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# Corporate Communications and Public Relations: Technological Transformation and Digitalization Towards Society 5.0

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***Abstract***
*The insurance sector is undergoing a substantial shift in the swiftly changing environment of society 4.0, entering society 5.0 marked by digitization, mobile technologies, and artificial intelligence (AI). The formerly deemed conservative sector increasingly embraces innovative technology to improve operational efficiency and transform consumer interaction. This paper examines the influence of mobile and AI technologies on corporate communication and public relations, explicitly analyzing their effects on the insurance industry via the perspective of technological determinism. The objective is to examine how new technologies transform consumer interactions, trust dynamics, and organizational tactics while addressing ethical issues such as AI transparency and data protection. This study, rooted in technological determinism, highlights technology's independent and socially influenced effects on organizational behaviors. It uses a qualitative approach, phenomenological method, and semi-structured interviews with industry experts to investigate lived experiences and insights. The findings indicate that mobile platforms improve consumer interaction through immediacy and accessibility, while AI enhances operations through predictive analytics and automation. Nonetheless, issues about diversity and ethical responsibility persist as significant concerns. The research suggests that mobile and AI technologies serve as transformational agents, necessitating enterprises to reconcile technical innovation with ethical accountability. By implementing inclusive, transparent, and proactive communication strategies, insurance businesses may use these technologies to cultivate trust, enhance stakeholder relationships, and adeptly negotiate the intricacies of Society 4.0. This study offers a framework for incorporating developing technology into corporate communication and public relations by social norms and expectations.*

*Keywords: Technological Determinism; Corporate Communication; Public Relations; Digital Transformation; Society 4.0 - 5.0*

**Abstrak**
Sektor asuransi tengah mengalami perubahan substansial dalam lingkungan masyarakat 4.0 yang berubah dengan cepat, memasuki masyarakat 5.0 yang ditandai oleh digitalisasi, teknologi seluler, dan kecerdasan buatan (AI). Sektor yang sebelumnya dianggap konservatif ini semakin merangkul teknologi inovatif untuk meningkatkan efisiensi operasional dan mengubah interaksi konsumen. Makalah ini mengkaji pengaruh teknologi seluler dan AI pada komunikasi perusahaan dan hubungan masyarakat, secara eksplisit menganalisis dampaknya pada industri asuransi melalui perspektif determinisme teknologi. Tujuannya adalah untuk mengkaji bagaimana teknologi baru mengubah interaksi konsumen, dinamika kepercayaan, dan taktik organisasi sambil mengatasi masalah etika seperti transparansi AI dan perlindungan data. Studi ini, yang berakar pada determinisme teknologi, menyoroti dampak teknologi yang independen dan dipengaruhi secara sosial pada perilaku organisasi. Studi ini menggunakan pendekatan kualitatif, metode fenomenologi, dan wawancara semi-terstruktur dengan para pakar industri untuk menyelidiki pengalaman dan wawasan yang dialami. Temuan menunjukkan bahwa platform seluler meningkatkan interaksi konsumen melalui kedekatan dan aksesibilitas, sementara AI meningkatkan operasi melalui analisis prediktif dan otomatisasi. Meskipun demikian, masalah tentang keragaman dan tanggung jawab etika tetap menjadi perhatian penting. Penelitian ini menunjukkan bahwa teknologi seluler dan AI berfungsi sebagai agen transformasional, yang mengharuskan perusahaan untuk menyelaraskan inovasi teknis dengan akuntabilitas etis. Dengan menerapkan strategi komunikasi yang inklusif, transparan, dan proaktif, bisnis asuransi dapat menggunakan teknologi ini untuk menumbuhkan kepercayaan, meningkatkan hubungan pemangku kepentingan, dan secara cekatan menegosiasikan seluk-beluk Masyarakat 4.0. Studi ini menawarkan kerangka kerja untuk menggabungkan teknologi yang sedang berkembang ke dalam komunikasi perusahaan dan hubungan masyarakat berdasarkan norma dan harapan sosial.

Kata Kunci: Determinisme Teknologi; Komunikasi Perusahaan; Hubungan Masyarakat; Transformasi Digital; Masyarakat 4.0-5.0.

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## INTRODUCTION

In the swiftly advancing digital environment of Society 4.0, characterized by integrating sophisticated mobile technology, artificial intelligence (AI), and digitalization, corporate communications and public relations (PR) have emerged as crucial components in influencing industry engagement with stakeholders. This development is particularly noteworthy in the insurance sector, which has historically been seen as conservative and sluggish in adaptation. However, it is now undergoing a transformational phase propelled by technological innovations. Mobile and AI technologies serve as instruments for enhancing efficiency and as catalysts for transforming consumer expectations, operational procedures, and the fundamental nature of customer interactions within the sector (Nair & Manohar, 2024a). As digitalization accelerates, understanding the significance of these technologies in insurance is essential, both operationally and via the theoretical perspective of technological determinism (Corvello et al., 2023). This viewpoint asserts that social transformations are significantly impacted by technology advancements, which dictate the evolution of industries and, in turn, the formulation of corporate communications and public relations strategies.

The significance of technological determinism is apparent when analyzing the substantial changes in communication dynamics resulting from digitalization in Society 4.0. Mobile technology has transformed communication by enabling real-time, two-way interactions, in contrast to old methods that were primarily one-way and delayed, profoundly changing business-customer engagement (Hamilton et al., 2021). In the insurance industry, where client trust and prompt service are crucial, mobile technology enables insurers to provide 24/7, accessible, and responsive assistance to policyholders. Mobile apps allow customers to administer policies, verify coverage, and submit claims efficiently, diminishing the need for face-to-face contact and accelerating historically protracted procedures. The capacity to interact with consumers immediately and provide on-demand services has transformed customer expectations, transitioning from reactive service to proactive and predictive interaction.

AI technology has enhanced these transformations by incorporating advanced data analysis, machine learning, and predictive modeling capabilities. In the insurance sector, AI-driven solutions have revolutionized operations like risk evaluation, fraud identification, and tailored policy suggestions. AI algorithms can evaluate extensive data sets to anticipate risks with greater precision, enabling insurers to customize their policies to meet particular consumer requirements (Adeoye et al., 2024). This transition improves customer happiness and fortifies trust between customers and suppliers, a vital element in an industry founded on dependability and reputation (Nair & Manohar, 2024b). AI-driven chatbots and virtual assistants have become indispensable elements of customer service across numerous industries, providing instantaneous, tailored support previously unattainable with human agents alone. In corporate communications, these AI technologies enable PR practitioners to monitor public opinion in real-time, preemptively addressing possible concerns and facilitating a more dynamic approach to reputation management.

Incorporating mobile and AI technology into the insurance sector presents new concerns, especially with data privacy and ethical issues. As insurers gather and scrutinize more data to provide tailored services, clients may become progressively apprehensive about utilizing, storing, and disseminating their information. Despite their efficacy, AI algorithms possess an intrinsic opacity, often known as the "black box" issue, whereby the decision-making processes of AI systems remain obscure to human comprehension (Coppi et al., 2021). In a domain where trust is crucial, it is essential to address these problems. Public relations specialists and

corporate communicators are critical in establishing and sustaining trust by ensuring clients are educated and comforted about the company's ethical standards. This encompasses clarity about data gathering procedures, explicit communication about the advantages of these technologies, and proactive initiatives to safeguard client privacy.

This study underscores the need to examine new technologies' effects on corporate communication and public relations activities within the insurance sector. The transformations induced by mobile and AI technologies transcend process enhancements; they redefine the fundamental dynamics of contact between enterprises and customers, highlighting the need to change communication strategies to conform to innovations. The insurance industry's use of the latest technology makes the concept of technological determinism more pertinent. This viewpoint emphasizes that technology is not only a passive component inside businesses but a dynamic force that actively influences their policies, tactics, and public contacts. By comprehending the implications of technological determinism, corporate communicators may design strategies that use these technologies to cultivate better, more transparent, and trust-based connections with their stakeholders.

Integrating the notions of technological determinism and digital transformation in the insurance industry enables an analysis of how mobile and AI technologies affect customer interactions, public perception, and business reputation. Technological determinism posits that the tools a society embraces fundamentally alter its structure and culture, indicating that integrating mobile and AI technologies in the insurance sector affects client perceptions and interactions with firms. The existence of mobile apps enabling customers to manage policies autonomously illustrates a more comprehensive cultural transition towards ease, self-service, and transparency. Therefore, this influences insurance businesses' communication strategies, necessitating a regular and dependable presence on digital platforms where consumers primarily interact. Similarly, AI-driven analytics provide unparalleled insight into client wants and preferences, allowing more focused and successful public relations initiatives that connect with specific groups.

This research aims to explore critical concerns about the influence of mobile and AI technology on corporate communication strategies and public relations within the insurance sector. This study addresses the following questions: How can mobile and AI technology impact the communication and public relations methods used by insurance companies? How much does technological determinism influence the development of these tactics, particularly with customer interactions and brand perception? What ethical issues arise from using AI and mobile technologies, and how must corporate communicators handle them to promote transparency and maintain consumer trust? This research examines the possible problems insurance businesses face in using these technologies and the subsequent effects on their client engagement capabilities.

This article thoroughly examines the convergence of technical determinism, mobile and AI technologies, and corporate communication tactics in the insurance sector. This study aims to elucidate the transformational impact of digitalization on consumer interactions and the essential function of public relations in managing this intricate environment. This study seeks to explain how insurance businesses may use mobile and AI technologies to enhance client pleasure and uphold confidence amid rapid digital disruption. Furthermore, the research will elucidate new technologies' ethical and practical concerns, advising public relations professionals to address these issues proactively. This article will enhance comprehension of the changing function of corporate communications in the digital era, demonstrating the

applicability of technological determinism concepts to the insurance sector and informing public relations tactics in the context of Society 4.0.

The research aims to reconcile theory and practice by providing academic and practical insights into how the insurance business might adapt to the requirements of a digital society. It seeks to elucidate the difficulties and possibilities posed by evolving mobile and AI technologies, arming corporate communicators and PR professionals with essential information to excel in a dynamic, technology-driven market.

**Technological Determinism**

Technological determinism, a notion prevalent in analyses of technology's influence on society, asserts that technical advancement propels social transformation and molds societal frameworks. This notion originated in the early 20th century, articulated by philosophers like Thorstein Veblen, who believed that technology is a pivotal factor in shaping social order. Veblen (1919) saw technology as a transformational force capable of modifying economic frameworks and cultural conventions (Philippy et al., 2024). Sociologist William Ogburn (1922) further elaborated on this idea, positing that technical progress necessitates social adjustments—a phenomenon he termed "cultural lag," whereby technology advances more rapidly than society can adapt, resulting in societal conflict. These first viewpoints established a foundation for a notion that influences our comprehension of technology's impact on social change.

Contemporary researchers have expanded upon these early concepts, categorizing technological determinism into several categories, namely "hard" and "soft" determinism. Hard technological determinism posits that technology functions as an independent force that inevitably propels society's transformation, with little human impact on its consequences. This inflexible perspective posits that society adjusts to the technologies it develops, indicating an unavoidable advancement in which technology governs social structure (Alfaraz & Tully, 2024). In his publication The Technological Society, philosophers such as Jacques Ellul contended that technological progress adheres to a self-perpetuating trajectory, whereby each invention is predicated on its predecessor, engendering a momentum that dictates social structure (Ellul, 1964). Ellul's theory is crucial to hard determinism since he asserts that technology intrinsically molds values, goals, and behaviors within a society, allowing little scope for human agency to affect or alter the trajectory.

Soft technological determinism, in contrast, asserts a more reciprocal link between technology and society. It recognizes that technology significantly affects social structures while simultaneously highlighting that societal values and cultural aspects influence the development and implementation of technology (Hallström, 2022). Academics like Raymond Williams (1990) support this perspective, positing that while technology influences society, the cultural environment of its adoption also dictates its function and effect. Williams' perspective on soft determinism facilitates a more sophisticated comprehension, acknowledging that while technical progress presents novel options, society ultimately dictates the trajectory and use of these technologies (Palenski et al., 2024). This perspective is especially pertinent when ethical, legal, and social factors influence technological implementation, as seen in healthcare, banking, and insurance industries.

Technological determinism is characterized by propositions and critical indicators that elucidate its impact across several domains. The thesis posits that technology propels social development, governs behavior, and shapes economic and cultural standards (Barile et al.,

2024). Keywords pertinent to this idea include “autonomy of technology,” “technological impact,” “societal transformation,” and “inevitability of progress.” These phrases represent the theory's core perspective that technology is an autonomous force influencing human experiences. Indicators of hard determinism may encompass scenarios in which technological advancement occurs with minimal regard for social ramifications (Bibri, 2022; MacKenzie & Wajcman, 1999). In contrast, indicators of soft determinism frequently involve contexts where stakeholders actively influence the application of technology to align with societal requirements, such as ethical evaluations or regulatory structures.

Investigating the connection between hard and soft determinism elucidates the varying significance of technology's role depending on the situation. Hard determinism emphasizes the independence of technology and its unavoidable impact, while soft determinism permits societal negotiation and adaptation, recognizing the critical roles of cultural and social dynamics (Baumeister et al., 2023; Ihejirika & Okpurhe, 2023). In the insurance sector, mobile and AI technologies facilitate the automation of client service, the optimization of claims processing, and the forecasting of risks. Hard determinism posits that these breakthroughs inevitably transform the operations of insurance businesses, changing client expectations and diminishing the need for human involvement (Brown et al., 2024). Conversely, a soft determinist viewpoint posits that corporations and regulatory entities may modify and implement these technologies to uphold consumer trust and guarantee ethical data use, illustrating a co-evolution between technology and societal values.

Technological determinism provides a framework for comprehending the impact of mobile and AI technologies on sectors such as the insurance business. Hard determinism emphasizes technology as an independent catalyst for change (Appelgren, 2023). In contrast, soft determinism acknowledges the intricate interaction between technology and society, whereby human agency and cultural settings influence the progression of technological breakthroughs (Čavoški, 2022). Each viewpoint provides distinct insights into the influence of mobile and AI technologies on corporate communication and public relations, shaping how firms may navigate digitalization regarding social values and expectations.

**Corporate Communication**

Corporate communication plays an essential role in businesses, including strategies and procedures to manage internal and external communications to establish and maintain a company's reputation. Corporate communication originated in business management and public relations as a reaction to the need for firms to connect successfully with many stakeholders, including workers, investors, consumers, and the public (Tworzydło et al., 2021). Charles Redding (1972), a pivotal figure in this discipline, highlighted communication as a fundamental management function, asserting that good internal and external communication is crucial for attaining business goals (Yinusa & Ogoun, 2024). Initial definitions of corporate communication focused on information transmission, issue resolution, and fostering harmony among stakeholders (Alsola, 2023). Over time, these definitions have broadened, acknowledging corporate communication as a strategic endeavor vital to business identity, image, and relationship development.

As the notion of corporate communication progressed, academics like Paul Argenti and Cornelissen broadened its definition, highlighting its strategic significance in influencing company image, brand identity, and public perception. Argenti (1966) characterized corporate communication as a strategic function that bolsters an organization’s vision and purpose by

engaging and persuading stakeholders via synchronized messaging across all platforms. Cronelissen (2023) further on this perspective, suggesting that corporate communication transcends mere message coordination; it is a strategic process that aligns the organization's communication objectives with its overarching aims and values. This comprehensive definition perceives corporate communication as a cohesive function synchronizing communications across several media, guaranteeing stakeholders a uniform corporate brand and image. Modern definitions underscore that corporate communication, through brand management, crisis communication, and reputation management, is pivotal for fostering trust, establishing credibility, and maintaining relationships with stakeholders in both traditional and digital contexts.

In the analysis of corporate communication, numerous fundamental ideas and indicators highlight its significance in organizational performance. A fundamental assertion is that corporate communication is intrinsically strategic and intentional, aimed at fulfilling organizational objectives by fostering and maintaining favorable relationships with stakeholders (Gulati & Wohlgezogen, 2023). This facet of corporate communication strongly correlates with strategic management principles, whereby communication functions as a mechanism for attaining corporate objectives by harmonizing the organization's communications with its aims and values (Cronelissen, 2023). Another crucial metric in corporate communication is consistency, highlighting that all communications must coordinate to convey a unified brand. This consistency is essential for preserving stakeholder trust and enhancing brand credibility, particularly in sectors such as insurance, where reputation is vital. Moreover, transparency and authenticity serve as critical indications, as corporate communication is progressively anticipated to embody the organization's values and ethical standards, particularly with the emergence of digital platforms that provide real-time contact and feedback.

Corporate communication intersects with the notion of technical determinism, particularly in the digital age when mobile and AI technologies are integral. The emergence of digitalization and Society 4.0 has necessitated a transformation in corporate communication, compelling firms to modify their tactics in response to an environment characterized by technological advancements that rapidly alter customer expectations and communication dynamics (Van Veldhoven & Vanthienen, 2022). In the insurance sector, mobile apps enable customers to independently access information and control their plans, improving consumer engagement and satisfaction (Skaf et al., 2024). AI technology enhances business communication by providing data-driven insights into client wants and preferences, thus promoting tailored communication and more successful public relations campaigns. In this environment, corporate communication functions not only as a means of information transmission but also as a mechanism for adjusting to technological developments through technological determinism (Dewi et al., 2023). This alignment highlights how digital technologies may revolutionize the organization's establishing and sustaining connections with stakeholders, underscoring the strategic need to adjust communication methods to technological progress.

Primary literature on corporate communication, such as "Corporate Communication" by Paul Argenti (1966) and "Corporate Communication: A Guide to Theory and Practice" by Joep Cronelissen (2023), provide essential insights into the changing function of communication inside businesses. These works emphasize that corporate communication is a complex process incorporating several techniques, including internal communication, public relations, and brand management, designed to strengthen the organization's identity. The contributions of Argenti

and Cornelissen are vital in comprehending how firms might use communication as a strategic function, especially in the digital era, when mobile and AI technologies need a more agile and responsive method for stakeholder involvement.

Corporate communication has evolved from a fundamental administrative function to a strategic cornerstone in contemporary firms, vital for establishing trust, promoting transparency, and engaging stakeholders. The connection with technological determinism underscores the adaptive characteristics of communication in an age dominated by mobile and AI technologies (Okoro et al., 2024), especially in the insurance sector, where digital instruments transform customer interactions and expectations. By using a strategic approach to corporate communication, firms may adeptly manage the intricacies of Society 4.0, ensuring their communication strategies are relevant and successful in addressing the requirements of a digitally driven environment.

**Public Relations**

Public Relations (PR) has become crucial for cultivating advantageous partnerships between corporations and stakeholders. Public relations shapes public perception and preserves company reputations within corporate, organizational, and individual frameworks (Constantin & Irwansyah, 2024). Public relations, recognized as a professional field in the early 20th century, was founded by pioneers such as Ivy Lee and Edward Bernays. Ivy Lee advocated straightforward communication and honesty in corporate-public relations (Cutlip, 2013). Bernays (1947) used psychological concepts to influence public opinion, establishing public relations as a mechanism for persuasion and reputation management. Public relations has become a function that governs how corporations and people portray themselves to the public.

The public relations sector has progressively changed, becoming more strategic and interactive. James E. Grunig and Todd Hunt's foundational work, “Excellence Theory”, emphasized public relations as a two-way symmetrical communication paradigm. This method emphasizes reciprocal comprehension between businesses and stakeholders, advancing from one-way communication to engagement-oriented methods. Grunig and Hunt’s (1984) views underline the role of public relations in establishing trust and openness, especially in crisis management and cultivating enduring connections within a linked digital landscape.

The fundamental concepts of public relations include connection cultivation, dialogue, and feedback systems. Effective public relations tactics depend on trust, openness, and response (Ledingham, 2003). Organizations do this by maintaining consistent messages and engaging proactively across several media. Furthermore, flexibility is essential in responding to changing public opinions and external threats. Atta and Shakeel(2023) contend that contemporary public relations necessitate adaptability, particularly with mobile and AI technologies, which amplify public demands for immediate, individualized communication.

The amalgamation of public relations with technology innovations, especially in mobile and artificial intelligence technologies, illustrates its flexibility in the Society 4.0 epoch. Mobile platforms have transformed public relations by facilitating direct interaction with audiences via social media, applications, and instant messaging services. These instruments provide instantaneous access to information, enhancing connections and reactivity. Simultaneously, AI-powered solutions improve public relations by providing data-driven insights for audience analysis, sentiment monitoring, and crisis management. Artificial intelligence enables public relations practitioners to anticipate audience responses, tailor communication plans, and react promptly to new issues (Valentini, 2015). They are integrating public relations with technology

highlights, transitioning to more dynamic, responsive, and interactive communication structures.

Foundational books, such as “Effective Public Relations” by Cutlip et al. (2000) and “Managing Public Relations” by Grunig & Hunt (1984), provide essential insights into public relations’ theoretical and practical development. These works illustrate the evolution from basic, linear models to complex, interactive frameworks prioritizing ethical issues and reciprocal understanding. Cutlip and Center emphasize the significance of ethics in public relations, but Grunig’s Excellence Theory promotes symmetrical communication as a fundamental characteristic of good public relations techniques.

The transformation of public relations from reputation management to a strategic communication role underscores its essential significance in modern organizations. Technological determinism significantly influences contemporary public relations techniques, especially within the insurance industry, where trust and customer connections are crucial. By combining mobile and AI technology, public relations professionals may address digital transformation requirements, promoting transparency and engagement. This flexibility guarantees that public relations remains pivotal in fostering trust, addressing crises, and maintaining significant relationships within a dynamic communication environment.

## METHOD

This study utilizes a qualitative research approach to examine the influence of mobile and AI technologies on corporate communications and public relations in the insurance industry. A qualitative approach is optimal for this study since it offers a comprehensive grasp of participants' viewpoints, enabling a detailed depiction of experiences within their contextual framework (Creswell & Poth, 2024). This approach is essential for analyzing intricate social phenomena, such as the impact of technical determinism on corporate communication tactics, where subjective experiences and cultural contexts play a crucial role.

Regarding supporting and completing the qualitative approach, this study uses a phenomenology method as the principal method to elucidate the lived experiences of professionals in the insurance industry, concentrating on their perceptions of the impact of mobile and AI technology on communication practices. Grounded on Edmund Husserl's work, phenomenology prioritizes comprehending individual experiences to uncover the core of a phenomenon (Dere & Başıbüyük, 2024). This approach provides an in-depth examination of the experiences of corporate communicators and PR professionals, particularly with their perceptions of digitalization. Phenomenology offers insights into the intricate and sometimes subtle effects of technology integration in communication by analyzing people's lived experiences.

This study's conceptual framework centers on technological determinism, characterized by critical elements such as "autonomy of technology," "inevitability of technological impact," and "social adaptation." These notions are essential for examining how insurance professionals see technology as a distinct catalyst for change and how it impacts communication and client interactions. Indicators such as "perceived alterations in communication patterns," "impact of mobile technology and AI on customer engagement," and "ethical implications of technology utilization" provide a systematic framework for data gathering and analysis, directing the research in recognizing prevalent themes.

Data was gathered using semi-structured, in-depth interviews, a technique particularly appropriate for phenomenology since it facilitates participants in articulating comprehensive narratives of their experiences. Semi-structured interviews provide flexibility, allowing the researcher to explore participants' comments more deeply while maintaining coverage of essential study themes (Adeoye-Olatunde & Olenik, 2021). This research used a semi-structured interview, enabling participants to address particular elements (Adeoye-Olatunde & Olenik, 2021) of mobile and AI technologies in corporate communications while permitting them to express more comprehensive insights on technological transformations in their professional environment. The informants would be as follows:

**Tabel 1. List of Informants**

| Initials | Working Level | Experience |
|---|---|---|
| Z | Private sector employee – Staff level | >5 years experience in insurance industry |
| T | Private sector employee – Supervisor level | >10 years experience in insurance industry |
| W | Private sector employee – Managerial level | >15 years experience in insurance industry |
| V | Private sector employee – Executive level | >20 years experience in insurance industry |

Source: Primary Data from Researchers, 2024

The interview questions were crafted to encourage participants to contemplate technological developments in their employment so obtaining a thorough perspective consistent with the phenomenological objective of comprehending subjective experiences.

Thematic analysis was used for data processing and analysis, effectively aligning with phenomenological research by facilitating the discovery and reporting of patterns in qualitative data (Braun & Clarke, 2006). The analysis started with transcription, followed by familiarization with the material by iterative reading. Coding was then used to categorize text segments that reflected relevant experiences and viewpoints by the study's criteria (Lim, 2024). These codes were organized into broader themes that reflect participants' interpretations of mobile and AI technology's role in corporate communications and PR. Themes like "digital transformation in customer interactions," "efficiency versus ethics in AI use," and "technological influence on brand trust" emerged, offering insight into how technological determinism is perceived within the professional practices of the insurance industry.

Techniques such as information triangulation and member checking were employed to ensure the credibility and reliability of the data. Triangulation involved cross-referencing data from various participants to identify consistent patterns, strengthening the validity of the findings (Denzin & Lincoln, 2011). Member checking involved sharing summaries of findings with participants, allowing them to confirm the accuracy of interpretations and provide clarification where necessary. This approach ensured that the findings accurately captured participants' experiences and perspectives, enhancing the study's trustworthiness.

## FINDINGS AND DICUSSION

Mobile and artificial intelligence technologies have been integrated, which has resulted in a significant transformation of client contact patterns within the insurance business. Informants have repeatedly noted that mobile platforms have revolutionized consumer involvement by providing access to services like policy administration, claims filing, and real-time assistance, even though these services were previously unavailable. Customers' growing need for instant gratification and convenience is the driving force behind this change, which symbolizes a move away from conventional face-to-face encounters and toward digital self-service (Galdolage, 2022). A supervisor-level informant with more than 10 years of experience, T, observed that "customers now expect services to be available at their fingertips without the need for physical visits or long waiting times." This shift reflects a more significant trend of digitization across businesses and a rising expectation for transparent and readily available services in an age that prioritizes digital technology.

In addition, mobile apps make it possible for insurance companies to provide individualized services. In addition to freely controlling their policies, customers may get reminders about premium payments and obtain timely updates. This self-service strategy has decreased dependency on intermediaries, shortened customer journeys, and generated a feeling of empowerment among policyholders, according to the information provided by the persons who provided the information. On the other hand, Z, an informant at the staff level, communicated their worries about accessibility, especially regarding consumers who reside in underdeveloped locations or have inadequate digital literacy. The need to ensure that developments serve varied consumer groups and do not alienate people with less technological expertise is brought to light by these problems, highlighting the importance of inclusion in the application of technology.

Artificial intelligence technology has emerged as a fundamental component for enhancing operational efficiency and decision-making processes within the insurance industry. Informants emphasized the importance that it plays in automating complex processes such as the identification of fraudulent activity, the evaluation of risks, and the promotion of individualized product recommendations. W, an informant with over 15 years of experience and a management level of expertise, observed that "AI has replaced manual, time-consuming processes with automated systems capable of evaluating claims and tailoring policies quickly and accurately." Insurers have been able to distribute resources more strategically, allowing them to concentrate on their customers' complicated requirements while lowering their operating expenses.

Customer support has grown more dependent on chatbots and virtual assistants powered by artificial intelligence. They give prompt solutions to frequently asked questions, guide consumers through filing claims, and provide individualized policy recommendations based on real-time data analysis (Javaid et al., 2023). In addition to offering help around the clock, these technologies streamline service delivery, considerably improving the overall customer experience. Nevertheless, informants regularly brought up ethical issues about the openness of artificial intelligence and the use of data. As a significant obstacle, the "black box" problem, in which consumers and businesses cannot understand how artificial intelligence algorithms arrive at their conclusions, was brought to light. An executive-level informant named V observed that "at the same time that artificial intelligence has enormous potential for enhancing services, customers need to have faith that these systems operate fairly and transparently."

The research also shows that mobile and artificial intelligence technologies are vital in forming brand trust. Transparency is increased via mobile platforms since they allow consumers to modify their policies and access critical information in real-time freely. Similarly, personalization powered by artificial intelligence builds client connections by providing individualized services that cater to specific requirements. On the other hand, the informants noted that technological failures, like system outages, mistakes in AI suggestions, or data breaches, might drastically damage confidence. After careful consideration, ZAF concluded that "even a minor technological lapse can have long-term repercussions for customer confidence." These results highlight the significance of balancing technical innovation, dependability, and ethical issues to maintain trust and loyalty in a competitive market.

There is a tight alignment between the results and technological determinism ideas, notably the assumption that technical breakthroughs are significant drivers of social and organizational change. The transition from conventional face-to-face contacts to digital platforms shows that mobile and artificial intelligence technologies have transformed consumer involvement in the insurance industry. This shift reflects Ellul's (1964) thesis on the inevitability of technological development, which states that innovation intrinsically demands changes in the existing organizational and social structures. This deterministic approach is shown by the growing adoption of mobile and artificial intelligence technologies in the insurance business. These technologies demonstrate how technology breakthroughs redefine industry norms, remodel client experiences, and modify organizational strategy.

At the same time, the results also reflect soft determinism, a theory in which social, cultural, and regulatory variables operate as mediators between the adoption and influence of technology. Williams (1990) suggested that while technology presents chances for change, the consequences of technology are molded by the social settings in which it is implemented. Consider, for instance, the ethical considerations surrounding data privacy and artificial intelligence's openness, which were brought to light by informants, demonstrating how society's expectations impact technology integration. According to these dynamics, even while technology functions as a catalyst for change, the influence of technology is negotiated within the context of societal values, cultural norms, and regulatory needs.

Recent research has highlighted the revolutionary potential of mobile and artificial intelligence technologies in the insurance industry. The operational gains that were discovered in the study are in line with this research. Rane et al. (2023) research results show that digital technologies improve customer service delivery by lowering response times and boosting accessibility. These mobile platforms support these technologies, enabling insurers to communicate in real-time and in both directions. In a similar vein, the result reached by GhorbanTanhaei et al. (2024) that predictive analytics optimize operations and increase decision-making accuracy is consistent with the function that artificial intelligence plays in automating fraud detection and risk assessment. According to GhorbanTanhaei et al.(2024), chatbots and virtual assistants driven by artificial intelligence have become indispensable tools in customer interaction. These technologies allow insurers to handle consumer demands proactively and effectively.

Despite these benefits, the research highlights the ethical issues of mobile and artificial intelligence technology. Those who provided information stressed that artificial intelligence systems' "black box" character, in which decision-making processes are not transparent, calls for more openness to reduce consumer distrust. This is consistent with the position presented by Bleher and Braun (2022), which states that confidence in AI-driven systems depends on

disclosure, accountability, and ethical data use. Constantin and Irwansyah (2024) emphasized the need for enterprises to create ethical frameworks to guide mobile and artificial intelligence technology deployment. This ensures that the technologies align with stakeholders' expectations and societal values.

These results have strategic ramifications that extend to how corporations communicate with their audience and public relations departments. Communication that is both participatory and transparent is made possible by mobile platforms, which are in line with the two-way symmetrical communication paradigm developed by Gruning and Hunt (1984). This approach emphasizes mutual understanding and involvement between businesses and stakeholders, which is essential in sectors such as insurance, where trust and reputation are paramount. Personalization enabled by artificial intelligence further improves communication strategies by allowing businesses to provide messages suited to specific consumer segments that resonate with those segments. Rosário & Dias (2023) suggested that data-driven techniques enable companies to anticipate and react more effectively to the requirements of their audiences, which is a point that is clear in the research results.

A recurring topic in the research was how technology has influenced the concept of confidence in brands. Mobile platforms improve accessibility and transparency, making it easier for consumers to manage their policies with fewer obstacles to overcome. Likewise, customization powered by artificial intelligence promotes consumer interactions, yet it requires proper information about the operation of AI systems to alleviate concerns regarding fairness and privacy. Informants have repeatedly underlined that technological developments must be supported by ethical responsibility and operational dependability to maintain customers' trust and loyalty.

When viewed from a conceptual standpoint, the results highlight the fact that the function of technology in corporate communication and public relations goes beyond enhancing operational efficiency. Regarding consumer interactions, organizational procedures, and brand identity, mobile and artificial intelligence technologies function as revolutionary forces that alter these aspects. Technology is both a cause of change and a product of sociological and cultural circumstances. It thus represents the dual features of technological determinism, which states that technology functions as both things. In light of the findings of this research, it is essential to adopt a systematic strategy for integrating new technologies that strike a balance between effectiveness, openness, and ethical responsibility.

Corporate communicators and public relations specialists are crucial in understanding the link between technical improvements and stakeholders' expectations. According to the theory of technological determinism, mobile and artificial intelligence technologies are not only tools; they are dynamic forces that transform industries and society's norms. Corporate communicators align technical advancements with the firm's values and society's expectations. They must also handle ethical concerns while utilizing technology's advantages to cultivate trust and improve organizational stakeholder connections.

These results have significant implications beyond the existing discussion on digital transformation in Society 4.0 towards Society 5.0. As the insurance sector continues to embrace and adapt to mobile and artificial intelligence technology, it provides a microcosm for analyzing how digitization reshapes different types of conventional businesses. One of the most critical aspects of this change will continue to be the interaction between trust, ethics, and efficiency. This will emphasize the need for flexible and responsive strategies, focusing on customer-centricity and ethical responsibility.

Finally, our research contributes to the ongoing discussion on technological determinism by bridging the gap between theoretical discoveries and actual issues in the insurance industry. It emphasizes the significance of striking a balance between operational efficiency and ethical concerns, and it offers practitioners a road map that will help them negotiate the intricacies of digital transformation. Based on this foundation, further research might be conducted to investigate the comparative impact of mobile and artificial intelligence technologies across various sectors or to investigate the long-term consequences of these technologies on the trust and reputation of organizations.

Incorporating mobile and artificial intelligence technology into the insurance sector has substantially impacted corporate communication and public relations strategies. To demonstrate the disruptive influence of digitalization, these technologies have reimagined how customers engage with businesses, operational procedures, and strategic approaches are implemented (Adama & Okeke, 2024). Corporate communicators can harness technology innovation to improve stakeholder trust, develop meaningful connections, and successfully traverse the intricacies of Society 4.0. This is accomplished by addressing these breakthroughs' ethical and practical problems. This research offers a framework for understanding technology's increasing role in defining corporate communication and public relations in the digital era. It gives significant insights that can be used by both practitioners and academics alike. Companies can leverage the promise of mobile and artificial intelligence technologies to generate meaningful and sustainable reforms if they emphasize openness, ethical responsibility, and strategic innovation.

## CONCLUSION

This research elucidates the transformative importance of mobile and artificial intelligence technologies in the insurance sector, particularly for corporate communication and public relations. Furthermore, it exemplifies the influence of these technologies on corporate dynamics and customer interactions within the framework of Society 4.0 technology. Conversely, when seen through technological determinism, these technologies are operational instruments and essential catalysts of transformation. Mobile platforms' arrival has profoundly transformed how customers engage with businesses, offering immediacy, autonomy, and enhanced transparency. These platforms enable customers to manage their policies, process claims, and access specialized services on demand, reflecting a broader cultural trend towards ease and self-service. Artificial intelligence technologies improve operational efficiency and decision-making by automating processes, detecting fraudulent activities, predictive analytics, and providing personalized product suggestions. These skills exemplify the potential applications of this technology. Hard determinism perceives technology as an independent force propelling society's advancement, while soft determinism regards technology as a socially constructed entity shaped by cultural values and ethical considerations (Lawal, 2024). Hard determinism posits that technology is the primary catalyst of social progress (Andel & Nandlal Kesur, 2024). Considering all these achievements, the dual character of technological determinism is delineated. Due to this duality, organizations must confront ethical problems, like the "black box" issue associated with artificial intelligence and concerns around data protection, while also upholding trust and openness. The advancement of public relations and corporate communication strategies is crucial, necessitating the implementation of two-way symmetrical communication models that foster proactive involvement and stakeholder alignment. This

technique enhances ethical responsibility, enabling organizations to capitalize on technical breakthroughs while upholding social ideals and maintaining stakeholder confidence.

These results have implications that transcend operational boundaries, influencing both current methodologies and existing theoretical frameworks. Firms must prioritize inclusivity in the technological applications they develop. It could be included in further research related to technological applications specifically related to mobile and AI appliacation in corporate communication and public relation to see how those technologies impacting the sectors. This commitment entails a more pragmatic dimension. To guarantee that mobile platforms are accessible to a wide range of demographic groups, including those with little digital literacy, these platforms need to implement relevant accessibility measures. Concurrently, it is imperative to develop artificial intelligence systems with ethical protections emphasizing openness, equity, and data security. Bleher & Braun (2022) contend that confidence in artificial intelligence systems depends on the extent of accountability and transparency inside them. Consequently, corporate communicators need to address any possible uncertainties and concerns proactively. The widespread acceptance of these technologies signifies an increased cultural inclination towards immediacy and transparency in the relationships between consumers and businesses (Prisco et al., 2024). This trend is associated with a rise in the importance of transparency. Organizations must balance automation and human interaction to prevent technological improvements from diminishing client engagement.

Moreover, regulatory criteria must be implemented to govern the ethical use of these technologies. This will guarantee their adherence to societal standards and ideals. The study results indicate that mobile and artificial intelligence technologies are transformative forces altering business communication, stakeholder interactions, and organizational identity. This is shown from a conceptual perspective. A systematic method that integrates ethical responsibility with technical innovation is required to demonstrate the significance of technological determinism in developing industrial practices (Tessema, 2021). This is essential to illustrate the importance of technological determinism. A crucial microcosm of these processes is evident in the insurance sector, offering valuable insights into how conventional sectors might navigate the transition to digital formats. This information is available in the insurance sector. For organizations to effectively establish trust, foster significant connections, and secure sustained success in a constantly developing digital landscape, they must adeptly use the possibilities offered by these technologies. This objective may be attained by prioritizing transparency and inclusion and formulating creative tactics. These findings have deepened our comprehension of the digital transition in Society 4.0 and offered a pragmatic roadmap for integrating mobile and artificial intelligence technologies, balancing societal impact, ethical considerations, and operational efficiency.

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