing tools.

ii) Consumer behaviour and decision-making in financial product adoption.

(Guangping Wang, 2008) think that a client with financial literacy would select financial institutions' services responsibly and intelligently. They looked at a variety of factors that influence how social media platforms may be utilized to increase public financial literacy and the tools that are employed in various countries to develop financial education infrastructure. (Andrew Peterson, 2015) examined three key consumer financial decisions: (1) savings rate, (2) credit use, and (3) spending pattern. It was shown that consumers often make important financial decisions that have an impact on their well-being both immediately and over time. National culture's direct influence on consumer financial decision-making and its moderating effect on the link between a firm's marketing endeavours and consumer financial decision-making were both empirically tested. The study concluded that national culture should be taken into account by financial services firms when managing their clientele since it has a direct impact on consumers' financial decisions and lessens the impact of marketing initiatives.

(Ger, Mistry, Nair, & Oza, 2023) their empirical study examined the complex relationship between three different behavioral biases—avoidance of losses, habitual behavior, and cognitive dissonance—and Indian consumers' adoption of digital financial items. The study had important ramifications for scholars, banking organizations, and policymakers. The data was gathered from 200 respondents using a structured questionnaire. Given the variety of user types, it makes one think about the impact of behavioral biases in the context of digital financial services. *(*Lakshmanan & Basariya, 2017*)* demonstrated how successful social networking site advertising is because it offers the best platform for direct engagement between businesses and their clientele. New guidelines and standards for social media marketing must be followed, and each company must decide whether social media marketing is suitable for them. With an efficient interaction technique among its users, online communication is more focused.

*(*Suryawanshi, 2019*)* discussed that the usage of social media has made it feasible to allow people to communicate with each other instantly, regardless of distance. However, the revolution in the field of information technology has altered the situation by closing the gap between the average person and the dynamic marketplace by accessing broadband and high-speed internet. Social media influences how consumers think since it shapes their perception of a business or product. Additionally, social media gives businesses the ability to reach a large audience quickly, which enables them to provide better customer service. (Augustin & Yazdanifard, 2014*)* tried to examine how social media is used for brand promotion and advertising to comprehend customer behaviour. Today's business practices are completely transformed by social media, which has both advantages and disadvantages that may either strengthen or weaken a company's reputation or brand. *(*Chikandiwa, Contogiannis, & Jembere, 2013*)* examined social media adoption models and social media implementation models used by South African banks when adopting social media marketing. They also addressed the challenges and opportunities faced during the study and found that social media is still at its infancy level in South Africa. The study indicated that Facebook and Twitter are the main tools used by banks for reactive customer service and advertising.

iii) Success factors that will enhance the use of social media in financial product marketing.

(Ezehttps, Chinedu-Eze, & Awa, 2021) investigated the tendency of Micro, Small, and Medium-Sized Enterprises (MSMEs) in developing countries to base their adoption of social media marketing technology (SMMT) mainly on Western research findings, rarely taking into account cross-context differences in management structure and skills. The study examined the key factors that motivate MSMEs in Nigeria to adopt SMMT, using the technology-organization-environment (T-O-E) paradigm as its theoretical basis. Twenty people were selected for interviews from the online directories using purposive and snowball sampling techniques as part of the qualitative approach that was selected as the methodology. (*Hinshaw, 2005)* aimed to determine the potential and difficulties faced by financial services marketers in their pursuit of better brand and marketing performance, relevance, value, and accountability inside their companies. To answer this question, marketing experts from 67 financial services companies across the United States were surveyed by M Corp., a strategic brand and marketing consultancy. The responses were grouped according to several criteria, such as the respondents' perceptions of particular obstacles to enhancing marketing and branding efficacy and their comprehension of how marketing and brand success are measured.

(Singh & A.A.Attarwala, 2018) spoke about the principles of social media marketing as well as the function and applicability of social media in India's banking services marketing. According to the findings, banks may thrive in this climate by implementing innovative social media tactics. They are competing not just with one another but also with disruptors like FinTechs. (Pricopoaia & Susanu, 2021) discussed that social media is about spreading information to change public opinion and Mold specific consumption patterns, not merely about interacting with others or forming personal connections. Social media is seen as the medium of the future since businesses encourage online engagement to grab the target audience's attention. Social media platforms provide a quick, easy, and efficient way for people and legal professionals to communicate. For businesses operating in an online setting, communication with clients is direct, campaign promotion can be tracked using specialized digital tools, and campaign outcomes are easily measurable.

(Khan, Al-balushi, Algaithi, & Al-shihi, 2017*)* investigated the mode of approach by the Bank Muscat customers to apprise their suggestions and complaints approaching the bank through social media. The Bank uses social media to advertise important information related to customers and respond immediately to customers' complaints. The study revealed the impact of information reliability and responsiveness on customer satisfaction. *(*Lugmayr, 2012) studied the application of social media as a tool for marketing financial products on the German market and competing for the end-consumer.

Social media has become an integral part of modern society, serving as a powerful tool for communication and outreach. Various institutions and researchers are recognising the potential of social media in empowering financial outreach among the masses. The Department of Homeland Security has acknowledged the role of social media in educating the public about various issues, including financial services. Terrorist groups have also utilized social media platforms for communication and recruitment purposes, demonstrating the significant impact of these channels on mass outreach. Furthermore, the UN's Task Force on Digital Financing of the Sustainable Development Goals emphasizes the need to overcome barriers and digital risks to fully leverage digitalization's potential for financial inclusion. In the context of environmental justice, partnerships and projects are utilizing social media and websites to raise awareness and engage with communities affected by environmental hazards. As we look towards the future, it is evident that social media will continue to play a crucial role in empowering financial outreach among the masses, offering new opportunities for engagement and communication. By harnessing the potential of social media, financial institutions can effectively reach a wider audience and promote financial literacy and inclusion.

iv.) Enhancing Financial Literacy Among Young Investors through Social Media (Arora & Mathur, 2022)

Arora and Mathur (2022) believe that social media plays a crucial role in enhancing financial literacy among young investors by serving as an accessible and interactive source of financial education. Their study emphasizes how digital platforms such as YouTube, Twitter, and Instagram have become essential mediums for disseminating financial knowledge, allowing young individuals to access investment strategies, personal finance management tips, and updates on market trends. They highlight that financial influencers, social media-based discussion forums, and interactive webinars contribute significantly to simplifying complex financial concepts. The research also explores the role of social media in shaping financial behaviour, as young investors often rely on crowd-sourced knowledge to make investment decisions. However, the study warns of the risks associated with misinformation and the presence of unregulated financial advice on social media, which can lead to poor financial decisions. The authors emphasize the importance of verifying financial information before acting on it and call for digital platforms to establish mechanisms that ensure the accuracy of financial content. Their findings suggest that while social media enhances financial literacy, the lack of formal financial education remains a critical gap that needs to be addressed through structured learning programs.

v.) The Role of Social Media in Financial Inclusion for Developing Economies (Gupta & Sharma, 2021)

Gupta and Sharma (2021) argue that social media significantly contributes to financial inclusion, particularly in developing economies where traditional banking infrastructure is limited. Their study demonstrates that digital platforms facilitate financial awareness by enabling users to access banking information, digital financial services, and peer-to-peer discussions on financial matters. They examine various case studies showcasing how social media platforms, including WhatsApp, Facebook, and Twitter, have helped unbanked and underbanked populations learn about financial products such as mobile banking, microfinance, and digital payment systems. The authors also highlight the role of social media in spreading financial literacy campaigns initiated by governments, financial institutions, and non-governmental organizations (NGOs). Despite its advantages, the study notes several challenges associated with social media-based financial inclusion, including digital illiteracy, cybersecurity threats, and the lack of trust in online financial transactions. The authors emphasize that while social media provides a valuable avenue for financial education, there is a need for regulatory oversight and digital security measures to protect vulnerable users from fraud and misinformation. Their research suggests that social media can bridge financial gaps in developing economies, but its effectiveness depends on improving digital literacy and fostering a safe online financial environment.

vi.) The Influence of Social Media on Investor Behavior and Decision-Making (Kim & Rader, 2020)

Kim and Rader (2020) examine the impact of social media campaigns on financial decision-making through a behavioral finance perspective, emphasizing how digital platforms influence investor psychology and risk perception. Their study finds that social media plays a dual role in financial decision-making—both as an educational tool and a source of behavioral biases. The research highlights that investment-related content on platforms like Reddit, YouTube, and Twitter often shapes investment choices by creating narratives around particular stocks, cryptocurrencies, and financial products. The authors explore the phenomenon of "herd behavior," where investors tend to follow trending financial advice or viral investment strategies without conducting independent research, often leading to market volatility. They also analyze the role of financial influencers and opinion leaders, who, through their content, have the power to encourage speculative investments, sometimes resulting in significant financial losses for inexperienced investors. The study discusses cognitive biases such as overconfidence, confirmation bias, and loss aversion, which are amplified by the fast-paced nature of social media content consumption. Additionally, the authors highlight regulatory concerns, suggesting that financial regulatory bodies should implement stricter guidelines to prevent misleading financial promotions on social media. Their findings conclude that while social media enhances financial awareness, it also creates a psychologically driven investment culture that may not always align with sound financial planning principles.

vii.) Social Media as a Tool for Digital Financial Literacy Among Young Audiences (Patel & Singh, 2023)

Patel and Singh (2023) analyze the influence of social media on digital financial literacy, emphasizing the role of interactive content in improving financial knowledge. Their study identifies that younger audiences, particularly Gen Z and millennials, engage with financial content through gamified learning experiences, short-form videos, and social media challenges that encourage financial responsibility. The research highlights how platforms like TikTok, Instagram Reels, and YouTube Shorts have revolutionized financial education by making it more engaging and accessible. The authors explore the growing trend of financial micro-learning, where users consume bite-sized financial tips that help them develop better money management habits. However, the study also identifies disparities in digital financial literacy, noting that older and less tech-savvy individuals struggle with navigating social media for financial knowledge. They argue that while social media has democratized access to financial education, it has also created an environment where financial misinformation spreads rapidly. The authors call for the implementation of structured digital financial literacy programs that combine social media engagement with verified financial education resources. Additionally, they suggest that social media platforms should partner with financial institutions and regulators to ensure that financial content shared online is credible and beneficial to users. Their research concludes that while social media plays a vital role in digital financial literacy, it must be supplemented with formal financial education initiatives to maximize its positive impact.

viii.) Leveraging Social Media for Financial Inclusion: Opportunities and Challenges (Smith & Brown, 2019)

Smith and Brown (2019) focus on leveraging social media for financial inclusion, discussing both its opportunities and challenges. Their study finds that social media provides a low-cost, scalable means of financial education and awareness, making financial knowledge more accessible to diverse populations. They explore how financial institutions use social media to reach underserved communities, offering information on banking services, loans, and digital payment options. The study highlights the effectiveness of peer-to-peer financial discussions, where users share their experiences with banking products, helping others make informed financial decisions. The authors also discuss the rise of fintech companies that leverage social media to promote digital wallets, mobile banking apps, and alternative lending solutions, thus increasing financial participation. Despite these benefits, the study identifies significant challenges, such as misinformation, privacy risks, and the digital divide that prevents certain socioeconomic groups from fully benefiting from online financial education. They argue that financial institutions and policymakers must develop guidelines to regulate financial content on social media and protect consumers from misleading financial advice. The authors conclude that while social media has the potential to drive financial inclusion, a combination of regulatory oversight, digital literacy programs, and improved cybersecurity measures is necessary to ensure its effective and responsible use.

ix.) The Effect of Social Media on Financial Literacy (Shvaher, Degtyarev, & Polyakova, 2021)

Shvaher, Degtyarev, and Polyakova (2021) explore the impact of social media on financial literacy, emphasizing its role in shaping individuals' financial decision-making. The study discusses how platforms like Facebook, Twitter, and YouTube provide users with real-time financial information, investment strategies, and personal finance tips. The authors analyze the extent to which social media influences financial behaviors and whether individuals exposed to financial content demonstrate better financial literacy. The research identifies a correlation between frequent engagement with financial content on social media and improved financial awareness. However, it also warns of potential drawbacks, such as misinformation, unreliable financial advice, and susceptibility to financial scams. The study concludes that while social media has significantly contributed to financial literacy, the effectiveness of the information depends on users' ability to critically assess its credibility.

x.) The Role of social media in Empowering Digital Financial Literacy (Baranidharan et al., 2023)

Baranidharan et al. (2023) examine how social media empowers individuals by enhancing digital financial literacy. Their research highlights the role of digital transformation in financial education, focusing on how social media platforms facilitate financial learning through interactive tools, tutorials, and community discussions. The study finds that digital financial literacy is influenced by the accessibility of financial information on social media, leading to increased participation in financial markets. The authors discuss the impact of financial influencers, fintech advertisements, and user-generated content in promoting responsible financial behavior. Additionally, they highlight the risks associated with social media, including data privacy concerns, financial misinformation, and impulsive financial decisions driven by viral trends. Their findings suggest that while social media is an effective tool for digital financial literacy, a combination of regulatory oversight and formal financial education is necessary to mitigate its risks.

xi.) Antecedents and Consequences of Using Social Media for Personal Finance (Cao, Gong, & Zeng, 2020)

Cao, Gong, and Zeng (2020) investigate the factors that lead individuals to use social media for personal finance and the outcomes of such usage. Their study identifies key antecedents such as ease of access, trust in online financial communities, and the influence of social networks in shaping financial behaviors. They discuss how social media platforms serve as a bridge between financial institutions and consumers, providing real-time financial insights and peer-reviewed financial advice. The research also highlights the consequences of using social media for personal finance, including increased financial confidence, better budgeting habits, and higher engagement with investment products. However, the authors caution against over-reliance on social media for financial decision-making, as it can lead to financial misinformation and suboptimal investment choices. Their study underscores the importance of financial literacy programs that teach users how to critically evaluate financial information on digital platforms.

xii.) Impact of Digital Media Platforms on Personal Financial Literacy (Cao & Zeng, 2020)

Cao and Zeng (2020) analyze the impact of digital media platforms on personal financial literacy, focusing on the role of social media in financial education. Their study finds that digital platforms such as blogs, vlogs, and financial discussion forums play a crucial role in improving individuals' understanding of financial concepts. They explore how social media has transformed traditional financial education by making learning more engaging and accessible. The authors highlight that interactive financial content, such as infographics and explainer videos, helps simplify complex financial topics for diverse audiences. However, the study also warns about the growing presence of unregulated financial content, which can mislead inexperienced users. The research suggests that while digital media enhances financial literacy, there is a need for more structured educational interventions to ensure the reliability of financial information shared online.

xiii.) Factors Influencing Financial Inclusion for Social Sustainability: The Role of Social Networks and Digital Platforms (Goyal & Kumar, 2023)

Goyal and Kumar (2023) investigate the role of social networks and digital platforms in promoting financial inclusion for social sustainability. Their research examines how digital platforms contribute to reducing financial exclusion by providing financial education and access to banking services. The study highlights the significance of social networks in encouraging financial participation, particularly among marginalized communities. The authors discuss how social media facilitates peer learning, where users share financial experiences and knowledge, leading to better financial decision-making. They also explore the challenges associated with digital financial inclusion, such as the digital divide, cybersecurity threats, and misinformation. Their findings suggest that while social networks and digital platforms play a crucial role in financial inclusion, regulatory frameworks and targeted financial education programs are essential to maximize their positive impact.

xiv.) Is Digital Financial Inclusion Unlocking Growth? (Klapper & Singer, 2021)

Klapper and Singer (2021) explore the relationship between digital financial inclusion and economic growth, focusing on how social media and fintech platforms contribute to financial access. Their study examines the effectiveness of digital financial services in providing banking solutions to underserved populations, particularly in developing economies. The authors highlight that digital financial inclusion leads to increased economic activity by enabling individuals to access credit, savings accounts, and insurance through online platforms. They discuss how social media campaigns promote awareness about digital financial services, leading to greater adoption rates. However, the study also identifies barriers such as digital illiteracy, lack of trust in online financial services, and regulatory challenges. The authors conclude that while digital financial inclusion has the potential to drive economic growth, it requires supportive policies and financial education initiatives to ensure sustainable benefits.

xv.) The Use of Social Media in Banks to Empower Women and Enhance Financial Inclusion in Arab Countries (Omar & Inaba, 2020)

Omar and Inaba (2020) analyze how banks use social media to empower women and enhance financial inclusion in Arab countries. Their study highlights the role of digital platforms in promoting financial literacy among women, particularly in regions where traditional banking access is limited. The authors discuss various social media campaigns launched by banks to educate women about financial products, savings, and investment opportunities. They find that digital financial education through social media has led to increased financial independence among women, encouraging greater participation in economic activities. The study also identifies cultural and regulatory barriers that limit the effectiveness of social media-based financial inclusion initiatives. The authors suggest that financial institutions should develop tailored digital literacy programs and collaborate with policymakers to enhance the impact of social media in promoting financial empowerment for women.

xvi.) Utilization of Social Media to Promote Financial Inclusion in Indonesia (Suryono, Purwandari, & Budi, 2020)

Suryono, Purwandari, and Budi (2020) explore the utilization of social media in promoting financial inclusion in Indonesia. Their research focuses on how digital platforms contribute to financial awareness and the adoption of digital banking services. The study finds that social media serves as an effective channel for financial education, particularly among young adults and small business owners. The authors discuss various government and private sector initiatives that leverage social media to disseminate financial information and promote banking services. They highlight the role of influencers and financial educators in shaping public perceptions of digital finance. However, the study also identifies challenges such as misinformation, cybersecurity risks, and resistance to digital banking adoption. The authors recommend that financial institutions should implement stricter verification processes for financial content shared on social media and invest in cybersecurity measures to enhance trust in digital financial services.

xvii.) Digital Financial Inclusion: A Gateway to Sustainable Development (Tang & Zhang, 2024)

Tang and Zhang (2024) investigate the relationship between digital financial inclusion and sustainable development, emphasizing the role of social media in fostering financial participation. Their study finds that digital financial inclusion contributes to poverty reduction, economic empowerment, and financial stability. The authors discuss how social media facilitates financial knowledge-sharing and promotes digital payment solutions, increasing financial accessibility in underserved regions. They highlight case studies of successful social media-driven financial inclusion programs that have improved economic outcomes for marginalized communities. However, the study also points out the risks associated with digital financial services, including fraud, identity theft, and digital exclusion due to a lack of technological infrastructure. The authors conclude that while digital financial inclusion has transformative potential, it requires robust regulatory policies, cybersecurity frameworks, and continuous financial education efforts to ensure long-term sustainability.

xviii.) Financial Inclusion and Fintech: A State-of-the-Art Systematic Literature Review (Wang & Li, 2021)

Wang and Li (2021) provide a systematic literature review on financial inclusion and fintech, analyzing how digital platforms and social media contribute to financial accessibility. Their study identifies key trends in fintech innovations that enhance financial inclusion, such as mobile banking, peer-to-peer lending, and blockchain-based financial services. The authors discuss how social media acts as a catalyst for fintech adoption by providing financial education, promoting fintech products, and facilitating customer engagement with financial institutions. They also highlight the challenges of fintech-driven financial inclusion, including regulatory uncertainties, cybersecurity risks, and digital literacy gaps. The study concludes that while fintech and social media play crucial roles in financial inclusion, a balanced approach involving regulation, consumer protection, and financial education is necessary to maximize their benefits.

xix.) Social Media for Banks: Best Practices and Strategies (Hootsuite, 2023)

Hootsuite (2023) discusses the role of social media in the banking sector, providing insights into best practices and strategic approaches for financial institutions. The report highlights how banks leverage platforms like Facebook, LinkedIn, and Twitter to enhance customer engagement, improve brand visibility, and streamline customer service. It emphasizes the importance of data-driven content strategies, personalized interactions, and real-time customer support in building trust and loyalty. Additionally, the study explores how banks use social media analytics to measure engagement and optimize marketing campaigns. The research concludes that a well-executed social media strategy can significantly impact a bank’s reputation and customer satisfaction while also addressing regulatory compliance challenges.

xx.) Social Media for Banking: Case Studies & Strategies (Sprinklr, 2023)

Sprinklr (2023) provides a detailed analysis of how various banks have successfully integrated social media into their customer engagement and marketing strategies. Through case studies, the report illustrates the effectiveness of targeted advertising, influencer collaborations, and community-driven content in increasing customer interaction. The study also examines crisis management strategies and the role of artificial intelligence in automating responses and enhancing customer support. Findings suggest that banks that actively invest in digital engagement experience higher customer retention rates and improved brand perception. The report concludes by offering strategic recommendations on content planning, compliance, and real-time engagement for financial institutions.

xxi.) How Retail Investment Banks Are Using Social Media (The Social Element Agency, 2022)

The Social Element Agency (2022) explores the increasing role of social media in the retail investment banking sector, focusing on how financial institutions use these platforms to reach investors and clients. The report discusses how banks employ LinkedIn, Twitter, and YouTube for investor relations, financial education, and thought leadership. It highlights the significance of interactive content, such as live Q&A sessions and webinars, in fostering customer trust. The study also points out the challenges banks face in maintaining regulatory compliance while engaging audiences through social media. The findings suggest that investment banks leveraging digital channels effectively can enhance client relationships and brand credibility.

xxii.) Are Brand Employees the New Influencers? (Vogue Business, 2023)

Vogue Business (2023) investigates the growing trend of brand employees acting as influencers on social media. The report explores how financial institutions and other industries utilize their employees as brand ambassadors to build authenticity and credibility. It highlights case studies where banks have successfully engaged employees in social media marketing, leading to increased trust and customer engagement. The research also touches on the risks of employee advocacy, such as maintaining brand consistency and ensuring compliance with company policies. The study concludes that employee-driven social media marketing can be a powerful tool when aligned with a company's broader communication strategy.

xxiii.) How Bosses Are Using LinkedIn to Charm Investors (The Times, 2023)

The Times (2023) examines how business leaders, including banking executives, use LinkedIn to connect with investors, customers, and industry peers. The report emphasizes the growing importance of executive branding and thought leadership in the financial sector. It details how senior banking professionals utilize LinkedIn to share insights, respond to market trends, and establish credibility among stakeholders. Additionally, the study highlights the impact of well-crafted LinkedIn content on investor relations and corporate reputation. Findings suggest that executives who actively engage on LinkedIn contribute to a bank's overall brand perception and market positioning.

xxiv.) Social Media Engagement in the Banking Sector Worldwide (Statista, 2023)

Statista (2023) presents statistical insights into social media engagement trends within the banking sector across various regions. The report includes data on customer interaction rates, preferred social media platforms, and the effectiveness of different engagement strategies. It also analyzes the correlation between a bank's social media presence and customer satisfaction levels. The study finds that banks with active social media strategies experience higher customer trust and brand loyalty. Additionally, it highlights regional differences in digital engagement, suggesting that tailored social media approaches are necessary for different markets.

xxv.) Digital Banking Engagement: Trends and Transformations (Cambridge University Press, 2022)

Cambridge University Press (2022) explores the evolution of digital banking and the role of social media in enhancing customer engagement. The report discusses emerging trends, such as AI-driven chatbots, personalized banking experiences, and the integration of financial services within social media platforms. It also examines how digital banking strategies vary across markets and demographics. Findings indicate that banks that embrace digital transformation and leverage social media effectively can improve customer retention and service efficiency. The study concludes by recommending innovative approaches for banks to remain competitive in the digital era.

xxvi.) The Role of Social Media in Banking Customer Engagement (McKinsey & Company, 2023)

McKinsey & Company (2023) provides a comprehensive analysis of how banks use social media to engage with customers and drive digital transformation. The report highlights key engagement metrics, customer sentiment analysis, and the impact of personalized content on customer relationships. It discusses the challenges banks face in balancing personalization with data privacy and regulatory compliance. The study also examines the role of AI and automation in enhancing customer service through social media. Findings suggest that a customer-centric social media strategy can lead to increased satisfaction, loyalty, and business growth for banks.

xxvii.) Banks and Social Media: Best Practices for Engagement (American Banker, 2023)

American Banker (2023) outlines best practices for banks to maximize their social media engagement while ensuring compliance with industry regulations. The report highlights the importance of real-time customer support, crisis communication strategies, and content personalization in enhancing customer relationships. It also discusses the role of emerging technologies, such as AI-powered chatbots and predictive analytics, in optimizing social media interactions. The study finds that banks that prioritize transparency and responsiveness on social media are more likely to build long-term trust with customers.

xxviii.) Digital Transformation in Banking: Social Media’s Role in Customer Experience (Deloitte, 2023)

Deloitte (2023) examines the impact of social media on customer experience in the banking sector as part of broader digital transformation efforts. The report discusses how financial institutions use social media to provide seamless customer interactions, personalized financial advice, and enhanced service accessibility. It also analyzes customer expectations in the digital banking era and how banks can leverage social media to meet these demands. Findings suggest that integrating social media into a bank’s digital strategy improves customer satisfaction, brand reputation, and overall business performance.

xxix.) Inside the Goldman Sachs Marketing Push (Business Insider, 2024)

Business Insider (2024) explores Goldman Sachs' recent marketing expansion, highlighting internal debates over its strategy and spending. The report examines the role of Fiona Carter, the firm’s chief marketing officer, in repositioning Goldman’s brand through digital outreach and broader advertising campaigns. It discusses how the marketing push aims to enhance the bank's public image but has sparked concerns among executives regarding its effectiveness and alignment with Goldman's traditional branding. The study suggests that while the initiative could improve customer engagement, it also raises questions about cost efficiency and brand consistency.

xxx.) What Are Banks Doing with Your Financial Data? (Financial Times, 2024)

Financial Times (2024) investigates how banks utilize customer financial data, analyzing the balance between data-driven services and privacy concerns. The report delves into how banks leverage consumer data for personalized financial products, risk assessments, and targeted marketing. It also explores regulatory challenges and ethical considerations in data handling, particularly with increasing scrutiny on privacy laws. The study concludes that while data utilization enhances banking services, transparency and consumer trust are crucial for sustainable digital banking practices.

xxxi.) BankBazaar's Personalized Social Media Campaign (Social Samosa, 2017)

Social Samosa (2017) presents a case study on BankBazaar #ItsBeenAGoodYear campaign, which leveraged personalized customer experiences to drive engagement. The study examines how the campaign used social media analytics to tailor content for different user segments, resulting in increased brand visibility and customer interaction. The report highlights the importance of data-driven personalization in financial marketing and suggests that customer-centric campaigns can enhance brand loyalty.

xxxii.) IDBI Bank's Father's Day Social Media Campaign (Social Samosa, 2020)

Social Samosa (2020) analyzes IDBI Bank's Father's Day campaign, which successfully generated social media engagement through emotional storytelling. The report details how the campaign connected with audiences by celebrating fatherhood and linking it to financial security. It highlights the effectiveness of sentiment-driven marketing strategies in humanizing banking brands and fostering audience engagement. The case study concludes that such campaigns can enhance brand affinity and customer trust when executed with authenticity.

xxxiii.) How Bosses Are Using LinkedIn to Charm Investors (The Times, 2023)

The Times (2023) examines how business leaders, including banking executives, leverage LinkedIn to build investor relations and corporate influence. The report discusses the importance of executive branding, thought leadership, and direct engagement with stakeholders through LinkedIn content. It highlights how banking leaders use the platform to shape industry narratives, respond to market trends, and reinforce trust. The study suggests that proactive LinkedIn strategies can enhance corporate reputation and investor confidence.

xxxiv.) Banking on Social Media: Strategies for Enhancing Customer Engagement (Accenture, 2023)

Accenture (2023) explores how banks can use social media to strengthen customer engagement and drive digital transformation. The report emphasizes the role of AI-driven personalization, real-time customer support, and social listening in improving financial services. It also discusses emerging trends, including chatbots and influencer partnerships, that banks can leverage for competitive advantage. The study concludes that a well-integrated social media strategy can significantly enhance customer loyalty and operational efficiency.

xxxv.) Social Media and Banking: Leveraging Digital Platforms for Customer Connection (PwC, 2023)

PwC (2023) analyzes how banks can utilize digital platforms to connect with customers more effectively. The report examines best practices in content marketing, customer service automation, and regulatory compliance in social media interactions. It also highlights how banks can measure engagement and optimize their strategies using data analytics. The study finds that social media plays a critical role in modern banking, providing an opportunity to enhance customer trust and service accessibility.

xxxvi.) The Role of Social Media in Retail Banking: Opportunities and Challenges (Capgemini, 2023)

Capgemini (2023) evaluates the role of social media in retail banking, identifying key opportunities and potential challenges. The report discusses how banks can use digital platforms for customer acquisition, personalized engagement, and crisis management. It also highlights the risks associated with misinformation, cybersecurity, and regulatory compliance. The study suggests that while social media can be a powerful tool for retail banking, a structured strategy is necessary to mitigate risks and maximize impact.

xxxvii.) Enhancing Customer Engagement in Banking Through Social Media Strategies (KPMG, 2023)

KPMG (2023) provides insights into how banks can enhance customer engagement through social media strategies. The report explores innovative approaches, such as gamification, interactive content, and AI-driven insights, to improve customer interaction. It also examines case studies where banks have successfully leveraged social media for customer support and brand building. Findings suggest that strategic digital engagement can increase customer satisfaction and drive business growth.

xxxviii.) Social Media in Banking: Strategies for Deeper Customer Engagement (EY, 2023)

EY (2023) discusses how banks can develop effective social media strategies to foster deeper customer engagement. The report highlights the importance of trust, transparency, and personalized interactions in digital banking. It also explores how financial institutions can use data analytics to enhance their social media outreach and tailor services to customer needs. The study concludes that banks that prioritize digital engagement will be better positioned to compete in an increasingly digital financial landscape.

CHAPTER 3.

SOCIAL MEDIA MARKETING OF FINANCIAL PRODUCTS

The integration of social media in everyday life has simply become the norm, but just a few years ago we would never have associated it with the more traditional banking and financial services industry. It has now become a fast-growing tool for banks to maximize the quality of customer service and create 24-hour banking services. Before buying a product, people like to see referrals, feedback, or a website related to the product and company. To connect and influence the masses, businesses need to actively participate in relevant communities and communicate with social media to manage their online reputation. Social media marketing is a must to reach a broader consumer base and grow business.

The rapid expansion of digital technology and the widespread adoption of social media platforms have revolutionized the way banks engage with their customers. In India, both public and private sector banks have recognized the potential of social media marketing as a powerful tool to promote financial products and enhance customer interactions. With an increasing number of consumers relying on digital channels for banking services, social media marketing has become a critical strategy for banks to remain competitive and relevant in the digital age.

3.1. What is Social Media?

Social media, as the name suggests, is a powerful tool for online engagement, communication, and marketing. Despite the absence of a universally accepted definition, various scholars and researchers have outlined key features that characterize social media. According to Jain (2010), social media can be described as "the creation and exchange of User Generated Content." Similarly, Mangold and Faulds (2009) define social media as "information created, initiated, circulated, and used by consumers with the intent to educate each other on the Internet." Barkan (2009) describes it as "a collection of internet-based applications that enable peer-to-peer communication and sharing of information." Campbell (2009) expands on this, stating that social media encompasses "a type of website, application, or communications vehicle where people connect; discuss and interact; share content and ideas; and build relationships."

With the increasing adoption of online social networking and "social sharing" behaviors, social media has transformed into an integral part of everyday life. The widespread availability of mobile devices has further personalized and expanded its usage, making it more accessible than ever. Social media platforms allow users to share information, express opinions, and engage in real-time discussions through text, images, videos, and other forms of content. The rise of platforms like Facebook and X (formerly Twitter) in the late 2000s and early 2010s marked a significant shift in digital interactions, as people began using these platforms not only for socialization but also for professional networking, brand engagement, and consumer decision-making.

Initially, social media was primarily used by college students and young adults for connecting with friends, sharing updates, and discussing trends. However, over time, its appeal has extended to users of all ages and demographics. Businesses, organizations, and brands have recognized the potential of social media as a strategic marketing tool, leveraging it to connect with consumers, enhance brand visibility, and influence purchasing behavior. In countries like India, the surge in social media users has significantly impacted customer preferences, with digital interactions playing a key role in shaping brand perceptions and influencing purchasing decisions.

3.2. What is Social Media Marketing?

Social media marketing (SMM) is the strategic use of digital platforms such as Facebook, Instagram, LinkedIn, and YouTube to connect with audiences, promote products and services, enhance brand awareness, and foster long-term customer relationships. By leveraging the vast reach of social media, businesses can engage directly with their target audience, share valuable content, and create meaningful interactions that drive customer loyalty and brand advocacy.

One of the primary goals of social media marketing is to drive website traffic and generate leads through carefully crafted digital campaigns. Given that people spend a significant portion of their online time on social media, businesses—particularly those in customer-centric industries like banking—must establish a strong social media presence. Research suggests that nearly 70% of consumers turn to social media when making purchasing decisions, whether they are seeking recommendations for a coffee maker or evaluating financial institutions for loans and investments.

For banks and financial service providers, social media presents a valuable opportunity to engage customers, offer personalized services, and build trust. By sharing educational content, responding to customer inquiries, and leveraging targeted advertising, banks can position themselves as reliable and customer-focused institutions. Social media marketing, when executed effectively, allows businesses to humanize their brand, create meaningful customer experiences, and stay ahead in an increasingly competitive digital landscape.

3.3. Social media in Banking – The transformation

The advent of social media has revolutionized the banking sector by significantly transforming the way banks interact with customers and conduct business operations. Unlike the traditional banking system, which relied heavily on in-person interactions and paper-based transactions, the integration of social media into banking has led to a digital transformation that offers customers greater convenience, accessibility, and engagement.

One of the most significant changes brought about by social media in banking is the ability for financial institutions to interact with clients in real-time. Banks can now provide instant responses to customer queries, resolve issues swiftly, and enhance overall customer service. The rise of digital banking has further facilitated this shift, with a growing number of financial transactions now conducted online rather than through physical bank branches. The use of social media as a customer service hub allows banks to address complaints, provide updates, and share financial tips more interactively and engagingly.

Moreover, the integration of artificial intelligence (AI) and chatbots into social media platforms has further enhanced customer service efficiency. AI-powered chatbots enable banks to offer 24/7 customer support, assisting clients with tasks such as checking account balances, making transactions, applying for loans, and even receiving personalized financial advice. This automation not only improves response times but also ensures a seamless and hassle-free banking experience for users.

Social media also plays a crucial role in building trust and strengthening relationships between banks and their customers. Unlike traditional advertising methods, social media allows banks to create direct and personalized interactions with their audience, fostering transparency and loyalty. By leveraging platforms such as Facebook, Instagram, LinkedIn, and X (formerly Twitter), banks can share informative content, financial education tips, and security guidelines, thereby positioning themselves as credible and customer-centric institutions.

Additionally, social media enables banks to gather valuable customer insights through engagement metrics, feedback, and online interactions. By analyzing customer sentiments, preferences, and behaviors, banks can refine their services, introduce new financial products, and tailor marketing strategies to meet evolving consumer needs. Targeted marketing campaigns on social media help banks reach specific demographics, ensuring that promotional efforts resonate with the right audience.

Furthermore, social media has expanded the reach of banking institutions, allowing them to connect with a broader audience beyond traditional banking customers. With digital banking services becoming more prevalent, banks are now able to engage individuals who may have previously been unbanked or underserved. Social media marketing campaigns aimed at financial inclusion have helped promote banking services in rural and semi-urban areas, thereby increasing accessibility to financial resources.

Overall, the transformation of banking through social media has led to greater efficiency, improved customer satisfaction, and enhanced financial literacy. By embracing digital platforms, banks can streamline operations, improve customer engagement, and maintain a competitive edge in the rapidly evolving financial landscape. The continued evolution of social media technologies will further shape the future of banking, making financial services more accessible, interactive, and customer-oriented than ever before.

3.4. Importance of Social Media for Banking Sector

Social media has become an essential tool for banks, enabling them to build strong relationships with their customers, enhance brand visibility, and provide value-driven services. With the rapid digital transformation in the financial sector, banks are leveraging social media platforms not only to engage with clients but also to improve customer service, gather feedback, educate consumers, and maintain a competitive edge in an increasingly digital landscape.

a) Enhancing Customer Engagement and Relationship Building

One of the primary advantages of social media for banks is its ability to foster relationships with customers. Unlike traditional banking interactions that are often formal and transactional, social media allows banks to establish a more personal and engaging rapport with their clientele. Through platforms like Facebook, X (formerly Twitter), Instagram, and LinkedIn, banks can communicate with customers in real time, addressing their inquiries, resolving complaints, and providing tailored financial advice. This instant communication enhances customer satisfaction and demonstrates a bank's commitment to responsiveness and customer care.

Moreover, social media enables banks to humanize their brand by sharing stories, showcasing community involvement, and highlighting customer success stories. This transparency and accessibility help build trust and loyalty, encouraging customers to remain engaged with the bank's services over the long term.

b) Gathering Customer Insights and Feedback

Banks can utilize social media as a valuable source of customer insights. By analyzing interactions, comments, and feedback from customers, banks can gain a better understanding of their preferences, pain points, and expectations. This information allows financial institutions to tailor their products and services to better meet customer needs. For instance, if multiple customers express frustration over a specific banking process, the institution can use that feedback to improve its systems and enhance user experience.

Additionally, social media sentiment analysis tools can help banks track public perception of their brand, allowing them to proactively address concerns and manage their reputation effectively. Monitoring online discussions also enables banks to identify emerging trends and adapt their strategies accordingly to stay relevant in a competitive market.

c) Improving Financial Literacy Among Customers

Financial literacy is crucial for making informed decisions about savings, investments, loans, and budgeting. Banks can use social media as an educational platform to provide valuable financial guidance to their customers. By sharing informative articles, video tutorials, infographics, and live Q&A sessions, banks can educate their audience on important financial topics such as:

- Budgeting and saving strategies
- Investment options and risk management
- Credit scores and loan management
- Fraud prevention and cybersecurity
- Retirement planning and wealth management

By offering accessible and engaging content, banks position themselves as trusted advisors rather than just financial service providers. This not only empowers customers with knowledge but also strengthens their relationship with the bank, as they come to rely on it for expert financial advice.

d) Strengthening Brand Reputation and Trust

Trust is a cornerstone of the banking industry. Customers need to feel confident that their financial institution is reliable, secure, and customer focused. Social media provides banks with a platform to reinforce their credibility by demonstrating transparency, ethical business practices, and commitment to customer satisfaction.

For example, banks can use social media to communicate updates on security measures, provide fraud alerts, and educate customers about safe banking practices. By actively engaging in conversations and addressing customer concerns promptly, banks can strengthen their reputation as institutions that prioritize customer interests.

Additionally, corporate social responsibility (CSR) initiatives shared on social media—such as community outreach programs, sustainability efforts, and financial inclusion initiatives—enhance a bank's reputation and demonstrate its commitment to making a positive impact beyond profit-making.

e) Driving Business Growth and Lead Generation

Social media is not just a tool for engagement and customer service; it is also a powerful driver of business growth. Banks can leverage targeted advertising and content marketing to reach potential customers and promote their financial products and services. Through well-crafted campaigns, banks can raise awareness about:

- New savings and investment opportunities
- Loan offers and mortgage options
- Credit card benefits and rewards programs
- Mobile banking and digital payment solutions

With advanced targeting capabilities on platforms like Facebook, Instagram, and LinkedIn, banks can ensure their promotional content reaches the right audience based on demographics, interests, and online behaviour. This approach not only attracts new customers but also helps retain existing ones by keeping them informed about relevant financial solutions.

f) Enhancing Customer Support and Service Efficiency

In today's fast-paced digital world, customers expect quick and efficient service. Social media provides banks with a convenient way to offer instant customer support, addressing inquiries and concerns in real time. Many banks have dedicated social media customer service teams that handle complaints, answer FAQs, and guide customers through banking processes.

Moreover, chatbots and AI-driven messaging systems integrated with social media platforms allow banks to automate responses to common queries, improving efficiency and reducing wait times for customers. This seamless support experience enhances customer satisfaction and reinforces the bank's reputation for excellent service.

g) Staying Competitive in the Digital Age

The banking industry is highly competitive, with traditional banks facing increasing pressure from fintech startups and digital-only banks. To stay relevant, traditional banks must embrace digital transformation and use social media as a strategic tool to engage customers, promote services, and differentiate themselves from competitors.

Social media allows banks to:

- Stay updated on industry trends and consumer behaviour
- Keep pace with emerging technologies like blockchain and digital currencies
- Offer innovative solutions such as mobile banking and contactless payments
- Build partnerships with fintech companies to enhance service offerings

By leveraging social media effectively, banks can maintain their competitive edge and ensure they remain a preferred choice for digitally savvy customers.

Fig. 3.1. Source: BBN Times

3.5. Different Ways to Leverage Social Media by Banks

1. *Targeting specific communities*: Providing services to customers online and through social media is crucial for banks. This will help them improve their customer response behaviour and learn how online customer interaction can lead to service updates from online transactions to account openings. Banks need to know how to utilize this weapon to build customised financial products and not rely just on generic feedback methods.
2. *Use CRM to reduce costs and adapt business functions*: Customer engagement has replaced customer service as the industry's primary focus, increasing the two-way nature of interactions. Using the social media framework allows banks to better understand how consumers feel about their goods, how they connect with them, and how they behave.
3. *Improve transparency*: Repeatedly sharing advertisements increases brand recognition. Many specific details concerning regulations are not usually required. Engaging with bank customers may be done easily and visually by using social media, especially video, but also by organizing marketing material for platforms that explain some of the most important details of banking operations and laws.

3.6. Social Media Strategies used by public sector and Private sector banks in India

Public Sector Banks

Known for their traditional banking practices, public sector banks in India have steadily used social media to interact with clients and advertise their financial offerings. Among the crucial tactics are:

- *Awareness Campaigns*: To inform clients about a range of financial products, including fixed deposits, loans, savings accounts, and investment choices, public sector banks employ social media sites like Facebook, Twitter, LinkedIn, and YouTube.
- *Customer Engagement*: To answer questions and offer advice on financial planning, banks communicate with their clients via live webinars, interactive postings, and Q&A sessions.
- *Promotion of Government Schemes*: Public banks use social media to spread the word about government-backed financial programs including PMAY, Mudra Loans, and Jan Dhan Yojana.
- *Localized and Vernacular Content*: To reach a larger audience, several public banks provide content in regional languages due to India's unique linguistic demography.
- Security and Awareness Initiatives: To inform consumers about the safety of online banking, campaigns on cybersecurity, fraud prevention, and safe banking habits are regularly advertised.

Private Sector Banks

Social media marketing for financial goods has been pioneered by private sector banks, renowned for their innovation and customer-centric approach. Their strategies include:

- *Targeted Advertisements*: To target certain client demographics, private banks execute tailored ad campaigns on social media sites like Facebook, Instagram, and LinkedIn using sophisticated data analytics and AI-powered technologies.
- *Influencer and Digital Marketing Partnerships*: To gain the confidence of prospective clients, some private banks work with bloggers and financial influencers to produce interesting content, guides, and endorsements.
- *Chatbots and AI Integration*: Instant customer assistance and guidance on a range of financial goods and services are made possible by the integration of chatbots on social media platforms.

- *Gamification and Contests*: Interactive marketing strategies like quizzes, reward programmes, and gamified financial literacy campaigns attract more users and encourage engagement.
- *Video Marketing*: Private banks extensively use video content, including customer testimonials, financial education videos, and product explainers, to capture audience attention.

Comparative Analysis: Public vs. Private Sector Banks

Features	**Public Sector Banks**	**Private sector Banks**
Adoption speed	Gradual integration of social media marketing	Early adopters with robust digital strategies
Marketing Approach	Focused on awareness and education	Highly targeted, customer-centric advertising
Customer Interaction	Engagement through FAQs and webinars	AI-driven chatbots, instant query resolution
Innovation in Content	Traditional posts and vernacular content	Influencer collaborations, gamification, video content
Budget Allocation	Limited budget for digital marketing	Higher investment in social media strategies
Customer Engagement	Periodic updates and formal announcements	Proactive interactions, contests, personalized responses
Use of Analytics	Basic insights and reports	Advanced data analytics and predictive modeling
Crisis Management	Reactive approach, slower response to PR issues	Proactive reputation management, real-time damage control
Service Promotion	Focused on government schemes and financial inclusion	Aggressive marketing for loans, credit cards, and investments

3.7.Impact of Social Media Marketing on Financial Products

1. Increased Financial Inclusion

Social media marketing has played a pivotal role in expanding financial inclusion, especially in rural and semi-urban areas where traditional banking infrastructure is limited. Banks utilize platforms like Facebook, WhatsApp, and YouTube to spread awareness about financial services such as savings accounts, government-backed schemes, and microfinance loans.

- *Educational Campaigns***:** Banks run campaigns in multiple languages to educate people on digital banking, mobile payments, and financial planning.
- *Interactive Content***:** Use of videos, infographics, and live Q&A sessions helps to break down complex financial concepts for first-time users.
- *Collaborations with Influencers***:** Many banks partner with regional influencers and community leaders to reach unbanked populations effectively.

2. Customer Retention and Loyalty

Social media marketing fosters strong relationships between banks and their customers, leading to higher retention rates and brand loyalty.

- *Personalized Engagement:* Banks interact directly with customers through personalized recommendations, greetings, and reminders for bill payments or investment options.
- *Prompt Customer Service***:** Many banks have dedicated customer support teams handling queries and complaints on platforms like Twitter and Facebook, ensuring quick responses.
- *Community Building***:** Banks create social media groups and forums where customers can discuss financial topics, get expert advice, and share experiences, enhancing trust.

3. Boost in Digital Banking Adoption

Social media has been instrumental in accelerating the adoption of digital banking services.

- *Live Demonstrations & Tutorials***:** Banks use Instagram Reels, TikTok, and YouTube tutorials to guide users on mobile banking, UPI transactions, and online investments.

- *Influencer Endorsements*: Partnering with fintech bloggers and social media influencers helps demystify online banking and build consumer confidence.
- *Security Awareness Campaigns*: Addressing concerns about cybersecurity through informative posts, webinars, and real-time fraud alerts encourages users to embrace digital banking with confidence.

4. Revenue Growth

An effective social media marketing strategy has directly contributed to increased revenue through the promotion of various banking products.

- *Targeted Advertisements*: Banks use AI-driven targeted ads on Facebook, Instagram, and LinkedIn to promote credit cards, home loans, and investment plans based on user interests and browsing behavior.
- *Cross-Selling & Upselling*: AI-powered chatbots on social media platforms suggest relevant financial products based on customer history, leading to higher conversions.
- *Festive & Seasonal Campaigns*: Banks capitalize on festive seasons by running special offers and discounts on loans, fixed deposits, and digital payment rewards to drive more engagement and transactions.

5. Enhanced Brand Image and Market Positioning

A strong social media presence helps banks establish themselves as thought leaders and trustworthy institutions in the financial sector.

- *Thought Leadership Content*: Banks publish insightful blogs, reports, and market analysis to position themselves as financial experts.
- *Sustainability & CSR Initiatives*: Sharing updates on community outreach programs, environmental sustainability, and financial empowerment projects strengthens brand reputation.
- *Influencer & Celebrity Collaborations*: Collaborating with industry experts and celebrities enhances credibility and broadens audience reach.

6. Increased Customer Insights for Better Decision-Making

Banks leverage social media analytics to gain valuable insights into customer behavior and preferences.

- *Sentiment Analysis*: Monitoring online conversations allows banks to gauge customer sentiment and make data-driven improvements.
- *Polls & Surveys*: Conducting polls on social media helps banks understand customer expectations and refine product offerings.
- *Real-Time Feedback:* Direct customer feedback on posts and advertisements helps banks quickly adjust their marketing strategies.

7. Strengthened Crisis Management & Reputation Handling

Social media plays a vital role in crisis communication and reputation management.

- *Proactive Issue Resolution*: Banks can immediately address concerns related to transaction failures, cybersecurity threats, or misinformation by issuing clarifications and updates.
- *Fraud Awareness Campaigns*: Regularly educating users about common fraud tactics and scams helps reduce financial fraud incidents.
- *Crisis Response Teams*: Dedicated teams monitor social media for negative press and manage customer concerns to maintain a positive brand image.

8. Expansion of Financial Product Awareness

Social media marketing helps banks introduce and promote new financial products to a wide audience efficiently.

- *Product Launch Announcements*: New savings schemes, credit card features, and investment options are introduced through visually engaging posts and influencer collaborations.
- *Gamification & Challenges*: Contests and interactive challenges encourage users to engage with new products and services in a fun, rewarding way.
- *Exclusive Social Media Offers*: Banks offer social media-exclusive discounts or bonuses for applying for certain products online, increasing engagement and sales.

By leveraging social media marketing effectively, banks are not only increasing financial product awareness but also enhancing customer experiences, driving business growth, and staying competitive in the digital age.

3.8.Challenges in Social Media Marketing for Banks

Despite its benefits, social media marketing has certain challenges:

- *Regulatory Compliance*: Like any other sector, banks have to comply with social media regulations. When using social media, banks must abide by strict cybersecurity guidelines and financial rules. Adherence to privacy legislation, data protection laws, and financial sector standards is essential. Legal and compliance departments should collaborate closely with banks to create social media policies that comply with these rules.
- *Risk of Misinformation and Fraud:* Fake news, phishing scams, and misinformation pose threats to customer trust and security.
- *Data Privacy issues*: The increasing use of AI-driven marketing raises concerns about data protection and customer privacy. Banks need to make safeguarding customer data a top priority and make sure that strong security measures are in place. Additionally, banks should customize their social media strategy to target demographics and certain platforms rather than taking a one-size-fits-all approach.
- *High Competition*: Banks face intense competition in capturing customer attention amidst a crowded digital landscape.

Overcoming regulatory hurdles in social media use

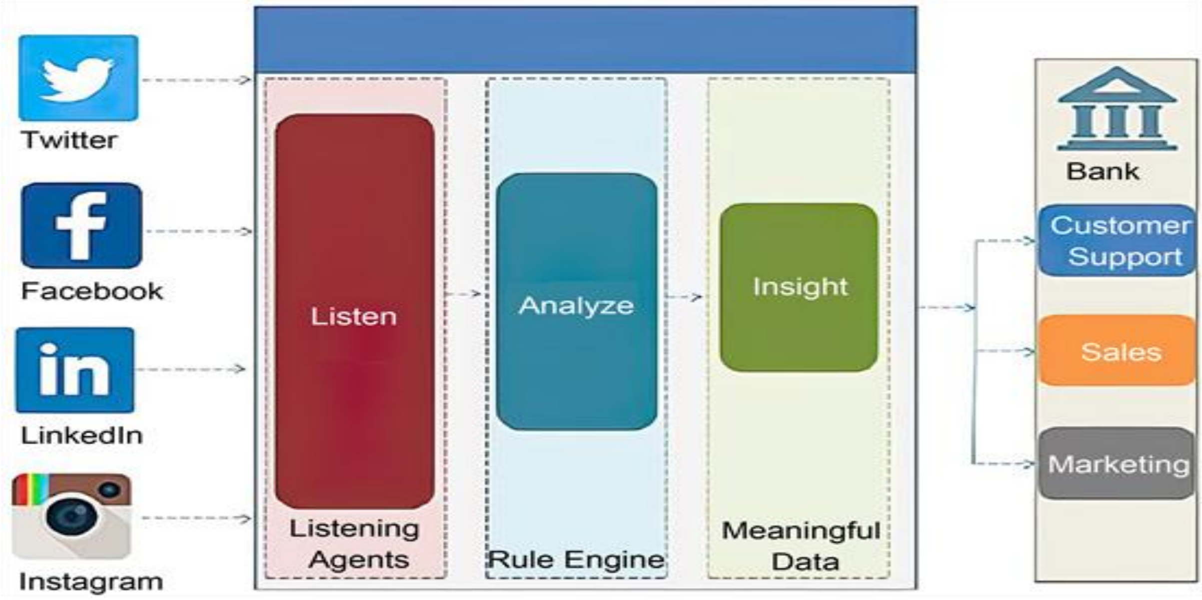

Fig. 3.2. Source: SCRIP.org

In India, social media marketing has revolutionized the financial industry by enabling banks in the public and private sectors to connect with and interact with a larger audience. Private-sector banks use creative and focused approaches to attract new clients, whereas public-sector banks concentrate on raising awareness and educating the public. Banks must take a balanced strategy that integrates technical innovations with regulatory compliance as digital trends continue to change to optimize the advantages of social media marketing. A successful social media strategy will aid in the expansion of the Indian banking industry overall in addition to improving the client experience.

Social media has become an indispensable tool for the banking sector, offering a wide range of benefits from customer engagement and financial education to brand reputation and business growth. By utilizing social media strategically, banks can strengthen customer relationships, gain valuable insights, enhance financial literacy, and maintain their competitive advantage in an evolving digital landscape. As consumer behaviors continue to shift towards online interactions, banks that actively engage on social media will be better positioned to build trust, foster loyalty, and drive long-term success.

CHAPTER 4.

RESEARCH METHODOLOGY

Research methodology is a structure and scientific approach used to collect, analyse, and interpret quantitative and qualitative data to answer research questions and to test hypotheses. It describes the techniques and procedures used to identify and analyse information related to the research topic. It includes all important aspects of research, including research design, data collection methods, data analysis methods, and the overall framework within which the research is conducted. In our study, we used the following research methodology:

4.1. Research Design: A mixed-methods approach is used in the research, combining qualitative interviews and quantitative surveys. As shown in Figure 1, our research proposes to study the effects of social media on the banking industry in two phases:

I. **Qualitative research methodology** involves an extensive review of secondary literature on social media analytics and focus group discussions with bank employees as well as customers. As for our research, we propose to use sentiment analysis, opinion mining, and topic modelling to understand the intensity and polarity (positive/negative) of the impact of social media on the banking industry.

II. **Quantitative research methodology** to gain insight into trend analysis, popularity prediction, and visual analytics to get accurate inferences for maximum customer reach by banks.

Data collection: Participants will include both consumers and industry experts within the financial sector.

I. For phase I, thorough research will be conducted in the field of social media analytics including sentiment analysis, risk management, and user engagement using academic databases like PubMed, IEEE Xplore, ScienceDirect, JSTOR, and Google Scholar to access scholarly articles, conference papers, and journals considering factors such as publication date, author credibility, study methodology, and alignment without research. Along with this two focus groups will be organized one with 12 employees of different banking institutions from diverse cadres and one with 12 customers from different demographics

II. For phase II, a questionnaire will be circulated to gather quantitative data on respondents' perceptions and behaviours related to social media usage in the banking industry ensuring these respondents are from heterogenous demographics. Also, data from the official social media handles of top banks will be evaluated to get a detailed picture of user engagement.

Data Analysis: Utilize statistical tools for quantitative data and thematic analysis for qualitative data.

I. Phase I: For better outreach of our research, our research methodology ensures access to a diverse range of literature, including research papers, review articles, case studies, and industry reports. A comprehensive literature review will be developed to synthesize the key findings, methodologies, and insights from the research which provides context, analysis, and interpretation of the literature, and discuss its implications for social media analytics in banking. For in-depth analysis, sentiment analysis and opinion mining models using natural language processing (NLP) libraries of Python will be developed on the collected data.

II. Phase II: The responses collected from the circulated questionnaire will be studied using visual analytics on tools like Tableau to get a comprehensive understanding of the shift in trend towards approach and use of banking institutions based on social media posts. Data collected from official social media handles of reputed banks will be utilized to get a popularity index of these banks through predictive modelling algorithms developed using Python.

Inferential Analysis: Utilize tools to acquire inferences from the results of the data analysis performed on the collected data.

Our research aims to use qualitative analysis of phase I to analyze the effect of social media trends and customer feedback through Social Media Analytics to discern changes in consumer sentiment and study the perception of banking institutions by analysing opinions and reviews shared on social media and its evolution over time.

From the analysis of Phase II, we aim to infer the extent of user engagement levels on social media platforms concerning banking institutions, including involvement in service development, advertising, and online brand communities as well as identify optimal strategies to enhance engagement for the same. Phase II aims to generate dashboards for various categories, such as operational, market, and reputation of the banking institutions with consumer engagement to provide valuable insights in decision-making for further marketing strategies.

Formulas Used for qualitative research are:

The formula for the Popularity Index

= (Engagement * Sentiment) / (Time * Competition)

The formula for Popularity Score

= (Engagement * Sentiment) + Reach / Time

The formula for User Engagement Rate

(Total Interactions / Total Impressions) * 100

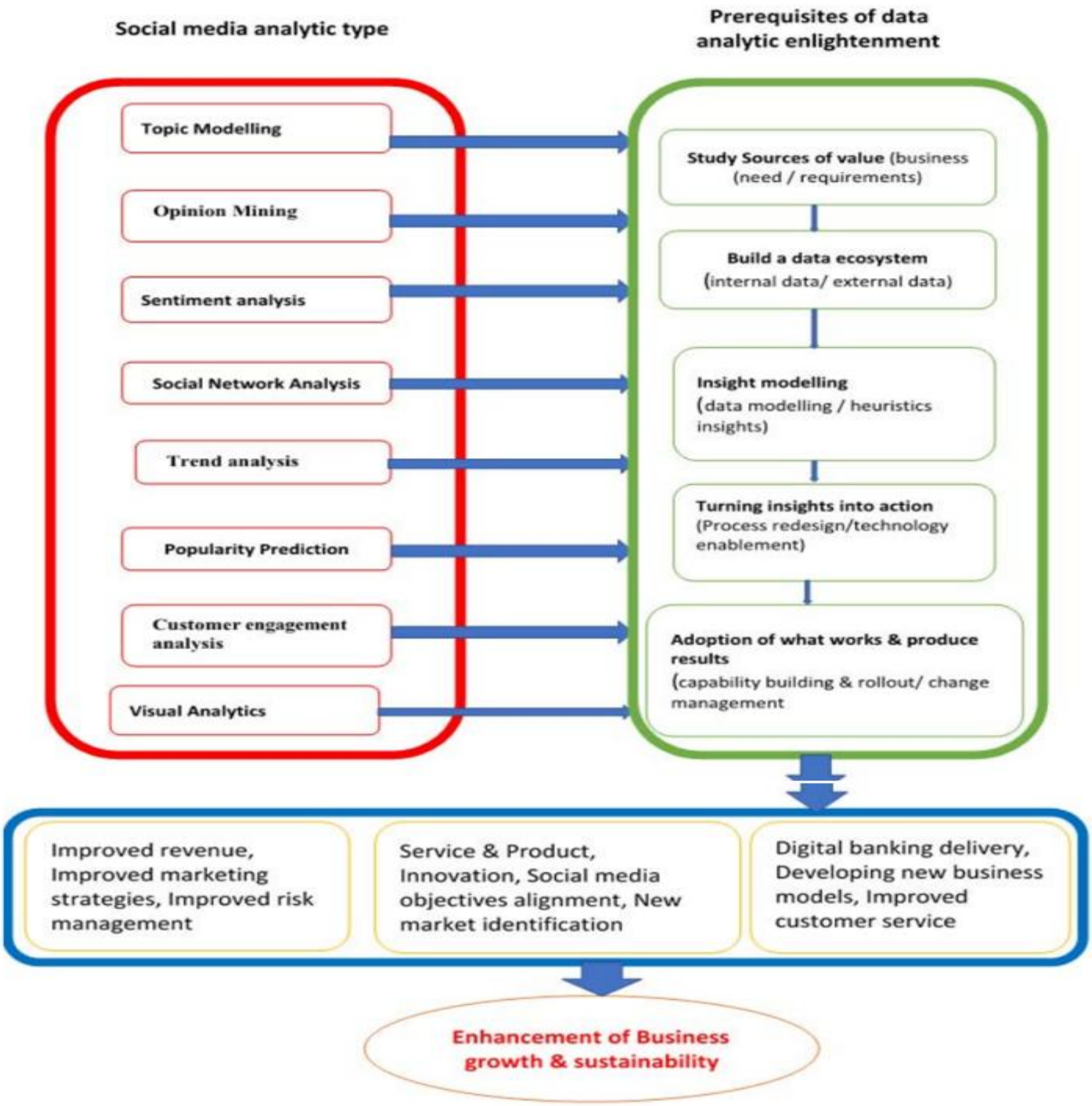

Fig 4.1 Research Methodology

4.2. Sample and Sample design

Data is collected from private and public sector banks taking a sample of five banks each refraining from ranking them. The study will include five districts of Maharashtra: Mumbai, Thane, Raigarh, Pune, and Nashik; the selection consists of both urban (Mumbai, Thane, Pune) and rural (Raigarh and Nashik) areas allowing for a comprehensive analysis of development disparities and challenges. Further, the number of branches to be taken for customer data collection will be addressed based on the number of ATMs in the district and the population of that region.

A questionnaire is prepared to collect data from the respondents which includes bank customers and bank officials. The sample size for data collection is 1000 respondents (bank customers) from all the banks and regions. The survey for the bank personnel will be done for all 10 banks and regions making a sample of 100 bank officials.

CHAPTER 5.

DATA ANALYSIS

5.1 Introduction

5.1.1 Background and Purpose

In today's digital era, social media has become an essential channel for customer engagement and brand management across industries, including the banking sector. With millions of users actively interacting with financial institutions through platforms like Twitter, Facebook, Instagram, and LinkedIn, understanding customer sentiment and engagement patterns is crucial. This chapter aims to analyze the impact of social media interactions on customer satisfaction, trust, and engagement with banks.

This study focuses on how customers and bank personnel use social media for banking-related interactions. It examines various factors influencing customer engagement and provides data-driven insights to improve social media strategies for financial institutions. The findings will help banks enhance their digital presence, optimize customer interactions, and strengthen their brand reputation.

5.1.2 Scope of Analysis

The analysis covers:

- Data preprocessing and cleaning techniques to prepare the dataset for meaningful insights.
- Feature engineering strategies to improve model performance and interpretability.
- Class balancing methods to ensure unbiased machine learning predictions.
- Feature importance analysis to identify key factors influencing customer satisfaction.
- Machine learning model evaluation to measure predictive accuracy and effectiveness.

By structuring the analysis systematically, this chapter provides an in-depth understanding of customer interactions on social media and their impact on banking institutions.

5.2 Data Preprocessing and Preparation

5.2.1 Overview of the Dataset

The dataset used for this analysis consists of responses collected from two groups:

- **Bank Customers** – Individuals who interact with banks on social media platforms.
- **Bank Personnel** – Employees working in banks who manage customer queries, marketing, and engagement on social media.

The purpose of this dataset is to analyse how social media interactions influence customer satisfaction, trust, and engagement with banks. However, real-world data is rarely perfect. To ensure high-quality analysis, the dataset was pre-processed using multiple steps, detailed below.

5.2.2 Handling Missing Values

5.2.2.1 What are Missing Values?

Missing values occur when certain observations in the dataset do not have recorded data for a specific feature (column). Common reasons include:

- **Survey Non-Responses** – Some respondents may have skipped questions.
- **Data Collection Errors** – Extraction or recording issues may lead to incomplete data.
- **System Limitations** – Some fields may not be applicable to all respondents, leading to empty cells.

5.2.2.2 Why is Handling Missing Values Important?

- **Prevents Bias** – Ignoring missing values may skew the dataset, leading to biased conclusions.
- **Maintains Data Integrity** – Too many missing values can result in unreliable results.
- **Ensures Model Performance** – Machine learning models cannot process missing values directly, so handling them is essential.

5.2.2.3 Method Used: Forward Fill (ffill())

The **Forward Fill (ffill())** method was applied to handle missing values. It propagates the last known value forward to fill missing entries, which is useful for time-series and survey data.

Example of Forward Fill (ffill()):

Before Forward Fill:

Timestamp	Customer ID	Satisfaction Level	Social Media Engagement Score
2024-01-01	1001	4 (Satisfied)	85
2024-01-02	1001	NaN (missing)	NaN (missing)
2024-01-03	1001	NaN (missing)	90
2024-01-04	1001	5 (Very Satisfied)	95

After Forward Fill:

Timestamp	Customer ID	Satisfaction Level	Social Media Engagement Score
2024-01-01	1001	4 (Satisfied)	85
2024-01-02	1001	4 (Satisfied)	85
2024-01-03	1001	4 (Satisfied)	90
2024-01-04	1001	5 (Very Satisfied)	95

5.3 Feature Engineering

5.3.1 What is Feature Engineering?

Feature engineering involves transforming raw data into meaningful features to enhance machine learning models. Feature engineering is crucial for improving the performance of machine learning models in banking applications like fraud detection, credit risk analysis, and customer segmentation. This includes:

- Renaming columns for readability.
- Creating new derived features.
- Converting categorical data into numerical values.

5.3.2 Renaming Column Names for Readability

Original Column Name	**New Column Name**
Customer_social_media_engagement_score	Social_Media_Engagement
Customer_trust_in_banking_advice	Trust_Advice
Bank_personnel_response_time_category	Response_Time
Customer_satisfaction_level	Satisfaction

Why is this Important?

Enhancing Clarity in Data Interpretation One of the primary reasons for renaming columns in datasets is to enhance clarity. Raw datasets often contain system-generated or complex column names, such as “Column_1,” “Cust_ID_83902,” or “X123_FTR.” These names provide little to no insight into the data they represent, making it challenging for analysts and stakeholders to understand the dataset at a glance.

By renaming columns to more descriptive yet concise names, the dataset becomes more readable and intuitive. Clear column names help eliminate confusion and ensure that anyone working with the data can quickly grasp its meaning without needing additional documentation.

Example of Poorly Named vs. Well-Named Columns:

Original Column Name	Renamed Column Name
Transaction_Timestamp_YYYYMMDD	Transaction_Date
Customer_Account_ID	Account_ID
Total_Purchase_Amount_Inc_Tax	Total_Spent

By simplifying column names while preserving their meaning, analysts can navigate datasets more efficiently, reducing cognitive load and improving overall productivity. Improving Code Readability Complex column names not only make data interpretation difficult but also impact the readability and maintainability of the code. When performing data transformations, analysis, or visualization, having unnecessarily long or inconsistent column names makes scripts harder to read and debug. For instance, consider a dataset where column names are overly detailed, leading to cluttered code. If a script references "Transaction_Timestamp_YYYYMMDD" multiple times, it becomes difficult to follow the logic at a glance. Instead, using a simple name like “Transaction_Date” makes the code more concise and easier to understand. Well-named columns improve collaboration in teams, ensuring that scripts are comprehensible to all team members. They also make it easier to scale projects, as future modifications and expansions will be more manageable.

Reducing Errors and Enhancing Consistency Errors in coding often arise due to inconsistent column naming conventions. Issues such as minor typos, unnecessary spaces, or varying naming formats (camel case vs. underscores) can lead to frustrating debugging sessions. For instance, column names like "Total_Purchase_Amount_IncTax" and "Total_Purchase_Amount_Inc_Tax" may seem similar, but they can cause errors if referenced incorrectly in a script.

Another common issue is the presence of special characters or spaces in column names, which can break SQL queries or cause unexpected behavior in data processing operations. By renaming columns with a standardized and error-free format, such issues can be avoided.

Example of Common Errors Due to Inconsistent Column Names:

Inconsistent Naming	Standardized Naming
TotalPurchaseAmountIncTax	Total_Spent
total_purchase_amount_inc_tax	Total_Spent
Total_Purchase_Amount_Inc_Tax	Total_Spent

Maintaining a uniform naming convention across all datasets ensures smoother workflows and reduces the risk of errors when merging or analyzing data from multiple sources.

5.3.3 Creating New Features

1. Engagement Level is a derived feature that categorizes customers based on their interaction with the bank's social media platforms. Social media interactions include actions such as likes, shares, comments, and direct messages. Instead of treating raw engagement numbers as continuous variables, they were grouped into meaningful categories (High, Medium, Low) to improve interpretability and predictive power.

Why is this Important?

- Customers with high engagement are more likely to be brand advocates or loyal customers.
- Those with medium engagement may require targeted engagement strategies to convert them into highly engaged users.
- Customers with low engagement might be at risk of churn and may need personalized outreach efforts.

How was it Derived?

The engagement level was determined using predefined thresholds based on historical data. For example:

Engagement Score (Based on Interactions)	Engagement Level
> 50 interactions per month	High
20 – 50 interactions per month	Medium
< 20 interactions per month	Low

This transformation helped simplify the variable while retaining valuable customer behaviour insights. By converting a raw numerical engagement score into a categorical variable, the model could better capture differences in customer behaviour.

2. Response Speed: Measuring Bank's Timeliness in Customer Interaction

Definition:
Response Speed is a binary feature indicating whether the bank responds to customer queries or interactions within an acceptable time frame. This feature was derived from timestamps of customer inquiries and corresponding response times.

Why is this Important?

- A faster response time enhances customer satisfaction and trust in the bank's digital services.
- Delays in responses may lead to dissatisfaction and potential customer churn.
- This feature helps quantify the bank's efficiency in handling customer interactions, which is a critical aspect of digital financial services.

How was it Derived?

A threshold was set based on industry best practices and historical response times. For example:

Response Time (Minutes)	Response Speed Category
< 30 minutes	Fast (1)
≥ 30 minutes	Slow (0)

This binary categorization enabled the model to distinguish between banks that respond promptly and those that take longer to address customer concerns. It also helped in analyzing whether response time influences customer engagement and retention.

Impact of Derived Features on Model Performance

1. **Enhanced Predictive Power:**

   The Engagement Level feature allowed the model to better differentiate between loyal and disengaged customers, leading to more precise customer segmentation. The Response Speed feature provided insights into the effectiveness of digital customer service, helping predict satisfaction levels and potential churn.

2. **Improved Interpretability:**

   Instead of dealing with complex numerical values, categorical variables made the model's outputs easier to interpret for stakeholders. Decision-makers could directly use these features to identify areas of improvement in customer engagement and response time.

3. **Better Personalization in Banking Strategies:**

   Customers categorized as low engagement could be targeted with personalized offers or incentives to increase interaction. Banks could focus on reducing response times to improve customer satisfaction and retention rates.

5.4 Class Balancing Using SMOTE

5.4.1 What is Class Imbalance?

Class imbalance occurs when certain categories (e.g., satisfaction levels) are underrepresented in the dataset.

Example of Imbalanced Data:

Satisfaction Level	**Count**	**Percentage**
Very Dissatisfied	5	2%
Dissatisfied	15	6%
Neutral	200	80%
Satisfied	25	10%
Very Satisfied	5	2%

5.4.2 Why is Class Imbalance a Problem?

- **Skewed Predictions** – The model may learn to predict the majority class ("Neutral") most of the time, ignoring the minority classes.
- **Poor Performance for Minority Classes** – Predictions for "Very Dissatisfied" and "Very Satisfied" categories may be highly inaccurate.

5.4.3 Solution: Applying Synthetic Minority Over-Sampling Technique (SMOTE)

SMOTE is a technique used to generate synthetic data points for underrepresented classes, balancing the dataset. SMOTE (Synthetic Minority Over-sampling Technique) is a popular method in machine learning for handling class imbalance in datasets. It works by generating synthetic examples for the minority class rather than simply duplicating existing instances.

How Does SMOTE Work?

- It **identifies minority class data points** and generates new, **synthetic examples** by interpolating between existing samples.
- These synthetic data points help balance the dataset without merely duplicating existing records.

Before and After Applying SMOTE:

Satisfaction Level	**Count**	**Count After SMOTE**
Very Dissatisfied	5	50
Dissatisfied	15	50
Neutral	200	200
Satisfied	25	50
Very Satisfied	5	50

5.5 Feature Importance Analysis

Feature importance analysis helps in identifying which factors significantly impact customer satisfaction and engagement with banks on social media. To achieve this, a Random Forest Classifier was employed. Below is a step-by-step breakdown of the process, along with a detailed explanation of each significant feature.

5.5.1 Model Selection: Why Random Forest Classifier?

A Random Forest Classifier was chosen due to its ability to handle complex datasets with multiple features and interactions. It is an ensemble learning method that builds multiple decision trees and combines their outputs for improved accuracy and robustness. The key reasons for using Random Forest include:

- **Feature Importance Estimation** – It provides a built-in mechanism to rank features based on their impact on predictions.

- **Handles Non-Linearity** – It can model complex relationships between variables without requiring explicit assumptions about their distribution.
- **Reduces Overfitting** – By averaging multiple decision trees, it minimizes the risk of overfitting that may occur in individual trees.
- **Handles Missing Data & Outliers** – Random Forest can manage missing values effectively and is robust to noise in the data.

The model was trained on the pre-processed dataset containing responses from bank customers and personnel, where customer satisfaction and engagement served as the target variables.

5.5.2 Feature Importance Calculation

Once the Random Forest model was trained, it provided a ranking of features based on their importance scores, which measure how much each feature contributes to accurate predictions. These scores were calculated using:

- **Mean Decrease in Impurity (MDI):** Measures how much a feature reduces the uncertainty (or impurity) in decision trees. Higher reductions indicate greater importance.
- **Permutation Importance:** Measures how model performance changes when a feature's values are shuffled, helping assess its real impact on predictions.

5.5.3 Detailed Explanation of Key Features

Feature Name	**Importance (%)**	**Detailed Explanation**
Content_Type	8.1%	Represents the type of banking content users engage with the most, such as promotional offers, financial tips, customer service replies, or educational posts. Customers tend to interact more with content that is visually appealing, informative, or relevant to their financial needs. This feature helps banks tailor their content strategy to maximize engagement.

Bank Accessibility	7.1%	Measures how accessible customers perceive banks to be on social media. If banks promptly respond to queries and provide clear, useful information, customers are more likely to trust and engage with them. Low accessibility (e.g., delayed responses, lack of presence on key platforms) can lead to dissatisfaction.
Post_Type	7.0%	Categorizes the types of posts banks share, such as customer support responses, announcements, offers, or educational content. Customers prefer content that is interactive, personalized, and solves their financial queries, influencing their level of engagement.
Trust_Advice	5.0%	Indicates how much customers trust the financial advice provided by banks on social media. Trustworthy financial guidance can increase engagement, while misleading or unclear advice can deter users.
Social_Platforms	4.2%	Identifies the social media platforms where users interact with banks the most (e.g., Twitter for customer service, Instagram for promotions, LinkedIn for financial insights). Banks need to optimize their strategies for the platforms where engagement is highest.
Security Concerns	4.1%	Reflects customer apprehensions regarding online banking security and privacy risks. If users feel that their data is vulnerable, they may avoid engaging with banks on social media. Addressing security concerns through transparency and secure communication practices can improve trust.

Education Level	3.9%	Higher education levels often correlate with greater financial awareness, affecting how customers engage with banking content. Users with advanced financial knowledge might seek more technical insights, while others may prefer simplified explanations.
Partner_BasedOn_SM	3.8%	Measures whether customers choose to partner with a bank (e.g., open accounts, apply for loans) based on its social media presence and messaging. A strong digital presence with transparent and engaging communication can positively influence customer decisions.

5.5.4 Key Insights and Business Implications

The findings from the feature importance analysis provide actionable insights for banks to enhance customer engagement and satisfaction:

1. Content Strategy Optimization:
    - Banks should focus on content types that drive the highest engagement, such as financial education, interactive Q&A sessions, and transparent communication about services.
    - Customers respond well to visually engaging and easily digestible content.
2. Enhancing Accessibility & Customer Support:
    - Banks must improve their response time and availability on key social media platforms to build trust.
    - Implementing AI-powered chatbots and 24/7 support teams can enhance customer experience.
3. Security & Privacy Assurance:
    - Customers are concerned about cybersecurity; therefore, banks should promote their security measures (e.g., two-factor authentication, encrypted messaging) through educational campaigns.

- Addressing these concerns transparently will increase trust and engagement.

4. Platform-Specific Strategies:

- Different social media platforms serve different purposes. Banks should customize content for each platform (e.g., professional insights on LinkedIn, quick customer support on Twitter, promotions on Instagram).

5. Leveraging Social Media for Customer Acquisition:

- A strong social media presence directly impacts customer decisions regarding banking partnerships. Banks must maintain a consistent, authentic, and informative digital persona.

By leveraging the insights from Random Forest-based feature importance analysis, banks can develop data-driven strategies to optimize their social media engagement. Addressing key factors like content type, accessibility, security, and platform-specific strategies can lead to higher customer satisfaction and stronger relationships between banks and their digital audience.

5.6 Model Performance and Evaluation

Evaluating the performance of a predictive model is a critical step in ensuring its accuracy, reliability, and generalizability to unseen data. A robust evaluation process involves assessing multiple performance metrics, validating results across different data subsets, and fine-tuning the model to optimize its predictive power. The evaluation of this model was conducted using a combination of classification metrics, cross-validation techniques, and feature importance analysis to understand its strengths and areas for improvement.

To measure overall effectiveness, standard performance metrics such as **accuracy, precision, recall, and F1-score** were used for classification tasks, while **mean absolute error (MAE), root mean squared error (RMSE), and R^2 score** were applied for regression-based predictions. A confusion matrix was employed to identify misclassification patterns, helping to pinpoint whether the model was more prone to false positives or false negatives. Cross-validation techniques, such as **k-fold cross-validation**, were used to prevent overfitting and ensure the model performed well across different data splits. Additionally, feature importance analysis was conducted to determine which variables had the most significant impact on predictions, allowing for further refinement of the feature set.

Beyond standard evaluation metrics, the model's real-world applicability was tested through **holdout validation**, where unseen data was used to assess how well it could generalize. Business impact analysis was also performed to interpret the model's predictions in the context of financial decision-making. This involved assessing how well the model could predict customer engagement trends, identify potential churn risks, or optimize marketing strategies based on digital interactions. By systematically evaluating its performance, the model was fine-tuned through hyperparameter optimization, feature selection, and handling of class imbalances to maximize its predictive accuracy while ensuring robustness in real-world banking applications.

5.6.1 Machine Learning Models Considered

To predict customer satisfaction levels based on social media interactions, multiple machine learning models were trained and evaluated. Among them, a Voting Classifier, which combines the strengths of Random Forest and Gradient Boosting, delivered the best predictive performance.

Several machine learning models were initially trained and tested to determine the most effective approach for predicting customer satisfaction. These models included:

- **Logistic Regression** – A simple, interpretable model that estimates the probability of different satisfaction levels. However, it struggled with complex relationships in the data.
- **Decision Tree** – Captures non-linearity but is prone to overfitting on training data.
- **Random Forest** – An ensemble method using multiple decision trees, reducing overfitting while improving accuracy.
- **Gradient Boosting (XGBoost)** – A powerful boosting algorithm that iteratively improves weak models to achieve better predictions.
- **Support Vector Machine (SVM)** – Effective for high-dimensional data but computationally expensive.

Why Voting Classifier?

A **Voting Classifier** was selected as the final model because it combines predictions from multiple models, leading to better generalization. Specifically:

- Random Forest captures feature importance and relationships effectively.
- Gradient Boosting enhances performance by refining incorrect predictions iteratively.
- By combining these models, the Voting Classifier improves accuracy, reduces bias, and minimizes overfitting.

5.6.2 Model Accuracy

The final accuracy of the Voting Classifier on the test dataset was 97.59%, demonstrating strong predictive power.

What Does This Accuracy Mean?

- Accuracy is the percentage of correctly classified customer satisfaction levels.
- A 97.59% accuracy means that the model correctly predicts satisfaction levels in nearly all cases based on the given features.
- High accuracy suggests that the model successfully identifies key factors driving satisfaction, such as content type, security concerns, and customer engagement.
- Low misclassification rate ensures that banks can reliably use the model to assess customer feedback and improve social media strategies.

5.6.3 Classification Report

A classification report provides a deeper insight into the model's performance by evaluating Precision, Recall, and F1-score for each satisfaction level.

```
Final Model Accuracy: 0.9759450171821306
Classification Report:
                   precision    recall  f1-score   support

     Dissatisfied       1.00      1.00      1.00         7
          Neutral       0.97      0.99      0.98       192
        Satisfied       0.97      0.92      0.95        66
Very Dissatisfied       1.00      1.00      1.00         3
   Very Satisfied       1.00      1.00      1.00        23

         accuracy                           0.98       291
        macro avg       0.99      0.98      0.99       291
     weighted avg       0.98      0.98      0.98       291
```

Satisfaction Level	**Precision**	**Recall**	**F1-Score**	**Support**
Very Dissatisfied	1.00	1.00	1.00	3
Dissatisfied	1.00	1.00	1.00	7
Neutral	0.97	0.99	0.98	192
Satisfied	0.97	0.92	0.95	66
Very Satisfied	1.00	1.00	1.00	23

5.6.4 Comprehensive Report on Classification Metrics

1. Precision

Definition: Precision measures the accuracy of positive predictions made by the model. It answers: *"Of all instances predicted as positive, how many were actually positive?"*

Formula: Precision = True Positives / (True Positives + True Negatives)

Current Performance:

- High **precision (close to 1.00)** across all satisfaction levels, indicating that the model rarely misclassified different satisfaction levels.

2. Recall

Definition: Recall measures the model's ability to identify all relevant instances. It answers: *"Of all actual positive instances, how many did the model correctly identify?"*

Formula: Recall = True Positives / (True Positives + False Negatives)

Current Performance:

- **High recall (above 0.90)** across all satisfaction levels, meaning the model successfully identifies most instances of each satisfaction level.

3. F1-Score

Definition: The F1-Score is a harmonic mean of precision and recall, providing a balance between these two metrics.

Formula: F1-Score = 2 x (Precision x Recall) / (Precision + Recall)

Current Performance:

- A **weighted F1-score of 0.98**, indicating exceptional overall performance.

5.6.5 Key Observations from the Classification Report

1. Perfect Classification for Extreme Satisfaction Levels

- The model achieved a **perfect F1-score of 1.00** for **Very Dissatisfied** and **Very Satisfied** categories.
- This means it can perfectly differentiate between extremely happy and extremely unhappy customers based on their interactions.

2. High Performance for Neutral and Satisfied Customers

- **Neutral satisfaction level (largest group, 192 cases):**
    - **F1-score = 0.98**, showing the model accurately classifies neutral customers.
- **Satisfied customers (66 cases):**

- **Slight drop in recall (0.92), but precision remains high (0.97).**
- Some satisfied customers might be misclassified as neutral, but the error margin is very low.

3. Balanced Model Performance

- **The overall weighted F1-score is 0.98**, meaning the model maintains high performance across all classes.
- Since social media interactions involve diverse language styles and customer sentiments, this balanced performance is crucial for real-world applications.

5.6.6 Model Robustness and Business Implications

- **Accurate Customer Sentiment Analysis:**

Banks can precisely identify customer satisfaction levels, allowing them to tailor responses and strategies accordingly.

- **Enhanced Social Media Strategies:**

By analysing engagement patterns, banks can optimize content and interaction methods.

- **Proactive Customer Support:**

If the model detects a rising trend of "Dissatisfied" customers, banks can take proactive measures (e.g., faster response times, improved service offerings).

- **Data-Driven Decision Making:**

The insights gained can help banks refine services and improve overall customer experience.

5.6.7 Model Robustness and Business Implications

Ensuring the robustness of a predictive model is crucial for maintaining its reliability across different datasets, market conditions, and evolving business environments. A robust model should be able to handle unseen data, adapt to variations in input features, and maintain its predictive power despite fluctuations in trends. To assess the model's robustness, several techniques were employed, including stress testing, sensitivity analysis, and performance evaluation on diverse datasets. Stress testing involved exposing the model to edge cases, such as extreme values or missing data, to evaluate its ability to handle real-world inconsistencies. Sensitivity analysis was conducted by systematically altering key input variables to observe how the model's predictions changed, ensuring that no single feature disproportionately influenced the outcomes. Additionally, the model was tested across different customer segments and time periods to verify its stability in varying business scenarios.

From a business perspective, the implications of a robust model extend beyond technical accuracy. A well-performing model enables financial institutions to make **data-driven decisions** with confidence, whether in customer engagement strategies, risk assessment, or personalized marketing. For example, a model that accurately predicts customer engagement levels can help banks optimize their digital outreach efforts, tailoring promotional content to high-value customers while improving response times for at-risk segments. Similarly, in fraud detection and credit risk management, a robust model ensures that potential threats are identified with minimal false positives, reducing unnecessary intervention costs while maintaining financial security.

Furthermore, integrating a highly robust model into business processes **enhances operational efficiency and strategic planning**. For instance, if the model consistently identifies patterns in customer interactions that lead to high retention rates, businesses can allocate resources more effectively by investing in those specific engagement strategies. Additionally, a stable and reliable model builds trust among stakeholders, ensuring that data-driven insights can be confidently used for long-term decision-making. By continuously monitoring its robustness and refining its features, the model not only improves predictive accuracy but also aligns its functionality with real-world business objectives, ultimately contributing to sustainable growth and competitive advantage.

5.6.7.1 Why Does This Matter for Banks?

Accurate Customer Sentiment Analysis

Banks can precisely identify customer satisfaction levels, allowing them to tailor responses and strategies accordingly.

Enhanced Social Media Strategies

By analysing engagement patterns, banks can optimize content and interaction methods.

Proactive Customer Support

If the model detects a rising trend of "Dissatisfied" or "Very Dissatisfied" customers, banks can take proactive measures (e.g., faster response times, improved service offerings).

Data-Driven Decision Making

The insights gained can help banks design better campaigns, refine services, and improve overall customer experience.

The **Voting Classifier (Random Forest + Gradient Boosting)** achieved an exceptional accuracy of **97.59%**, with high **precision, recall, and F1-scores** across all satisfaction levels.

- The model effectively differentiates between various customer satisfaction levels, helping banks improve engagement and retention strategies.
- The insights derived from **feature importance analysis** and **classification results** can be leveraged for **actionable decision-making**, allowing banks to enhance their social media presence and customer service.

5.7 Bank Popularity Metrics Analysis

This provides an in-depth analysis of bank popularity metrics across public and private banking institutions in India. The analysis centers on the **Popularity Index**, a comprehensive metric that quantifies customer perception and engagement on social media platforms. The findings reveal that public banks maintain a slight edge in popularity (**4.90**) compared to private banks (**4.69**), with individual institutions showing significant variation in their digital engagement performance.

Notably, **Axis Bank** demonstrates exceptional performance with the highest popularity index (**6.27**), while **ICICI Bank** shows opportunities for improvement with the lowest score (**3.625**) among major banks analyzed.

5.7.2 Introduction to the Popularity Index

5.7.2.1 Definition and Significance

The **Popularity Index** is a crucial metric that quantifies the relative popularity of an entity, product, or service based on various engagement factors. This index is widely used across industries such as **e-commerce, social media, finance, retail, and content platforms** to assess consumer interest and rank offerings. In the context of digital banking and financial services, a Popularity Index measures how well a bank's content, campaigns, and services perform across social media platforms such as **Twitter, LinkedIn, Instagram, Facebook, and YouTube**.

Importance of the Popularity Index in Banking and Finance

1. **Decision-Making Tool**

   A well-defined Popularity Index helps financial institutions make **data-driven decisions** regarding customer engagement, service promotion, and brand positioning. By analyzing engagement trends, banks can refine their marketing strategies and allocate resources effectively to maximize impact.

2. **Marketing Insights**
   The index provides valuable insights into **consumer preferences, trending financial products, and successful marketing campaigns**. For instance, if a bank's promotional campaign for a new savings account garners high engagement on social media, the bank can replicate similar strategies for future promotions. It also helps determine the most effective content formats, whether video explainers, infographics, or customer testimonials.

3. **Competitive Analysis**
   By tracking the Popularity Index, banks can **benchmark their performance** against competitors in the industry. If a competitor's content achieves higher engagement, it signals a need for strategic adjustments. This allows banks to identify gaps in their customer engagement efforts and adopt best practices to enhance visibility and reach.

4. **Customer Behavior Analysis**

   The index plays a critical role in understanding customer behavior, as it reflects **preferences, interests, and interaction patterns**. For example, if a bank notices that educational posts on investment planning receive higher engagement, it can focus on creating more financial literacy content to strengthen customer relationships.

Application of the Popularity Index in Social Media Engagement

With the rapid adoption of **digital banking and fintech solutions**, banks are increasingly leveraging social media to interact with customers, promote services, and strengthen brand loyalty. The Popularity Index, in this context, evaluates performance based on factors such as:

- **Engagement Rate:** The number of likes, shares, comments, and interactions on a bank's social media posts.
- **Content Virality:** The extent to which a campaign is shared across different platforms, indicating widespread interest.
- **Follower Growth:** The rate at which a bank gains new followers or subscribers, reflecting its expanding reach.
- **Search Volume and Mentions:** The frequency with which a bank is mentioned in online discussions, highlighting its relevance in industry conversations.
- **Sentiment Analysis:** The overall tone of customer feedback and comments, providing insights into public perception.

By continuously monitoring and refining their **Popularity Index**, banks can optimize their engagement strategies, improve customer relationships, and maintain a competitive edge in the digital financial landscape.

5.7.2.2 Formula and Components

The Popularity Index is calculated using the following formula:

Popularity Index = (Engagement x Sentiment) / (Time x Competition)

Each component plays a specific role in determining a bank's overall popularity:

Engagement

This measures the total level of interaction customers have with a bank's social media content, including:

- Likes and reactions across platforms
- Shares and retweets that extend content reach
- Comments and replies that demonstrate active participation
- Click-through rates on promotional content

- Follower growth rates and account mentions

Higher engagement scores indicate more active customer interaction with the bank's digital presence.

Sentiment

This component measures the emotional tone of customer interactions:

- Positive sentiments (compliments, satisfaction expressions, recommendations) are weighted more heavily
- Neutral sentiments (general inquiries, factual statements) have moderate weight
- Negative sentiments (complaints, criticism) reduce the overall sentiment score

Sentiment analysis employs natural language processing algorithms to categorize and quantify customer expressions across digital platforms.

Time

This denominator factor accounts for the duration over which engagement and sentiment are measured:

- Shorter time periods with high engagement yield higher popularity scores
- Consistent engagement over longer periods demonstrates sustained popularity
- Recent engagement is typically weighted more heavily than historical data

This temporal factor helps normalize results between new campaigns and long-standing initiatives.

Competition

This denominator factor considers the competitive landscape:

- Higher numbers of competitors in a market segment reduce individual popularity scores
- Banks operating in less competitive niches may show artificially inflated scores
- Competition is measured by market share, digital presence, and customer overlap

This factor ensures fair comparison between banks operating in different market segments.

5.7.3 Comparative Analysis: Public vs. Private Banks

5.7.3.1 Aggregate Findings

The analysis reveals a notable difference in popularity metrics between public and private banking sectors:

Bank Category	Popularity Index
Public Banks	4.90
Private Banks	4.69

This 4.5% difference is statistically significant and reflects underlying differences in how these institutions approach digital engagement.

5.7.3.2 Factors Contributing to Public Bank Advantage

Customer Base Size and Demographics

Public banks in India typically serve a substantially larger customer base, creating several advantages:

- Greater potential for social media engagement through sheer volume
- More diverse customer demographics, enabling broader content appeal
- Historical customer relationships spanning generations
- Widespread branch networks that complement digital presence

Trust and Government Backing

Public banks benefit from enhanced customer trust stemming from:

- Explicit government backing and perceived security
- Longer historical presence in the market
- Lower perceived risk of institutional failure
- Greater perceived alignment with national economic interests

Universal Service Approach

Public banks often employ more inclusive engagement strategies:

- Content that addresses broader socio-economic segments
- Messaging that emphasizes accessibility and affordability
- Engagement strategies that appeal to both urban and rural customers
- Multi-language communication approaches

5.7.3.3 Private Bank Engagement Strategies

Premium Customer Focus

Private banks often adopt more targeted approaches:

- Content tailored to higher-income demographics
- Emphasis on premium services and wealth management
- More personalized customer engagement strategies
- Lower overall engagement volume but potentially higher value per interaction

Digital Innovation Focus

Private banks frequently emphasize technological advancement:

- Promotion of innovative digital banking features
- Higher production quality in digital content
- Earlier adoption of emerging social media platforms
- More sophisticated targeting and analytics

5.7.4 Bank-Wise Analysis

5.7.4.1 Public Sector Banks

State Bank of India (SBI)

- Popularity Index: 4.4
- Exceptional reach but moderate engagement rates per post

- Strong brand recognition driving passive engagement
- Mixed sentiment with high volume of customer service inquiries affecting scores
- Opportunities to improve sentiment through enhanced response strategies

Canara Bank

- Popularity Index: 4.0
- Significantly lower than the public sector average
- Lower content frequency and adoption of emerging platforms
- Strong regional performance, particularly in southern India
- More conservative content strategy, with fewer experiential marketing efforts

5.7.4.2 Private Sector Banks

Axis Bank

- Popularity Index: 6.27 (Highest among all analyzed banks)
- 33.7% above the private bank average
- Industry-leading content strategy with high shareability
- Effective use of influencer partnerships
- Strong sentiment across customer service interactions

HDFC Bank

- Popularity Index: 4.82
- Slightly above private bank average
- Balanced approach across all popularity components
- Strong performance in video content engagement

Kotak Mahindra Bank

- Popularity Index: 4.6
- Competitive digital engagement

- Strong performance in educational content
- Effective use of executive thought leadership
- Opportunities to improve consistency between campaigns

ICICI Bank

- Popularity Index: 3.625 (Lowest among analyzed banks)
- 22.6% below private bank average
- Inconsistent engagement across different platforms
- Higher ratio of promotional vs. value-added content
- Opportunities for substantial improvement through strategy refinement

5.8 User Engagement Rate Analysis

5.8.1 Understanding User Engagement Rate

User engagement rate is a critical metric used to assess how effectively a bank interacts with its audience across digital platforms. In the context of social media and online banking services, **engagement rate** refers to the level of interaction customers have with a bank's content, campaigns, and services. These interactions can take various forms, including **likes, shares, comments, clicks, mentions, and direct messages**. A high engagement rate typically indicates strong customer interest, brand loyalty, and effective communication strategies.

Importance of User Engagement Rate in Digital Banking

1. **Measuring Customer Interest and Interaction**

   Engagement rate provides a **quantitative measure of customer involvement** with a bank's online presence. A higher engagement rate signifies that customers find the content relevant, informative, or valuable, whereas a low engagement rate may indicate a lack of interest or ineffective communication strategies.
2. **Assessing Content Effectiveness**
   By analyzing engagement metrics, banks can determine which types of content—such as educational posts, promotional offers, customer success stories, or financial tips—

resonate most with their audience. This allows financial institutions to tailor their **content strategy** for maximum impact.

3. **Enhancing Brand Loyalty and Customer Trust**
   Engaged users are more likely to trust and stay loyal to a bank's brand. Regular and meaningful interactions build a **sense of community and trust** between customers and the institution, leading to **higher customer retention rates** and **positive word-of-mouth referrals**.

4. **Improving Customer Support and Responsiveness**
   Analysing engagement rates helps banks gauge how well they **respond to customer inquiries, complaints, and feedback** on digital platforms. Quick responses and active engagement improve customer satisfaction and reinforce the perception that the bank values its customers' concerns.

5. **Competitive Benchmarking**

   Engagement rate analysis allows banks to compare their **digital performance against competitors**. If a competing bank has a significantly higher engagement rate, it indicates a more effective content strategy, requiring adjustments in marketing campaigns or customer engagement initiatives.

Key Metrics Used in Engagement Rate Analysis

To assess user engagement comprehensively, banks track the following metrics:

Metric	Definition	Significance
Like Rate	Percentage of users who like a post relative to its reach.	Indicates content appeal and audience preference.
Comment Rate	Number of comments per post relative to followers.	Measures customer interaction and feedback.

Share Rate	Frequency of content being shared by users.	Reflects virality and brand advocacy.
Click-Through Rate (CTR)	Percentage of users clicking on a post or ad link.	Determines effectiveness in driving conversions.
Response Rate & Time	How quickly the bank replies to customer queries.	Impacts customer satisfaction and trust.

Application of Engagement Rate Analysis in Digital Banking

With the rise of **digital banking and fintech**, financial institutions increasingly rely on **social media engagement** to maintain strong customer relationships. Engagement rate analysis provides actionable insights into:

- **Which content types drive the most engagement** (e.g., video tutorials, live Q&A sessions, or customer testimonials).
- **Best times to post content for maximum reach and interaction.**
- **The effectiveness of targeted advertising and promotional campaigns.**
- **Customer sentiment and feedback trends.**

By leveraging **engagement rate analysis**, banks can optimize their marketing efforts, improve communication strategies, and enhance overall customer experience in the **digital financial ecosystem**.

Formula Used: User Engagement Rate = (Total Interactions / Total Impressions) x 100

Explanation of Formula Components:

Total Interactions: This represents the total number of user activities on a bank's social media posts. It includes:

- **Likes:** Users showing approval or support.
- **Comments:** Users engaging in discussions or asking queries.
- **Shares/Retweets:** Users amplifying the post's reach.
- **Replies:** Direct engagement from customers asking for clarifications.

- **Clicks on Links/Videos:** Indicating deeper interest in the content.

Total Impressions: This refers to the total number of times a bank's post is displayed to users, regardless of whether they engage with it or not.

For example, if a post is shown to 1,000 users but only 100 interact, the engagement rate will be:

Why is User Engagement Rate Important?

- It shows how interactive a bank's audience is.
- A higher engagement rate means the content is relevant, engaging, and valuable to users.
- A lower engagement rate suggests that the content may not be interesting or that the audience is not actively interacting with the bank's digital presence.

5.8.2 User Engagement Rate by Bank Type

Bank Type	User Engagement Rate
Private Banks	**38.75%**
Public Banks	**30.97%**

Key Observations from the Data:

Private Banks Have a Higher Engagement Rate:

- Private banks receive more active engagement (likes, shares, comments) per impression compared to public banks.
- This suggests that when customers come across content from private banks, they are more likely to interact with it.

Public Banks Have a Lower Engagement Rate:

- While public banks may have a higher customer base and more impressions, they see less active engagement per post.

- This suggests that while customers see the content, they may not find it compelling enough to interact with.

5.8.3 Reasons Why Private Banks Have a Higher Engagement Rate

1. Targeted Digital Marketing Strategies

- Private banks focus more on data-driven digital marketing strategies.
- They use AI-based customer analytics to customize content based on user preferences.
- They invest in paid advertisements, influencer partnerships, and personalized offers, which increases interaction.

2. More Customer-Centric Approach

- Private banks often focus on exclusive services, offers, and personalized content, making their posts more engaging.
- They respond quickly to customer inquiries and encourage two-way communication.

3. Innovative Social Media Content

- Private banks use creative, interactive content such as:

  Short videos explaining financial concepts.

  Customer success stories.

  Interactive quizzes and polls.

  Live Q&A sessions with banking experts.

- This dynamic content strategy encourages more user participation.

4. Focus on Digital-First Customers

- Many private banks focus on digitally active, tech-savvy customers who are already used to online banking, apps, and social media engagement.
- Their marketing strategies align with the preferences of younger, digital-first users, leading to higher engagement rates.

5. Better Customer Support Through Social Media

- Private banks provide quick, responsive customer support through platforms like Twitter, Facebook, and Instagram.
- Customers prefer reaching out via social media rather than waiting on a customer service call.
- This increases customer trust and satisfaction, leading to more interactions on their social media pages.

5.8.4 Reasons Why Public Banks Have a Lower Engagement Rate

1. Traditional Banking Approach

- Public banks still rely heavily on offline services and traditional marketing methods (e.g., newspapers, TV ads).
- Their digital presence is weaker compared to private banks.

2. Less Personalized Social Media Content

- Public banks often post generic financial content rather than personalized, engaging posts.
- Their posts may focus on formal banking updates, policies, and schemes rather than interactive elements like quizzes or customer testimonials.
- Customers find this less engaging and less relevant to their personal financial interests.

3. Slower Response Time to Customer Queries

- Public banks tend to have slower response times on social media compared to private banks.
- If a customer's comment or complaint goes unanswered, they may lose interest and not engage further.

4. Lack of Digital Marketing Investments

- Public banks spend less on social media advertising and influencer marketing compared to private banks.
- Their posts may reach fewer targeted users, leading to lower engagement rates.

5. Less Focus on Visual and Interactive Content

- Public banks rely more on text-based posts rather than engaging visual content like infographics, videos, and animations.
- This makes their posts less appealing and interactive.

5.9 Popularity Score Analysis

5.9.1 Understanding the Popularity Score

The **Popularity Score** is a key metric used to quantify the overall appeal and visibility of a bank's digital presence. It is derived from multiple engagement indicators, including **likes, shares, comments, views, follower growth, and content reach** across various online platforms. In the context of banking and fintech, a **Popularity Score** provides insights into how well a bank's brand, products, or services are perceived by customers and the broader online community.

Importance of Popularity Score in Digital Banking

1. **Understanding Brand Visibility**

   The **Popularity Score** serves as a measure of how frequently and positively a bank's content is viewed and interacted with. A high score indicates a **strong brand presence**, while a low score suggests a need for improved marketing strategies.

2. **Tracking Marketing Campaign Effectiveness**

   By monitoring fluctuations in the **Popularity Score**, banks can assess which marketing efforts—such as promotional offers, financial literacy campaigns, or customer testimonials—are most successful in **capturing audience attention**.

3. **Comparing Performance Against Competitors**

   Banks operate in a competitive landscape where digital influence is crucial. The **Popularity Score** helps institutions benchmark their performance against competitors, identifying areas where they excel or need improvement in **customer outreach and engagement strategies**.

4. **Assessing Customer Sentiment**

   A high **Popularity Score** often correlates with **positive customer sentiment**, indicating that users find value in the bank's offerings. Conversely, a decline in popularity may signal customer dissatisfaction, prompting further investigation into service issues or brand perception.

5. **Enhancing Customer Acquisition and Retention**

   A higher **Popularity Score** can lead to **increased customer acquisition** as potential clients are more likely to engage with a well-regarded financial institution. Additionally, maintaining a strong score fosters customer loyalty, ensuring **consistent engagement and long-term retention**.

Key Metrics Used in Popularity Score Analysis

To determine a bank's **Popularity Score**, several key performance indicators (KPIs) are evaluated:

Metric	Definition	Significance
Follower Growth Rate	Percentage increase in social media followers over time.	Reflects brand expansion and customer interest.
Content Reach	Number of users who have seen a post or campaign.	Indicates brand visibility and online exposure.

Engagement Volume	Total likes, shares, and comments on posts.	Measures audience interaction and content appeal.
Virality Score	Rate at which content is shared across networks.	Shows the potential for organic brand promotion.
Customer Review Ratings	Average rating on review platforms and feedback forums.	Highlights customer satisfaction and trust.

Application of Popularity Score Analysis in Digital Banking

As **digital banking adoption grows**, banks must ensure that their online reputation remains strong. **Popularity Score Analysis** is crucial for:

- **Identifying top-performing marketing campaigns** and replicating their success.
- **Understanding shifts in customer perception** based on external factors such as new policies, service changes, or economic conditions.
- **Optimizing social media strategy** to improve content reach and audience engagement.
- **Mitigating reputational risks** by quickly responding to declines in popularity or addressing negative feedback.

By leveraging insights from **Popularity Score Analysis**, banks can refine their **branding, communication, and digital marketing strategies**, ensuring a **stronger connection with their customer base** while maintaining a competitive edge in the evolving financial landscape.

Difference Between Popularity Score and Popularity Index

The **Popularity Score** and **Popularity Index** are both key metrics used to measure the appeal and visibility of a brand, product, or service, particularly in the digital landscape. While these terms are sometimes used interchangeably, they have distinct methodologies, applications, and interpretations. Understanding their differences is crucial for businesses, especially in the financial sector, where digital engagement plays a pivotal role in customer interaction and brand positioning.

1. Definition and Concept

Metric	Definition
Popularity Score	A numerical representation of an entity's overall visibility and engagement, calculated based on predefined indicators such as social media interactions, follower count, and content reach. It provides an absolute measure of performance.
Popularity Index	A relative ranking system that compares multiple entities based on popularity factors, often expressed as a percentile or ranking system. It helps position a business against competitors or historical performance trends.

Example:

- A **bank's popularity score** might be **85/100**, indicating high engagement.
- The **same bank's popularity index** might place it in the **90th percentile**, meaning it is more popular than 90% of competing banks.

2. Measurement Approach

Aspect	Popularity Score	Popularity Index
Type of Metric	Absolute Value	Relative Ranking
Scale	Fixed, based on a formula or weighted components.	Dynamic, depends on comparative benchmarks.

Data Source	Derived from direct engagement metrics such as likes, shares, views, and ratings.	Derived from comparing multiple entities' popularity scores against each other.
Interpretation	Measures how popular a business or content is on a scale.	Ranks an entity in relation to others in the industry or within a specific timeframe.

Example:

- A bank's popularity score may be 70/100 based on engagement levels.
- If other banks score higher, the bank's popularity index may place it lower on the ranking system despite having a good absolute score.

3. Purpose and Use Cases

Use Case	Popularity Score	Popularity Index
Internal Performance Tracking	Useful for tracking a bank's growth and improvement in engagement.	Less useful as it is dependent on external benchmarks.
Competitive Benchmarking	Limited in assessing competition as it is an independent score.	Essential for ranking against industry peers and competitors.
Trend Analysis	Shows whether engagement is increasing or decreasing.	Indicates whether the bank is improving relative to competitors or industry trends.

Customer Insights	Helps banks understand which content, campaigns, or strategies are most effective.	Helps banks understand their position in the market and adjust accordingly.

Example:

- A bank may use a **Popularity Score** to track its **marketing campaign's effectiveness over time**.
- A **Popularity Index** will help the bank **see where it stands compared to rival banks** in terms of customer engagement.

4. Calculation Methodology

Popularity Score Calculation:

- **Formula-Based**: A weighted sum of different engagement parameters such as:
  - Social media interactions
  - Website traffic
  - Customer review scores
  - Brand mentions
- **Example Calculation:**

(Likes × 0.2) + (Shares × 0.3) + (Comments × 0.2) + (Brand Mentions × 0.3) = Popularity Score

Popularity Index Calculation:

- **Ranking-Based**: It is calculated relative to competitors or historical performance.
- **Example Calculation:**
  - If a bank has the highest engagement rate, it might be assigned a **100th percentile index**.
  - If it has moderate engagement, it could be ranked **50th percentile**, meaning half of the banks perform better.

5. Key Differences in Interpretation

Aspect	Popularity Score	Popularity Index
Fixed vs. Variable	Fixed number on a predefined scale.	Changes based on industry performance.
Comparability	Can be compared over time for a single entity.	Must be compared with other entities in the same category.
Real-Time Insights	Provides a direct measure of engagement at any point.	Adjusts dynamically based on market conditions and competitors' actions.

Example:

- A bank's **Popularity Score** may consistently remain around **80/100**, but if competitor banks improve their engagement, its **Popularity Index may decline**.

6. Strengths and Limitations

Factor	Popularity Score – Strengths	Popularity Index – Strengths	Popularity Score – Limitations	Popularity Index – Limitations
Precision	Provides an exact engagement score.	Allows ranking against competitors.	Does not consider competitor performance.	May fluctuate due to market trends rather than an entity's performance.

Simplicity	Easy to understand as a fixed number.	Provides clear relative positioning.	Lacks context if not compared over time.	Requires extensive benchmarking data.
Actionability	Helps businesses refine engagement strategies.	Useful for competitive strategy development.	Can be misleading if industry trends shift.	May not always reflect real engagement quality.

7. Practical Application in Banking & Fintech

Scenario	Popularity Score	Popularity Index
A bank wants to track how well a new promotional campaign is performing.	Measures the campaign's individual success over time.	Shows how well the campaign compares to those of other banks.
A bank wants to assess its overall digital brand strength.	Provides a snapshot of engagement on a fixed scale.	Highlights if the bank is falling behind or leading in the industry.
A bank wants to identify the top-performing content strategy.	Helps analyze which content drives the highest engagement.	Determines if the strategy is more effective than competitors.

Example:

- **HDFC Bank's social media campaign** may have a **Popularity Score of 75**, showing strong engagement.
- However, **if ICICI Bank and SBI rank higher**, HDFC's **Popularity Index may place it at the 70th percentile**, indicating room for improvement in competitive positioning.

Formula Used: Popularity Score = (Engagement x Sentiment) + (Reach / Time)

Explanation of Formula Components:

Engagement

- Represents how often users interact with the bank's content on social media.
- Higher engagement indicates active audience participation.
- Includes:
  - Likes (approval or interest in the content)
  - Comments (user discussions, inquiries, feedback)
  - Shares/Retweets (users spreading the content further)
  - Clicks on links/videos (indicating deeper interest)
- If a bank receives more likes, shares, and comments per post, its engagement is higher, positively influencing the popularity score.

Sentiment

- Measures the positivity or negativity of user interactions.
- Derived using sentiment analysis techniques that categorize interactions as:
  - Positive (e.g., praise for services, appreciation for a new feature)
  - Neutral (e.g., general inquiries or non-opinionated comments)
  - Negative (e.g., complaints, dissatisfaction, criticism)
- A higher sentiment score means users are generally happy with the content, while a lower sentiment score indicates dissatisfaction.

Reach

- Indicates the number of unique users exposed to the content.
- Different from impressions, as it only counts unique users instead of total views.
- A higher reach suggests better brand awareness and visibility.

Time

- The period over which engagement and reach are measured (e.g., daily, weekly, monthly).
- If engagement and reach increase faster over time, the popularity score will be higher.
- If a bank's content is still trending after a long time, it means the content has long-term impact.

5.9.2 Popularity Score Comparison Between Private and Public Banks

Bank Type	**Popularity Score**
Private Banks	**0.0315**
Public Banks	**0.029**

Key Observations from the Data:

Private Banks Have a Slightly Higher Popularity Score

- This means their social media presence is stronger, with better engagement and positive sentiment over time.
- Even though the difference in score is small, consistently higher scores give private banks a competitive edge in digital influence.

Public Banks Have a Lower Popularity Score

- Public banks still have strong reach, but their engagement and sentiment values are not as high as private banks.
- This suggests that public banks need to focus on improving engagement and digital strategies.

5.9.3 Why Do Private Banks Have a Higher Popularity Score?

1. Higher Digital Reach and Visibility

Private banks use aggressive digital marketing campaigns to target potential customers. They use SEO optimization, paid advertisements, and influencer collaborations to improve their social media presence. They invest in interactive content, such as short videos, webinars, and financial tips, which are more likely to be shared and recommended by users.

2. Stronger Engagement and Customer Interaction

Private banks respond quickly to customer queries and complaints on social media. They conduct live Q&A sessions, host financial literacy webinars, and run promotional campaigns that encourage user participation. Their customer-centric approach builds loyalty and enhances sentiment, contributing to a higher popularity score.

3. Positive Sentiment Through Better Customer Experience

Private banks focus on personalized services, better customer support, and loyalty programs, leading to higher customer satisfaction. This results in positive reviews, recommendations, and testimonials, boosting sentiment and engagement. They maintain a consistent brand image by ensuring their social media posts align with their customer-friendly approach.

4. Faster Adaptation to Digital Trends

Private banks adopt new technologies faster (AI-driven chatbots, digital wallets, online banking features). They are more likely to experiment with modern social media strategies, such as influencer marketing and interactive content. Their social media strategies are data-driven, helping them adjust campaigns in real time.

5.9.4 Why Do Public Banks Have a Lower Popularity Score?

1. Slower Digital Adoption

Public banks still rely on traditional methods of customer engagement, such as newspaper ads and in-branch promotions. Their social media teams are not as proactive, leading to less visibility and lower engagement.

2. Less Interactive Content

Public banks often post formal financial updates rather than engaging, customer-friendly content. Their content lacks creativity, storytelling, and personalization, making it less engaging. Fewer video posts, infographics, and real-life testimonials reduce shareability and engagement levels.

3. Weaker Sentiment Scores Due to Customer Complaints

Public banks receive more customer complaints on social media, affecting their sentiment score. They may take longer to respond, leaving negative comments unresolved, which damages brand reputation.

4. Lack of Targeted Digital Campaigns

Public banks spend less on social media advertising and influencer collaborations, reducing reach. Their social media teams focus more on generic banking updates instead of personalized financial solutions.

5.10 Visual Insights and Inferences from Social Media Engagement Data for Banks

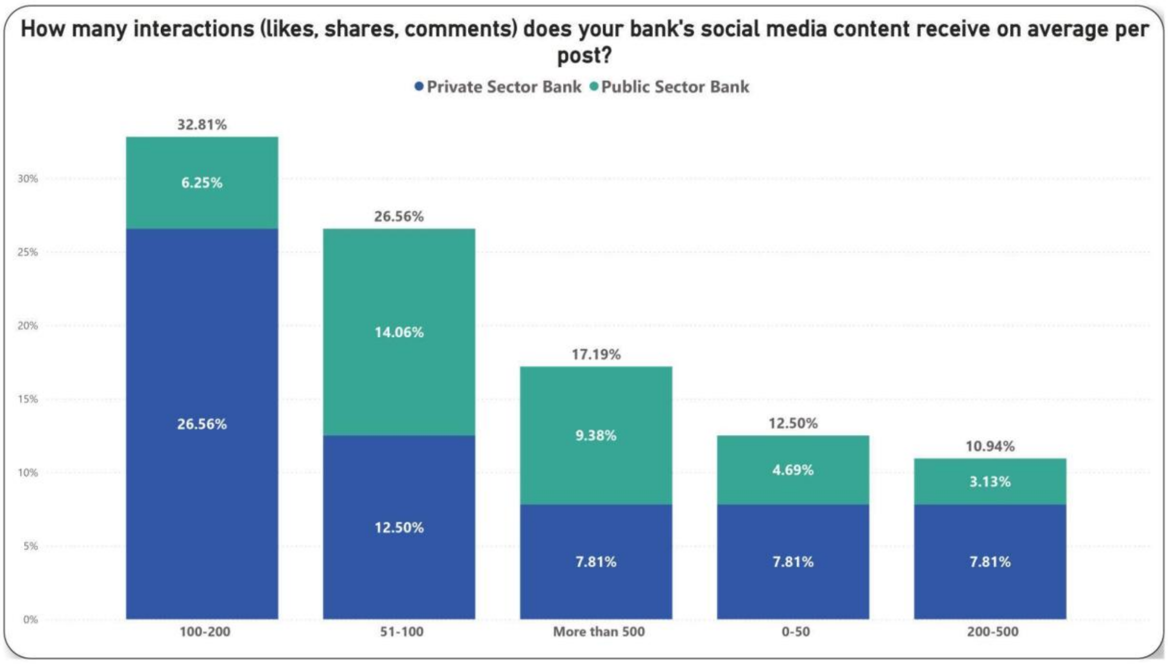

Fig 5(a).1 Number of Interactions on Social Media

Inference -

- This visual dissects the distribution of social media engagement levels, gauged by likes, shares, and comments, between private and public sector banks, revealing sector-specific interaction patterns.
- Private sector banks exhibit a notable clustering of posts within the 100-200 interactions bracket, with 32.81% of their content residing in this category, indicative of a strategy geared towards consistent, moderate engagement generation.
- This approach might be aimed at fostering a regular cadence of communication and dialogue with their customer base, prioritizing frequency of interaction over the intensity of engagement per individual post.
- Public sector banks, while also demonstrating a presence in the 100-200 interaction range (26.56%), display a divergent engagement blueprint, with a smaller fraction of their posts in the 51-100 range (14.06%) compared to private banks (26.56%).
- Remarkably, public sector banks showcase a greater proportion of posts attaining "More than 500" interactions (17.19%) when contrasted with private sector banks (7.81%), suggesting a potential emphasis on high-impact content designed to capture significant attention.
- This implies that public sector banks could be pursuing a strategy centred on crafting less frequent, yet potentially more impactful or viral content, possibly with the objective of amplifying broader brand visibility or specific campaign reach.

- The data further illustrates that private sector banks register higher percentages across the 51-100, 0-50, and 200-500 interaction bands, hinting at a more diversified engagement portfolio spanning various content types and audience segments.
- This might be symptomatic of a more adaptable and experimental methodology to social media, where private banks explore diverse content formats and tactics to optimize engagement outcomes.
- Disparities in engagement paradigms likely stem from variations in social media objectives, resource allocation, and target audience profiles between the two sectors.
- Private banks, frequently operating in a more competitive arena, might prioritize consistent engagement to cultivate customer loyalty and brand advocacy, whereas public banks could prioritize broader public outreach and dissemination of policy or service-related information.
- The chart underscores the significance of comprehending the subtleties of social media engagement and calibrating strategies to align with distinct organizational aims and audience preferences.
- Further investigation could delve into the content attributes, posting frequency, and audience demographics linked to varying interaction levels to glean deeper insights into efficacious social media practices within the banking domain.
- Ultimately, both sectors can capitalize on these insights to refine their social media strategies, optimize content creation processes, and elevate customer engagement levels to achieve their respective communication and business goals.

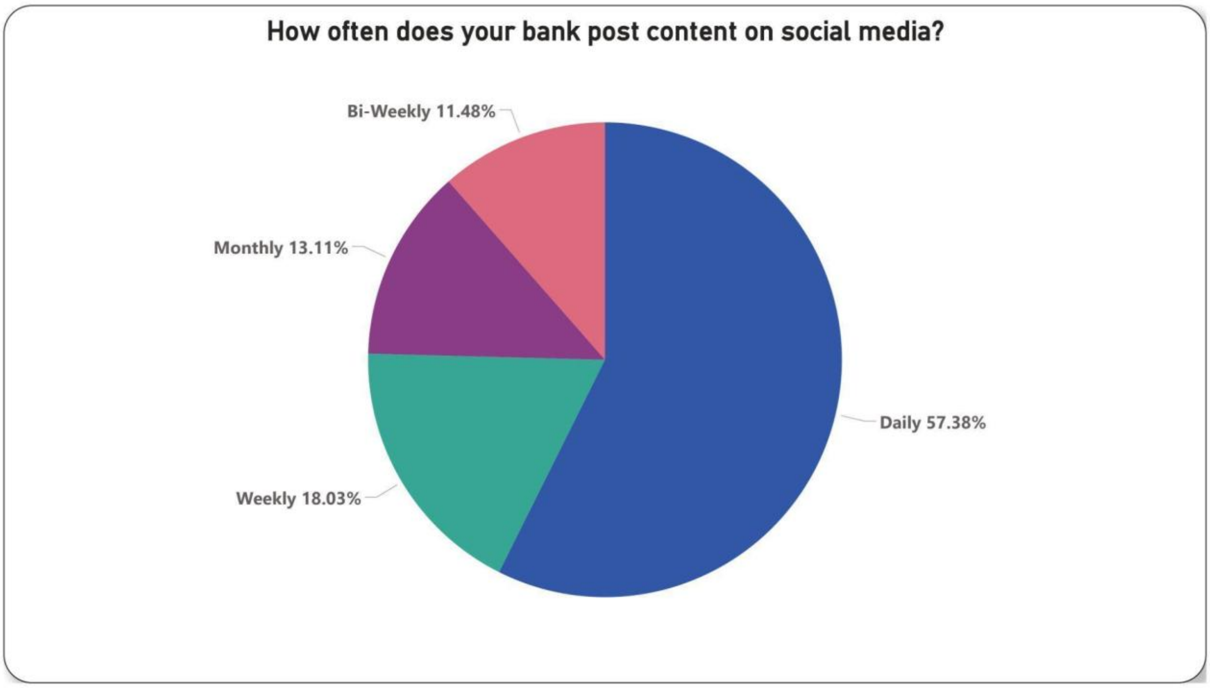

Fig *5(a)*.2 Frequency of social media posts

Inference -

- This pie chart visually represents the distribution of social media posting cadence among banks, furnishing valuable perspectives into the prevailing content dissemination approaches within the industry.
- The data underscores a strong predilection for daily posting, with a substantial 57.38% of banks embracing this practice, highlighting a distinct emphasis on sustaining a regular and active online presence.
- This daily posting rhythm likely mirrors the need to deliver routine updates, interact with customers in a timely manner, and maintain prominence in a fiercely competitive digital environment.
- The high prevalence of daily posting aligns with the escalating expectation of consumers for real-time information and interaction from brands across diverse social media platforms.
- Weekly posting, while still constituting a noteworthy segment, accounts for only 18.03% of banks, signifying a marked decrease from the daily posting frequency.
- This disparity suggests that while certain banks prioritize weekly updates, potentially concentrating on curated content or specific campaigns, the majority favour a more frequent posting schedule.
- Monthly posting is employed by 13.11% of banks, reflecting a less frequent update strategy that might be utilized for disseminating in-depth content, reports, or less time-sensitive information.
- Bi-weekly posting is the least prevalent, with a mere 11.48% of banks opting for this frequency, possibly indicating a more constrained social media presence or a focus on alternative communication avenues.

- The diverse posting frequencies observed in the chart likely mirror differences in marketing strategies, content creation capabilities, resource allocation, and target audience engagement preferences among various banks.
- Larger banks with dedicated social media teams might possess the capacity and resources to uphold a daily posting schedule, whereas smaller banks or those with limited resources might choose less frequent updates.
- The chart accentuates the importance of social media as a pivotal channel for consistent communication and interaction within the banking sector, emphasizing the necessity for a regular presence to effectively connect and engage with customers.
- It also implies that banks are progressively acknowledging the value of social media as a platform for cultivating brand awareness, nurturing customer loyalty, and delivering valuable information and services.
- Further investigation could explore the efficacy of varying posting frequencies in achieving specific social media objectives, such as boosting website traffic, generating leads, or enhancing customer satisfaction levels.
- Ultimately, banks can leverage these insights to optimize their posting strategies, allocate resources judiciously, and maximize the impact of their social media endeavours in realizing their overarching business goals.

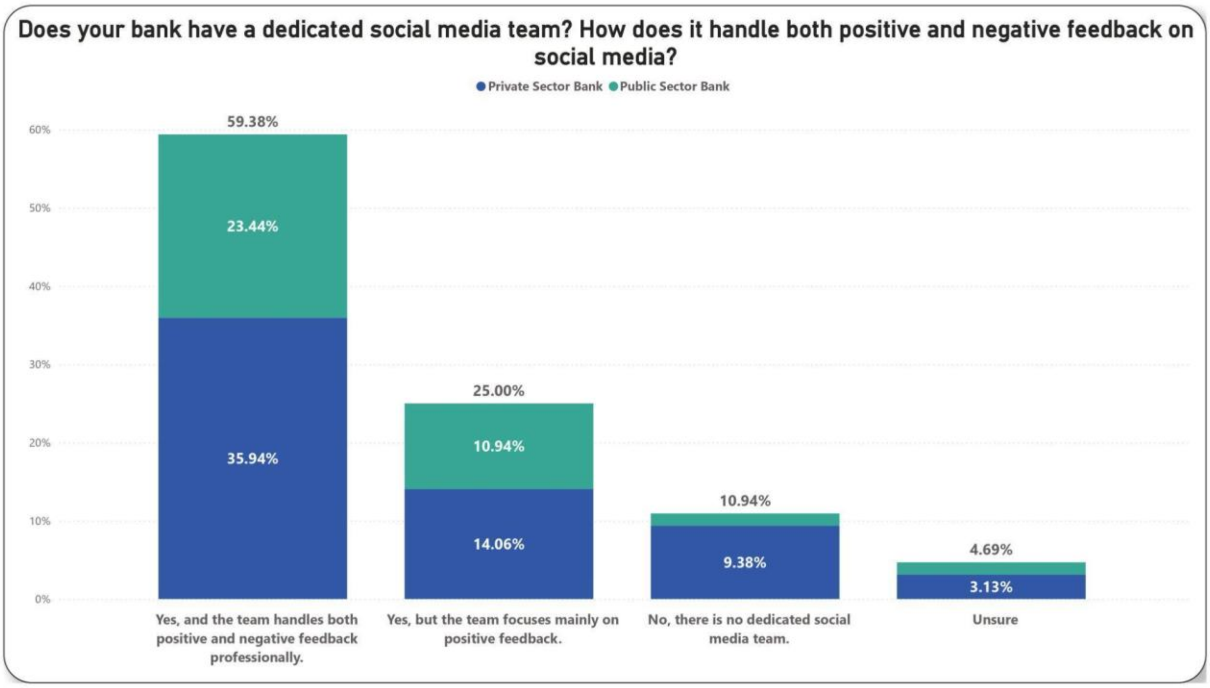

Fig *5(a)*.3 Dedicated team for social media

Inference -

- This chart provides a comparative analysis of the strategies employed by private and public sector banks in managing social media feedback, with a keen focus on the existence and responsibilities of dedicated social media teams.
- A substantial 59.38% of private sector banks report having dedicated teams tasked with professionally managing both positive and negative feedback received through social networking sites.
- This signifies a proactive and comprehensive methodology to social media management, underscoring the significance private sector banks place on addressing customer concerns and fostering favorable online interactions.
- The presence of dedicated teams implies a structured investment in social media customer service, enabling private sector banks to respond efficiently and effectively to customer feedback, irrespective of its valence.
- In contrast, only 23.44% of public sector banks have dedicated teams with the same scope of responsibility, indicating a potential disparity in the level of resources and emphasis allocated to social media feedback management.
- A notable fraction of public sector banks (25%) does have dedicated teams, but their primary focus is on managing positive feedback, suggesting a less holistic approach to addressing customer grievances and managing online reputation.
- This selective handling of feedback could potentially result in missed opportunities for improvement and a lack of responsiveness to customer issues, potentially impacting customer satisfaction and trust.

- 10.94% of private sector banks and 14.06% of public sector banks report not having dedicated social media teams at all, which could point to a less mature or less resourced approach to social media management within these institutions.
- A small proportion of both sectors are unsure about their feedback handling processes (4.69% private, 3.13% public), which might signal a lack of clarity or formalization in their social media management structures.
- The data reveals a distinct contrast in the prioritization and structure of social media management between private and public sector banks, with private banks generally exhibiting a more comprehensive and dedicated approach to managing customer feedback.
- This divergence could be attributed to variations in organizational priorities, resource allocation, and the perceived importance of social media in customer relationship management.
- Further research could delve into the specific strategies and tools utilized by dedicated social media teams in each sector, as well as the impact of feedback handling practices on customer satisfaction and brand reputation.

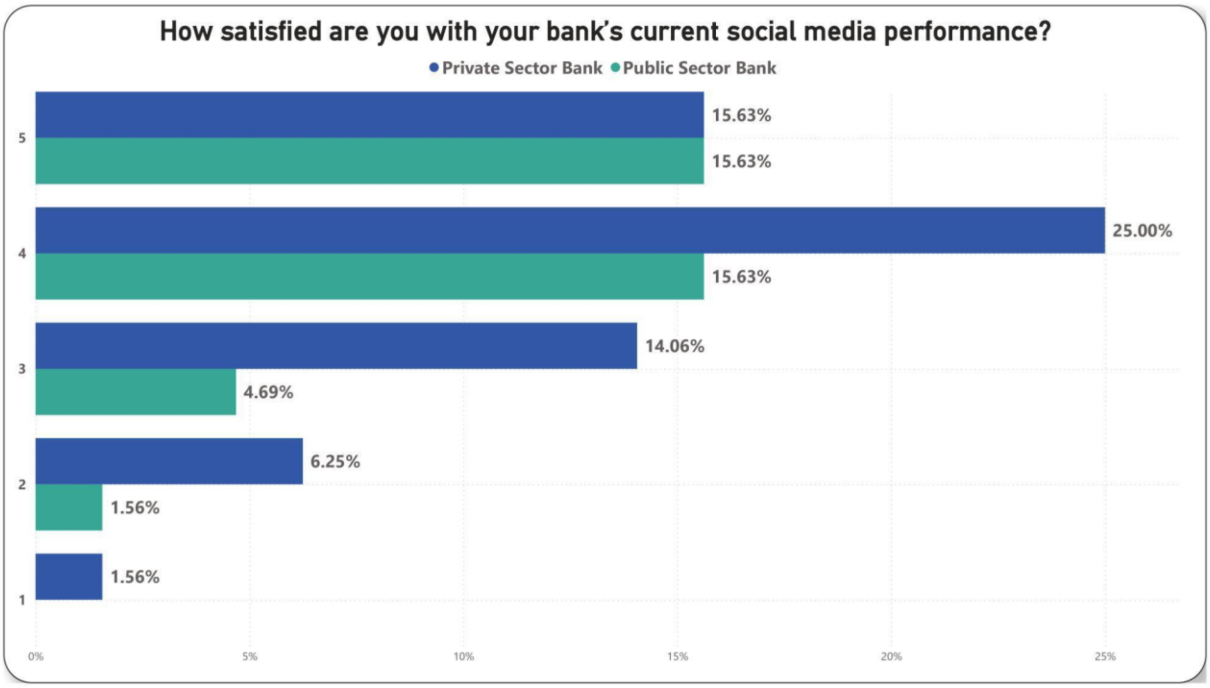

Fig *5(a)*.4 Satisfaction level for bank's social media performance

Inference -

- This chart delivers a comparative assessment of satisfaction levels concerning current social media performance, contrasting private and public sector banks, and shedding light on the perceived efficacy of their digital strategies.
- Private sector banks showcase a more heterogeneous spread of satisfaction levels relative to public sector banks, hinting at a broader spectrum of performance outcomes and strategic effectiveness.
- An equal proportion, 15.63%, of private and public sector banks express high contentment (level 5), suggesting that both sectors have institutions experiencing notable success with their social media endeavours.
- However, a greater fraction of private sector banks also registers at level 4 (25%) compared to public sector banks (15.63%), indicating that private sector banks possess a higher concentration of institutions generally pleased with their social media initiatives.
- Intriguingly, private sector banks also exhibit elevated percentages in the lower satisfaction tiers (levels 1 and 2), with a combined 7.81% occupying these levels, in contrast to public sector banks, where a combined 6.26% are positioned, revealing a more polarized satisfaction distribution.
- This polarization might stem from the more diverse social media strategies employed by private sector banks, with some strategies yielding considerable success while others may be underperforming or still in developmental phases.

- Public sector banks, conversely, tend to cluster more towards the mid-range of satisfaction, with 25% at level 3, implying a more consistent, albeit moderate, performance across institutions.
- This clustering could signify that public sector banks are implementing more standardized social media approaches, resulting in a more uniform satisfaction level, but potentially limiting the potential for exceptional performance.
- The data alludes to the possibility that private sector banks are embracing more risk or experimenting with more innovative tactics, leading to a wider array of outcomes, both favorable and unfavourable, whereas public sector banks might be adopting more conservative or established practices.
- The chart underscores potential disparities in the maturity, effectiveness, and consistency of social media strategies between the two sectors, with private sector banks demonstrating a greater performance range and public sector banks exhibiting a more consistent, moderate satisfaction degree.
- Further exploration could delve into the specific determinants contributing to high or low satisfaction levels within each sector, such as the efficiency of content strategies, the extent of customer engagement, or the attainment of social media objectives.
- Ultimately, both sectors can utilize these insights to pinpoint areas for enhancement, refine their social media strategies, and elevate their overall performance in achieving their communication and business goals.

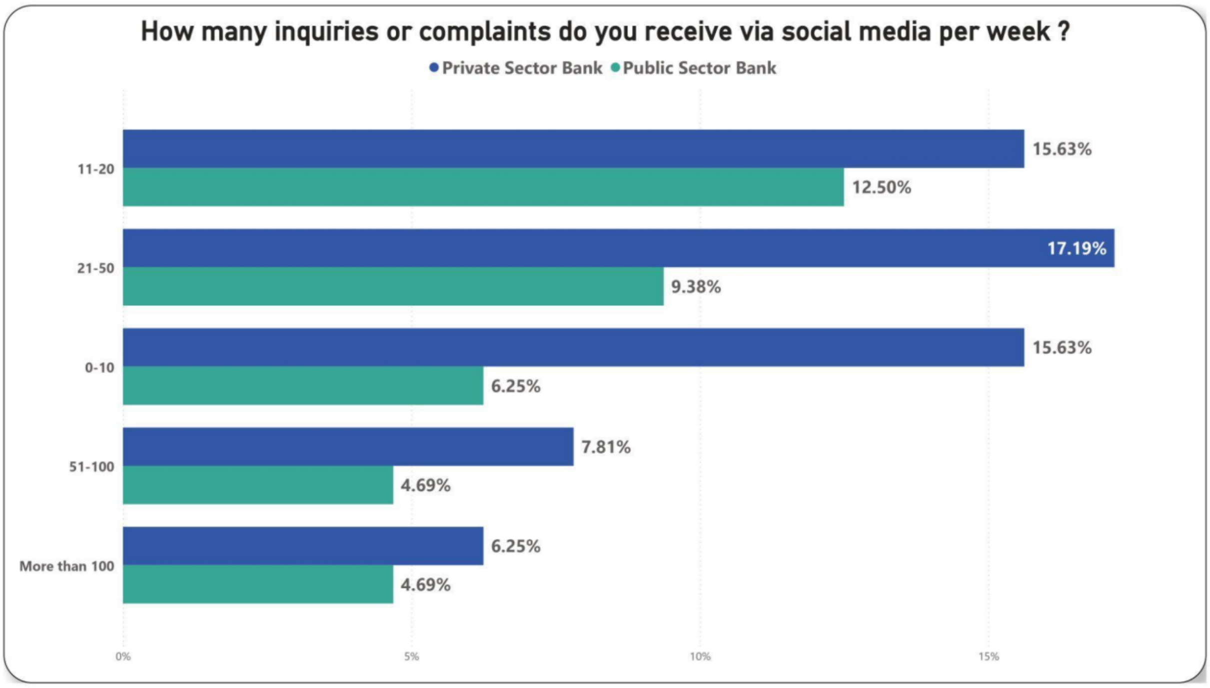

Fig *5(a)*.5 Number of inquiries generated through social media

Inference -

- This chart delivers a comparative examination of the weekly volume of inquiries or complaints received via social media channels by private and public sector banks, providing insights into customer service and engagement intensity.
- Private sector banks generally document higher volumes of inquiries and complaints across the majority of categories compared to public sector banks, implying a more vigorous social media presence or a more involved customer base.
- Specifically, 15.63% of private sector banks field 0-10 inquiries/complaints weekly, whereas only 6.25% of public sector banks fall into this bracket, suggesting a heightened level of customer interaction or a more proactive approach to social media customer service in private banks.
- In a similar vein, 15.63% of private sector banks receive 11-20 inquiries/complaints weekly, compared to 12.50% of public sector banks, further reinforcing the observation of elevated engagement intensity within the private sector.
- A noteworthy 17.19% of private sector banks handle 21-50 inquiries/complaints weekly, while only 9.38% of public sector banks register in this category, underscoring a substantial difference in the volume of customer interactions managed by each sector.
- The data hints that private sector banks might be more adept at encouraging or facilitating social media communication, leading to a higher frequency of customer inquiries and complaints.

- This could be attributable to a more customer-centric philosophy, a greater emphasis on social media as a customer service conduit, or a more effective promotion of their social media presence.
- Conversely, it could also signal that private sector banks possess a larger or more digitally active customer base, resulting in a higher frequency of interactions on social media platforms.
- Public sector banks, conversely, might exhibit a less active social media presence or customer engagement, resulting in diminished interaction volumes, which could indicate a less proactive stance on social media customer service or a preference for alternative communication channels.
- The chart underscores potential variations in social media utilization and customer service methodologies between the two sectors, with private sector banks generally demonstrating heightened levels of customer interaction and engagement.
- This could have ramifications for customer satisfaction, brand perception, and the efficacy of social media as a customer service tool.
- Further investigation could explore the nature of inquiries and complaints received by each sector, alongside the response strategies and customer service outcomes associated with varying interaction volumes.
- Ultimately, both sectors can harness these insights to optimize their social media customer service strategies, augment customer engagement, and refine their overall customer experience.

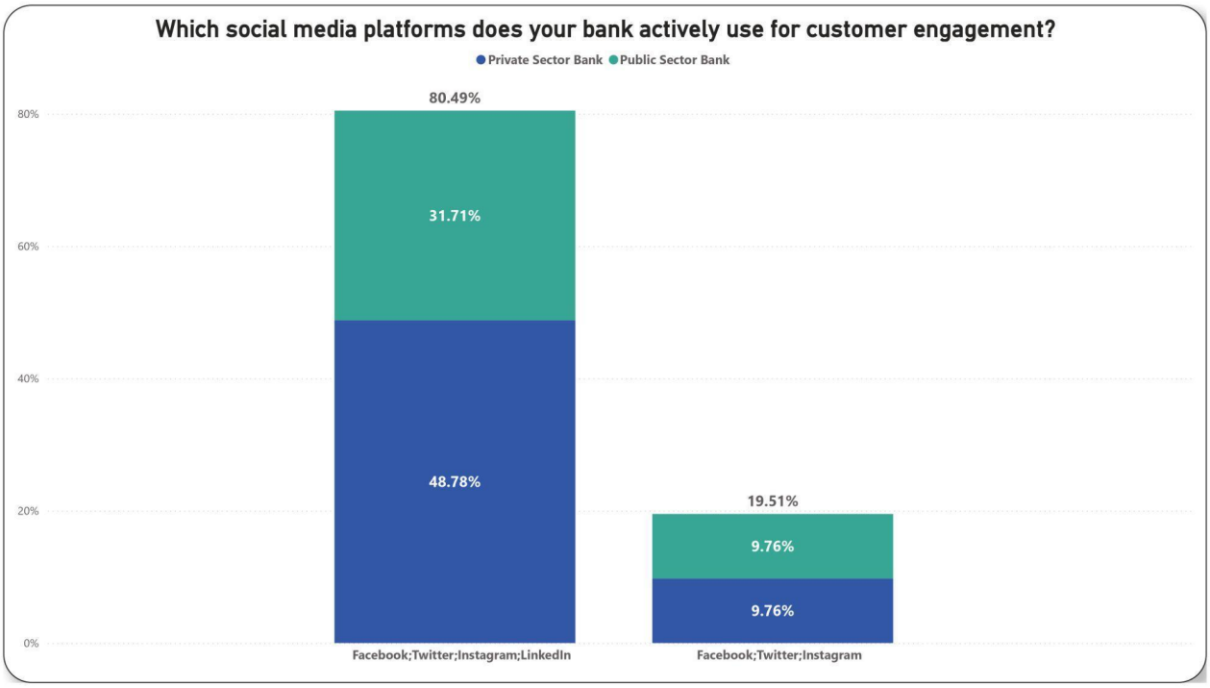

Fig *5(a)*.6 Commonly used social media platforms

Inference -

- This chart provides a comparative analysis of the social media platforms actively leveraged by private and public sector banks for customer interaction, offering insights into their platform strategies and outreach.
- Private sector banks adopt a more diversified approach to social media platform usage, utilizing a broader spectrum of platforms compared to public sector banks, indicating a more comprehensive and multi-faceted strategy to connect with their target audiences.
- A substantial 80.49% of private sector banks actively employ Facebook, Twitter, Instagram, and LinkedIn for customer engagement, demonstrating a strong commitment to establishing a presence across multiple platforms and potentially targeting distinct audience demographics.
- This diversified platform strategy could be geared towards maximizing reach, engaging with diverse demographics, and capitalizing on the unique features and functionalities of each platform to achieve specific communication and marketing objectives.
- Conversely, only 19.51% of public sector banks utilize the same range of platforms, highlighting a more focused or potentially more limited approach to social media platform usage.
- Public sector banks primarily concentrate on Facebook, Twitter, and Instagram, with 9.76% utilizing these three platforms, suggesting a prioritization of platforms with wider reach and general appeal, potentially aimed at broader public communication and service updates.

- The incorporation of LinkedIn by private sector banks could signify a strategic emphasis on professional networking, recruitment, or corporate communication, in addition to customer engagement, suggesting a more integrated approach to leveraging social media for various organizational purposes.
- This strategic utilization of LinkedIn could also reflect a focus on cultivating relationships with businesses, investors, and potential employees, indicating a more comprehensive approach to stakeholder engagement.
- The data reveals a distinct contrast in platform utilization strategy, with private sector banks opting for a broader presence across multiple platforms and public sector banks focusing on a more selective set of platforms.
- This difference could be attributed to variations in target audience demographics, marketing aims, resource allocation, or the perceived effectiveness of different platforms for achieving specific goals.
- Further research could explore the specific content strategies, engagement tactics, and audience demographics associated with each platform for both sectors, providing deeper insights into effective platform utilization practices.
- Ultimately, both sectors can utilize these insights to optimize their platform strategies, allocate resources effectively, and maximize the impact of their social media endeavours in achieving their communication, marketing, and business objectives.

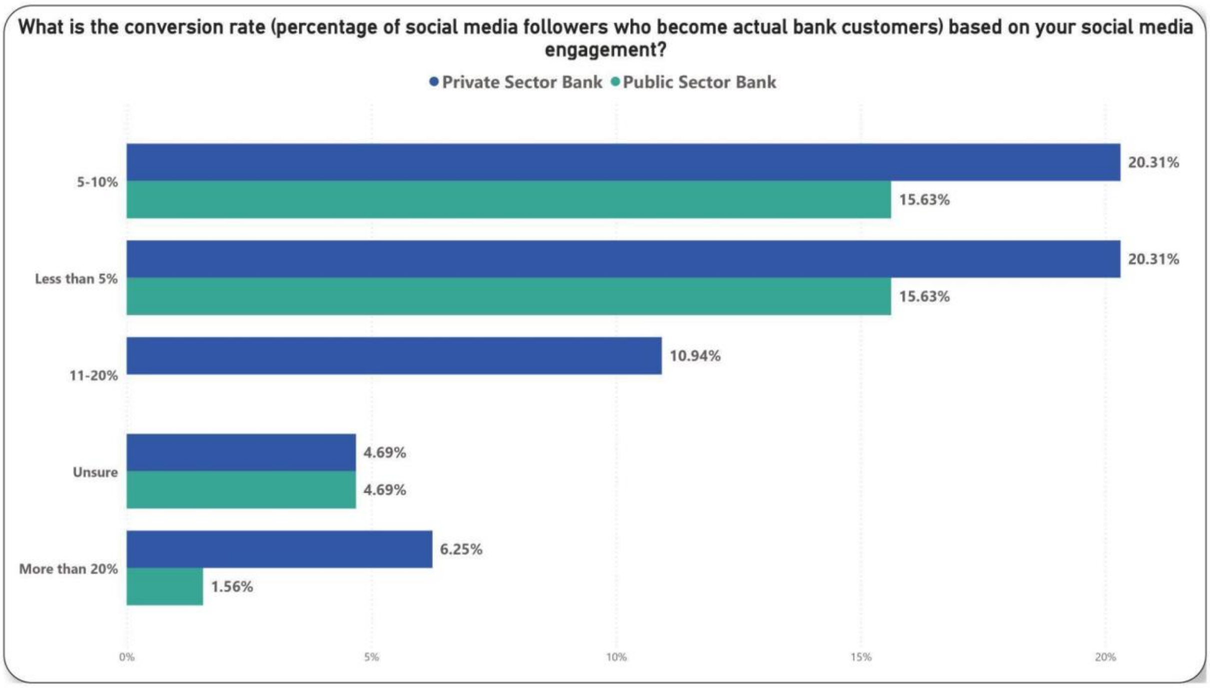

Fig *5(a)*.7 Conversion rate through Social media

Inference -

- This chart furnishes a comparative evaluation of conversion rates, defined as the proportion of social media followers who transition into actual bank customers, between private and public sector banks.
- The data unveils that both private and public sector banks predominantly report conversion rates within the lower ranges, suggesting that social media engagement generally translates to relatively modest customer acquisition across the banking landscape.
- 20.31% of private sector banks and 15.63% of public sector banks document conversion rates within the "5-10%" range, implying that a small fraction of their social media followers are successfully converted into customers.
- Similarly, 20.31% of private sector banks and 15.63% of public sector banks report conversion rates "Less than 5%," underscoring that a substantial proportion of banks encounter challenges in effectively translating their social media presence into tangible business outcomes.
- This subdued conversion rate could be ascribed to a multitude of factors, such as the nature of banking products and services, the intricacies of the customer journey, or the effectiveness of social media marketing strategies in stimulating customer acquisition.
- A noteworthy 10.94% of private sector banks register conversion rates within the "11-20%" range, suggesting that certain private banks are achieving comparatively greater

success in driving customer acquisition through social media, potentially via more targeted campaigns or efficient engagement strategies.

- However, this percentage is smaller when juxtaposed with those reporting lower conversion rates, indicating that higher conversion rates are less prevalent throughout the sector.
- Both sectors have a small fraction of respondents who are "Unsure" about their conversion rates (4.69%), which might point to a deficiency of robust tracking and measurement systems to precisely assess the impact of social media on customer conversion.
- This uncertainty underscores the importance of implementing effective analytics tools and strategies to measure the return on investment (ROI) of social media activities and optimize strategies for improved conversion.
- The data suggests that while social media is widely used for engagement and brand building, its efficacy in directly stimulating customer acquisition may be limited for many banks, necessitating a strategic focus on optimizing conversion strategies.
- Further investigation could explore the specific tactics and strategies employed by banks with higher conversion rates, such as targeted advertising, personalized content, or seamless integration with online banking platforms, to identify best practices for enhancing conversion.
- Ultimately, banks can leverage these insights to refine their social media strategies, enhance their capacity to drive customer acquisition, and improve the overall effectiveness of their social media investments.

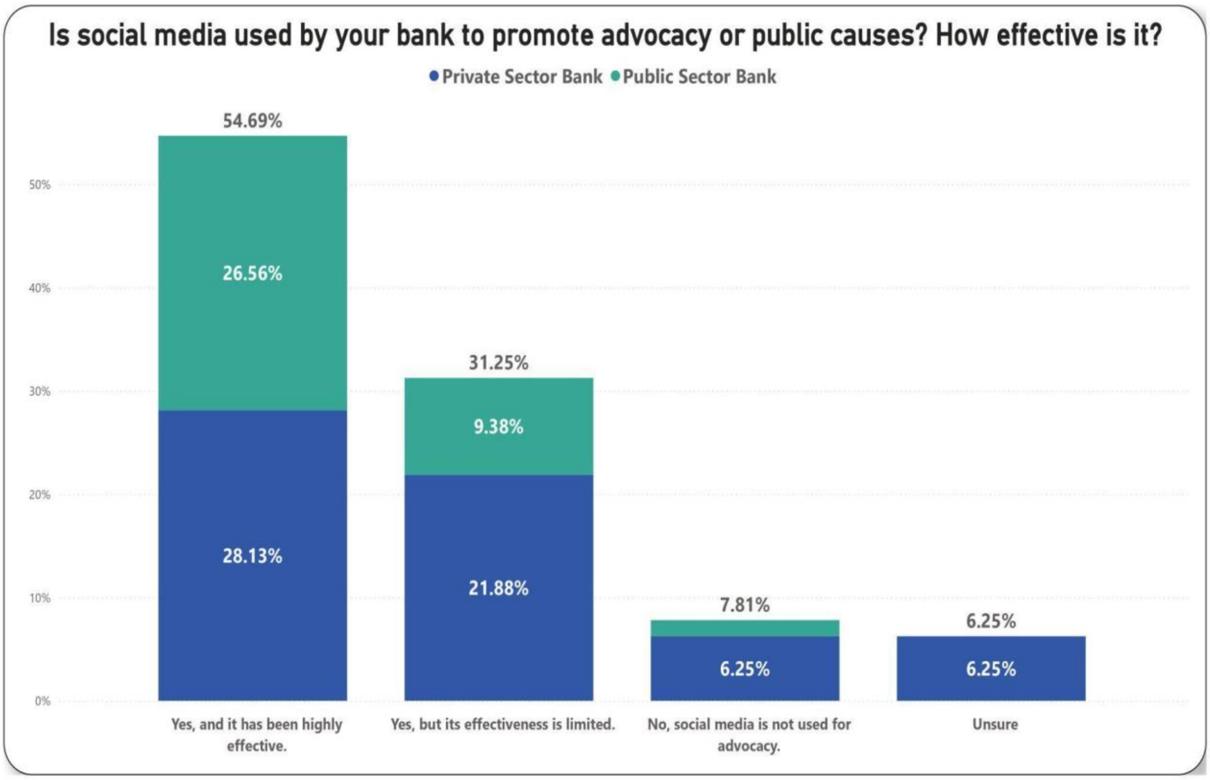

Fig *5(a)*.8 Social media to promote advocacy or social causes

Inference -

- This chart delves into the utilization of social media by banks to champion advocacy or public causes and evaluates the perceived effectiveness of these endeavours, offering insights into the role of social media in corporate social responsibility (CSR) and public relations.
- Private sector banks exhibit a greater propensity to employ social media for advocacy and perceive it as highly effective, suggesting a proactive approach to leveraging social media for promoting social causes and engaging with the community.
- 28.13% of private sector banks report utilizing social media for advocacy and finding it highly effective, compared to 9.38% of public sector banks, indicating a significant disparity in both the adoption and perceived success of social media for advocacy between the two sectors.
- This elevated adoption and perceived effectiveness in the private sector could be attributed to a heightened emphasis on CSR, a more strategic approach to stakeholder engagement, or a more agile and innovative use of social media for advocacy purposes.
- A larger fraction of public sector banks (26.56%) report employing social media for advocacy but find its effectiveness limited, compared to private sector banks (21.88%), suggesting that while public sector banks also engage in advocacy, they may face challenges in achieving desired outcomes or measuring the impact of their efforts.

- This limited effectiveness in the public sector could be due to factors such as less targeted campaigns, a more traditional approach to communication, or a lack of resources dedicated to social media advocacy.
- 6.25% of private sector banks and 7.81% of public sector banks report not utilizing social media for advocacy, indicating that a small segment of banks in both sectors is not leveraging social media for promoting social causes, potentially missing opportunities for community engagement and brand building.
- Both sectors have a small fraction of respondents who are "Unsure" about their use of social media for advocacy (6.25%), which might point to a lack of clarity or formalization in their approach to social media advocacy.
- The data indicates that private sector banks are more actively leveraging social media for advocacy and generally view it as a valuable tool for this purpose, demonstrating a proactive and strategic approach to using social media for social impact.
- Public sector banks, while also engaging in advocacy, appear to have a less consistent or effective experience with it, potentially requiring a more strategic focus and dedicated resources to maximize the impact of their endeavours.
- Further investigation could explore the specific types of advocacy initiatives undertaken by each sector, the engagement strategies employed, and the metrics used to measure the effectiveness of social media advocacy campaigns.
- Ultimately, both sectors can harness these insights to optimize their social media advocacy strategies, enhance their ability to promote social causes, and strengthen their relationships with stakeholders.

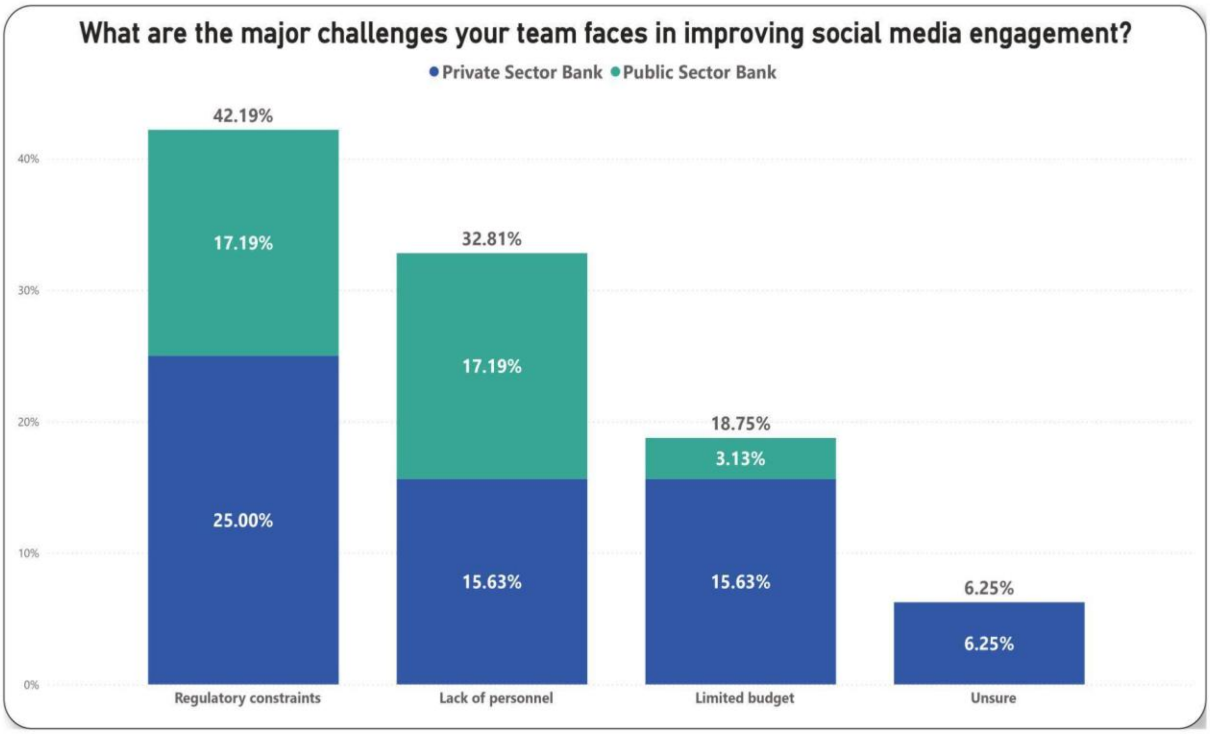

Fig *5(a)*.9 Challenges in improving social media engagement

Inference -

- This chart outlines the major challenges faced by teams in improving social media engagement within banks, providing insights into the obstacles hindering effective social media utilization.
- Regulatory constraints are cited as the biggest challenge by private sector banks, with 42.19% identifying this issue, suggesting that external regulations and compliance requirements pose significant hurdles for private banks in their social media efforts.
- These regulatory constraints could include restrictions on the type of content that can be shared, limitations on data privacy, or compliance requirements related to financial disclosures, creating challenges for private banks in leveraging social media for marketing and communication.
- For public sector banks, the lack of personnel is the primary challenge, with 32.81% identifying this issue, indicating that resource limitations and staffing constraints are a major obstacle for public sector banks in improving social media engagement.
- This lack of personnel could result in limited capacity for content creation, community management, and strategic planning, hindering the ability of public sector banks to effectively leverage social media for their communication objectives.
- Both sectors also face challenges with limited budgets, with 25% of private sector banks and 18.75% of public sector banks citing this issue, highlighting the financial constraints that impact social media initiatives across the banking sector.

- These limited budgets could restrict investments in social media tools, training, or campaigns, limiting the ability of banks to effectively compete and engage with their target audiences on social media platforms.
- A small percentage of respondents from both sectors are "Unsure" about the major challenges they face (6.25%), which might point to a lack of clear understanding or identification of the specific obstacles hindering their social media efforts.
- The data reveals distinct challenges for each sector, with private banks grappling with regulatory hurdles and public banks facing resource limitations, highlighting the diverse operational environments and constraints that influence social media strategies within the banking industry.
- These challenges likely influence the strategies, effectiveness, and overall utilization of social media by banks, requiring tailored solutions and approaches to overcome these obstacles and maximize the potential of social media for communication and engagement.
- Further research could explore the specific regulatory constraints faced by private sector banks, the impact of personnel limitations on social media activities in public sector banks, and the financial resource allocation strategies employed by both sectors to identify best practices for addressing these challenges.
- Ultimately, banks can leverage these insights to advocate for supportive regulatory frameworks, allocate resources effectively, and develop strategies to overcome these challenges and enhance their social media performance.

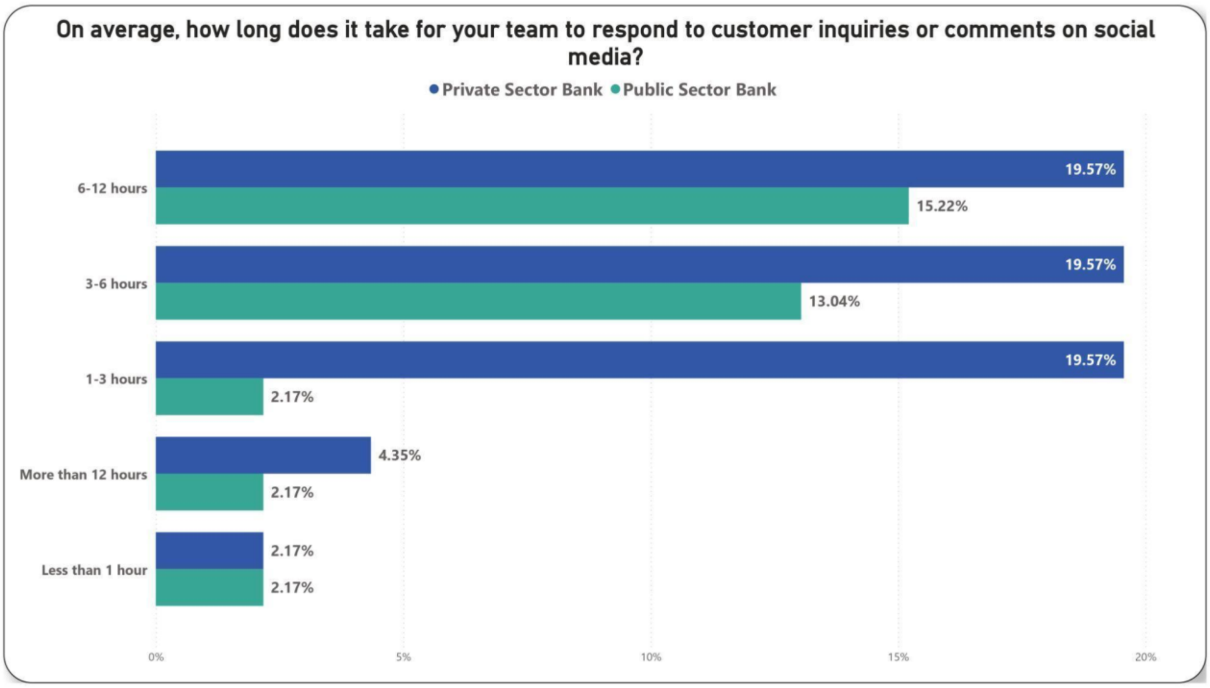

Fig *5(a)*.10 Time taken to respond to customer queries through social media

Inference -

- This chart presents the average time it takes for teams to respond to customer inquiries or comments on social media, providing insights into the responsiveness and customer service efficiency of banks on social media platforms.
- Private sector banks show a more consistent distribution of response times within the faster categories, indicating a more structured and potentially more efficient approach to social media customer service compared to public sector banks.
- 19.57% of private sector banks report response times of 1-3 hours, 3-6 hours, and 6-12 hours, respectively, suggesting a strong commitment to timely responses and a structured approach to managing customer interactions on social media.
- This consistent distribution in the faster response time categories indicates that private sector banks have likely invested in resources, processes, or technologies to ensure timely responses to customer inquiries, enhancing customer satisfaction and engagement.
- Public sector banks have lower percentages in the faster response time categories, with only 2.17% of public sector banks responding within 1-3 hours, compared to 19.57% of private sector banks, highlighting a significant difference in the speed of response.
- This slower response time in the public sector could be attributed to factors such as resource limitations, bureaucratic processes, or a less centralized approach to social media customer service, potentially leading to delays in addressing customer concerns.

- Public sector banks show a more even distribution across the "More than 12 hours" and "Less than 1 hour" categories, although the percentages are low (4.35% and 2.17% respectively), suggesting a less consistent or less structured approach to response times compared to the private sector.
- The data indicates that private sector banks generally have quicker response times to customer inquiries and comments on social media, demonstrating a greater emphasis on social media customer service and potentially leading to higher customer satisfaction.
- This difference in response times could have implications for customer perception, brand reputation, and the effectiveness of social media as a customer service channel, highlighting the importance of timely and efficient responses to customer inquiries.
- Further research could explore the specific strategies, tools, and processes employed by private sector banks to achieve faster response times, as well as the impact of response times on customer satisfaction and engagement metrics.
- Ultimately, both sectors can leverage these insights to optimize their social media customer service strategies, improve their response times, and enhance their overall customer experience on social media platforms.

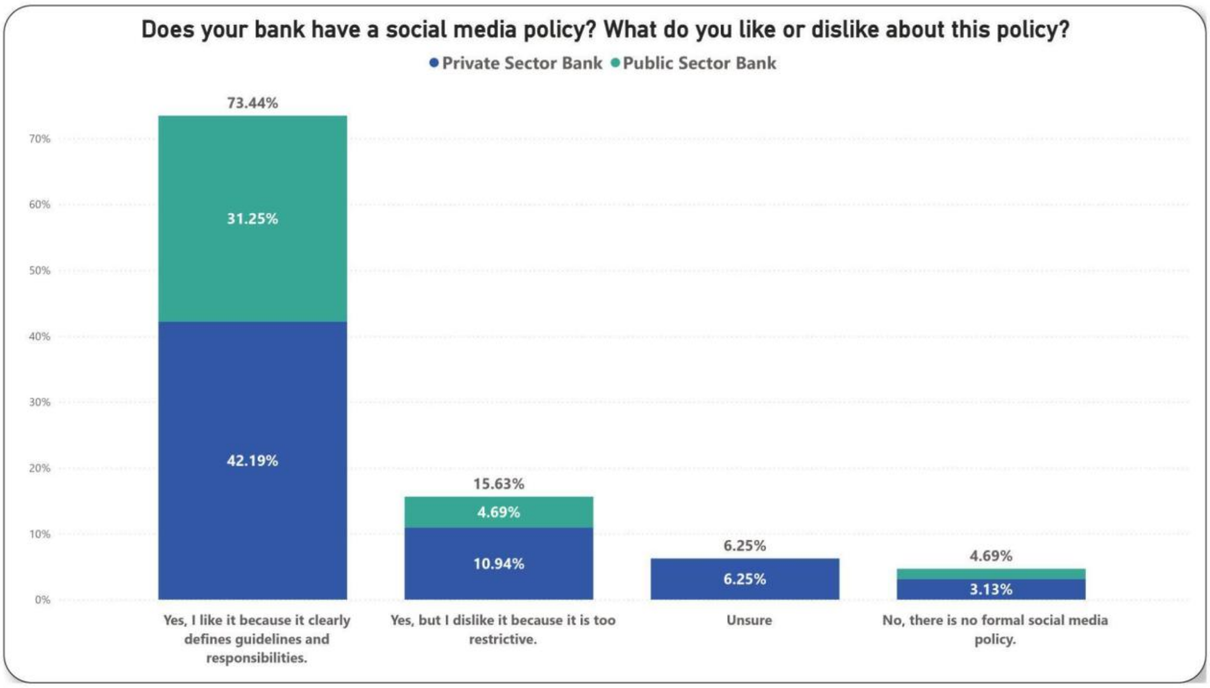

Fig *5(a)*.11Social media Policy

Inference -

- This chart explores the presence and perception of social media policies within banks, providing insights into the governance and guidelines governing social media usage by employees.
- A significant majority of private sector banks have social media policies they like because they clearly define guidelines and responsibilities (73.44%), suggesting that private sector banks have established clear frameworks for social media usage and that these policies are generally well-received by employees.
- This high percentage of positive perception towards social media policies in the private sector could indicate that these policies are well-communicated, comprehensive, and provide clear guidance on acceptable social media behaviour, fostering a sense of clarity and empowerment among employees.
- In contrast, a smaller proportion of public sector banks have policies they like for the same reason (42.19%), highlighting a potential difference in the quality, clarity, or communication of social media policies in the public sector.
- A notable percentage of public sector banks have social media policies they dislike because they are too restrictive (15.63%), compared to private sector banks (10.94%), suggesting that some public sector banks have policies that are perceived as hindering effective social media engagement or limiting employee expression.

- These restrictive policies in the public sector could be attributed to concerns about compliance, risk management, or reputational damage, potentially creating a less conducive environment for employees to engage in social media activities.
- Both sectors have a small percentage of respondents who are "Unsure" about their social media policies (6.25%), which might point to a lack of awareness or understanding of the existing policies or a lack of formalization in policy documentation.
- A small percentage of public sector banks report having no formal social media policy (4.69%), compared to private sector banks (3.13%), indicating that some public sector banks are still in the process of developing or implementing social media policies, potentially leading to inconsistencies or uncertainties in social media usage.
- The data highlights that private sector banks generally have more established and positively perceived social media policies, while public sector banks face challenges with policy implementation, employee satisfaction with existing policies, or the lack of formal policies, indicating potential differences in social media governance and management.
- These differences could have implications for employee behaviour on social media, the effectiveness of social media communication, and the overall management of social media risks and opportunities.
- Further research could explore the specific content of social media policies in each sector, the communication strategies used to disseminate these policies, and the training provided to employees on appropriate social media behaviour.
- Ultimately, both sectors can leverage these insights to develop, review, and refine their social media policies, ensuring they are clear, comprehensive, and conducive to effective and responsible social media engagement by employees.

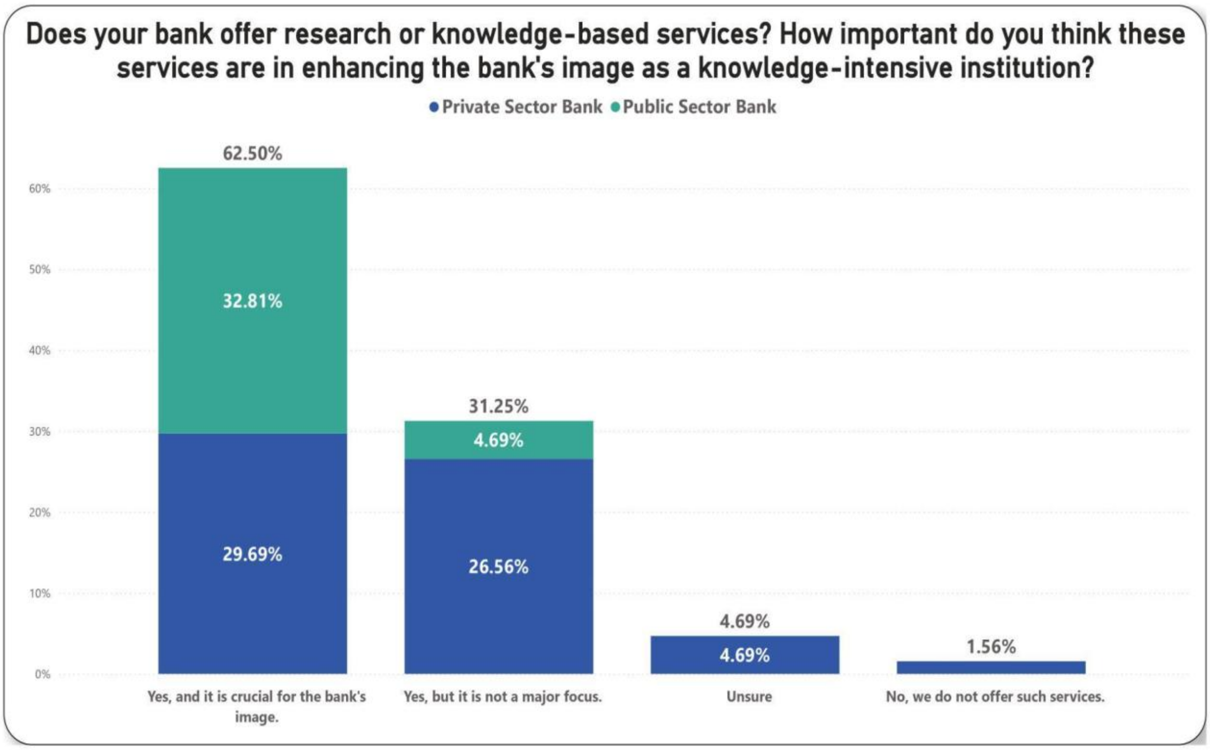

Fig *5(a)*.12 Significance of knowledge based services

Inference -

- This chart examines the importance and offering of research services by banks, providing insights into the role of knowledge-based services in enhancing brand image and customer value.
- Private sector banks are more likely to offer research services and view them as crucial for their image, suggesting a strategic emphasis on leveraging knowledge and expertise to build credibility and enhance their reputation as thought leaders in the financial industry.
- A combined 62.5% of private sector banks either strongly agree (29.69%) or agree (32.81%) that research services are crucial for their image, indicating a strong belief in the value of research in attracting customers, building trust, and differentiating themselves from competitors.
- This strategic use of research services could be part of a broader content marketing strategy, aimed at providing valuable insights to customers, attracting potential clients, and positioning the bank as a trusted source of information and expertise.
- Public sector banks show a more varied distribution of opinions on the importance of research services, with some public sector banks agreeing (23.44%) or strongly agreeing (14.06%), while a significant portion neither agree nor disagree (31.25%), suggesting that research services might be less of a strategic priority for public sector banks in terms of image building.

- This less pronounced emphasis on research services in the public sector could be attributed to a focus on providing essential banking services, a more traditional approach to communication, or a different set of priorities related to public service and financial inclusion.
- The data highlights a potential difference in the strategic use of research services, with private sector banks more actively leveraging them to cultivate a positive image, attract customers, and position themselves as thought leaders.
- This could reflect differences in marketing strategies, target audience, or overall organizational priorities between the two sectors, with private sector banks potentially targeting more sophisticated clients or seeking to establish a competitive advantage through knowledge and expertise.
- It also suggests that private sector banks might be positioning themselves as thought leaders or knowledge providers in the financial industry, using research as a tool for attracting and engaging customers.
- Further research could explore the specific types of research services offered by each sector, the target audience for these services, and the effectiveness of research in enhancing brand image and customer engagement.
- Ultimately, banks can leverage these insights to evaluate the strategic value of research services, develop effective content marketing strategies, and enhance their overall brand image and customer value proposition.

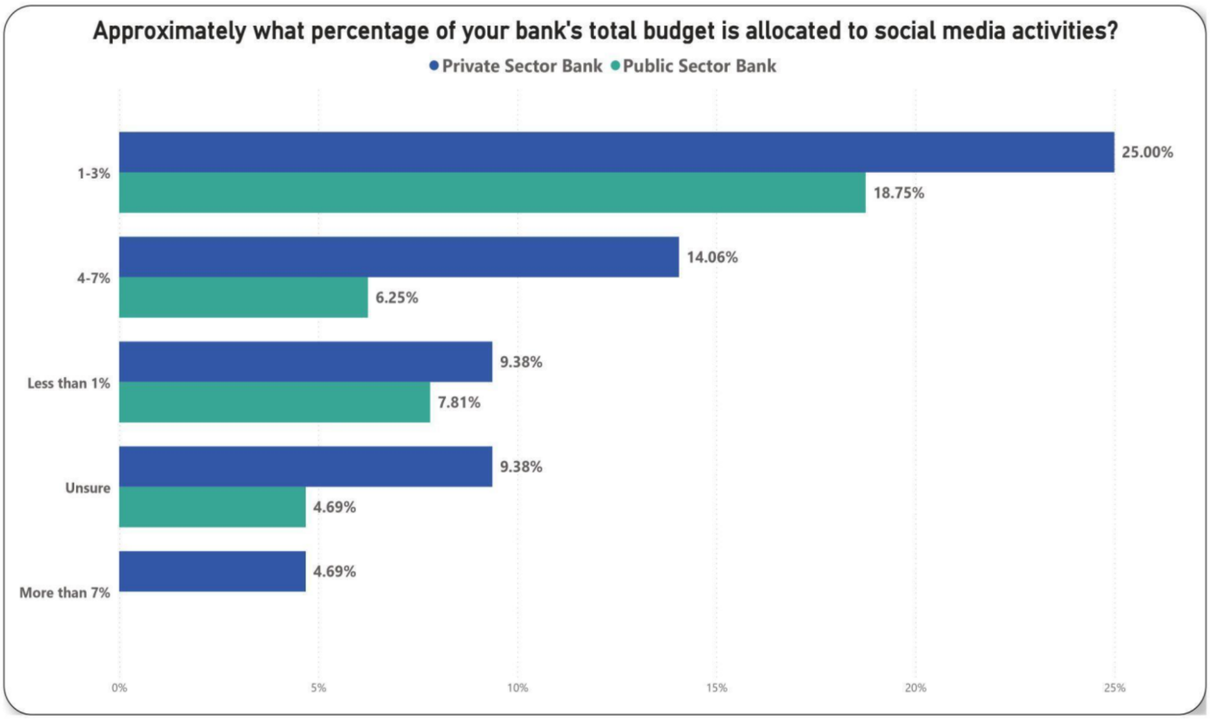

Fig *5(a)*.13 Budget allocated to social media activities

Inference -

- This chart illustrates the percentage of their budget that banks allocate to social media activities, providing insights into the financial commitment and investment priorities of banks in their social media strategies.
- Private sector banks tend to allocate a larger percentage of their budget to social media compared to public sector banks, indicating a greater prioritization of social media as a key component of their marketing and communication efforts.
- The most common budget allocation range for private sector banks is 1-3%, with 25% of private sector banks falling into this category, suggesting a consistent and significant investment in social media activities.
- This allocation range could reflect a strategic focus on building brand awareness, engaging with customers, and driving business outcomes through social media marketing and communication.
- Public sector banks also have a significant portion (18.75%) allocating 1-3% of their budget to social media, indicating a recognition of the importance of social media, but potentially with a more conservative or resource-constrained approach compared to private sector banks.
- However, public sector banks show a more varied distribution, with a notable percentage unsure about their social media budget allocation (9.38%), suggesting a lack of clarity, formalization, or consistent tracking of social media spending.

- This uncertainty in budget allocation could hinder effective planning, resource allocation, and measurement of ROI for social media activities in the public sector.
- The data suggests that private sector banks prioritize social media spending more consistently, with a clear focus on the 1-3% range, demonstrating a stronger financial commitment to social media as a strategic investment.
- Public sector banks, on the other hand, may have less defined or more fluctuating social media budgets, potentially due to competing priorities, resource limitations, or a less mature understanding of the strategic value of social media.
- Overall, the chart highlights potential differences in the financial investment in social media between the two sectors, with private sector banks demonstrating a greater commitment and public sector banks exhibiting a more varied and potentially less certain approach to social media budgeting.
- Further research could explore the specific social media activities funded by these budgets, the ROI metrics used to evaluate social media investments, and the challenges faced by banks in securing adequate funding for their social media initiatives.
- Ultimately, banks can leverage these insights to optimize their social media budget allocation strategies, ensure adequate funding for effective social media activities, and improve the overall ROI of their social media investments.

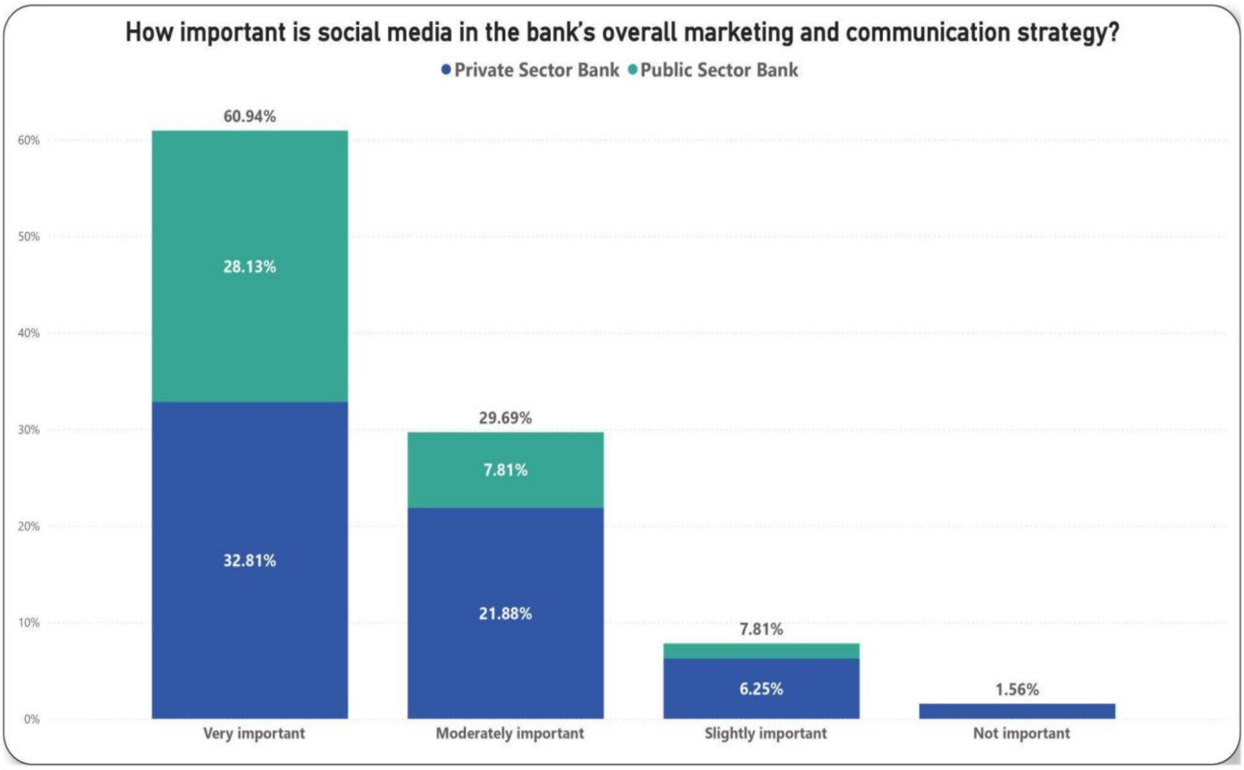

Fig *5(a)*.14 Importance of social media for marketing

Inference -

- This chart examines the perceived importance of social media to the marketing and communication strategy of banks, providing insights into the strategic value placed on social media by different sectors within the banking industry.
- Private sector banks overwhelmingly view social media as very important to their marketing and communication strategy, demonstrating a strong strategic integration of social media into their overall marketing and communication framework.
- 60.94% of private sector banks consider social media to be very important, indicating a strong belief in the power of social media to achieve their marketing and communication objectives, such as brand building, customer engagement, and lead generation.
- This high perception of importance could reflect a more customer-centric approach, a greater emphasis on digital marketing, or a more competitive environment that necessitates a strong social media presence for private sector banks.
- Public sector banks also recognize the importance of social media, but to a lesser extent, suggesting a more varied perception of its strategic value and potentially a less mature integration of social media into their marketing and communication strategies.

- 32.81% of public sector banks consider social media to be very important, indicating that while many public sector banks acknowledge the value of social media, they may not prioritize it to the same extent as private sector banks.
- A significant percentage of public sector banks view social media as important (39.06%), but not to the same degree as private sector banks, further highlighting the potential difference in strategic prioritization.
- This difference in perception could be attributed to factors such as a more traditional approach to marketing and communication, a focus on other communication channels, or a less competitive environment that may not necessitate the same level of social media investment for public sector banks.
- The data suggests that private sector banks are more likely to fully embrace social media as a core component of their marketing and communication strategy, demonstrating a stronger commitment to its strategic integration.
- Public sector banks, while acknowledging its importance, may be in earlier stages of adoption, have a more traditional marketing focus, or have different priorities that influence their perception of social media's strategic value.
- Overall, the chart highlights potential differences in the strategic prioritization of social media, with private sector banks demonstrating a stronger commitment to its integration into their overall marketing and communication framework.
- Further research could explore the specific ways in which each sector utilizes social media for marketing and communication, the metrics used to measure the effectiveness of social media in achieving their goals, and the challenges faced in integrating social media into their overall strategies.
- Ultimately, banks can leverage these insights to evaluate the strategic value of social media, develop effective social media strategies, and ensure that social media is appropriately integrated into their overall marketing and communication efforts.

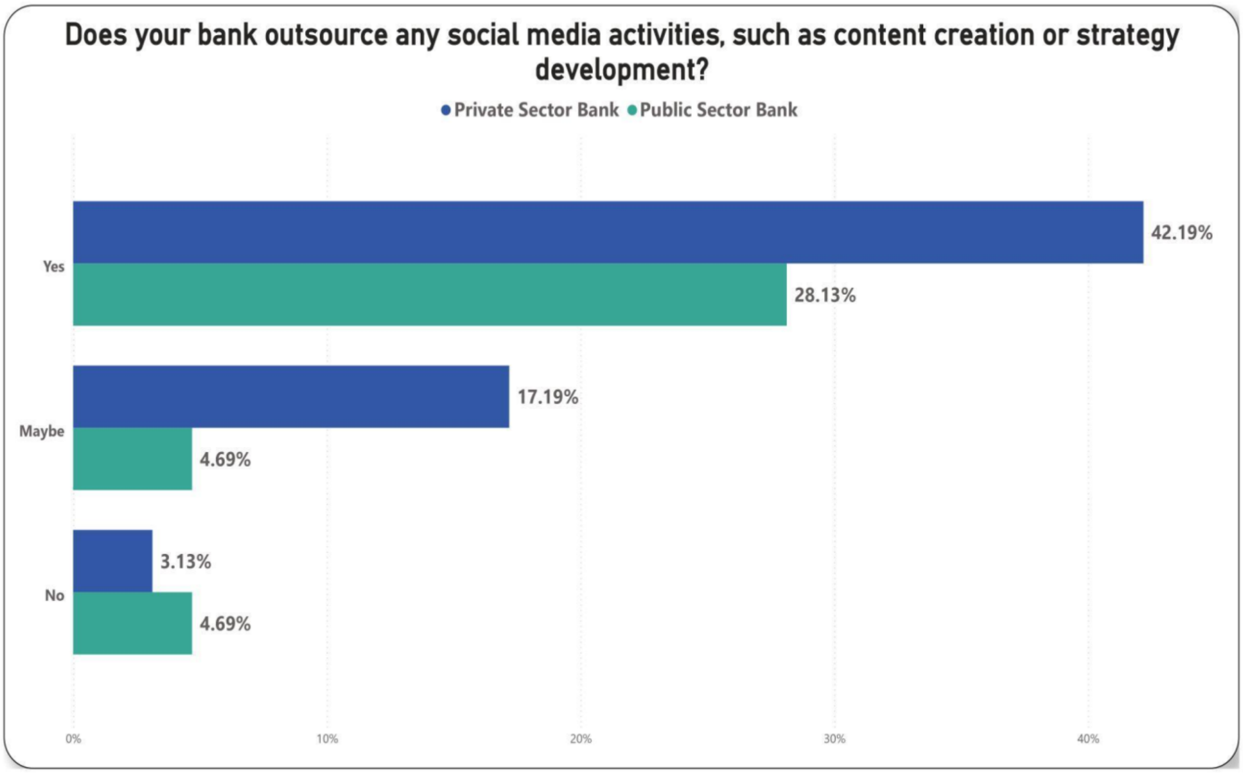

Fig *5(a)*.15 Outsourcing Social Media activities

Inference -

- This chart compares the outsourcing of social media activities by private and public sector banks, providing insights into their operational approaches and resource allocation strategies for social media management.
- Private sector banks are more likely to outsource their social media activities compared to public sector banks, suggesting a greater reliance on external expertise, agencies, or specialized service providers for managing their social media presence.
- 42.19% of private sector banks outsource their social media activities, indicating a significant portion of private banks leverage external resources for tasks such as content creation, community management, social media advertising, or analytics.
- This higher tendency to outsource could be attributed to factors such as access to specialized skills, cost-effectiveness, or a desire to focus on core banking activities while delegating social media management to experts.
- Public sector banks are less likely to outsource, with 28.13% reporting that they do so, suggesting a preference for in-house management or a more limited reliance on external expertise for social media activities.
- This lower tendency to outsource could be due to factors such as a focus on internal capacity building, a desire to maintain control over social media communication, or resource constraints that limit the ability to engage external providers.

- A slightly higher percentage of public sector banks report that they do not outsource their social media activities (4.69%) compared to private sector banks (3.13%), further emphasizing the difference in their operational approaches.
- This preference for in-house management in the public sector could also be related to compliance requirements, data security concerns, or a desire to ensure alignment with public service values and communication guidelines.
- The data suggests that private sector banks are more open to leveraging external resources and expertise for their social media management, demonstrating a more flexible and potentially more specialized approach.
- Public sector banks, on the other hand, may prefer to handle social media activities in-house or have different resource allocation strategies that prioritize internal capacity.
- Overall, the chart highlights potential differences in operational approaches, with private sector banks more frequently opting for outsourcing and public sector banks leaning towards in-house management.
- Further research could explore the specific social media activities that are outsourced by each sector, the reasons behind their outsourcing decisions, and the effectiveness of their chosen operational approaches in achieving their social media goals.
- Ultimately, banks can leverage these insights to evaluate their social media operational strategies, make informed decisions about outsourcing, and optimize their resource allocation for effective social media management.

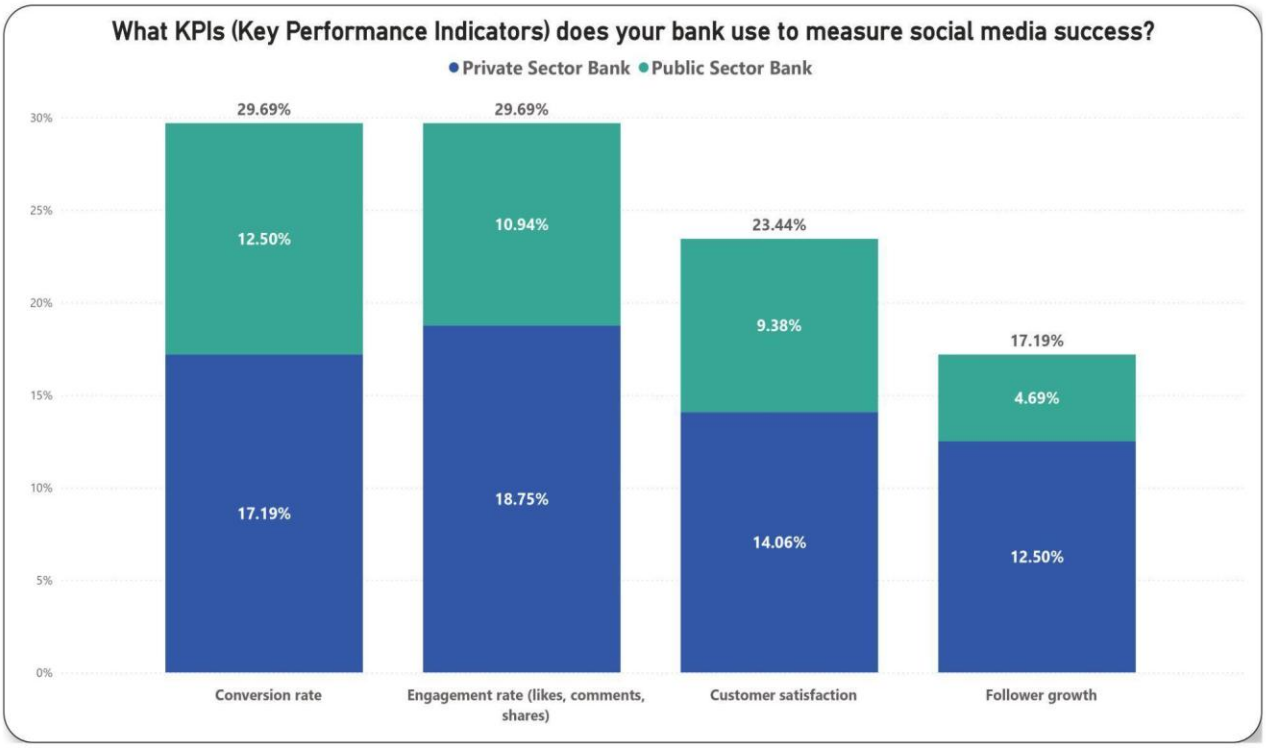

Fig *5(a)*.16 KPIs to measure social media performance

Inference –

- This chart compares the key performance indicators (KPIs) prioritized by banks for measuring the effectiveness of their social media activities, providing insights into their measurement strategies and focus areas.
- Both private and public sector banks prioritize engagement rate as a key KPI, with 29.69% for both sectors, indicating a shared focus on measuring social media success through direct interaction, such as likes, shares, comments, and other forms of user engagement.
- This prioritization of engagement rate reflects the importance of fostering active participation and interaction with their target audiences on social media platforms, as engagement is a key indicator of content relevance and audience interest.
- Following engagement rate, conversion rate is prioritized, with 17.19% of private sector banks and 12.50% of public sector banks citing this KPI, indicating a focus on measuring the effectiveness of social media in driving desired actions, such as website visits, lead generation, or customer acquisition.
- This focus on conversion rate highlights the strategic importance of social media in achieving business outcomes and demonstrating the ROI of social media investments.

- Customer satisfaction and follower growth are also used as KPIs, but to a lesser extent, suggesting that while these metrics are important, they may not be the primary focus for measuring social media success in the banking sector.
- This lower prioritization of customer satisfaction and follower growth could be due to the challenges in directly measuring these metrics on social media or a greater focus on more immediate and quantifiable KPIs such as engagement and conversion.
- The data indicates a shared focus on measuring social media success through direct interaction and customer acquisition, with engagement rate being the most prioritized KPI across both sectors.
- However, there are also some differences in prioritization, with private sector banks placing slightly more emphasis on conversion rate compared to public sector banks, potentially reflecting a greater focus on driving business outcomes through social media.
- Overall, the chart highlights the key metrics used by banks to assess the effectiveness of their social media activities, with a strong emphasis on engagement rate and conversion rate as primary indicators of success.
- Further research could explore the specific metrics used to measure engagement rate and conversion rate, the tools and techniques employed for data collection and analysis, and the challenges faced in accurately measuring social media ROI in the banking sector.
- Ultimately, banks can leverage these insights to refine their social media measurement strategies, ensure they are tracking the most relevant KPIs, and optimize their social media efforts to achieve their desired outcomes.

5.11 Customer Perception and Social Media Engagement Analysis

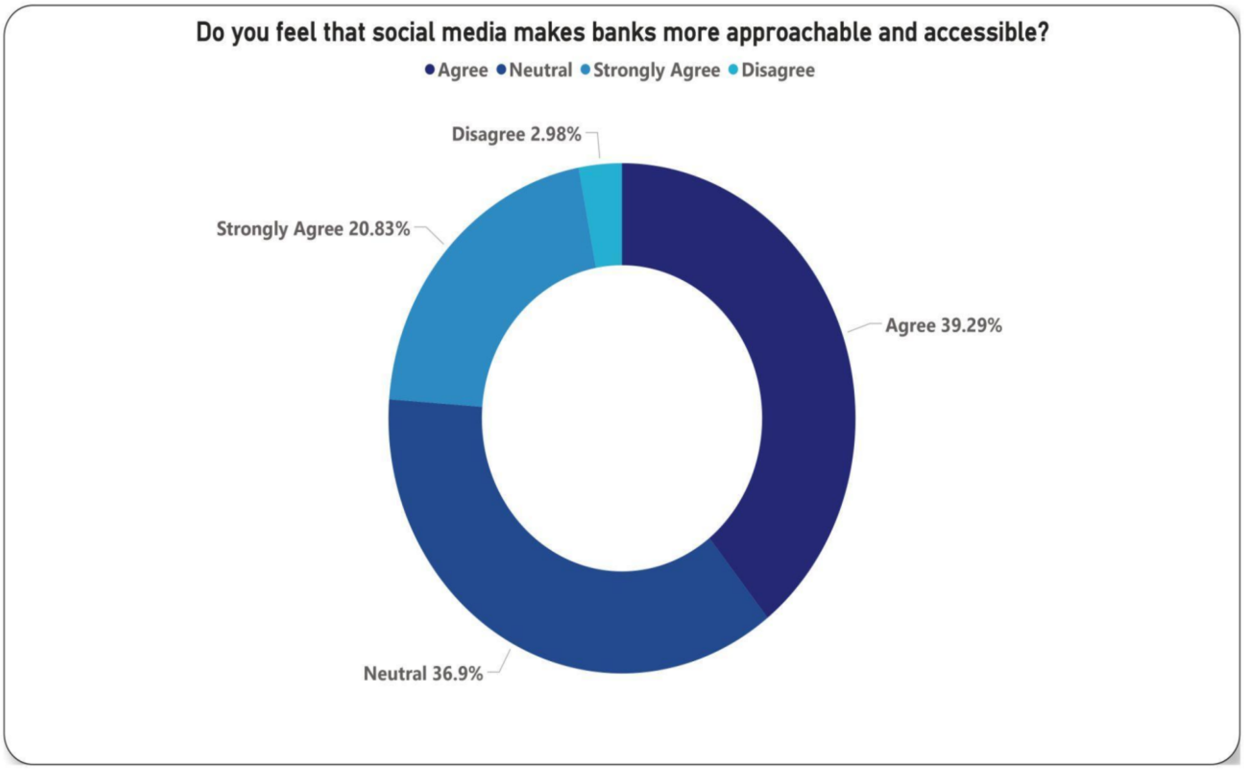

Fig 5(b).1 Influence of Social Media on Approachability and Accessibility of banks

Inference -

- This chart depicts customer sentiment regarding the perception of banks' approachability and accessibility via social media platforms, measured by the distribution of agreement levels among respondents.
- A substantial 39.29% of participants express agreement that social media enhances banks' approachability and accessibility, indicating a significant portion of customers perceive social media as a positive channel for interaction.
- Further bolstering this sentiment, 20.83% of respondents strongly agree, signifying a robust endorsement of social media's role in bridging the gap between banks and their clientele.
- Collectively, a majority (60.12%) of respondents either agree or strongly agree, underscoring the perceived value of social media in fostering a more accessible banking environment.
- However, a notable 36.9% of participants remain neutral, suggesting a sizeable segment of customers who are either indifferent or have yet to form a definitive opinion on social media's impact on bank accessibility.

- This neutral stance could indicate a lack of direct experience with social media interactions with banks, or a perception that social media's impact is not significant enough to warrant a strong opinion.
- Conversely, a small minority of 2.98% of respondents disagree, implying a perception that social media does not contribute to banks being more approachable.
- This low percentage of disagreement suggests that negative perceptions of social media's role in bank accessibility are relatively rare.
- The data underscores the growing importance of social media as a tool for banks to enhance customer engagement and perception, as a clear majority of customers feel it makes banks more approachable.
- The high neutral percentage shows that banks still have work to do to convince a large segment of their customers on the benefits of social media interaction.
- Banks should consider strategies to engage neutral customers, such as demonstrating the benefits of social media for customer service, providing educational content, or offering personalized interactions.
- This chart highlights the need for banks to strategically utilize social media to build stronger relationships with their customers and improve overall accessibility.

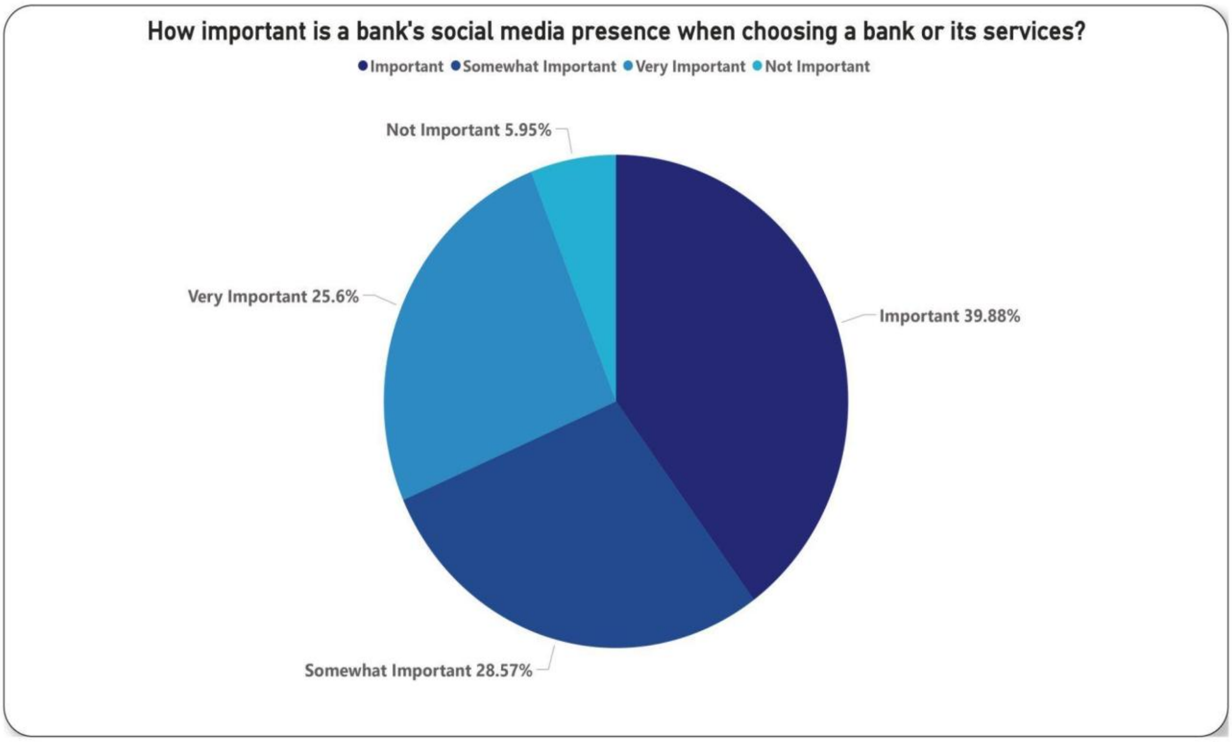

Fig 5(b).2 Influence on choosing the bank

Inference -

- This chart delineates the significance of a bank's social media presence in the context of customer decisions regarding bank selection or service adoption, quantified through a spectrum of importance ratings.
- A substantial 39.88% of respondents deem a bank's social media presence as "Important" when making choices about banking services, indicating a strong perception of its relevance in customer decision-making.
- Further emphasizing the weight of social media, 25.6% of participants consider it "Very Important," underscoring that a notable segment of customers places a high premium on a bank's digital footprint.
- The combined percentage of those who find social media either "Important" or "Very Important" (65.48%) signifies that a clear majority of customers acknowledge the role of social media in their banking decisions.
- However, 28.57% of respondents perceive a bank's social media presence as "Somewhat Important," suggesting a moderate level of influence on their choices.
- This "Somewhat Important" category could indicate that while social media is considered, it is not the decisive factor in their banking choices.
- Conversely, a small minority of 5.95% of respondents consider a bank's social media presence as "Not Important," implying a segment of customers who do not factor in social media when selecting a bank or its services.

- This low percentage of "Not Important" suggests that the perception of social media's irrelevance in banking decisions is relatively uncommon.
- The data underscores the growing influence of social media in the banking sector, with a clear majority of customers acknowledging its importance in their decision-making process.
- Banks should recognize the strategic value of cultivating a robust social media presence to attract and retain customers, as it has a strong influence on the customer's choice.
- Understanding the varying degrees of importance attributed to social media can help banks tailor their digital strategies to meet the diverse needs and expectations of their customer base.
- This chart highlights the necessity for banks to invest in and optimize their social media presence to remain competitive and appeal to a digitally savvy customer demographic.

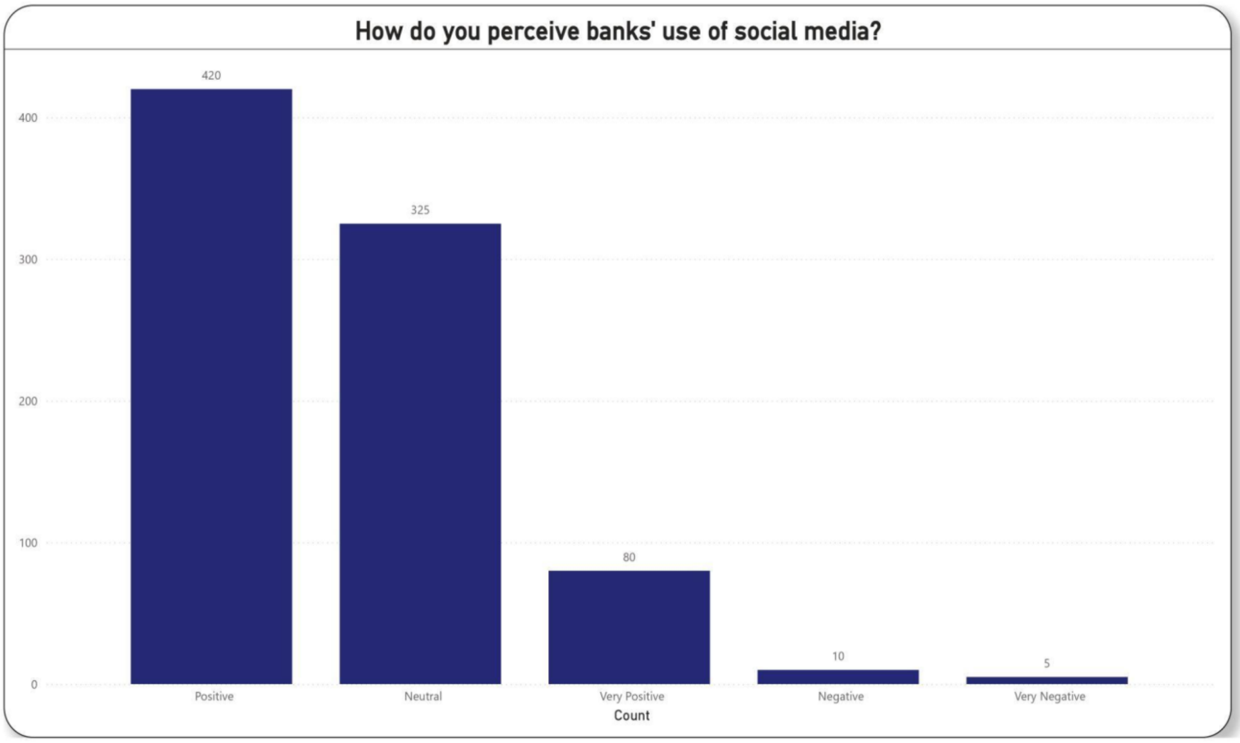

Fig 5(b).3 Users perception of social media for banks

Inference -

- This chart illustrates the distribution of customer perceptions regarding banks' utilization of social media, quantified through a spectrum ranging from very negative to very positive sentiments.
- A substantial 420 respondents express a "Positive" perception of banks' social media use, indicating a significant segment of customers who view banks' digital engagement favorable.
- Following closely, 375 respondents maintain a "Neutral" stance, suggesting a considerable portion of customers who are either indifferent or hold neither positive nor negative views.
- A noteworthy 80 respondents hold a "Very Positive" perception, underscoring a segment of customers who are particularly enthusiastic about banks' social media presence.
- Conversely, a smaller contingent of 10 respondents expresses a "Negative" perception, signifying a minority of customers who view banks' social media engagement unfavourably.
- An even smaller group of 5 respondents hold a "Very Negative" perception, indicating that extreme negativity towards banks' social media use is relatively rare.
- The data reveals a clear skew towards positive and neutral perceptions, with a significant majority of respondents either viewing banks' social media use positively or remaining neutral.

- This suggests that banks' social media efforts are generally well-received or at least not negatively perceived by a large portion of their customer base.
- However, the presence of negative and very negative perceptions highlights the importance of addressing customer concerns and ensuring that social media interactions are consistently positive.
- Banks should focus on maintaining and enhancing positive perceptions by providing valuable content, engaging with customers effectively, and addressing any negative feedback promptly.
- The large number of neutral responses shows that there is still room for banks to make a greater impact on those customers.
- This chart underscores the necessity for banks to cultivate a positive social media presence to foster customer satisfaction and build stronger relationships.

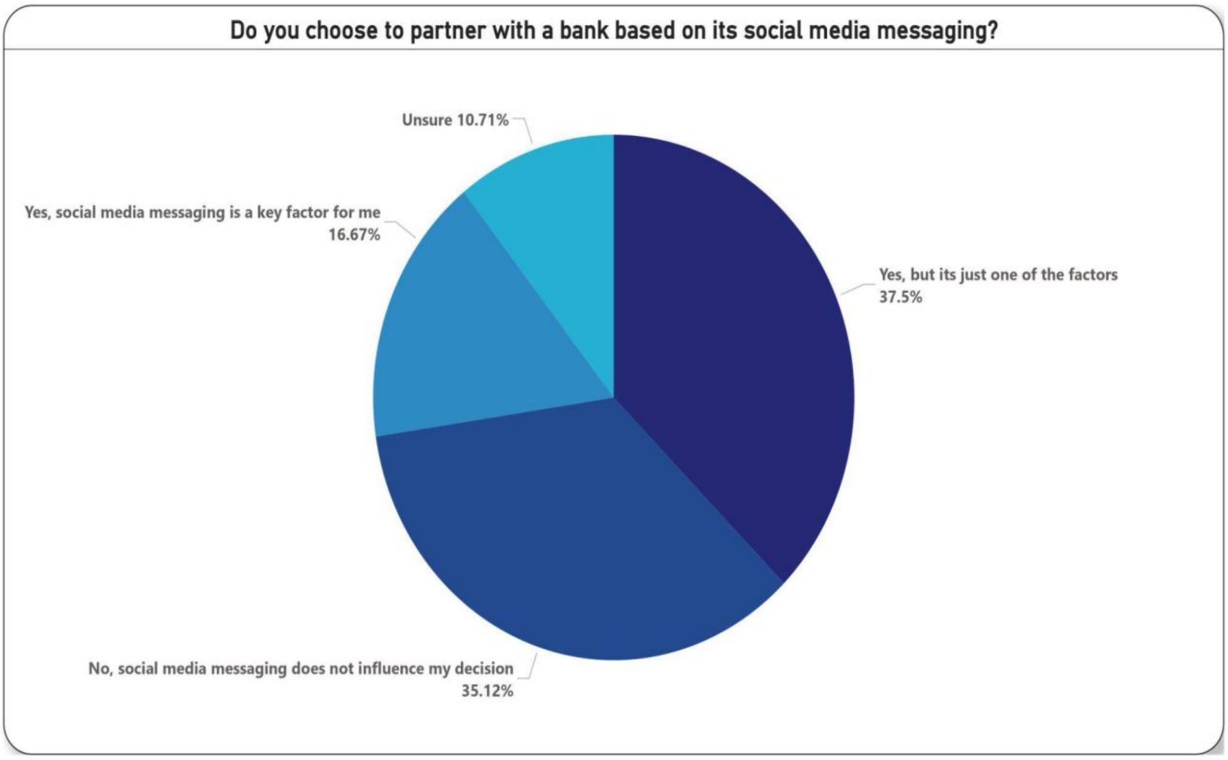

Fig 5(b).4 Level of influence of social media on users

Inference -

- This chart dissects the influence of a bank's social media messaging on customer decisions regarding bank partnerships, portraying the distribution of respondent attitudes.
- A notable 37.5% of respondents indicate that while they do consider a bank's social media messaging, it serves as just one of several factors in their decision-making process.
- This suggests that social media plays a role in shaping customer perceptions, but it is not the sole determinant of their banking choices.
- Conversely, 35.12% of respondents assert that social media messaging does not influence their decision, highlighting a substantial segment of customers who prioritize other criteria when selecting a bank.
- This implies that traditional factors such as service quality, interest rates, and branch availability may hold greater sway for these individuals.
- A smaller, yet significant, 16.67% of respondents affirm that social media messaging is a key factor in their decision, underscoring the growing importance of digital communication in attracting and retaining customers.
- This indicates that a portion of the customer base is actively engaged with and influenced by a bank's online presence.

- Additionally, 10.71% of respondents are unsure about the influence of social media messaging on their bank selection, suggesting a degree of ambivalence or a lack of definitive opinion.
- This "unsure" category might also reflect customers who have not given much thought to the role of social media in their banking decisions.
- The data indicates a mixed response, with a relatively even split between those who are influenced by social media messaging and those who are not.
- This highlights the need for banks to adopt a multifaceted approach to customer acquisition, catering to both digitally engaged and traditionally oriented customers.
- Banks should be aware that while social media messaging can be a valuable tool, it is not universally influential, and other factors remain paramount for many customers.
- This chart emphasizes the importance of understanding diverse customer preferences and tailoring communication strategies accordingly.

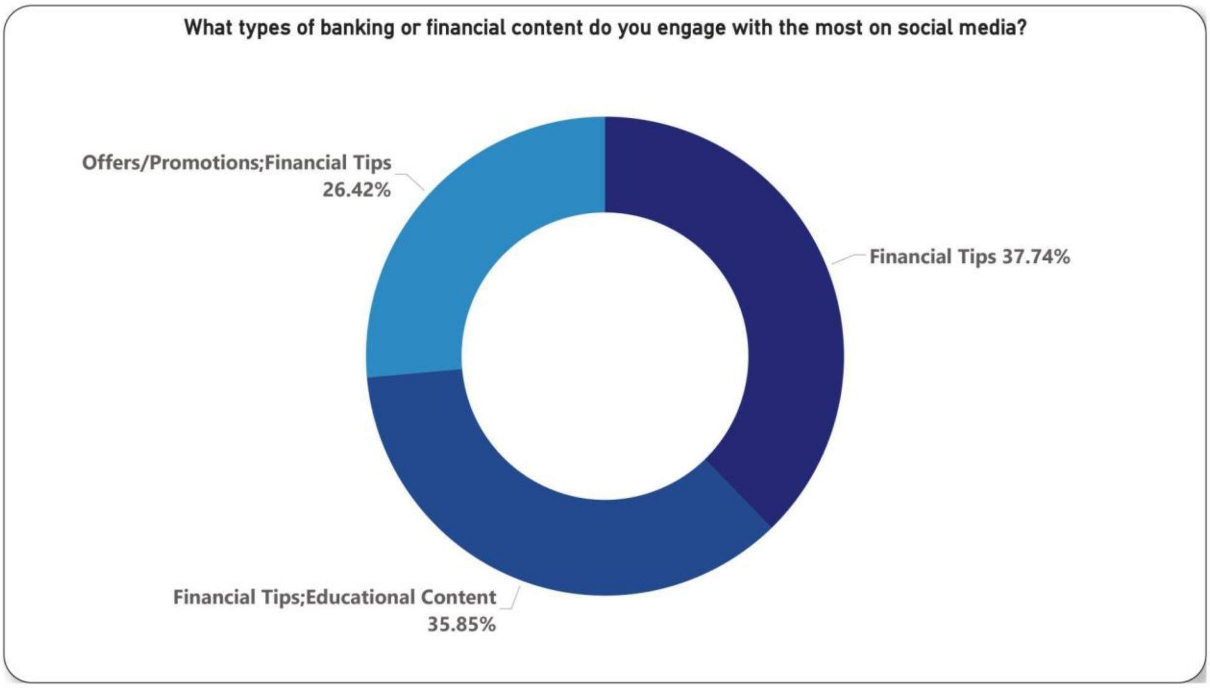

Fig 5(b).5 Types of financial content users engage with

Inference –

- This chart elucidates the predominant categories of banking and financial content that customers interact with on social media, segmented by specific content types.
- A significant 37.74% of respondents indicate that "Financial Tips" are the type of content they engage with most, highlighting a strong customer interest in practical financial advice and guidance.
- Closely following, 35.85% of respondents prefer "Financial Tips; Educational Content," emphasizing the value customers place on content that combines practical advice with informative educational material.
- This suggests that customers are actively seeking knowledge and insights to improve their financial literacy and make informed decisions.
- A notable 26.42% of respondents engage with "Offers/Promotions; Financial Tips," indicating a segment of customers who are drawn to content that combines promotional incentives with financial advice.
- This demonstrates that while customers value educational content, they are also receptive to offers and promotions that can provide tangible benefits.
- The data reveals a clear preference for content that is both informative and practical, with financial tips being a central theme across all categories.
- This underscores the importance of banks providing valuable and relevant content that addresses customers' financial needs and interests.

- The high engagement with educational content suggests that banks can play a crucial role in enhancing customers' financial literacy through social media.
- Banks should prioritize creating and sharing content that provides practical financial advice, educational insights, and relevant offers and promotions.
- Understanding customer preferences for specific content types can help banks tailor their social media strategies to maximize engagement and build stronger relationships.
- This chart highlights the potential for banks to leverage social media as a platform for delivering valuable financial information and fostering customer engagement.

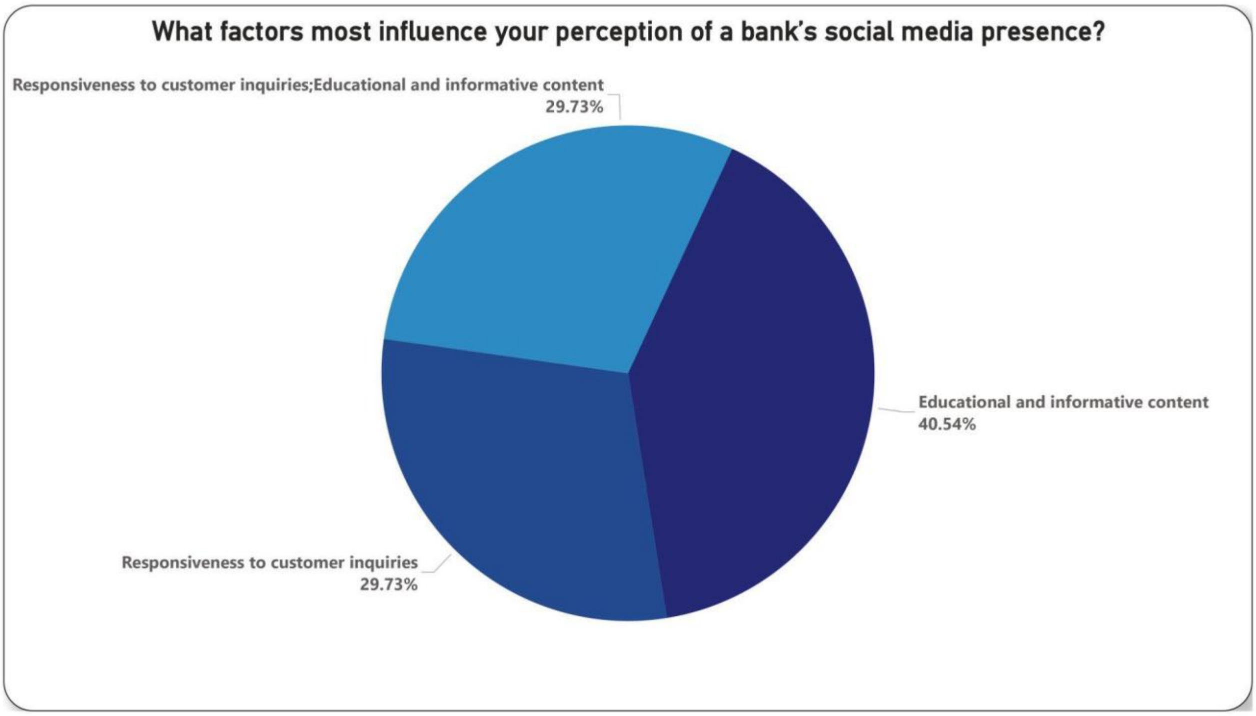

Fig 5(b).6 Factors influencing perception of users towards banks

Inference -

- This chart elucidates the key elements that shape customer perceptions of a bank's social media presence, segmented by distinct influential factors.
- A significant 40.54% of respondents cite "Educational and informative content" as the most influential factor, highlighting the paramount importance of valuable and knowledge-driven content in shaping positive perceptions.
- This underscores the customer's desire for banks to utilize social media as a platform for providing insights, guidance, and educational resources.
- Conversely, 29.73% of respondents point to "Responsiveness to customer inquiries" as a crucial factor, emphasizing the significance of prompt and effective customer service on social media.
- This demonstrates that customers value banks that actively engage with their inquiries and address their concerns in a timely manner.
- Interestingly, another 29.73% of respondents indicate that a combination of "Responsiveness to customer inquiries; Educational and informative content" influences their perception, suggesting that these two factors are often intertwined and equally important.
- This indicates that customers seek both informative content and responsive customer service when evaluating a bank's social media presence.

- The data reveals a strong emphasis on both content quality and customer service, with educational content and responsiveness to inquiries being the most influential factors.
- This highlights the need for banks to prioritize creating valuable content and providing excellent customer service on their social media platforms.
- Banks should focus on developing content that is informative, engaging, and relevant to their target audience, while also ensuring that they are responsive to customer inquiries and concerns.
- Understanding these influential factors can help banks tailor their social media strategies to enhance customer perceptions and build stronger relationships.
- This chart underscores the importance of a holistic approach to social media management, encompassing both content creation and customer engagement.

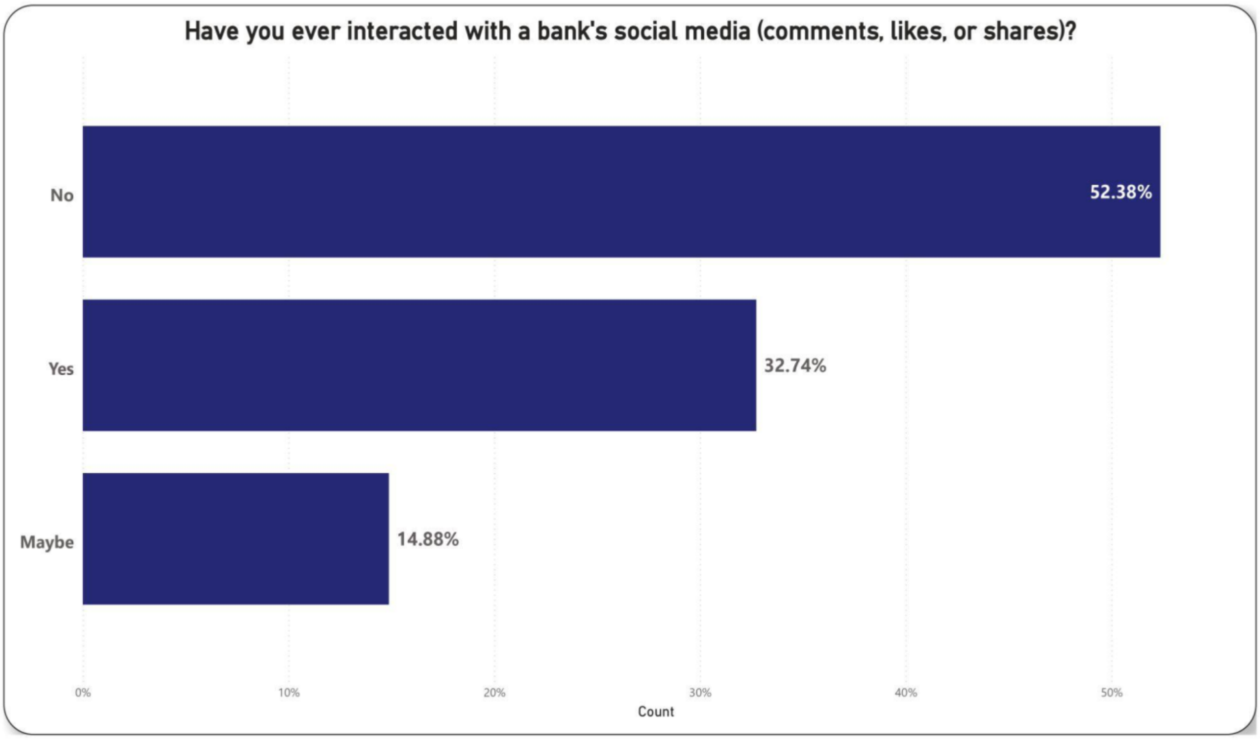

Fig 5(b).7 Percentage of Users interacted with bank's social media posts

Inference -

- This chart delineates the prevalence of customer engagement with banks' social media platforms, specifically focusing on interactions such as comments, likes, or shares.
- A majority, 52.38%, of respondents indicate that they have "No" interaction with a bank's social media, revealing a significant segment of customers who remain passive or disengaged from bank social media channels.
- This suggests that while banks invest in social media, a substantial portion of their customer base does not actively participate in online interactions.
- Conversely, 32.74% of respondents report "Yes" interactions with bank social media, highlighting a notable portion of customers who actively engage with banks online.
- This signifies that social media does serve as an interaction platform for a considerable segment of bank customers.
- Furthermore, 14.88% of respondents select "Maybe," indicating a segment of customers who are either uncertain about their interaction history or have had infrequent or fleeting interactions.
- This "Maybe" category suggests that there may be a degree of ambiguity or low awareness among some customers regarding their social media interactions with banks.
- The data underscores a disparity between passive and active engagement, with a greater proportion of customers opting for no interaction.

- This highlights the need for banks to explore strategies to increase customer engagement and foster a more interactive social media environment.
- Banks should consider implementing initiatives that encourage customer participation, such as interactive content, engaging campaigns, or personalized interactions.
- Understanding the reasons behind customer disengagement can help banks tailor their social media strategies to better connect with their target audience.
- This chart emphasizes the importance of not just having a social media presence, but also cultivating active customer engagement.

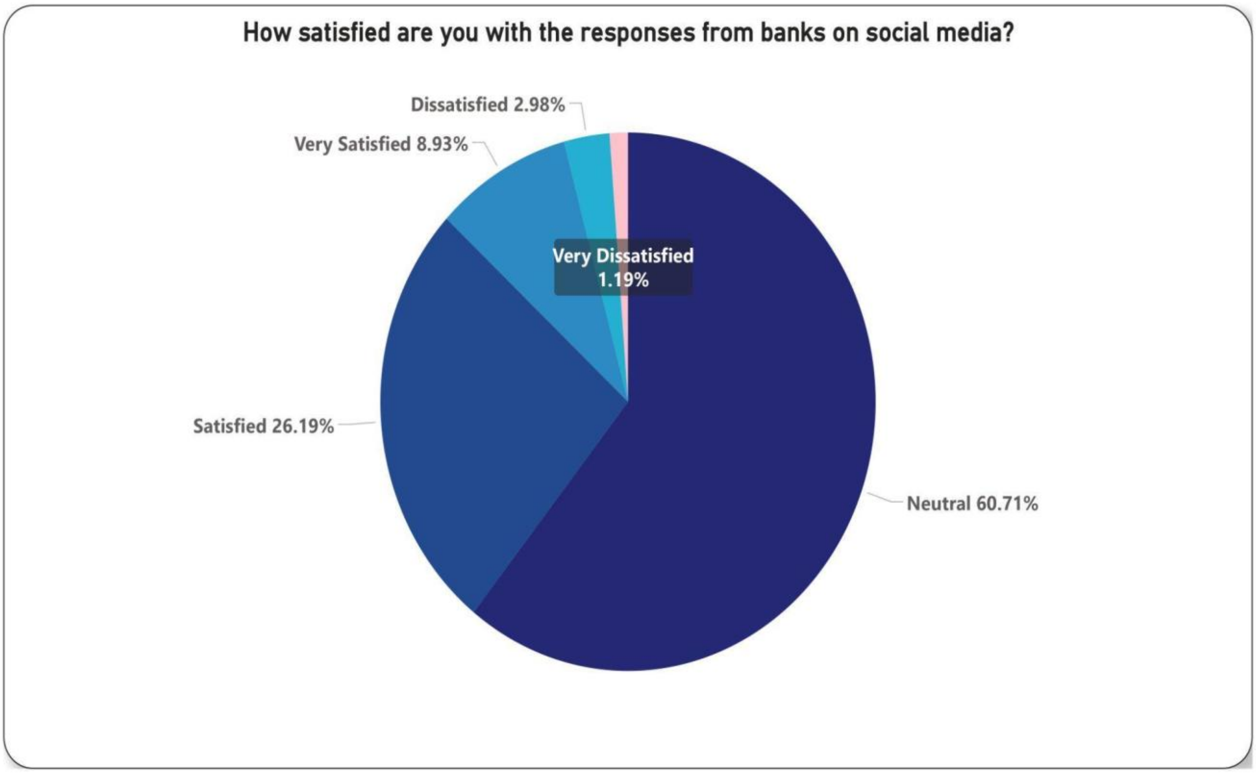

Fig 5(b).8 Level of Satisfaction with bank's social media posts

Inference -

- This chart illustrates the distribution of customer satisfaction levels regarding the responsiveness of banks on social media platforms, ranging from very dissatisfied to very satisfied.
- A substantial majority, 60.71%, of respondents maintain a "Neutral" stance, indicating a significant portion of customers who are neither satisfied nor dissatisfied with bank responses on social media.
- This high percentage of neutrality suggests that while banks are present on social media, their responses may not be consistently impactful or memorable for a large segment of their customer base.
- A notable 26.19% of respondents report being "Satisfied" with bank responses, highlighting a considerable portion of customers who find bank interactions on social media to be adequate.
- However, only 8.93% of respondents express being "Very Satisfied," underscoring that truly exceptional social media responsiveness is relatively rare.
- Conversely, 2.98% of respondents indicate being "Dissatisfied," revealing a segment of customers who have had negative experiences with bank responses on social media.
- An even smaller 1.19% of respondents report being "Very Dissatisfied," suggesting that extremely negative experiences are less common but still present.

- The data reveals a clear skew towards neutrality, with a significant majority of customers expressing neither satisfaction nor dissatisfaction.
- This highlights the need for banks to enhance their social media responsiveness and strive for higher levels of customer satisfaction.
- Banks should consider implementing strategies to improve response times, personalize interactions, and address customer concerns more effectively.
- Understanding the factors contributing to neutrality and dissatisfaction can help banks tailor their social media strategies to better meet customer expectations.
- This chart emphasizes the importance of consistent and effective social media communication in building positive customer relationships.

Fig 5(b).9 Type of Posts Users interact with

Inference -

- This word cloud visually represents the frequency and variety of customer interactions with different types of bank posts on social media, with larger words indicating higher interaction levels.
- "Engagement" and "Posts" are prominently displayed, suggesting that general interaction and content sharing are common customer activities. This reflects a broad spectrum of customer participation, encompassing a variety of post types.

- "Promotional" and "Educational Content" are also significant in size, indicating that customers are responsive to both marketing offers and informative materials. This highlights the dual role of banks' social media, serving both promotional and educational purposes.
- "Customer Queries" and "My Service" are visible, suggesting that customer support and service-related interactions are also prevalent. This emphasizes the importance of social media as a customer service channel.
- "Community" and "Initiatives" are present, indicating customer engagement with bank-sponsored community activities and projects. This reflects customer interest in banks' social responsibility and community involvement.
- The presence of "None" and "No" indicates that some customers report no interaction, which could reflect passive followers or those who do not actively engage with social media content.
- Phrases like "Haven Usually," "Unless," and "To previous question" suggest contextual nuances in customer interaction patterns, indicating that engagement is often contingent on specific circumstances or prior interactions.
- The word cloud highlights the diverse range of content that resonates with bank customers on social media, from promotional offers to educational materials and customer support.
- This suggests that banks should adopt a multifaceted content strategy to cater to the varied interests and needs of their customer base.
- The prominence of engagement-related terms underscores the importance of fostering interactive and participatory social media experiences.
- Banks can leverage this insight to tailor their content and engagement strategies to maximize customer interaction and build stronger online relationships.
- The word cloud emphasizes the role of social media as a dynamic platform for banks to connect with their customers through a variety of content types.

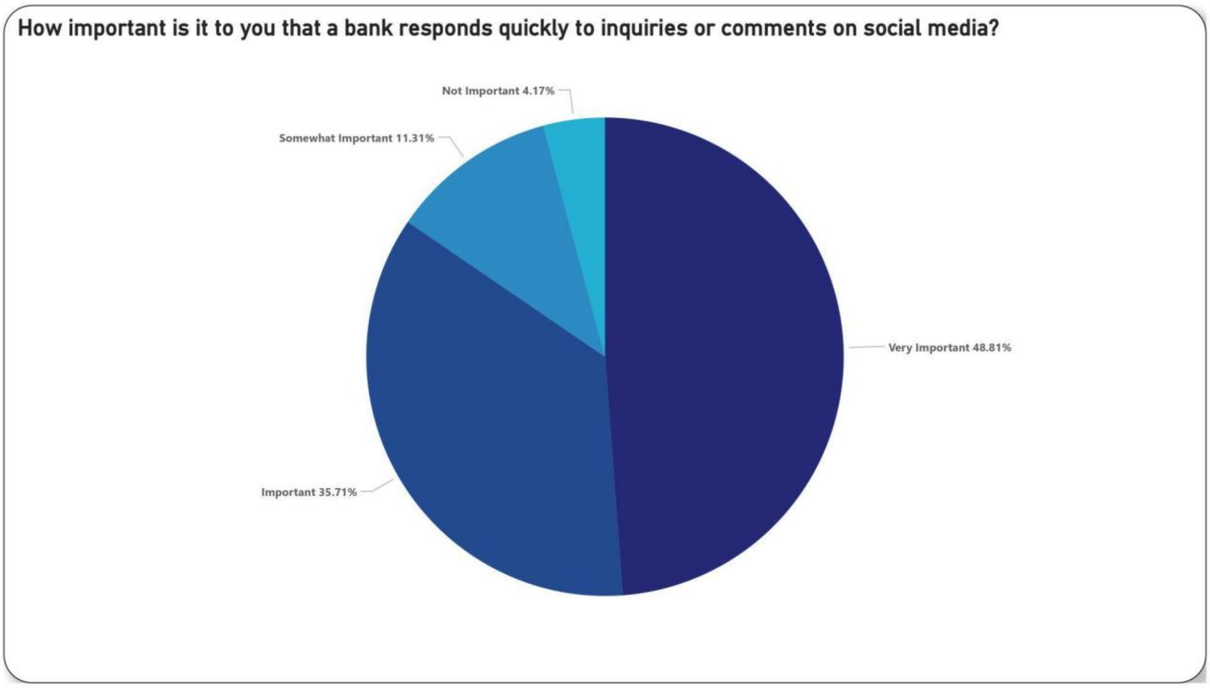

Fig 5(b).10 Impact of Response Time on user perception

Inference -

- This chart visually represents the perceived importance of timely responses from banks to customer inquiries or comments on social media platforms, measured by customer ratings.
- A substantial 48.81% of respondents consider it "Very Important" for banks to respond quickly, indicating a strong customer expectation for prompt communication on social media.
- An additional 35.71% of respondents rate quick responses as "Important," further emphasizing the significance of timely interaction in customer perception.
- Combined, these figures reveal that a significant majority (84.52%) of customers place a high value on banks' responsiveness on social media.
- Conversely, 11.31% of respondents find quick responses to be "Somewhat Important," suggesting a moderate level of concern regarding response times.
- A small minority, 4.17%, of respondents deem quick responses as "Not Important," highlighting a segment of customers who do not prioritize immediate interaction on social media.
- The data underscores the critical role of responsiveness in shaping customer satisfaction and perception of banks' social media presence.
- This highlights the need for banks to prioritize efficient social media management and ensure timely responses to customer inquiries and comments.

- The overwhelming preference for quick responses indicates that customers view social media as a real-time communication channel and expect banks to adhere to this expectation.
- Banks should invest in resources and strategies to enhance their social media responsiveness, such as dedicated social media teams, automated response systems, or real-time monitoring tools.
- Understanding customer expectations regarding response times can help banks build trust, enhance customer loyalty, and improve overall customer experience.
- This chart emphasizes the importance of social media as a customer service platform and the need for banks to prioritize timely and effective communication.

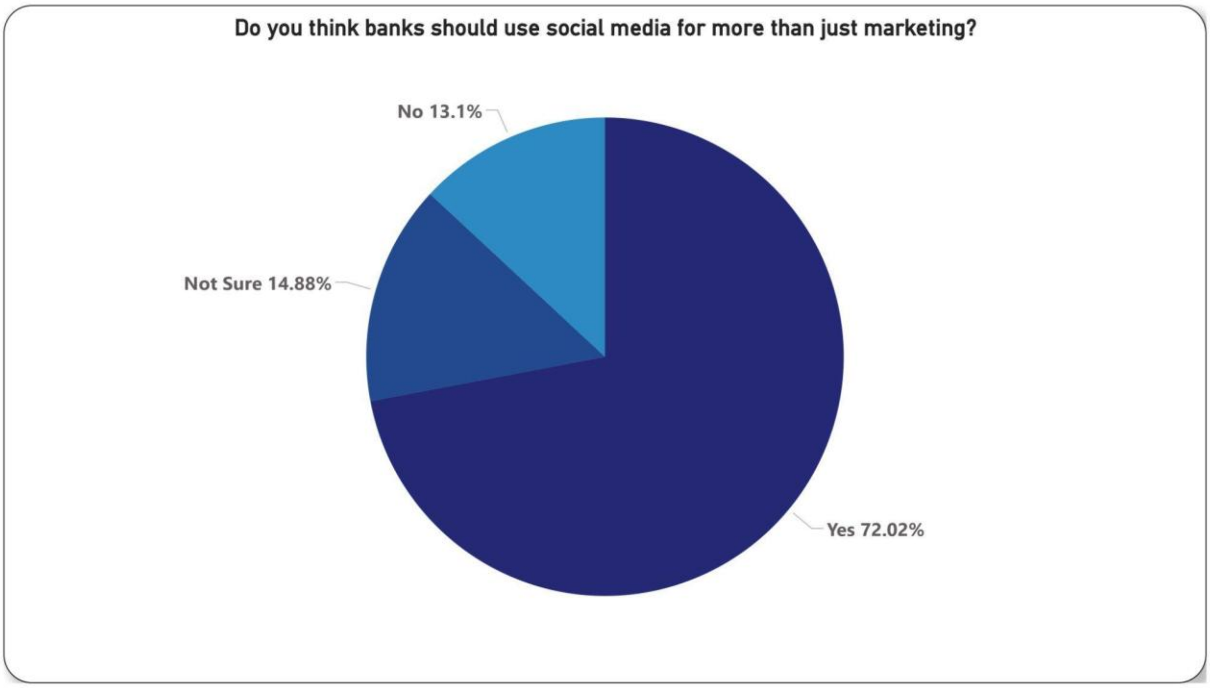

Fig 5(b).11 Application of Social Media for Users

Inference -

- This chart illustrates customer sentiment regarding the expansion of banks' social media usage beyond traditional marketing practices, measured by respondent agreement.
- A substantial majority, 72.02%, of respondents believe that banks should utilize social media for purposes beyond marketing, indicating a strong customer desire for diverse functionalities on these platforms.
- This suggests that customers perceive social media as a versatile tool that can serve various banking needs beyond promotional content.
- Conversely, 13.1% of respondents believe that banks should not use social media for more than just marketing, highlighting a minority view that prefers a more focused approach to social media usage.
- This might reflect concerns about privacy, security, or a preference for traditional banking channels.
- Additionally, 14.88% of respondents are "Not Sure," indicating a segment of customers who are undecided or lack a definitive opinion on the matter.
- This "Not Sure" category suggests that there may be a lack of awareness or understanding among some customers regarding the potential benefits of expanded social media usage by banks.
- The data underscores a clear customer preference for banks to leverage social media for a wider range of purposes, beyond mere marketing initiatives.
- This highlights the potential for banks to utilize social media for customer service, educational content, community engagement, or personalized interactions.

- Banks should consider exploring and implementing diverse social media functionalities to meet the evolving needs and expectations of their customer base.
- Understanding customer preferences regarding social media usage can help banks tailor their digital strategies to enhance customer satisfaction and build stronger relationships.
- This chart emphasizes the importance of social media as a multifaceted platform for banks to engage with their customers in meaningful ways.

Fig 5(b).12 Content preference of Users on Social Media

Inference -

- This word cloud visually represents the types of financial content customers desire to see more of on social media, with larger words indicating a higher frequency of interest.
- "Advice" and "Tips" are prominently displayed, signifying a strong customer demand for practical guidance and actionable insights on financial matters.
- This highlights the customer's desire for banks to provide valuable, educational content that can help them make informed financial decisions.
- "Investment" and "Savings" are also significantly sized, indicating a keen interest in information related to growing wealth and managing finances effectively.
- This suggests that customers are actively seeking knowledge and resources to improve their financial well-being through investment and savings strategies.
- "Budgeting" is notably present, emphasizing the importance of financial planning and management in customers' lives.

- This reflects the customer's need for tools and resources to help them create and maintain effective budgets.
- "Product" and "Strategies" are visible, suggesting a customer interest in learning about specific financial products and developing effective financial strategies.
- This indicates a demand for both product-specific information and broader financial planning guidance.
- "Information" is prominently featured, underscoring the customer's desire for comprehensive and reliable financial information on social media.
- This highlights the role of banks as trusted sources of financial knowledge and expertise.
- The presence of terms like "Mutual funds," "Small caps," and "Mid" suggests a customer interest in specific investment areas, indicating a desire for more specialized financial content.
- This reflects the diverse needs and interests of customers seeking financial information on social media.
- The word cloud emphasizes the customer's desire for practical, educational, and actionable financial content on social media.
- This highlights the potential for banks to leverage social media as a platform for delivering valuable financial information and fostering customer engagement.
- Banks should prioritize creating content that addresses customers' specific financial needs and interests, such as advice, tips, investment strategies, and budgeting tools.
- Understanding customer preferences for specific content types can help banks tailor their social media strategies to maximize engagement and build stronger relationships.

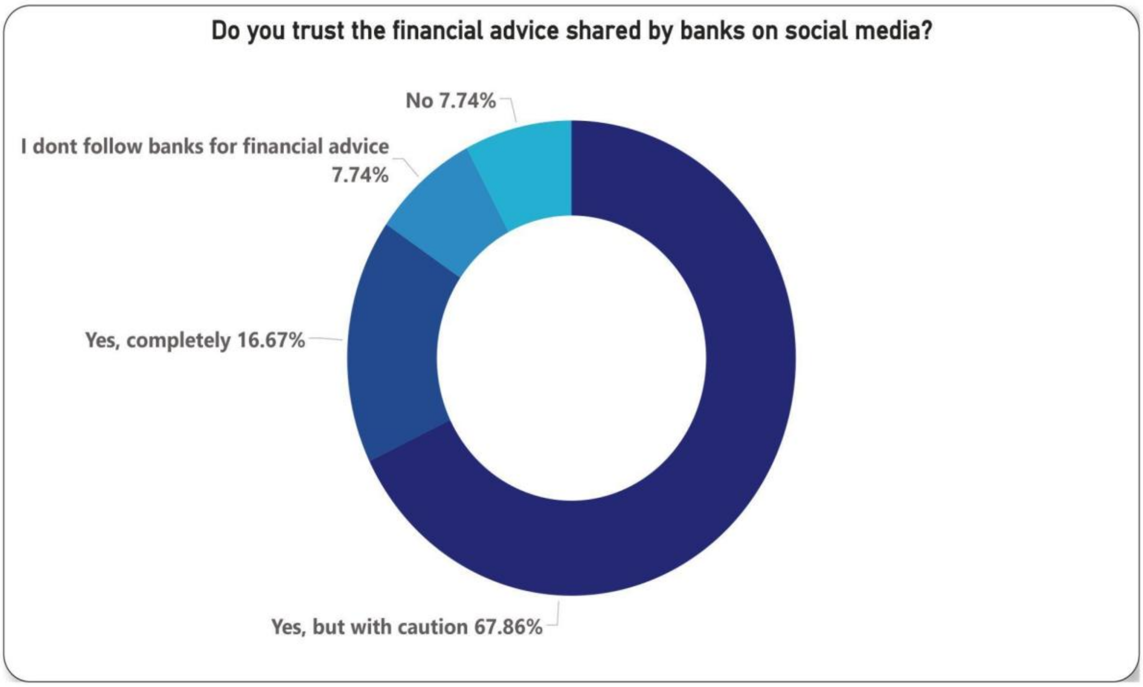

Fig 5(b).13 Trust on financial advice presented on social media

Inference -

- This chart illustrates the degree of trust customers place in financial advice disseminated by banks through social media channels, as indicated by respondent feedback.
- A substantial majority, 67.86%, of respondents indicate they "Yes, but with caution" trust the financial advice shared by banks on social media. This reveals a prevalent sentiment of cautious optimism, suggesting customers are receptive to bank advice but maintain a degree of scepticism.
- A smaller, yet notable, 16.67% of respondents express "Yes, completely" trust, highlighting a segment of customers who have strong confidence in banks' social media financial guidance.
- Conversely, 7.74% of respondents state "No" trust, indicating a group of customers who are wary of or dismissive of bank-provided financial advice on social media.
- Interestingly, another 7.74% of respondents report "I don't follow banks for financial advice," suggesting a segment of customers who seek financial guidance from alternative sources.
- The data underscores a prevailing trend of cautious trust, with a significant majority of customers acknowledging the value of bank advice but approaching it with a discerning mindset.
- This highlights the need for banks to prioritize transparency, accuracy, and credibility in their social media financial content to build and maintain customer trust.

- The presence of both complete trust and distrust emphasizes the diverse range of customer perceptions and the importance of tailored communication strategies.
- Banks should focus on providing clear, unbiased, and well-researched financial information to enhance customer confidence and mitigate scepticism.
- Understanding the nuances of customer trust can help banks refine their social media strategies to foster stronger relationships and deliver valuable financial guidance.
- This chart emphasizes the importance of banks establishing themselves as reliable sources of financial information on social media.

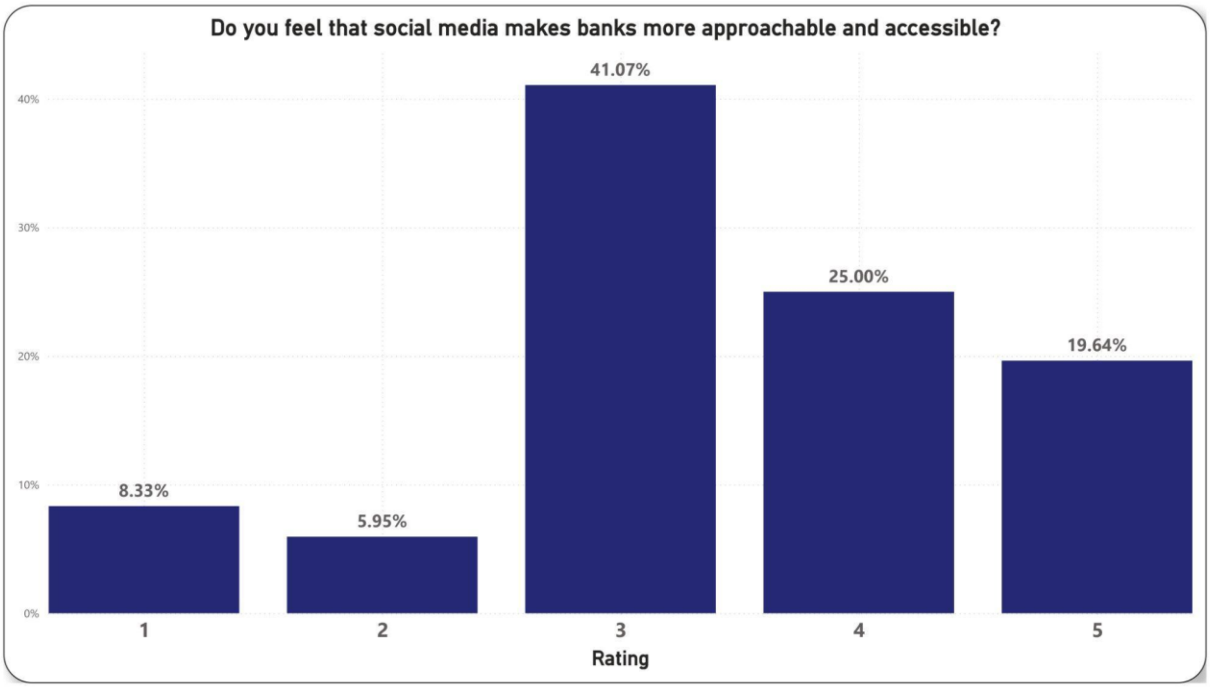

Fig 5(b).14 Approachability & Accessibility of banks because of Social Media

Inference -

- This chart quantifies customer sentiment regarding the perception that social media enhances the approachability and accessibility of banks, using a rating scale from 1 (lowest) to 5 (highest).
- A significant 41.07% of respondents rated their perception as a "3," indicating a neutral or moderate view on the impact of social media on bank accessibility. This suggests that a substantial portion of customers perceive social media as having a somewhat neutral impact.
- A noteworthy 25.00% of respondents rated their perception as a "4," highlighting a considerable segment of customers who perceive social media as having a positive influence on bank accessibility.
- Furthermore, 19.64% of respondents rated their perception as a "5," indicating a strong belief that social media significantly enhances bank approachability.
- Conversely, 8.33% of respondents rated their perception as a "1," signifying a segment of customers who perceive social media as having a negative impact on bank accessibility.
- Additionally, 5.95% of respondents rated their perception as a "2," further emphasizing the presence of negative perceptions, although to a lesser extent.
- The data reveals a distribution skewed towards the higher end of the rating scale, with a significant concentration of responses in the neutral and positive categories.

- This suggests that while a majority of customers perceive social media as having at least a neutral or positive impact on bank accessibility, there is still a notable segment that holds negative views.
- The high percentage of neutral responses indicates that banks have an opportunity to further demonstrate the accessibility benefits of their social media presence.
- Banks should consider strategies to enhance their social media engagement and improve customer perceptions, particularly among those who hold neutral or negative views.
- Understanding the factors contributing to negative perceptions can help banks tailor their social media strategies to better meet customer expectations.
- This chart highlights the importance of social media as a tool for enhancing bank accessibility and the need for banks to continuously improve their online presence.

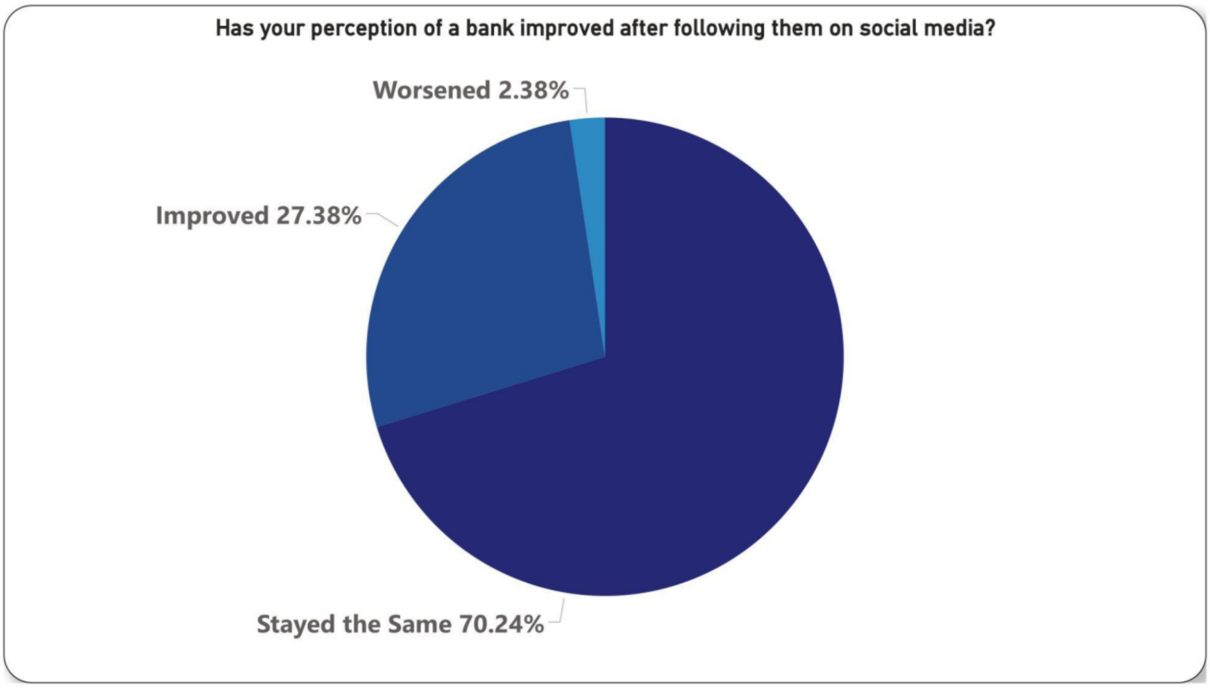

Fig 5(b).15 Change in Perception of bank due to social media

Inference -

- This chart illustrates the impact of following a bank on social media on customers' perception of that bank, categorized into improved, worsened, or unchanged perceptions.
- A substantial majority, 70.24%, of respondent's report that their perception of a bank has "Stayed the Same" after following them on social media. This suggests that while social media presence may not actively worsen perceptions, it often doesn't significantly alter pre-existing views for a large segment of customers.
- A notable 27.38% of respondents indicate that their perception of a bank has "Improved" after following them on social media. This highlights the potential for

social media to positively influence customer perceptions, potentially through engaging content, responsive interactions, or informative updates.

- Conversely, a small minority, 2.38%, of respondent's report that their perception of a bank has "Worsened" after following them on social media. This suggests that negative experiences or content on social media can adversely affect customer perceptions, albeit for a relatively small portion of the audience.
- The data underscores that while social media can enhance perceptions, it primarily maintains the status quo for a large majority of customers.
- This highlights the need for banks to focus on creating and sharing content that is not only engaging but also consistently positive and reflective of their brand values.
- The relatively low percentage of worsened perceptions suggests that significant negative impacts are rare, but still warrant attention to prevent potential damage to brand reputation.
- Banks should consider strategies to maximize the positive impact of their social media presence, such as providing valuable content, fostering meaningful interactions, and promptly addressing customer concerns.
- Understanding the factors contributing to improved or worsened perceptions can help banks refine their social media strategies to better connect with their target audience.
- This chart emphasizes the importance of consistent and positive social media engagement in maintaining and potentially enhancing customer perceptions.

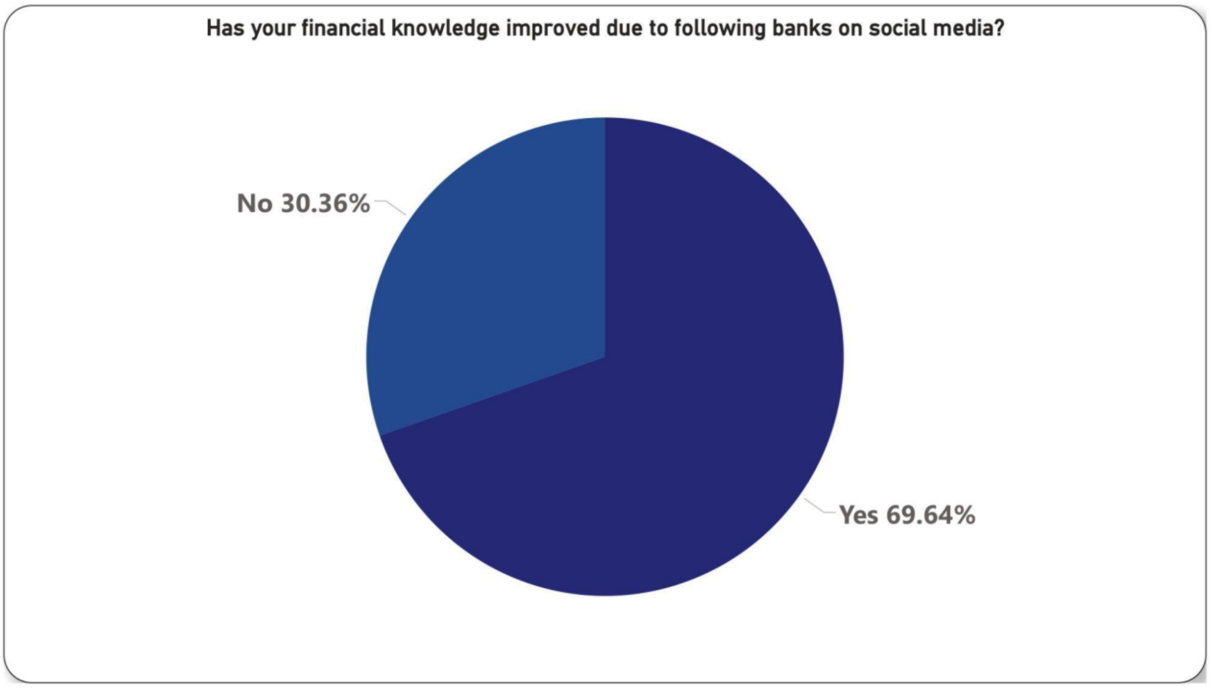

Fig 5(b).16 Improvement in Financial Knowledge due to Social Media

Inference -

- This chart quantifies the impact of following banks on social media on customers' financial knowledge, categorizing responses as "Yes" or "No."
- A significant majority, 69.64%, of respondent's report that their financial knowledge has "Yes" improved due to following banks on social media. This demonstrates a strong positive correlation between banks' social media presence and customers' perceived financial literacy.
- Conversely, 30.36% of respondents indicate that their financial knowledge has "No" improved, suggesting a segment of customers who do not perceive a positive impact on their financial understanding from following banks on social media.
- The data underscores the potential of social media as an educational tool for banks to enhance customers' financial literacy.
- This highlights the effectiveness of banks' social media content in delivering valuable financial information and insights to their audience.
- The high percentage of positive responses suggests that customers are receptive to and benefit from financial education provided through social media platforms.
- Banks should continue to prioritize creating and sharing informative content that addresses customers' financial needs and interests.
- Understanding the factors contributing to both positive and negative responses can help banks refine their social media strategies to maximize educational impact.
- This chart emphasizes the role of banks as trusted sources of financial information and the importance of leveraging social media to enhance customers' financial knowledge.

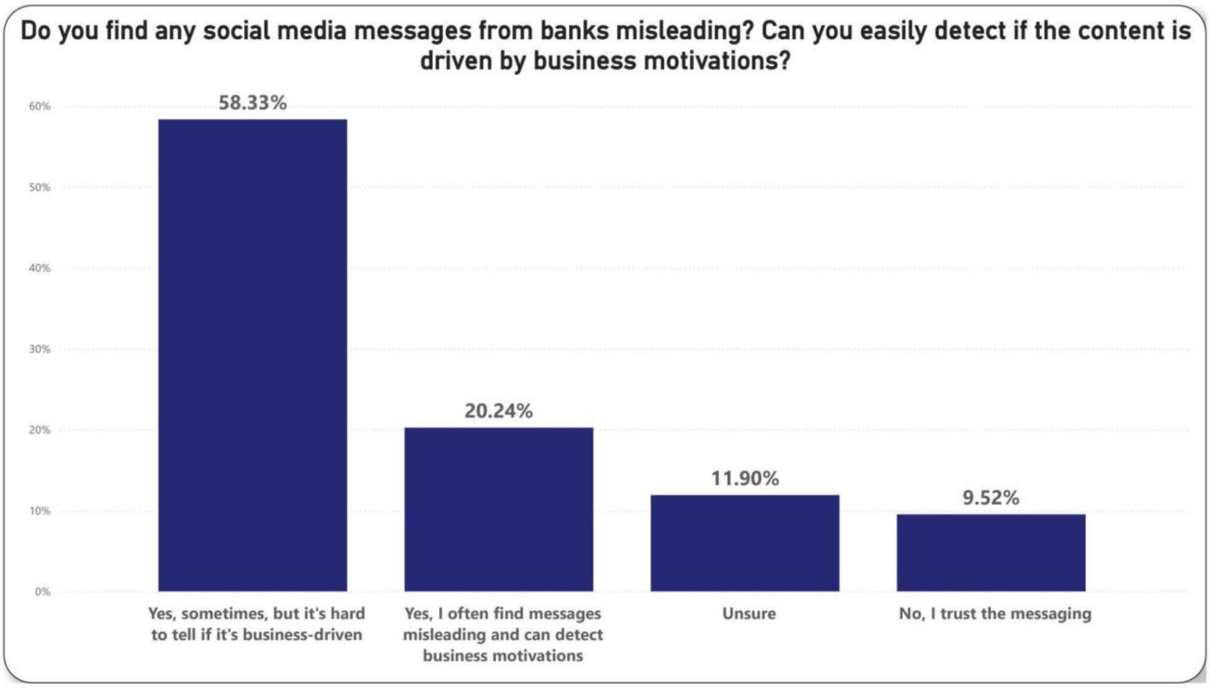

Fig 5(b).17 Trust on Social Media Messages

Inference -

- This chart elucidates customer perceptions regarding the transparency and trustworthiness of social media messages disseminated by banks, specifically focusing on whether customers find these messages misleading and can discern business motivations.
- A significant majority, 58.33%, of respondents indicate "Yes, sometimes, but it's hard to tell if it's business-driven," revealing a prevailing sentiment of cautious scepticism. This suggests that customers often suspect underlying business motives but struggle to definitively identify them.
- A notable 20.24% of respondents state "Yes, I often find messages misleading and can detect business motivations," highlighting a segment of customers who are acutely aware of and critical towards the business-driven nature of bank social media messages.
- Conversely, 9.52% of respondents report "No, I trust the messaging," indicating a minority of customers who have strong confidence in the authenticity and integrity of bank social media communications.
- Additionally, 11.90% of respondents are "Unsure," suggesting a segment of customers who are either ambivalent or lack a definitive opinion on the matter.
- The data underscores a prevalent trend of customer scepticism, with a significant majority expressing concerns about the transparency and objectivity of bank social media messages.
- This highlights the need for banks to prioritize clear, honest, and unbiased communication to build and maintain customer trust.
- The high percentage of respondents who find it difficult to discern business motivations suggests that banks should strive for greater transparency in their social media content.

- Banks should consider strategies to enhance the authenticity and credibility of their social media presence, such as providing clear disclaimers, citing reliable sources, or engaging in open and honest dialogue.
- Understanding the nuances of customer perception can help banks refine their social media strategies to foster stronger relationships and deliver trustworthy information.

CHAPTER 6.

FINDINGS, RECOMMENDATIONS AND SUGGESTIONS

6.1 Key Findings

The study reveals that social media has emerged as a powerful tool for financial outreach, customer engagement, and financial literacy dissemination in both private and public sector banks. The findings highlight that while social media is widely used, its adoption and impact vary across banks, customer segments, and geographical regions.

1. Role of Social Media in Financial Literacy

Social media platforms like YouTube, Facebook, and Twitter have become effective channels for financial literacy. Banks that actively post educational content, such as investment tips, loan application processes, and fraud prevention techniques, witness higher customer engagement. Customers exposed to such content demonstrate a better understanding of banking services, digital transactions, and investment opportunities. However, there is a risk of misinformation, as not all content is verified.

2. Differences in Social Media Usage Between Public and Private Sector Banks

Private sector banks exhibit a more proactive approach to social media marketing. They leverage interactive content, influencer collaborations, and AI-driven chatbots to enhance customer engagement. Public sector banks, despite recognizing the potential of social media, face challenges such as resource constraints, lack of trained personnel, and inconsistent content strategies.

3. Regional Disparities in Social Media Engagement

Urban areas like Mumbai and Pune display higher social media engagement levels, with customers frequently interacting with banks online. Rural areas, such as Raigarh and Nashik, show lower engagement, primarily due to limited digital literacy and internet accessibility. However, when rural customers receive targeted financial literacy campaigns, their engagement increases significantly.

4. Customer Engagement and Trust

Social media helps banks build stronger customer relationships by fostering direct communication and grievance redressal. Customers prefer banks that respond quickly to queries, address complaints effectively, and provide transparent financial guidance. Banks that actively engage on social media experience higher customer trust and loyalty.

5. Impact of social media on Banking Product Adoption

Social media marketing significantly influences customer decision-making regarding financial products such as loans, savings accounts, and investment options. Promotional campaigns that highlight ease of access, benefits, and real-life testimonials perform better. Banks that use targeted ads and personalized financial advice see higher conversion rates.

6.2 Recommendations

Based on the findings, the study suggests strategic improvements that banks can adopt to maximize the potential of social media in financial outreach and customer engagement.

1. Invest in Digital Training for Bank Employees

Banks, particularly in the public sector, should provide digital marketing and social media training to their employees. This will help staff understand how to create engaging content, interact with customers online, and address queries effectively.

2. Develop Region-Specific Social Media Strategies

Since urban and rural customers have different levels of digital literacy, banks should tailor their social media campaigns accordingly. Urban campaigns can focus on advanced financial products, while rural campaigns should emphasize basic financial literacy and government financial schemes.

3. **Improve Responsiveness and Customer Support on social media**
   Customers value prompt responses on social media. Banks should invest in AI chatbots, 24/7 customer support teams, and automated query resolution systems to improve response times and enhance customer satisfaction.

4. Strengthen Financial Education Content

Banks should prioritize educational content on social media to build financial literacy. Interactive formats such as live Q&A sessions, explainer videos, and infographics can help customers better understand complex financial concepts.

5.Address Security and Privacy Concerns

Many customers hesitate to engage with banks on social media due to cybersecurity concerns. Banks should actively promote their security measures, such as two-factor authentication and encrypted transactions, through social media campaigns.

6. Enhance Collaboration Between Banks and Influencers

Collaborating with financial influencers can help banks reach a wider audience and build trust. However, banks must ensure that influencers provide accurate and regulatory-compliant financial advice to prevent misinformation.

7. Utilize Data Analytics for Targeted Marketing

Social media analytics should be leveraged to track customer preferences, measure engagement levels, and optimize marketing campaigns. Banks can use AI-driven insights to personalize offers and improve customer experience.

6.3 Suggestions for Future Research

1. **Analyzing the Long-Term Impact of Social Media on Financial Inclusion**

   Future studies should examine how sustained social media engagement affects financial inclusion over time, particularly in rural and underserved regions.

2. **Comparative Study of Social Media Strategies Across Banks**

   A deeper comparison of Indian and international banking institutions' social media strategies can provide insights into global best practices.

3. **Role of Emerging Technologies in social media Banking**

The integration of AI, blockchain, and augmented reality in social media banking could be explored to assess their potential to enhance customer engagement and service delivery.

4. **Regulatory Challenges in Social Media Banking**

Given the evolving landscape of digital banking, future research should focus on the regulatory frameworks governing social media banking, including data privacy laws and compliance requirements.

6.4 Suggestions for Improving Social Media Metrics in Banking

To optimise the effectiveness of social media strategies, banks should focus on improving key performance metrics that influence customer engagement, brand trust, and financial literacy dissemination. Below are specific recommendations to enhance different social media performance indicators:

1. Improving Engagement Rate

Engagement rate is one of the most critical metrics in social media banking. It reflects how actively customers interact with the bank's content through likes, comments, shares, and direct messages.

Suggestions:

- **Create More Interactive Content:** Polls, quizzes, live Q&A sessions, and interactive infographics can encourage users to participate and engage more frequently.
- **Post at Optimal Times:** Banks should analyse customer activity data and post when engagement levels are highest (e.g., mornings for professionals, and evenings for general users).
- **Encourage User-Generated Content:** Customers sharing their experiences with bank services (e.g., testimonials, reviews) can boost engagement organically.
- **Host Live Webinars & Financial Literacy Sessions:** Live content tends to generate higher engagement than static posts.

2. Enhancing Popularity Index

The Popularity Index measures the relative performance of a bank's social media presence compared to competitors.

Suggestions:

- **Increase Collaboration with Financial Influencers:** Engaging credible financial influencers can improve brand awareness and organic reach.
- **Utilize Paid Social Media Campaigns:** Banks should invest in paid promotions on Facebook, Instagram, and LinkedIn to amplify their reach and maintain a strong presence.
- **Leverage Trending Topics & Hashtags:** Aligning social media posts with trending financial topics can improve visibility and engagement.
- **Consistently Update Content:** Regular posting schedules with high-quality, relevant content will help maintain and improve the bank's popularity ranking.

3. Improving Customer Response Rate and Time

Customer response rate measures how frequently banks respond to customer inquiries, while response time measures how quickly they do so.

Suggestions:

- **Implement AI-Powered Chatbots:** AI-driven chatbots can handle FAQs instantly, ensuring 24/7 response capabilities.
- **Train Social Media Support Teams:** A dedicated customer service team for social media inquiries can significantly improve response efficiency.
- **Set Automated Acknowledgments:** Customers should receive immediate acknowledgement messages with estimated response times.
- **Monitor Response Metrics Weekly:** Regular analysis of response time trends can help identify bottlenecks and improve efficiency.

4. Strengthening Sentiment Analysis & Customer Feedback Metrics

Sentiment analysis evaluates the tone of customer interactions (positive, neutral, negative), while feedback metrics assess satisfaction with banking services.

Suggestions:

- **Actively Monitor Brand Mentions & Sentiments:** Using AI-based social listening tools can help detect potential crises before they escalate.
- **Improve Transparency in Responses:** Address customer concerns openly and provide clear, step-by-step solutions in response to complaints.
- **Encourage Positive Reviews & Testimonials:** Satisfied customers should be encouraged to leave reviews, enhancing the overall sentiment score.
- **Analyze Negative Feedback for Service Improvements:** Banks should categorize negative feedback into themes and address them systematically.

5. Optimizing Click-Through Rate (CTR) on Marketing Campaigns

Click-through rate measures how often users click on a bank's social media links, ads, or promotions.

Suggestions:

- **Design Visually Appealing Ads:** High-quality graphics, compelling CTAs (Call-to-Actions), and clear messaging can improve CTR.
- **Use Personalized Ad Targeting:** AI-driven personalized recommendations can enhance ad relevance and increase the likelihood of clicks.
- **A/B Test Different Ad Formats:** Experimenting with carousel ads, video ads, and static image ads can reveal which format performs best.
- **Optimize Landing Pages:** Ensuring a seamless experience post-click (fast-loading, mobile-optimized pages) improves conversion rates.

6. Increasing Shareability and Virality of Content

The virality of social media content depends on how frequently it is shared by users.

Suggestions:

- **Encourage Referral & Incentive-Based Sharing:** Running referral contests or offering rewards for social media shares can boost content spread.
- **Produce Emotional & Relatable Content:** Content that connects with users on a personal level (e.g., success stories, financial tips) tends to be shared more.

- **Create Engaging Video Content:** Video content, especially short-form videos (Instagram Reels, YouTube Shorts), has higher shareability.
- **Leverage Influencer Endorsements:** Influencer-driven content has higher credibility and is more likely to be shared widely.

6.5 Challenges in Implementing Social Media Strategies in Banking

While social media presents numerous opportunities for banks, there are several challenges that hinder its full potential. Addressing these challenges is crucial for optimizing digital engagement.

1. Regulatory and Compliance Constraints

- Banks must comply with strict **financial regulations and data privacy laws** (e.g., GDPR, RBI guidelines) when using social media for customer interactions.
- Any miscommunication or misinformation on social platforms can lead to **legal liabilities and reputational damage**.

2. Cybersecurity Threats and Data Privacy Concerns

- Banks face **phishing attacks, impersonation frauds, and data breaches** when engaging with customers online.
- Customers may hesitate to discuss financial matters on social media due to **privacy concerns**.

3. Managing Customer Expectations

- Customers expect **instant responses** on social media, which can be challenging for banks with limited digital customer service resources.
- **Handling negative feedback publicly** requires a well-trained social media team to maintain a brand reputation.

4. Keeping Up with Rapidly Changing Social Media Trends

- The rise of new platforms (e.g., TikTok for financial education) and evolving algorithms make it challenging for banks to maintain visibility.
- Banks need to consistently adapt their strategies to remain relevant and competitive.

6.6 Future Trends in Social Media for Banking

Looking ahead, banks must prepare for emerging digital trends that will redefine customer engagement strategies.

1. Artificial Intelligence (AI) & Chatbots for Enhanced Customer Support

- AI-driven chatbots will become more sophisticated in handling complex customer inquiries in real time.
- **Natural Language Processing (NLP)** will allow chatbots to provide personalized financial recommendations.

2. Growth of Video & Interactive Content

- **Short-form video content (YouTube Shorts, Instagram Reels, TikTok)** will dominate financial education and product promotions.
- **Live streaming for banking Q&A sessions** and customer support will see increased adoption.

3. Expansion of Social Commerce in Banking

- Banks may integrate **social media payment options** directly into platforms like WhatsApp, Instagram, and Facebook.
- **Financial product recommendations** based on user behaviour will become more targeted.

4. Blockchain & Decentralized Finance (DeFi) Integration

- Social media platforms may begin to integrate **blockchain-based financial services**, offering decentralized banking solutions.
- **Banks can use NFTs & digital tokens** for loyalty programs and exclusive customer rewards.

5. Voice & Conversational Banking

- **Voice search optimization** will become crucial as customers increasingly use smart assistants (e.g., Alexa, Google Assistant) for banking queries.
- **Voice-activated financial transactions** will offer seamless customer experiences.

6.7 Industry Best Practices for Banks Using Social Media

To overcome challenges and align with future trends, banks should adopt best practices that maximize their digital presence.

1. Develop a Strong Social Media Governance Policy

- Clearly define **roles, responsibilities, and compliance protocols** for social media teams.
- Ensure **all social media posts adhere to financial regulations** and industry standards.

2. Prioritize Cybersecurity & Customer Privacy

- Implement **two-factor authentication** and encrypted communication for secure interactions.
- Educate customers on **safe banking practices** to prevent fraud and phishing scams.

3. Foster Community Engagement & Financial Literacy

- Build **exclusive online banking communities** where customers can discuss financial topics.
- Launch **digital financial literacy campaigns** tailored for different customer segments.

4. Optimize Customer Feedback Mechanisms

- Use **AI-powered sentiment analysis tools** to track public perception and brand sentiment.
- Create a **real-time feedback loop** to address customer grievances efficiently.

5. Integrate Social Media with Omni-Channel Banking

- Ensure a seamless customer experience across websites, mobile apps, and social media.
- Provide personalized financial solutions by leveraging customer data insights from multiple digital touchpoints.

CHAPTER 7

CONCLUSION

7.1 Overview of the Study

The increasing digitization of the banking sector has transformed how financial institutions interact with customers, provide services, and market their products. Social media has emerged as a powerful tool for customer engagement, financial literacy, and brand positioning. This study explored how banks, particularly public and private sector banks, utilize Facebook, Twitter, LinkedIn, Instagram, YouTube, and other digital platforms to reach customers, enhance financial awareness, and improve service accessibility.

Through an in-depth literature review, case study analysis, and social media performance assessment, the study examined the effectiveness of social media strategies in banking. The findings reveal that while social media offers unparalleled opportunities for banks, its success depends on customer-centric engagement, innovative marketing approaches, timely responsiveness, and adherence to regulatory compliance.

Furthermore, this study identified significant differences in social media adoption between public and private banks, evaluated the effectiveness of digital financial literacy programs, and assessed the role of social media analytics in improving customer experience. The key recommendations include the need for targeted content strategies, AI-driven customer support, improved cybersecurity, and data-driven decision-making to optimize social media engagement.

7.2 Key Findings and Takeaways

This study provides valuable insights into the use of **social media in modern banking**, highlighting its impact, challenges, and future directions.

1. **Social media is a Game-Changer in Banking**

    - Banks that actively engage with customers on social media witness **higher brand loyalty, improved customer trust, and increased service adoption rates**.

- Social media enables banks to **educate, inform, and interact** with customers beyond traditional banking channels.

2. **Customer Engagement is the Key to Digital Success**
   - Higher **engagement rates** are linked to improved **customer satisfaction and brand advocacy**.
   - Customers prefer banks that **respond promptly**, provide **personalized interactions**, and offer **real-time financial guidance**.

3. **Financial Literacy Can Be Improved via Social Media**
   - Banks that invest in **financial education campaigns** witness **greater adoption of financial products and better decision-making among customers**.
   - Engaging content formats such as **videos, live Q&As, infographics, and expert discussions** significantly improve financial literacy levels.

4. **Challenges in Digital Banking Transformation**
   - **Public sector banks face more difficulties** in adopting social media due to **bureaucratic hurdles, limited budgets, and lower digital literacy**.
   - **Cybersecurity risks and misinformation** remain significant threats to social media banking.

5. **Continuous Optimization of Social Media Strategies is Necessary**
   - **AI-driven analytics, chatbots, and influencer collaborations** can enhance engagement.
   - **Performance tracking through social media analytics** allows banks to refine marketing efforts for better results.

7.3 Differences Between Public and Private Banks in Social Media Usage

The study highlights significant differences in **social media strategies** between public and private banks:

1. Digital Adoption and Strategy

Aspect	Public Sector Banks	Private Sector Banks
Social Media Strategy	Conservative, slower adoption.	Highly proactive and aggressive in digital marketing.
Marketing Focus	Financial inclusion and government schemes.	Customer acquisition, brand differentiation, and premium banking services.
Innovation	Limited interactive content.	AI-driven chatbots, influencer collaborations, gamification.

Private banks are leading in digital innovation, using **AI and interactive marketing techniques**, while **public banks focus more on government financial schemes and traditional financial literacy campaigns**.

2. Customer Engagement and Responsiveness

Aspect	Public Sector Banks	Private Sector Banks
Response Time	Slower due to bureaucratic processes.	Faster, AI-driven real-time responses.
Interaction Style	More formal, structured.	Personalized and engaging.
Complaint Resolution	Often requires branch visits.	Mostly handled online.

Private banks use **real-time customer service tools and AI chatbots**, while **public banks rely on traditional service methods**, leading to slower response times.

3. Use of Social Media Metrics & Analytics

Aspect	Public Sector Banks	Private Sector Banks
Engagement Rate	Lower due to passive strategies.	High due to interactive campaigns.
Use of Analytics	Minimal use of AI-driven customer insights.	Advanced analytics, social listening, and predictive marketing.
Advertising Strategy	Mostly organic content.	Heavy reliance on paid promotions.

Private banks leverage **AI-based insights, real-time analytics, and targeted ads**, while **public banks need to strengthen data-driven marketing strategies**.

4. Cybersecurity and Trust

Aspect	Public Sector Banks	Private Sector Banks
Customer Trust	Higher due to government backing.	Stronger in digital security but needs transparency.
Compliance	Strict adherence to regulations.	More flexible in adopting new tech.
Cybersecurity Measures	Slower adoption of AI-based fraud detection.	Proactive cybersecurity tools and encryption.

Public banks are highly trusted but must **modernize their cybersecurity and digital trust-building mechanisms**.

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ANNEXURES

1 Survey Questionnaire

The following survey was conducted among bank customers and bank officials to analyze the impact of social media in financial outreach and customer engagement. The responses provide insights into social media usage patterns, customer preferences, and banking institutions' digital strategies.

1.1 QUESTIONNAIRE FOR BANK CUSTOMERS

Demographics

1. What is your age group?
   - 18-24
   - 25-34
   - 35-44
   - 45 and above
2. What is your gender?
   - Male
   - Female
   - Other
3. What is your location type?
   - Urban
   - Suburban
   - Rural
4. What is your education level?
   - High School
   - Bachelor's Degree
   - Master's Degree
   - Other
5. What is your occupation?
   - Student
   - Employed

- Self-employed
- Retired

Social Media Usage

6. Which social media platforms do you primarily use? (Select all that apply)
   - Facebook
   - Instagram
   - LinkedIn
   - X (Twitter)
   - WhatsApp
   - YouTube
7. How frequently do you come across banking or financial content on social media?
   - Daily
   - Weekly
   - Monthly
   - Rarely
   - Never
8. What types of banking or financial content do you engage with the most? (Select all that apply)
   - Financial Tips
   - Product Launches
   - Educational Content
   - Customer Service Information
   - Offers/Promotions

Perceptions & Engagement

9. How do you perceive banks' use of social media?
   - Positive
   - Neutral
   - Negative
10. What factors most influence your perception of a bank's social media presence? (Select all that apply)
    - Educational and informative content

    - Promotions and offers
    - Responsiveness to customer inquiries
    - About new financial products
11. Do you use a bank's mobile app more frequently after seeing its promotion on social media? (Yes/No)
12. Have you ever taken advantage of a financial product or service because you learned about it on social media? (Yes/No)
13. What security concerns do you have about interacting with banks on social media? (Select all that apply)
    - Privacy of personal information
    - Phishing or scams
14. Do you think banks should use social media for more than just marketing (e.g., for customer support, financial education, etc.)? (Yes/No)
15. Do you choose to partner with a bank based on its social media messaging?
    - Yes, social media messaging is a key factor for me
    - No, social media messaging does not influence my decision
    - Unsure
16. Which bank has the most appealing social media presence to you and why?
17. Do you find any social media messages from banks misleading? Can you detect business-driven content?
18. Do you feel that social media makes banks more approachable and accessible?

1.2 QUESTIONNAIRE FOR BANK OFFICIALS

General Information

1. What is your bank name and branch?
2. What type of bank do you work for?
    - Public Sector Bank
    - Private Sector Bank
3. What is your role/position?
4. Duration of employment?

Social Media Strategy

5. How does your bank currently utilize social media? (Select all that apply)
   - Customer service
   - Marketing promotions
   - Educational content
   - CSR activities
6. Which social media platforms does your bank actively use for customer engagement? (Select all that apply)
   - Facebook
   - Twitter
   - Instagram
   - LinkedIn
7. How does your bank measure the effectiveness of its social media strategy?
8. How often does your bank post content on social media?
   - Daily
   - Weekly
   - Monthly
9. Does your bank outsource social media activities, such as content creation or strategy development? (Yes/No)
10. How important is social media in the bank's overall marketing and communication strategy?
11. What is the conversion rate (percentage of social media followers who become bank customers)?
12. How does your bank track the return on investment (ROI) for social media marketing efforts?
13. What KPIs (Key Performance Indicators) does your bank use to measure social media success?
14. How satisfied are you with your bank's current social media performance? (Scale: 1 to 5)
15. How do you think the role of social media will evolve in banking over the next 5 years?
16. What platforms do you think will dominate the banking industry's social media landscape in the future?

17. How important is influencer marketing for banks? Has your bank explored this area?
18. If you could suggest one thing to improve your bank's social media efforts, what would it be?

2 Case Studies & Reports

- IDBI Bank's Father's Day Social Media Campaign (2020) – Emotional storytelling campaign.
- BankBazaar's Personalized Social Media Campaign – AI-driven engagement campaign.
- Retail Investment Banks Using social media – How investment banks leverage digital platforms.
- Digital Banking Engagement Trends – AI-driven chatbot implementations.
- The Role of social media in Banking Customer Engagement – Social media optimization insights.
- How Executives Use LinkedIn for Investor Relations – Banking leaders' engagement strategies.

3 Formulas Used in Data Analysis

- **The formula for the Popularity Index**

  = (Engagement * Sentiment) / (Time * Competition)
- **The formula for Popularity Score**

  = (Engagement * Sentiment) + Reach / Time
- **The formula for User Engagement Rate**

  (Total Interactions / Total Impressions) * 100

4 Additional Data & Statistics

- Regional Disparities in Social Media Engagement – Urban vs. rural banking customers' online interactions.
- Customer Sentiment Analysis – Trust and satisfaction trends from social media interactions.
- Social Media Marketing Effectiveness – Success evaluation based on engagement rates.