

THE IMPACT OF AI-POWERED CORPORATE COMMUNICATIONS ON CONSUMER BRAND LOYALTY: THE MEDIATING ROLE OF DIGITAL TRUST AND THE MODERATING EFFECT OF TECHNOLOGICAL ANXIETY

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ABSTRACT

The rapid advancement of artificial intelligence (AI) technologies has significantly transformed corporate communication practices by enabling organizations to deliver faster, more personalized, and data-driven interactions with consumers. In this context, understanding how AI-supported corporate communication influences consumer behavior has become increasingly important. The primary aim of this study is to examine the effect of AI-supported corporate communication on consumer brand loyalty while investigating the mediating role of digital trust and the moderating effect of technology anxiety.

A quantitative research approach was adopted, and a relational survey model was employed. The study was conducted among consumers residing in the six districts of the Turkish Republic of Northern Cyprus (TRNC): Nicosia, Famagusta, Kyrenia, Güzelyurt, İskele, and Lefke. Data were collected from 381 participants through a structured questionnaire using a simple random sampling method. The questionnaire included measures of AI-supported corporate communication, digital trust, technology anxiety, and brand loyalty. Data analyses were performed using SPSS 28 and AMOS 24. Reliability analysis, confirmatory factor analysis, descriptive statistics, correlation analysis, regression analysis, mediation analysis, and moderation analysis were conducted.

The findings revealed that AI-supported corporate communication has a significant positive effect on both digital trust and consumer brand loyalty. Digital trust was also found to positively influence brand loyalty. Furthermore, mediation analysis demonstrated that digital trust partially mediates the relationship between AI-supported corporate communication and brand loyalty. Moderation analysis indicated that technology anxiety weakens the positive effect of AI-supported corporate communication on brand loyalty. Consumers with lower levels of technology anxiety exhibited stronger loyalty responses to AI-supported communication practices, whereas those with higher levels of technology anxiety demonstrated weaker loyalty outcomes.

Overall, the study highlights the strategic importance of AI-supported corporate communication in fostering consumer trust and long-term brand loyalty. The findings suggest that organizations should focus on enhancing transparency, credibility, and ethical standards in AI-driven communication practices while simultaneously addressing consumers' technology-related concerns. The study contributes to the literature by integrating communication and business perspectives and providing empirical evidence from the TRNC context.

Keywords: Artificial Intelligence, AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, Brand Loyalty, Consumer Behavior.

Introduction

In today's rapidly evolving digital environment, businesses increasingly utilize artificial intelligence (AI) technologies to establish faster, more effective, and highly personalized communication with their target audiences. AI applications have transformed corporate communication processes by enhancing customer service, social media management, content creation, data analytics, and consumer relationship management. Through AI-supported communication systems, organizations can better understand consumer needs, deliver customized messages, and improve communication efficiency, thereby strengthening relationships with stakeholders (Kaplan & Haenlein, 2019).

However, the growing integration of AI technologies into communication activities has also reshaped consumers' perceptions of trust in digital environments. The increasing volume of AI-generated content has led consumers to become more cautious regarding the credibility, transparency, and authenticity of information shared through digital channels. Consequently, digital trust has emerged as one of the most significant concepts in contemporary communication and business research (Dwivedi et al., 2023).

Digital trust refers to consumers' confidence in digital platforms, technologies, information systems, and online interactions. Consumers who trust digital communication channels are more likely to engage with brands, develop positive attitudes, and establish long-term relationships. In this regard, digital trust plays a critical role in enhancing

customer engagement and fostering brand loyalty within AI-supported communication environments (Gefen, Karahanna, & Straub, 2003).

At the same time, consumers do not respond to artificial intelligence technologies in the same way. While some individuals perceive AI as innovative, useful, and beneficial, others experience concerns related to privacy, security, employment displacement, and the loss of human control. These concerns are commonly conceptualized as technology anxiety in the literature. Technology anxiety may influence how consumers perceive and respond to AI-supported communication practices, thereby affecting their trust and loyalty toward brands (Venkatesh et al., 2003).

Brand loyalty is defined as a consumer's commitment to continuously prefer a specific brand despite the availability of competing alternatives. It is widely recognized as one of the most valuable strategic assets for organizations seeking sustainable competitive advantage. Loyal consumers tend to repurchase products, recommend brands to others, and maintain long-term relationships with organizations. Therefore, understanding the factors that contribute to brand loyalty has become increasingly important for both scholars and practitioners.

Although previous studies have examined the relationships among artificial intelligence, trust, and consumer behavior, limited research has explored the impact of AI-supported corporate communication on brand loyalty while simultaneously considering the mediating role of digital trust and the moderating role of technology anxiety. Addressing this gap is particularly important as organizations continue to invest heavily in AI-driven communication systems.

Therefore, this study aims to examine the effect of AI-supported corporate communication on consumer brand loyalty. Furthermore, it investigates the mediating role of digital trust and the moderating effect of technology anxiety within this relationship. By integrating concepts from both communication and business disciplines, the study seeks to contribute to the growing literature on artificial intelligence, digital trust, technology anxiety, and consumer loyalty in the digital age. The rapid advancement of artificial intelligence technologies has significantly transformed corporate communication practices. Today, organizations increasingly utilize AI-supported applications in customer service, social media management, digital marketing, content creation, and stakeholder communication. While these technologies provide organizations with greater efficiency, cost advantages, and personalized communication opportunities, understanding how consumers perceive and respond to AI-supported communication remains an important research issue (Kaplan & Haenlein, 2019).

The growing use of AI-generated content has led consumers to question the credibility, authenticity, and transparency of information encountered in digital environments. As a result, trust has become a critical element of corporate communication strategies. Understanding how consumers' trust in AI-supported communication influences their loyalty toward brands has become increasingly important for both scholars and practitioners (Dwivedi et al., 2023).

Previous studies have emphasized the importance of digital trust in establishing long-term relationships between consumers and organizations. Digital trust refers to consumers' confidence in digital technologies, platforms, and communication processes. However, limited research has examined how AI-supported corporate communication contributes to the development of digital trust and how digital trust subsequently affects brand loyalty. This represents an important gap in the existing literature (Gefen, Karahanna, & Straub, 2003).

Furthermore, consumers differ considerably in their attitudes toward artificial intelligence technologies. While some individuals perceive AI as beneficial and innovative, others express concerns regarding privacy, security, ethical issues, and the potential loss of human control. These concerns are commonly referred to as technology anxiety. Individuals with higher levels of technology anxiety may respond differently to AI-supported communication practices than those with lower levels of anxiety. Despite its potential importance, the moderating role of technology anxiety in the relationship between AI-supported corporate communication and brand loyalty has not been sufficiently investigated. Within the context of the Turkish Republic of Northern Cyprus (TRNC), empirical studies examining the relationships among AI-supported corporate communication, digital trust, technology anxiety, and brand loyalty remain extremely limited. In particular, there is a lack of comprehensive research conducted among consumers living in the six districts of the TRNC, namely Nicosia, Famagusta, Kyrenia, Güzelyurt, İskele, and Lefke.

Therefore, the main problem addressed in this study is to determine the effect of AI-supported corporate communication on consumer brand loyalty, to examine the mediating role of digital trust in this relationship, and to investigate the moderating effect of technology anxiety.

Purpose of the Study

The primary purpose of this study is to examine the effect of AI-supported corporate communication on consumer brand loyalty. In addition, the study investigates the mediating role of digital trust in the relationship between AI-supported corporate communication and brand loyalty, as well as the moderating effect of technology anxiety.

The research focuses on consumers living in the six districts of the Turkish Republic of Northern Cyprus, namely Nicosia, Famagusta, Kyrenia, Güzelyurt, İskele, and Lefke. Accordingly, the study aims to determine how consumers

perceive AI-supported corporate communication practices and to reveal the role of digital trust in the development of brand loyalty while examining the impact of technology anxiety on this process.

Significance of the Study

Artificial intelligence technologies are increasingly being integrated into corporate communication activities. However, studies examining the impact of AI-supported communication practices on consumer brand loyalty remain limited. Investigating digital trust and technology anxiety within the same conceptual model makes this study particularly valuable in terms of its contribution to the literature. Another important aspect of the study is that it combines communication and business disciplines within a single framework. Examining AI-supported corporate communication, digital trust, technology anxiety, and brand loyalty together is expected to provide significant theoretical and practical contributions. Furthermore, conducting the study among consumers living in all six districts of the Turkish Republic of Northern Cyprus contributes to the regional literature by addressing an important research gap. The findings are expected to help organizations improve their AI-supported communication strategies, strengthen consumer trust, and foster long-term brand loyalty.

2. Theoretical Framework

2.1. AI-Supported Corporate Communication

The rapid development of artificial intelligence technologies has significantly transformed corporate communication practices. Organizations increasingly employ AI applications in customer relationship management, social media communication, content creation, crisis communication, and stakeholder engagement. AI-supported corporate communication refers to the integration of machine learning, natural language processing, predictive analytics, and generative AI technologies into organizational communication processes (Kaplan & Haenlein, 2019).

Through AI-supported communication systems, organizations can analyze consumer preferences more accurately, deliver personalized messages, and improve communication efficiency. Recent studies indicate that AI-driven communication strategies enhance customer engagement, improve consumer experiences, and strengthen relationships between brands and consumers (Dwivedi et al., 2023). As a result, AI has become a strategic tool for organizations seeking to establish sustainable competitive advantages in increasingly digital markets.

2.2. Digital Trust

Digital trust refers to consumers' confidence in digital platforms, technologies, online services, and communication processes. In digital environments, trust is considered a fundamental factor influencing consumers' willingness to interact with organizations and engage in long-term relationships (Gefen, Karahanna, & Straub, 2003). The growing use of AI-generated content has increased consumers' concerns regarding transparency, credibility, privacy, and ethical issues. Consequently, digital trust has become a critical determinant of consumers' acceptance of AI-supported communication systems. Consumers who trust digital technologies are more likely to perceive organizational communication positively and develop stronger relationships with brands (McKnight, Carter, Thatcher, & Clay, 2011).

2.3. Technology Anxiety

Technology anxiety is defined as the feelings of uncertainty, fear, or discomfort experienced by individuals when interacting with new technologies. With the widespread adoption of artificial intelligence, technology anxiety has emerged as a significant issue affecting technology acceptance and usage behavior. Consumers may experience concerns related to privacy violations, cybersecurity risks, algorithmic decision-making, ethical implications, and potential job displacement. Such concerns can negatively influence attitudes toward AI-supported communication systems (Venkatesh et al., 2003). Previous research has demonstrated that individuals with high levels of technology anxiety are generally more reluctant to adopt new technologies, whereas those with lower anxiety levels tend to embrace technological innovations more readily (Marangunić & Granić, 2015).

2.4. Brand Loyalty

Brand loyalty refers to consumers' commitment to repeatedly purchase and prefer a particular brand despite the availability of competing alternatives (Oliver, 1999). Brand loyalty is widely recognized as one of the most valuable assets for organizations because loyal customers contribute to long-term profitability, positive word-of-mouth communication, and customer retention.

In today's digital environment, consumers increasingly evaluate brands not only based on product quality but also on communication effectiveness. AI-supported communication enables organizations to provide personalized experiences, respond quickly to customer needs, and create meaningful interactions. These capabilities may significantly contribute to the development of brand loyalty (Huang & Rust, 2021).

2.5. Relationships Among AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, and Brand Loyalty

Existing literature suggests that AI-supported communication practices positively influence consumers' perceptions of trust and satisfaction. By providing accurate, personalized, and timely information, AI-supported communication systems can strengthen digital trust and improve brand-consumer relationships (Gefen et al., 2003).

Digital trust, in turn, plays a critical role in the formation of brand loyalty. Consumers who trust a brand's communication processes are more likely to remain loyal and maintain long-term relationships with that brand (McKnight et al., 2011). Therefore, digital trust may function as a mediating mechanism through which AI-supported corporate communication influences brand loyalty.

However, the effectiveness of AI-supported communication may vary depending on consumers' levels of technology anxiety. Individuals with high technology anxiety may perceive AI applications more negatively, reducing the effectiveness of communication efforts. Conversely, individuals with lower levels of anxiety may respond more positively to AI-supported communication strategies. Therefore, technology anxiety is expected to moderate the relationship between AI-supported corporate communication and brand loyalty.

Accordingly, examining digital trust as a mediator and technology anxiety as a moderator provides a comprehensive framework for understanding how AI-supported corporate communication contributes to consumer brand loyalty in contemporary digital environments.

3. Research Hypotheses

Based on the theoretical framework and previous literature, the following hypotheses were developed:

H1: AI-supported corporate communication has a positive and significant effect on consumer brand loyalty.

H2: AI-supported corporate communication has a positive and significant effect on digital trust.

H3: Digital trust has a positive and significant effect on consumer brand loyalty.

H4: Digital trust mediates the relationship between AI-supported corporate communication and consumer brand loyalty.

H5: Technology anxiety moderates the relationship between AI-supported corporate communication and consumer brand loyalty.

H5a: The positive effect of AI-supported corporate communication on consumer brand loyalty is stronger among consumers with low levels of technology anxiety.

H5b: The positive effect of AI-supported corporate communication on consumer brand loyalty is weaker among consumers with high levels of technology anxiety.

3. Methodology

3.1. Research Model

This study employed a quantitative research design to examine the effect of AI-supported corporate communication on consumer brand loyalty. The study further investigated the mediating role of digital trust and the moderating effect of technology anxiety. A relational survey model was adopted to determine the relationships among the variables. The independent variable of the study was AI-supported corporate communication, the dependent variable was consumer brand loyalty, the mediating variable was digital trust, and the moderating variable was technology anxiety.

3.2. Population and Sample

The population of the study consisted of consumers residing in the six districts of the Turkish Republic of Northern Cyprus, namely Nicosia, Famagusta, Kyrenia, Güzelyurt, İskele, and Lefke. Simple random sampling was employed. Based on a 95% confidence level and a 5% margin of error, data were collected from 392 participants. After eliminating incomplete questionnaires, 381 valid questionnaires were included in the analyses.

3.3. Data Collection Instruments

Data were collected through a structured questionnaire consisting of five sections.

Demographic Information Form

Gender, age, educational level, district of residence, and daily internet usage duration.

AI-Supported Corporate Communication Scale

Adapted from recent studies examining AI-based communication practices and consumer perceptions.

Digital Trust Scale

Adapted from McKnight et al. (2011).

Technology Anxiety Scale

Adapted from Venkatesh et al. (2003) and Marangunić and Granić (2015).

Brand Loyalty Scale
Adapted from Oliver (1999). All items were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.4. Data Collection Process

The data were collected through an online questionnaire between January and April 2026. Participation was voluntary and anonymous. Respondents were informed about the purpose of the study and assured that the collected information would be used solely for scientific purposes.

3.5. Data Analysis

The collected data were analyzed using SPSS 28 and AMOS 24.

4. Findings Section

Table 1. Demographic Characteristics of the Participants (n = 381)

Variable	Category	n	%
Gender	Female	216	56.7
	Male	165	43.3
Age	18–25	102	26.8
	26–35	118	31.0
	36–45	94	24.7
	46 and above	67	17.5
Education Level	High School	78	20.5
	Associate Degree	86	22.6
	Bachelor's Degree	154	40.4
	Graduate Degree	63	16.5
District	Nicosia	116	30.4
	Famagusta	79	20.7
	Kyrenia	71	18.6
	Güzelyurt	42	11.0
	İskele	40	10.5
	Lefke	33	8.7
Daily Internet Usage	1–3 Hours	45	11.8
	4–6 Hours	107	28.1
	7–9 Hours	124	32.5
	10 Hours and Above	105	27.6
Total		381	100.0

Table 1 presents the demographic characteristics of the participants included in the study. The findings indicate that 56.7% of the participants were female and 43.3% were male. The largest age group consisted of participants aged between 26 and 35 years (31.0%), followed by those aged 18–25 years (26.8%).

Regarding educational level, the majority of participants held a bachelor's degree (40.4%), while 16.5% possessed a graduate degree. In terms of geographical distribution, most respondents resided in Nicosia (30.4%), followed by Famagusta (20.7%) and Kyrenia (18.6%).

The results further revealed that a considerable proportion of participants spent a substantial amount of time online. Specifically, 60.1% of the respondents reported using the internet for seven hours or more per day. This finding suggests that the sample consisted of individuals who are highly engaged with digital technologies and online communication environments.

Table 2. Normality Analysis Results

Variables		Kolmogorov-Smirnov	p	Shapiro-Wilk	p	Skewness	Kurtosis
AI-Supported Communication	Corporate	.097	.000	.974	.001	-0.438	0.327
Digital Trust		.089	.002	.979	.003	-0.392	0.284
Technology Anxiety		.083	.004	.982	.005	0.417	-0.265
Brand Loyalty		.094	.001	.976	.002	-0.486	0.411

Interpretation of Table 2

Table 2 presents the normality analysis results of the research variables. Although the Kolmogorov-Smirnov and Shapiro-Wilk tests were significant ($p < .05$), the skewness and kurtosis values were within the acceptable range of ± 1 .

Therefore, the data were considered to be approximately normally distributed, and parametric statistical analyses were performed in the study.

Table 3. Reliability Analysis Results

Scale	Number of Items	Cronbach's Alpha
AI-Supported Corporate Communication	8	0.92
Digital Trust	6	0.89
Technology Anxiety	7	0.87
Brand Loyalty	6	0.91

Interpretation of Table 3

Table 3 presents the reliability analysis results of the scales used in the study. The Cronbach's Alpha coefficients ranged between 0.87 and 0.92. Since all reliability coefficients exceeded the recommended threshold of 0.70, the scales demonstrated a high level of internal consistency and reliability. Therefore, all measurement instruments were considered suitable for further statistical analyses.

Table 4. Confirmatory Factor Analysis (CFA) Fit Indices

Fit Index	Obtained Value	Acceptable Value
χ^2/df	2.36	< 5.00
CFI	0.95	≥ 0.90
TLI	0.94	≥ 0.90
IFI	0.95	≥ 0.90
GFI	0.92	≥ 0.90
RMSEA	0.060	≤ 0.08
SRMR	0.047	≤ 0.08

Interpretation of Table 4

Table 4 presents the results of the Confirmatory Factor Analysis. The fit indices indicated that the measurement model demonstrated an acceptable fit to the data. All fit values were within recommended thresholds, confirming the construct validity of the scales used in the study.

Table 5. Descriptive Statistics of the Research Variables

Variables	Minimum	Maximum	Mean	Standard Deviation
AI-Supported Corporate Communication	1.38	5.00	4.02	0.71
Digital Trust	1.42	5.00	3.89	0.68
Technology Anxiety	1.00	5.00	2.84	0.79
Brand Loyalty	1.25	5.00	4.08	0.73

Interpretation of Table 5

Table 5 presents the descriptive statistics of the research variables. The findings indicate that participants reported relatively high levels of AI-supported corporate communication ($M = 4.02$), digital trust ($M = 3.89$), and brand loyalty ($M = 4.08$). In contrast, technology anxiety was found to be at a moderate level ($M = 2.84$). Overall, the results suggest that participants generally held positive perceptions toward AI-supported communication and demonstrated strong loyalty toward brands.

Table 6. Comparison of AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, and Brand Loyalty by Gender

Variables	Female (n=216) Mean	Male (n=165) Mean	t	p
AI-Supported Corporate Communication	4.12	3.89	3.264	.001
Digital Trust	3.97	3.78	2.488	.013
Technology Anxiety	2.79	2.91	-1.562	.119
Brand Loyalty	4.17	3.96	3.821	.000

Interpretation of Table 6

Table 6 compares the research variables according to gender. Significant differences were found in AI-supported corporate communication, digital trust, and brand loyalty ($p < .05$). Female participants reported higher mean scores than male participants. However, no significant gender difference was observed for technology anxiety ($p > .05$).

Table 7. Comparison of AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, and Brand Loyalty by Age Groups

Variables		18–25 Mean	26–35 Mean	36–45 Mean	46+ Mean	F	p
AI-Supported Corporate Communication	Corporate	3.78	3.96	4.09	4.21	5.874	.001
Digital Trust		3.71	3.85	3.97	4.11	4.692	.003
Technology Anxiety		3.12	2.93	2.68	2.47	6.241	.000
Brand Loyalty		3.84	4.01	4.12	4.28	5.438	.001

Interpretation of Table 7

Table 7 shows significant differences among age groups regarding AI-supported corporate communication, digital trust, technology anxiety, and brand loyalty ($p < .05$). Older participants reported higher levels of digital trust and brand loyalty, whereas younger participants exhibited higher levels of technology anxiety.

Table 8. Comparison of AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, and Brand Loyalty by District

Variables		Nicosia	Famagusta	Kyrenia	Güzelyurt	İskele	Lefke	F	p
AI-Supported Corporate Communication	Corporate	4.18	4.06	3.97	3.84	3.79	3.73	4.821	.001
Digital Trust		4.02	3.94	3.86	3.75	3.72	3.69	3.996	.002
Technology Anxiety		2.65	2.77	2.88	2.97	3.05	3.12	3.728	.003
Brand Loyalty		4.22	4.10	4.03	3.92	3.89	3.84	4.376	.001

Interpretation of Table 8

Table 8 indicates significant differences across districts in all research variables ($p < .05$). Participants living in Nicosia and Famagusta reported higher levels of AI-supported corporate communication, digital trust, and brand loyalty. Technology anxiety was relatively higher among participants residing in Lefke and İskele.

Table 9. Comparison of AI-Supported Corporate Communication, Digital Trust, Technology Anxiety, and Brand Loyalty by Daily Internet Usage

Variables		1–3 Hours	4–6 Hours	7–9 Hours	10+ Hours	F	p
AI-Supported Corporate Communication		3.41	3.82	4.11	4.29	8.146	.000
Digital Trust		3.38	3.74	4.01	4.16	6.273	.000
Technology Anxiety		3.22	2.98	2.73	2.49	7.115	.000
Brand Loyalty		3.56	3.88	4.14	4.31	7.524	.000

Interpretation of Table 9

Table 9 demonstrates that daily internet usage significantly influences all research variables ($p < .001$). Participants with higher internet usage reported stronger perceptions of AI-supported corporate communication, higher digital trust, and greater brand loyalty. Conversely, technology anxiety decreased as internet usage increased.

Table 10. Correlation Analysis Results

Variables	1	2	3	4
1. AI-Supported Corporate Communication	1			
2. Digital Trust	.642**	1		
3. Technology Anxiety	-.318**	-.356**	1	
4. Brand Loyalty	.691**	.715**	-.284**	1

$p < .01$

Interpretation of Table 10

Table 10 presents the correlation coefficients among the research variables. AI-supported corporate communication was positively correlated with digital trust ($r = .642$, $p < .01$) and brand loyalty ($r = .691$, $p < .01$). Digital trust also showed a strong positive relationship with brand loyalty ($r = .715$, $p < .01$). Technology anxiety was negatively related to all other variables.

Table 11. Regression Analysis Results

Independent Variable	Dependent Variable	β	t	p
AI-Supported Corporate Communication	Brand Loyalty	.691	15.842	.000

AI-Supported Corporate Communication	Digital Trust	.642	13.991	.000
Digital Trust	Brand Loyalty	.715	17.284	.000

Interpretation of Table 11

The regression results indicate that AI-supported corporate communication significantly predicts brand loyalty ($\beta=.691$, $p<.001$) and digital trust ($\beta=.642$, $p<.001$). Furthermore, digital trust significantly predicts brand loyalty ($\beta=.715$, $p<.001$). Therefore, H1, H2, and H3 were supported.

Table 12. Mediation Analysis Results (Digital Trust)

Path	β	p
AI-Supported Corporate Communication → Digital Trust	.642	.000
Digital Trust → Brand Loyalty	.517	.000
AI-Supported Corporate Communication → Brand Loyalty (Direct Effect)	.359	.000
Indirect Effect	.332	.000

Interpretation of Table 12

The mediation analysis revealed that digital trust significantly mediated the relationship between AI-supported corporate communication and brand loyalty. The indirect effect was statistically significant ($\beta=.332$, $p<.001$), indicating partial mediation. Accordingly, H4 was supported.

Table 13. Moderation Analysis Results (Technology Anxiety)

Variable	β	t	p
AI-Supported Corporate Communication	.584	12.416	.000
Technology Anxiety	-.213	-4.295	.000
AI-Supported Corporate Communication × Technology Anxiety	-.168	-3.846	.000

Interpretation of Table 13

The interaction effect between AI-supported corporate communication and technology anxiety was found to be statistically significant ($\beta=-.168$, $p<.001$). The findings indicate that technology anxiety weakens the positive effect of AI-supported corporate communication on brand loyalty. Therefore, H5 was supported.

Table 14. Hypothesis Testing Results

Hypothesis	Statement	Result
H1	AI-supported corporate communication positively affects brand loyalty.	Supported
H2	AI-supported corporate communication positively affects digital trust.	Supported
H3	Digital trust positively affects brand loyalty.	Supported
H4	Digital trust mediates the relationship between AI-supported corporate communication and brand loyalty.	Supported
H5	Technology anxiety moderates the relationship between AI-supported corporate communication and brand loyalty.	Supported

Interpretation of Table 14

The results demonstrated that all proposed hypotheses were supported. AI-supported corporate communication directly enhanced both digital trust and brand loyalty. Digital trust partially mediated this relationship, while technology anxiety significantly moderated the strength of the relationship between AI-supported corporate communication and brand loyalty.

Discussion

The primary objective of this study was to examine the effect of AI-supported corporate communication on consumer brand loyalty while investigating the mediating role of digital trust and the moderating effect of technology anxiety. The findings revealed that AI-supported corporate communication significantly and positively affects both digital trust and brand loyalty. These results suggest that organizations utilizing artificial intelligence technologies in their communication strategies can strengthen relationships with consumers and increase long-term loyalty.

One of the most important findings of the study is the positive effect of AI-supported corporate communication on digital trust. This result indicates that consumers perceive AI-driven communication systems as beneficial when they provide accurate, personalized, and timely information. The finding is consistent with previous studies emphasizing that trust plays a crucial role in technology-enabled communication environments (Gefen et al., 2003; McKnight et al., 2011). As AI applications become increasingly integrated into corporate communication processes, consumers appear more willing to trust brands that effectively utilize these technologies.

The study also found a significant positive relationship between AI-supported corporate communication and brand loyalty. This finding supports the argument that personalized and interactive communication practices enhance consumers' emotional attachment and commitment to brands. Similar results have been reported by Huang and Rust (2021), who suggested that artificial intelligence enables organizations to create more meaningful customer experiences, ultimately contributing to stronger brand loyalty.

Another important result concerns the role of digital trust in explaining the relationship between AI-supported corporate communication and brand loyalty. The mediation analysis demonstrated that digital trust partially mediates this relationship. In other words, AI-supported communication not only directly influences brand loyalty but also indirectly affects loyalty by increasing consumers' trust in digital communication processes. This finding confirms that trust remains a central mechanism through which organizations build sustainable consumer relationships in digital environments.

The moderation analysis revealed that technology anxiety significantly influences the effectiveness of AI-supported corporate communication. Consumers with high levels of technology anxiety were less likely to develop brand loyalty through AI-supported communication practices. This result suggests that concerns regarding privacy, security, algorithmic decision-making, and technological complexity may reduce the positive impact of AI-based communication efforts. The finding is consistent with the Technology Acceptance Model and related literature emphasizing the importance of perceived risks and psychological barriers in technology adoption (Venkatesh et al., 2003; Marangunić & Granić, 2015).

Furthermore, demographic analyses indicated that participants with higher levels of internet usage reported greater digital trust and stronger brand loyalty. This finding suggests that familiarity with digital technologies may facilitate the acceptance of AI-supported communication systems. Similarly, participants from more digitally developed districts demonstrated more favorable attitudes toward AI-supported communication, indicating that technological infrastructure and digital experience may influence consumer perceptions.

Overall, the findings demonstrate that AI-supported corporate communication has become an important strategic tool for organizations operating in increasingly digital markets. However, the effectiveness of such communication practices largely depends on consumers' trust in digital systems and their levels of technology anxiety. Therefore, organizations should focus not only on implementing AI technologies but also on enhancing transparency, credibility, and ethical standards to foster consumer trust and loyalty.

The study contributes to the existing literature by integrating communication and business perspectives within a single framework. Moreover, it provides empirical evidence from the Turkish Republic of Northern Cyprus, a context that has received limited attention in previous research. The findings are expected to contribute to future studies examining artificial intelligence, digital trust, technology acceptance, and consumer behavior.

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