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Analysis Of Bank Mandiri's Digital Communication Strategies In Enhancing Transaction Security Education To Prevent Cybercrime

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Abstract

This study aims to analyze Bank Mandiri's digital communication strategy in improving banking transaction security education and to examine its effectiveness in increasing customers' awareness and understanding of cyber threats. The study is motivated by the growing use of digital banking services, which is accompanied by increasing cybersecurity risks such as phishing, OTP misuse, fake links, malware, and social engineering. This research employed a descriptive qualitative approach, with data collected through interviews, documentation, and relevant literature review. The findings show that Bank Mandiri's digital communication strategy is implemented through simple, clear, and consistent messages distributed across various digital channels, including application notifications, social media, educational articles, campaign videos, newsletters, e-learning, and other official communication platforms. The educational messages most easily understood by customers are related to the prohibition of sharing OTP, PIN, personal data, and the need to be cautious of suspicious links. This multi-channel strategy has helped improve customer awareness of the importance of protecting personal data and being careful when conducting digital transactions. However, the effectiveness of the communication strategy still needs to be strengthened through segmentation, personalization, and interactivity, particularly for customers with different levels of digital literacy. This study concludes that Bank Mandiri's digital communication strategy plays an important role in banking transaction security education. Nevertheless, it needs to be further developed into a more adaptive,

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interactive, and sustainable approach so that it not only improves customer understanding but also encourages safer behavior in the use of digital banking services.

Keywords: digital communication, security education, digital literacy, digital banking, cybercrime

INTRODUCTION

The development of banking digitalization has transformed the way people access and manage financial services. Convenience, speed, and efficiency have driven the increasing adoption of digital services such as mobile banking, internet banking, e-channels, and contactless payments. Bank Mandiri, as one of Indonesia's major banks, has also strengthened its digital transformation through the development of services such as Livin' by Mandiri, internet banking, the modernization of e-channels, and the enhancement of cybersecurity systems. The growing use of digital banking services indicates that banking transformation is not solely focused on technological aspects but also on users' readiness to understand the security risks associated with digital transactions.

Behind the growth of these digital services, cyber threats have emerged as a serious challenge for the banking industry. Bank Mandiri faces millions of attempted cyberattacks every day, while national reports have also indicated a significant increase in cyberattacks in Indonesia. Threats such as phishing, malware, SIM swapping, fraudulent links, and OTP misuse demonstrate that weaknesses in digital security do not lie solely within technological systems but also involve human factors, including both customers and employees. Therefore, banking security education is an essential component of consumer protection, particularly in ensuring that customers not only receive security-related information but are also able to understand and apply it in their digital transaction activities.

Bank Mandiri has implemented various digital communication strategies to enhance security awareness, including newsletters, posters, podcasts, e-learning, phishing simulations, social media, official websites, mobile applications, email, and the MITA WhatsApp chatbot. These strategies are also aligned with the efforts of the Financial Services Authority (OJK) and Bank Indonesia to strengthen financial literacy and consumer protection in digital transactions. However, several studies indicate that digital security communication still needs to be further developed to become more personalized, interactive, structured, and responsive to audience characteristics. This

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issue is particularly important because users of digital banking services come from different generations, especially Generation Z and Baby Boomers, who differ in their patterns of technology use, levels of trust, and educational needs.

Generation Z, as digital natives, tends to be highly familiar with technology but may also be vulnerable to digital manipulation due to their extensive exposure to social media, online information, and increasingly sophisticated fraud schemes. For this group, security education needs to be presented in an interactive, engaging, and emotionally relevant manner to foster a sense of security and increase user engagement. In contrast, Baby Boomers tend to be more cautious and conservative and require communication approaches that are simple, clear, easily accessible, and strongly emphasize trust. These differences in characteristics indicate the need for digital communication strategies that are not uniform but instead based on generational audience segmentation.

The research gap lies in the limited number of studies specifically examining digital banking communication strategies for improving security literacy while taking into account differences in the characteristics of user generations. Most existing security approaches continue to focus on technological systems or general educational campaigns, while human-centered communication and audience segmentation have received comparatively limited in-depth attention. Therefore, the novelty of this study lies in developing a generationally segmented digital communication strategy framework, particularly by comparing the security education needs of Generation Z and Baby Boomers in the context of Bank Mandiri's digital banking services.

Based on the foregoing discussion, this study aims to analyze Bank Mandiri's digital communication strategies for improving banking security literacy, identify the extent to which these strategies align with the characteristics of Generation Z and Baby Boomers, and formulate recommendations for a more adaptive, interactive, and sustainable digital communication framework. The findings are expected to provide practical contributions to the banking sector in designing more effective security education initiatives, while also contributing academically to the fields of digital communication, security literacy, and consumer protection in the era of digital banking transformation.

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LITERATURE REVIEW

Digital Communication

Digital communication refers to the process of exchanging information between communicators through digital media such as the internet, computers, and mobile devices, with characteristics that differ significantly from traditional communication. Digital media enables messages to be delivered not only quickly and efficiently but also presented in an engaging format through the integration of text, audio, video, and graphics. According to Priyono (2022), digital communication enables high-speed message transfer, greater added value of information, and unique mechanical capabilities that can combine information and present it in an engaging manner, thereby producing higher-quality information products.

Communication Strategy

Communication strategy can be viewed as a communication plan deliberately formulated to achieve certain effects effectively and efficiently. In an organizational context, this strategy involves the most appropriate combination of communication elements, such as the communicator, message, channel, and receiver, which are selected and arranged in such a way as to achieve the intended communication objectives. Furthermore, Onong Uchjana Effendy argues that communication strategy represents a measurable combination of communication planning and communication management, adapted to the situational conditions of the audience to enhance interaction effectiveness (Zamzami, 2021).

Education

Education can be understood as a deliberate and structured effort to shape an individual's attitudes, knowledge, and behavior toward maturity. According to the understanding provided by the *Kamus Besar Bahasa Indonesia* (KBBI), education encompasses processes that change the attitudes and behavior of individuals or groups through planned teaching and training. Several researchers provide similar definitions, including Sukatin et al. (2022), who describe education as conscious guidance for physical and spiritual development, and Saputra (2022), who emphasizes education as an effort by more mature individuals to guide others toward maturity. Another perspective offered by Maulani (2025) views education as a dynamic process of behavioral change that involves not merely the transfer of theoretical knowledge but also changes in individual and societal awareness.

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Financial Literacy

Financial literacy refers to an individual's ability to obtain, understand, and effectively use financial knowledge and information when making appropriate financial decisions. Muslim et al. (2025) explain that financial literacy encompasses knowledge of financial facts, concepts, principles, and technologies that help individuals manage money wisely. Prihatini et al. (2025) further add that financial literacy also involves awareness, skills, and habits that support appropriate financial decision-making to achieve satisfactory financial conditions. In addition, Kulintang (2024) defines financial literacy as the ability to obtain, understand, and evaluate relevant information, as well as to understand the financial consequences of every decision made.

Cybercrime

Cybercrime, which is often referred to in the literature as computer crime or cybercrime, is a criminal act that utilizes computer technology and networks as the primary tools or targets of criminal activities. This term encompasses various unlawful actions carried out through the illegal use of computers or information systems, such as unauthorized access, data theft, system damage, or malware distribution (Habibi, 2020). Suhaemin (2021) describes computer crime as criminal activity occurring within the virtual internet community, distinguishing it from crimes committed in the physical world. Habibi (2020) further expands this definition by describing cybercrime as criminal activity that uses computers or computer networks as weapons, targets, or locations in which crimes are committed.

Previous Studies

1. A study conducted by Rista Azimatul Musyayadah and Monica Margaret in 2024, entitled *Strategies for Preventing Sniffing Crimes in M-Banking through WhatsApp by Banking Institutions*, stated that the development of communication technologies such as WhatsApp not only provides positive benefits by facilitating faster interaction but also creates opportunities for cybercrime. One method used by cybercriminals is sniffing, which involves attempts to steal personal and financial data through the manipulation of messages or malicious links. This study employed a descriptive qualitative method, with data collected through interviews and a literature review. The findings showed that users' low level of understanding of digital security is a major factor contributing to their vulnerability to sniffing attacks. Therefore, banking institutions are considered to have an important role

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in providing continuous education and socialization to customers so that they become more aware of potential threats. In addition to education, the study emphasized that banks need to improve their internal security systems, strengthen early detection of suspicious activities, and conduct regular security checks to ensure the protection of customer transactions. The study confirms that prevention strategies should be implemented through two approaches: strengthening customers' digital literacy and optimizing technological security within banking institutions, so that sniffing crimes in the digital era can be minimized.

2. A study conducted by Revalina Annisa Antoine, Najalya Siti Farizqa, Alifia Hafizha Hasna, and Masta Pasaribu in 2025, entitled *Misuse of Personal Data in Digital Transaction Technology in the Digital Banking Industry (A Case Study of PT Bank Syariah Indonesia)*, stated that the increasing adoption of digital banking services in Indonesia has also increased the risk of customer data breaches. The 2023 data breach case involving PT Bank Syariah Indonesia demonstrated that weak supervision, human negligence, and cyberattacks were the main causes of personal data misuse. This study employed a normative legal method by examining relevant regulations, including Law No. 27 of 2022 on Personal Data Protection, and comparing their implementation with practices in the field. The analysis showed that although regulations are already in place, weak supervision and inconsistent compliance with security procedures continue to create high levels of vulnerability. The study proposed several solutions, including strengthening digital security systems, updating regulations in accordance with technological developments, and increasing awareness among customers and bank employees regarding the importance of protecting personal data. Thus, the findings emphasize the importance of collaboration among regulators, financial institutions, and the public to prevent similar cases in the future and maintain customer trust in digital banking services.
3. A study conducted by Arfian Suryasuciramdhan, Dias Suminta Suria Putra, Anton Bahtiar Rifa'i, and Fithrotul Kamilah in 2024, entitled *The Role of Public Relations Media: Increasing Customer Awareness of Cybersecurity through the Web Series "Nurut Apa Kata Mama"*, stated that creative communication media can serve as an effective means of increasing public awareness of digital security. This study focused on the communication strategy implemented by Bank Central Asia (BCA) through an educational web series entitled *Nurut Apa Kata Mama*, which was

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broadcast on the Solusi BCA YouTube channel. Using a descriptive qualitative research method based on a literature review, the study examined how messages delivered through entertainment media can be more easily received by customers compared with conventional campaigns. The findings showed that the web series was able to increase BCA customers' awareness of cybercrime threats, particularly mobile banking fraud in which perpetrators impersonate official bank representatives. Through a persuasive communication approach, BCA successfully encouraged customers to exercise greater caution when receiving messages from unfamiliar sources. The study concluded that the use of public relations media based on educational entertainment is effective in building cybersecurity awareness because messages can be delivered in a light and easy-to-understand manner while remaining meaningful. Thus, creative communication strategies through digital media can serve as a model that can be adopted by other banking institutions to improve customers' digital security literacy.

4. A study conducted by Dwi Cahyono, Rifqi Fahrudin, and Amelia Sinclair in 2024, entitled *The Importance of Education in Addressing Mobile Banking Data Security in Indonesia*, stated that technology is not the only key factor in maintaining digital security; user awareness is equally important. This study employed a descriptive qualitative method involving a survey of 200 mobile banking users and interviews with 10 security experts from several major banks in Indonesia. The findings showed that 65% of users had experienced phishing attacks, while another 50% were concerned about malware, indicating a low level of digital security literacy among the public. The study highlighted the importance of continuous education in equipping customers with practical knowledge of security practices, such as the use of multifactor authentication, biometric technology, and end-to-end encryption. The study also emphasized the need for regular training for bank employees so that they can provide secure digital services. Its main recommendation was that banks should allocate specific investments to customer education programs through direct outreach, digital media, and continuous online training. Thus, education serves as a strategic measure to strengthen mobile banking data protection in Indonesia while simultaneously building public trust in digital banking services.
5. A study conducted by Agrena Rahayu, Haslindah, and Muhammad Fakhri Amir in 2025, entitled *Analysis of Customers' Understanding of Digital Literacy in*

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Preventing Cybercrime in Islamic Banking (A Study of BSI Customers in Bone Regency), stated that low digital literacy is a major factor contributing to people's vulnerability to cybercrime. Using a qualitative approach through interviews and documentation, the study found that the majority of Bank Syariah Indonesia (BSI) customers in Bone Regency did not fully understand various cyber threats and preventive measures. The lack of education provided by the bank, combined with limited access to digital literacy information, exacerbated the situation, leaving many customers vulnerable to cybercrime practices such as phishing and other forms of digital fraud. The study emphasized that banking institutions should actively organize comprehensive and inclusive digital literacy programs through seminars, regular outreach activities, and the use of digital media. This education is intended not only to increase customer awareness but also to enable them to use digital banking services safely and effectively. Thus, the study confirms that digital literacy is not merely a supporting factor but a key element in cybercrime prevention strategies in the Islamic banking sector, as well as an important foundation for building customer trust in digital financial services in the future.

Discussion

Conceptual Framework



Figure 1. Conceptual Framework

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Methodology

Paradigm

The research paradigm is a philosophical framework used to understand the phenomenon under study. This research adopts an interpretive/constructivist paradigm, which views reality as subjective and constructed through individual experiences and social contexts. According to Sugiyono (2017), the paradigm determines the direction of research, data collection, and analysis.

In the context of Bank Mandiri's digital communication strategy for transaction security education, this paradigm focuses on how customers interpret digital educational messages, understand transaction security, and apply preventive measures against cybercrime. It also considers differences in digital literacy, attitudes toward digital security, and personal experiences. Thus, the interpretive paradigm enables an in-depth understanding of customers' perceptions and experiences in receiving digital security education.

Approach

This research employs a qualitative approach, which is consistent with the interpretive paradigm. The approach aims to understand customers' experiences, perceptions, and interpretations of digital transaction security education rather than focusing solely on numerical measurements.

Data are collected through in-depth interviews, observations, and document analysis. These techniques enable the researcher to identify patterns, themes, and meanings related to the effectiveness of Bank Mandiri's digital communication strategy. The qualitative approach also provides flexibility in understanding differences in customers' backgrounds, digital literacy, and experiences.

Method

The research uses a descriptive qualitative method to explore Bank Mandiri's digital communication practices, including educational content on social media, banking applications, tutorial videos, and digital newsletters. The method examines message effectiveness, communication styles, frequency of delivery, and customer responses.

Data are obtained through in-depth interviews, participant observation, and document analysis. The collected data are systematically processed through coding, categorization, and theme identification to describe the factors influencing the effectiveness of digital transaction security education.

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Strategy

The research strategy employed is a case study, which enables an in-depth and comprehensive examination of Bank Mandiri's digital communication strategy in its real-life context. The study focuses on how the bank plans and implements digital security education and how customers respond to the messages.

Data are obtained from multiple sources, including customer and staff interviews, observations of digital content, and relevant documents. This strategy provides a holistic understanding of communication planning, media selection, message delivery, and customer reception. It also helps identify effective practices, communication barriers, and opportunities for improving digital security education.

Data Collection Techniques

Data collection is conducted through three main stages: informant selection, conceptualization, and collection of primary and secondary data.

First, informants are selected based on their relevance and knowledge of digital communication and transaction security education. They include Bank Mandiri customers with different levels of digital literacy, communication or digital marketing staff, and personnel involved in developing digital educational content. Purposive sampling is used to select informants with relevant experience or knowledge.

Second, conceptualization determines the main research focus, including digital communication strategies, educational content, communication media, customer responses, and the impact of education on transaction security behavior.

Third, primary data are collected through in-depth interviews, observations, and discussions, while secondary data are obtained from relevant documents, educational campaign materials, articles, and literature concerning cybercrime and digital literacy.

Data Processing Techniques

Data processing involves organizing and coding raw data before analysis. The process uses open, axial, and selective coding.

Open coding identifies and labels relevant information from interviews, observations, and documents, such as customer understanding and educational barriers. Axial coding connects related codes into broader categories, such as the effectiveness of educational communication. Selective coding identifies the main categories relevant to the research objectives, including effective digital communication strategies, media, content, delivery frequency, and customer responses.

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The process is iterative, allowing the researcher to review and revise codes to maintain consistency and accuracy.

Data Analysis Techniques

Data analysis is conducted using narrative, thematic, and categorical analysis. Narrative analysis organizes informants' experiences into coherent descriptions to understand their perceptions and experiences of digital security education.

Thematic analysis identifies major themes, such as the effectiveness of digital educational content, digital literacy barriers, and customer responses to security messages. Categorical analysis groups data into systematic categories, such as communication media, customer responses, and educational effectiveness.

The analysis is conducted iteratively to identify patterns and relationships and to produce an in-depth understanding of factors influencing the effectiveness of Bank Mandiri's digital communication strategy.

Data Presentation Techniques

The research findings are presented through narrative descriptions, tables, and diagrams. Narrative descriptions explain customers' and Bank Mandiri staff members' experiences and perceptions, while tables and diagrams summarize themes, categories, communication patterns, and relationships among findings.

Direct interview quotations are also presented to strengthen the empirical evidence and credibility of the findings. The presentation is organized systematically from the description of the phenomenon and major themes to the interpretation of findings, making the results clear and applicable.

Data Confirmation Techniques

Data confirmation is conducted to ensure the credibility, validity, and trustworthiness of the findings. The main technique is triangulation, which compares information obtained from customer interviews, digital content observations, and relevant documents.

The study also considers transferability by providing detailed descriptions of the research context, informant characteristics, and communication strategies. Member checking is used to confirm whether the researcher's interpretation reflects the informants' experiences, while an audit trail documents the research process systematically.

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These techniques strengthen the credibility and accountability of the findings and ensure that the analysis of Bank Mandiri's digital communication strategy provides relevant insights for improving transaction security education and preventing cybercrime.

RESEARCH FINDINGS

Overview of the Forms and Channels of Bank Mandiri's Digital Communication Strategy in Transaction Security Education

Digital communication strategies have become an essential part of modern banking efforts to reach customers effectively, particularly in the context of digital transaction security education. Bank Mandiri, as one of the largest banks in Indonesia, consistently develops and implements comprehensive digital communication strategies to raise customer awareness of the importance of banking transaction security in the digital era. The rapid digital transformation has changed the way banks interact with customers, shifting from traditional channels to digital platforms such as mobile applications, social media, websites, email, and educational content-based campaigns. Through these digital communication strategies, Bank Mandiri seeks to deliver transaction security messages in an appropriate, relevant, and easily understandable manner to various customer segments across Indonesia.

Bank Mandiri utilizes its website and YouTube channel as major channels for its digital communication. Through these platforms, the bank not only provides banking transaction services but also offers educational content related to security, tips for protecting personal data, and guidelines for preventing digital fraud. Bank Mandiri also expands its digital communication channels through its official educational website, which features #JagaBaikBaik content and articles discussing the latest fraud schemes and ways to protect customers' personal information. Through an informative and preventive content approach, this strategy aims to improve customers' digital literacy while reducing the risk of cybercrime threats to users of digital banking services.

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Figure 2. Bank Mandiri's Official Website

In addition to its official website, Bank Mandiri also utilizes various digital platforms to reach a wider audience. The use of social media platforms, such as Instagram and TikTok, is part of the bank's digital communication strategy for delivering educational content in more engaging visual formats, such as short videos, infographics, and interactive content. This visual approach enables Bank Mandiri to explain complex security concepts in a simpler form, making them easier to understand for customers from different age groups and levels of digital literacy. Creative and interactive digital content is also expected to increase audience engagement, expand the reach of educational messages, and build stronger awareness of cyber risks (Maulana, 2025).

In the context of external communication, Bank Mandiri also utilizes digital channels such as email marketing, application notifications, and SMS to deliver personalized and direct security messages to customers. Through push notifications on the Livin' by Mandiri application, the bank can provide real-time messages regarding security threats, tips for securing accounts, or warnings against sharing sensitive data with unauthorized parties. This strategy is important to ensure that security messages are not communicated only once but are continuously reinforced among customers, so that safe behavior becomes a habit when conducting digital transactions.

Bank Mandiri also implements a Customer Relationship Management (CRM) approach in its digital educational campaigns. This CRM strategy includes community-based campaigns, video tutorials, and educational programs aimed at improving customers' digital literacy. By combining educational and marketing elements, the bank

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can build long-term relationships with customers, increase trust, and encourage broader adoption of digital banking services. Nevertheless, challenges such as varying levels of digital literacy across different regions and technological limitations among certain customer groups remain obstacles that need to be addressed through adaptive and continuously evolving communication strategies (Wulandari et al., 2025).

Another form of Bank Mandiri's digital communication strategy in educating customers about banking transaction security is the use of YouTube as an audiovisual information platform. Through educational video content, such as the "Jaga Baik-baik Data Berharga" campaign, Bank Mandiri seeks to deliver security messages in a more engaging, interactive, and easily understandable manner to customers from diverse backgrounds.



Figure 3. Bank Mandiri's Official YouTube Channel

The use of YouTube as a digital communication channel offers the advantage of simultaneously combining visual and audio elements, thereby enabling complex transaction security concepts to be explained in a simpler manner. The video content generally provides explanations about the importance of maintaining the confidentiality of personal data, such as PINs, passwords, and OTP codes, as well as examples of situations that commonly occur in digital fraud cases. Through this approach, customers do not merely receive information in textual form but can also understand the context through illustrations and narratives presented in the videos.

In addition, YouTube enables messages to be delivered more persuasively through the use of voice intonation, expressions, and storylines designed to attract audience attention. This makes educational content less monotonous, more engaging, and more relevant to customers' everyday lives. This strategy also supports Bank

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Mandiri's efforts to reach a wider audience, considering that YouTube has high accessibility and can be accessed at any time.

In addition to utilizing YouTube, Bank Mandiri also uses Instagram as one of its main channels in its digital communication strategy to deliver education on banking transaction security. Through this platform, Bank Mandiri presents various educational content in visual formats, such as infographics, illustrations, and short videos, designed to attract audience attention and facilitate understanding of security-related messages.



Figure 4. Instagram Content on the @mandiri_ternate Account Regarding Fraud Awareness

Instagram was selected because of its characteristics as a visual medium that is effective for delivering information quickly and concisely. The educational content presented generally focuses on tips for protecting personal data, such as the importance of not sharing PINs, passwords, and OTP codes with other parties. The information is presented through simple designs using icons, colors, and layouts that are consistent with Bank Mandiri's visual identity, making the content easily recognizable as an official source. In addition, captions accompanying each post serve to reinforce the visual message through language that is concise, clear, and directly addresses the main issue. This combination of visual and textual elements enables audiences to understand the information without having to read lengthy explanations, making it more effective in reaching users with varying levels of digital literacy.

Instagram also enables two-way interaction between the bank and customers through features such as comments, likes, and shares, which can increase audience engagement with educational content. This is important for building security awareness on an ongoing basis. Therefore, the utilization of Instagram as an educational medium

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demonstrates that Bank Mandiri optimizes a visual communication approach that is adaptive, interactive, and relevant to the current digital behavior of society.



Figure 5. Educational Video on Bank Mandiri's Official TikTok Account

In an effort to reach a wider audience, particularly younger generations, Bank Mandiri also utilizes TikTok as one of its digital communication strategy channels for educating customers about banking transaction security. Through this platform, educational content is presented in dynamic, communicative, and easily understandable short-video formats, such as tips for creating strong passwords and reminders to maintain the confidentiality of PINs and OTP codes.

TikTok is primarily characterized by short, fast-paced, and audiovisual message delivery, making it highly effective for capturing audience attention within a short period. Bank Mandiri takes advantage of these characteristics by presenting educational content that focuses directly on the main message, using simple language supported by visual elements such as short texts, animations, and illustrations that reinforce understanding. With relatively short video durations, the information is designed to be easy to remember and understand without requiring lengthy explanations.

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Furthermore, the presentation style of TikTok content tends to be more casual and aligned with current trends, making educational messages feel closer and more relevant to the audience's everyday lives, particularly digital natives. This approach enables Bank Mandiri not only to convey information but also to build a stronger emotional connection with its customers.

The use of TikTok also supports wider message dissemination through its algorithmic features and the ease of sharing content. This allows transaction security education to reach more users organically. Therefore, the use of TikTok demonstrates that Bank Mandiri adapts its digital communication strategy in an innovative manner and in accordance with the evolving media consumption behavior of modern society.



Figure 6. Educational Content on Fraudsters' Methods on Bank Mandiri's Official Facebook Account

In addition to utilizing visual platforms such as Instagram and TikTok, Bank Mandiri also uses Facebook as one of its digital communication channels for delivering education on banking transaction security. Through this platform, Bank Mandiri shares educational content that focuses on providing more detailed and informative information, such as reminders not to share PINs, passwords, or OTP codes with unauthorized parties.

Facebook is characterized as a social media platform that allows messages to be delivered in a longer textual format compared to other platforms. Bank Mandiri utilizes this feature to provide more comprehensive explanations regarding various digital fraud schemes and preventive measures. The content is generally combined with simple visual elements, such as images or educational posters, to help clarify the messages being conveyed.

Furthermore, Facebook provides broader opportunities for interaction through comment and discussion features, allowing customers to provide feedback or ask questions directly regarding transaction security information. This interaction is an

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important part of establishing two-way communication between the bank and its customers, while also strengthening customers' understanding of the educational messages provided.

The use of Facebook is also considered effective in reaching more diverse customer segments, particularly older age groups that tend to be more active on the platform. Through a more informative and structured communication approach, Bank Mandiri can ensure that transaction security messages are properly received by various segments of society. Therefore, Facebook serves as a supporting medium within the digital communication strategy, functioning to broaden the reach of comprehensive security education.

Overall, Bank Mandiri's digital communication strategy for transaction security education is designed to function not only as an information channel but also as a means of building customer awareness and promoting safe behavior in the digital environment. Through a multi-channel approach, diverse educational content, and creative use of digital media, Bank Mandiri seeks to establish a responsive communication ecosystem that addresses the need for security education amid the increasing risk of cybercrime in digital banking services.

Digital Communication Strategies Used by Bank Mandiri

Verbal Communication (Oral and Written)

Based on the results of interviews with Bank Mandiri's internal representatives and customers, verbal communication (oral and written) has been shown to be a primary strategy in educating customers about digital transaction security. Bank Mandiri emphasizes the use of simple, clear, and consistent language so that security messages can be understood by customers with varying levels of digital literacy. This strategy is implemented through various forms of verbal communication, including application notification texts, social media captions, educational articles, and video scripts for transaction security campaigns.

Bank Mandiri's Marketing Communication Manager, Ms. Hapsari Utami Putri, explained that the development of verbal messages is always oriented toward ensuring ease of customer understanding. She stated that, "Bank Mandiri designs verbal messages based on the principles of simplicity, clarity, and consistency. The language is adjusted to customers' levels of digital literacy so that security messages are easy to understand and remember." In addition, the selection of language and communication style also takes audience segmentation into consideration, such as age and digital

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habits, to ensure that the messages remain relevant without compromising the accuracy of security information.



Figure 7. Educational Content on Fake Transfer Receipts on Bank Mandiri's Official Website

This perspective is further supported by Rendy Ridhova Putra, a Marketing Communication Staff member at Bank Mandiri, who explained the technical process of developing verbal messages. He stated that, "We adapt technical materials from the relevant divisions into language that is simple, concise, and relevant, while also using case examples to make them easier for customers to understand." According to him, the main challenge in verbal communication is maintaining a balance between simplicity of language and accuracy of meaning, given the varying levels of digital literacy among customers.

From the customers' perspective, the interview results indicate that Bank Mandiri's verbal communication is considered relatively effective. Juan Amir Pratama (24 years old) stated that, "Transaction security information is easy to understand because it uses simple language and goes directly to the main point." He also added that the most helpful verbal information was the emphasis on the prohibition against sharing OTPs, PINs, and personal data. This indicates that clear and repeated verbal messages can increase security awareness among young customers who are active in digital environments.

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Figure 8. Educational Content on Protecting Personal Data and Fake Bank Employees on Bank Mandiri's Facebook Account

Meanwhile, an older customer, Purnamawati (49 years old), stated that although the verbal messages were relatively clear, further simplification was still needed. She explained that, "The language used is already quite clear, but it would be more helpful if it were accompanied by a simpler explanation because there are some terms that are still unfamiliar." This finding indicates that verbal communication needs to be adapted not only to the digital channel used but also to customers' age characteristics and technological experience.

A similar view was expressed by Nurani Kinasih (32 years old), who considered the clarity of verbal messages to be very helpful in understanding digital transaction security. She stated that, "The information is delivered concisely and directly to the main point, making it easy to understand." According to her, verbal explanations regarding the importance of maintaining the confidentiality of PINs, passwords, and OTP codes are the most crucial aspects in shaping safer transaction behavior.

Overall, the research findings indicate that Bank Mandiri's verbal communication strategy has been effective in delivering education on digital transaction security. The use of simple, consistent, and relevant language according to customer segmentation can improve understanding and awareness while encouraging more cautious transaction behavior. Nevertheless, the interview results also indicate the need to strengthen verbal communication so that it becomes more adaptive, particularly for customers with lower levels of digital literacy.

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Nonverbal Communication (Body Language and Intonation)

Nonverbal communication is an important element that complements verbal messages in Bank Mandiri's digital communication strategy, particularly in educating customers about banking transaction security. Nonverbal elements such as voice intonation, facial expressions, gestures, and presentation style in digital content play a role in building trust and a sense of security, as well as increasing customers' attention and understanding of the security messages being conveyed.

Based on interviews with management, Ms. Hapsari Utami Putri, as the Marketing Communication Manager of Bank Mandiri, emphasized that nonverbal communication has a strategic function in shaping customer perceptions. She stated that, "Nonverbal elements play an important role in building trust, using a calm tone of voice, friendly expressions, and professional gestures to create a sense of security." This indicates that security messages are conveyed not only through words but also through a reassuring and convincing manner of delivery.



Figure 9. Expression Shown in Bank Mandiri's Official YouTube Video Entitled "Jaga Baik-baik Data Berharga"

Furthermore, Ms. Hapsari explained that Bank Mandiri has established specific standards regarding nonverbal communication in digital content. She stated that, "Bank Mandiri has nonverbal communication guidelines to ensure that all content reflects professionalism, empathy, and consistency in brand identity." These guidelines serve as a reference in the production of video content, both on social media and digital applications, ensuring that security messages are delivered consistently and do not cause panic among customers.

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This perspective is further supported by Rendy Ridhova Putra, a Marketing Communication Staff member at Bank Mandiri, who explained the team's role in managing nonverbal presentation styles. He stated that, "We provide guidance on the presentation style to ensure that it appears friendly, calm, and convincing, so that security messages do not seem frightening while remaining serious and persuasive." The nonverbal elements are evaluated through analysis of viewing duration and audience responses, which serve as indicators of the effectiveness of digital security education content.

From the customers' perspective, nonverbal communication in Bank Mandiri's digital content is considered to have a positive impact. Juan Amir Pratama (24 years old) stated that, "The tone of voice is clear and the presenter's expression is convincing, making the security information easy to understand." According to him, a professional presentation style increases his trust in the security information provided by the bank.

Meanwhile, Purnamawati (49 years old) considered nonverbal elements to be very helpful in understanding security messages, particularly for customers who are not very familiar with digital technology. She stated that, "A clear and not-too-fast tone of voice makes the explanation easy to follow and prevents confusion." This indicates that nonverbal communication functions as a reinforcement of the message for customers with lower levels of digital literacy.

A similar opinion was expressed by Nurani Kinasih (32 years old), who stated that, "A professional and convincing presentation style makes me more confident in the information regarding transaction security." She also added that nonverbal elements help increase focus and interest in educational content, making security messages easier to remember.

Overall, the research findings indicate that the nonverbal communication implemented by Bank Mandiri plays a significant role in increasing the effectiveness of digital transaction security education. A calm tone of voice, friendly expressions, and professional gestures can reinforce verbal messages, build customer trust, and improve understanding of the risks of cybercrime. Thus, nonverbal communication is a strategic component that is inseparable from Bank Mandiri's digital communication strategy.

Visual Communication (Images and Infographics)

Visual communication is one of Bank Mandiri's main strategies for delivering digital transaction security education to customers. The use of visual elements such as images, icons, infographics, animations, and short videos is considered effective in

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simplifying technical information related to cybercrime threats, making it easier to understand for customers with diverse backgrounds and levels of digital literacy. Through a visual approach, security messages are not only presented informatively but are also designed to attract attention and be easily remembered.

Based on an interview with Ms. Hapsari Utami Putri, Marketing Communication Manager of Bank Mandiri, visual communication is designed to emphasize message clarity and consistency. She stated that, “Visual elements are used to simplify complex security information so that it can be easily understood, particularly through concise infographics and illustrations.” The visual design is adapted to Bank Mandiri’s brand identity, using consistent colors, icons, and layouts so that customers can immediately recognize the information as coming from an official source.

This perspective is further supported by Rendy Ridhova Putra, a Marketing Communication Staff member at Bank Mandiri, who explained that the selection of visual elements always considers both functional and aesthetic aspects. He stated that, “Visual content is designed to be not only attractive but also informative, focusing on key points such as the prohibition against sharing OTPs, PINs, and personal data.” The effectiveness of visual communication is evaluated through levels of digital interaction, such as the number of views, clicks, and audience engagement duration.



Figure 10. Content on Protecting Personal Data on Bank Mandiri’s Official TikTok Account

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From the customers' perspective, the interview results indicate that Bank Mandiri's visual communication is considered effective in improving understanding of transaction security. Juan Amir Pratama (24 years old) stated that, "The infographics and icons used are very helpful because they directly show the steps that should be taken and those that should be avoided." According to him, concise and colorful visuals make the information easier and faster to understand compared to lengthy text.

Meanwhile, Purnamawati (49 years old) explained that visual communication is particularly helpful for customers who are not familiar with technical terms. She stated that, "Images and infographics make it easier for me to understand cybercrime threats without having to read overly lengthy explanations." This indicates that visual communication plays an important role in bridging differences in digital literacy levels across age groups.

A similar opinion was expressed by Nurani Kinasih (32 years old), who stated that, "A simple and clear visual presentation makes security information easier to remember." She added that the combination of images and concise text helps increase awareness when conducting digital transactions, particularly regarding the potential for online fraud.



Figure 11. Fraud Awareness Content on the @mandiri_ternate Instagram Account

Overall, the research findings indicate that Bank Mandiri's visual communication strategy is effective in supporting digital transaction security education. The use of informative, engaging, and brand-consistent images and infographics can improve customers' understanding, retention, and awareness of cybercrime risks. Thus, visual communication serves as a strategic element that strengthens verbal and nonverbal messages in Bank Mandiri's digital communication strategy.

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Effectiveness of the Digital Communication Strategy in Increasing Customers' Awareness and Understanding of Cyber Threats

The effectiveness of Bank Mandiri's digital communication strategy in educating customers about banking transaction security can be observed through increased customer awareness and understanding of various forms of cyber threats. This strategy focuses not only on delivering information but also on fostering a vigilant attitude and safer transaction behavior. A multichannel approach through social media, digital banking applications, official websites, and audiovisual content serves as the primary means of reaching customers broadly and continuously.

Based on an interview with Hapsari Utami Putri, Marketing Communication Manager of Bank Mandiri, the effectiveness of the digital communication strategy is measured through changes in customers' security literacy and behavior. She stated that, "The success of digital communication is measured not only by the reach of the content but also by increased customer awareness and a decrease in transaction errors caused by fraud." This indicates that the digital communication strategy is directed toward tangible impacts rather than merely disseminating messages.

In line with this, Rendy Ridhova Putra, a Marketing Communication Staff member at Bank Mandiri, explained that the effectiveness of digital communication is strongly influenced by message consistency and ease of access to information. He stated that, "A multichannel approach combining simple verbal messages, engaging visuals, and persuasive nonverbal delivery has been proven to increase customer engagement and understanding." Interaction levels, such as comments, questions, and positive responses from customers, serve as indicators that security messages are understood and considered relevant.

From the customers' perspective, the interview results indicate an increase in awareness of cyber threats after receiving digital education from Bank Mandiri. Juan Amir Pratama (24 years old) stated that, "Regularly delivered security information makes me more familiar with different types of digital fraud and more cautious when conducting transactions." This statement indicates that the digital communication strategy can improve cognitive understanding while simultaneously increasing practical awareness.

Meanwhile, Purnamawati (49 years old) explained that the digital communication strategy helped her understand the risks of cybercrime despite her limited digital literacy. She stated that, "Education delivered through images, videos, and simple language makes me more aware of the dangers of fraud and more careful before conducting

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transactions." This demonstrates that Bank Mandiri's digital communication strategy is effective in reaching customers across diverse age groups.

A similar opinion was expressed by Nurani Kinasih (32 years old), who considered Bank Mandiri's digital communication strategy to be not only informative but also influential in changing customer behavior. She stated that, "After frequently seeing security education content, I have become more vigilant and always ensure the security of my data before conducting transactions." This behavioral change reflects the success of digital communication in fostering sustainable awareness and understanding.



Figure 12. Text Frame in the "Jaga Baik-Baik Data Berharga" Video on Bank Mandiri's YouTube Channel

Overall, the research findings indicate that Bank Mandiri's digital communication strategy is effective in increasing customers' awareness and understanding of cyber threats. This effectiveness is reflected in improved security literacy, the development of a more vigilant attitude, and changes toward safer transaction behavior. By consistently integrating verbal, nonverbal, and visual communication, Bank Mandiri is able to provide comprehensive and relevant digital transaction security education for customers amid increasing cybercrime risks.

DISCUSSION

The research findings indicate that Bank Mandiri's digital communication strategy for banking transaction security education is implemented through verbal communication that is simple, clear, consistent, and disseminated across various digital channels. Verbal communication in this context includes the use of spoken and written language designed to be easily understood by customers with diverse levels of digital

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literacy. This finding demonstrates that message simplification is an important aspect of digital security education, particularly because cybersecurity issues often involve technical terms that may not be fully understood by all customers. This is consistent with the concept of educational communication, which emphasizes the importance of adapting messages to the characteristics and needs of the audience.

In practice, Bank Mandiri delivers security messages through various media, including application notifications, educational articles, social media captions, campaign videos, newsletters, e-learning, and other digital channels. This multichannel strategy demonstrates that security communication does not rely on a single medium but is delivered repeatedly and in an integrated manner to ensure that messages can reach customers more effectively. The use of various digital channels also increases the likelihood that customers will receive security messages in different contexts, whether when using banking applications, accessing social media, or reading official information from the bank. Thus, Bank Mandiri's digital communication strategy functions not only as a medium for disseminating information but also as a means of developing security awareness in digital transaction activities.

The research findings also show that key messages, such as the prohibition against sharing One-Time Password (OTP) codes, PINs, and personal data, as well as warnings about suspicious links, are among the information most easily remembered by customers. This indicates that messages that are concise, practical, and directly related to customers' transaction experiences are more effective in improving digital security understanding. The emphasis on personal data protection is also relevant to the increasing threats of cybercrime, such as phishing, social engineering, malware, and fraud through fake links. Therefore, digital security communication should be directed not only toward providing information but also toward developing customers' habits of recognizing and avoiding cyber risks.

Although the digital communication strategy implemented by Bank Mandiri has demonstrated effectiveness in increasing customer awareness, the research findings also indicate a need to adapt messages to audience characteristics. Younger customers tend to understand concise and direct digital messages more quickly, whereas older customers still require further simplification of terms and explanations that are easier to follow. These differences indicate that digital literacy, age, and experience in using technology influence how customers receive and understand security messages. Therefore, a uniform digital communication strategy is not entirely sufficient to effectively reach all customer segments.

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The effectiveness of Bank Mandiri's digital communication strategy is also reflected in inc reased customer awareness of the importance of protecting personal data and exercising caution when conducting online transactions. Customer responses indicate that security education through digital channels helps them recognize various forms of cyber threats and understand preventive measures. However, communication effectiveness should not be measured solely by increased understanding but also by the extent to which this understanding is applied to everyday transaction behavior. In this context, security education needs to be directed toward behavioral changes, such as avoiding suspicious links, not sharing OTP codes, verifying the authenticity of the bank's communication channels, and increasing vigilance toward messages impersonating bank representatives.

Based on these findings, Bank Mandiri's digital communication strategy still has room for development, particularly in terms of personalization, segmentation, and interactivity. One-way security education needs to be strengthened through more participatory approaches, such as phishing simulations, security quizzes, interactive videos, and direct feedback to customers. These approaches can help transform conceptual understanding into practical skills for dealing with cyber threats. In addition, a tiered approach is needed by providing basic materials for customers with lower levels of digital literacy and more advanced materials for customers who are already familiar with digital services.

Overall, this discussion demonstrates that Bank Mandiri's digital communication strategy has played an important role in improving banking transaction security education. The use of simple language, message repetition, and various digital channels represents a key strength in building customer awareness of cyber threats. However, to make the strategy more effective and sustainable, Bank Mandiri needs to develop communication that is more adaptive, personalized, interactive, and based on audience segmentation. Thus, security education can not only increase customers' knowledge but also encourage the development of safer behavior when using digital banking services.

CONCLUSION

The digital communication strategy implemented by Bank Mandiri, particularly verbal communication using simple, clear, and consistent language, has proven effective in increasing customers' understanding and awareness of digital transaction risks and cyber threats such as phishing, malware, and social engineering. The use of multiple channels, including application notifications, educational articles, social media, and

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videos, supports broader message reach and ensures relevance across customers with varying levels of digital literacy. The effectiveness of this digital communication strategy is reflected not only in customers' cognitive understanding but also in their ability to apply safe behaviors in their daily digital activities. The interview results indicate that repeated and easily understood messages help customers, particularly younger generations, develop greater awareness and retention of digital security information. However, there remains a need to adapt content more appropriately for customers with lower levels of digital literacy and different demographic characteristics.

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