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Generative Al Adoption and Marketing Performance in Digital Finance: The Mediating Role of Digital Product Innovation

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ABSTRACT

This study examines the relationship between Generative Artificial Intelligence (AI) adoption and marketing performance in digital finance, focusing on the mediating role of digital product innovation. The study aims to explain how AI adoption can support marketing effectiveness by facilitating the development of innovative digital financial products and services. A quantitative, cross-sectional research design was proposed, with primary data intended to be collected through a structured, self-administered questionnaire distributed via Google Forms to a target sample of 335 respondents working in banks, FinTech companies, and digital financial institutions in Pakistan, including HBL, UBL, National Bank of Pakistan, Allied Bank, Bank Alfalah, JazzCash, and Easypaisa. Convenience sampling was proposed to recruit respondents familiar with digital finance, marketing, and AI-supported activities. The planned statistical analysis included demographic frequencies and percentages, Cronbach's alpha reliability analysis, Pearson correlation, linear regression, and mediation analysis using PROCESS Macro Model 4 with 5,000 bootstrap samples and 95% confidence intervals. The illustrative results indicated a positive relationship between Generative AI adoption and marketing performance ($r = .624$, $p < .001$) and a positive association between Generative AI adoption and digital product innovation ($r = .587$, $p < .01$). The proposed mediation analysis further suggested a positive indirect relationship between Generative AI adoption and marketing performance through digital product innovation ($\beta = .247$, 95% bootstrap confidence interval $[.160, .345]$). These potential findings emphasize that the value of Generative AI may extend beyond technology adoption to the development of innovative, customer-oriented financial products that strengthen marketing activities. The study offers practical implications for banks and FinTech organizations seeking to enhance customer engagement, improve digital service development, and strengthen their competitive position through responsible AI integration. It also provides a foundation for future research examining AI-driven innovation and marketing outcomes in emerging digital financial markets. The statistical values are illustrative rather than calculated from actual respondent data and must be replaced with verified empirical results before the abstract is used as a report of completed research.

Introduction

Generative AI Adoption in Digital Finance

Generative Artificial Intelligence (Generative AI) is a recent technological development that is changing how businesses operate, communicate with customers, and develop marketing strategies. Unlike traditional AI, which mainly predicts outcomes, classifies information, or analyzes data, Generative AI can produce new content, including text, images, personalized recommendations, and

responses to customer questions. These capabilities allow businesses to improve customer communication and develop marketing approaches that better meet customer needs.It is used in digital finance for automated customer support systems, customised financial product suggestions, marketing material creation, customer relationship management, and customer requirement analysis. According to Kshetri et al. (2024), Generative AI presents significant marketing opportunities in content creation, personalization, and enhancing marketing productivity. Likewise, Dwivedi et al. (2023) pointed out the transformative potential of Generative AI but also noted the need of problems around its organizational, ethical and operational issues. As a result, the use of Generative AI is becoming a strategic priority for banks aiming to boost their digital skills and enrich marketing efforts.

Adoption of generative AI involves how well an organization incorporates and leverages generative AI technologies into its business processes, decision-making, and customer interactions. For digital finance, adoption could be anything from using AI-powered systems to create personalized promo messages, automating customer enquiries, figuring out what customers prefer, and aiding in creating targeted marketing campaigns. However, the success of this relies not just on the readiness of AI technologies, but also on the readiness of the organization, the skills of its employees, the quality of the data used, and its ability to incorporate AI-generated output into current business processes. The research on Generative AI in banking suggests that managerial preparedness, reliability, responsiveness, and regulatory compliance are crucial aspects to consider when implementing GenAI in financial institutions (Dubey et al., 2025). The adoption of Generative AI should, therefore, be seen as an organizational capacity that includes the use of AI tools as opposed to simply obtaining technological resources. The potential of its strategic value is dependent on the ability of financial institutions to translate these capabilities into innovative products, meaningful customer experiences and enhanced marketing results.

In the context of digital finance, the use of Generative AI is significant due to the dynamic nature of customer expectations, the rise in demand for personalized services, and the growing use of digital channels for customer interaction, all within a competitive landscape. Generative AI offers banks, digital payment companies and FinTech companies ways to communicate with their customers more efficiently, customize promotional messages to various market segments and help develop new digital service offerings. Yet, the resulting organizational performance from these technologies is not guaranteed just by introducing the technology – a successful implementation, governance and the ability to translate technological capabilities into business value are all required. These discussions highlight the importance of addressing the opportunities and constraints of Generative AI in organizational and societal settings, as well as the digital transformation of organizational capabilities, strategies, and value creation, which was emphasized by Whitfield et al. (2026). In light of this, a look at the adoption of Generative AI in digital finance is the right starting point to gain insight into how new AI capabilities could impact marketing performance, especially if these are adopted as part of a new and innovative digital financial product.

Marketing Performance in Digital Finance

Marketing performance refers to how successfully a business achieves its marketing objectives. These objectives include attracting new customers, keeping existing customers, reaching new markets, building customer relationships, and promoting products and services effectively. It indicates the effectiveness an organization has in transforming its marketing plans and investments into measurable marketing-related results. For digital finance, digital marketing performance can be seen through greater customer engagement, higher conversion rates, better customer relationships, higher awareness of financial products and services, and an increase in financial product adoption. The need to measure marketing performance for gaining insight into marketing performance and organizational accountability was highlighted by Yendra (2023) also explored the link between marketing investments, outcomes, and financial results, and called for assessing the value created by marketing activities to an organization. So in digital finance, marketing performance goes beyond the amount of marketing activity and involves how successfully marketing activities deliver meaningful customer and business results.

In today's digital world, financial institutions are increasingly using data to communicate with customers and expanding their online presence. As a result, measuring marketing performance has become more important for understanding the effectiveness of their marketing activities and achieving business goals. While traditional marketing tactics rely on a single message and generic audience targeting, digital marketing empowers companies to harness customer data, automated messaging, and tailor-made content, thereby optimizing campaign relevance. These functions can be enhanced by the use of generative AI for creating personalized marketing materials, addressing customer inquiries, and streamlining the financial sector's ability to meet customer demands. The potential of Generative AI in enhancing marketing productivity and personalization was explored by Aljumah et al. (2026), with Krithika (2026) detailing the various ways artificial intelligence can revolutionize marketing, through analytical, mechanical, and interpersonal skills. With these advancements, AI-powered marketing could potentially enhance financial institutions' campaign efficiency and customer interactions. However, the impact of Generative AI on marketing results cannot be taken at face value and will need to be tested – the results could differ based on the quality of the implementation, customer acceptance, or the relevance of the products being promoted.

Organizations that can differentiate their service, respond to competition and communicate the benefits of digital services will also be pivotal in digital finance marketing performance. Customers can assess financial services on the basis of convenience, accessibility, personalization, perceived usefulness and quality of digital services. A marketing program is not just about getting the message to customers; it's also about providing customers with products and services that meet their growing needs. Mishra et al., (2024) defined digital transformation as a strategic process involving organizational structures, business models, value creation, found that digital

capabilities and digital innovation have positive relationships with firm performance in the information and communication technology sector in Pakistan. Such views indicate that marketing efficacy in the digital finance sector could be influenced to some degree by how well the organization can integrate technological resources and innovative product development. This outcome, coupled with the uptake of Generative AI and digital product innovation, can thus offer a more holistic view of how financial institutions can convert technology investments into market-related outcomes.

Digital Product Innovation and the Relationships Among Variables

Digital product innovation refers to the development of new products and services or the improvement of existing ones through digital technologies. Its main purpose is to provide better value to customers and meet their changing needs and expectations.In digital finance, it could involve the integration of AI-powered financial support, customized digital banking experiences, clever payment systems, enhanced mobile banking capabilities, and automatic financial service interfaces. Digital product innovation is a process that differs from the implementation of a digital tool as it is focused on developing or significantly enhancing a customer-facing product. According to Nambisan et al. (2017), digital innovation is defined as the innovation of products, services and business processes using digital technologies. Likewise, Alvarado-Vargas et al. (2020) showed that the digital technology opens new possibilities for innovation by allowing for the recombination of technological components and functionalities. The views presented are a foundation for understanding the relevance of digital product innovation as an organizational capability, and how financial institutions can use this capability to adapt to evolving customer needs and create a differentiated digital service offering.

Generative AI adoption can support digital product innovation by helping businesses develop new ideas, understand customer needs, personalize services, and improve existing digital products. These capabilities enable financial institutions to create better products and services that meet customer expectations. Financial institutions that embrace Generative AI can leverage it to gain insights from customer feedback, anticipate new service needs, generate product ideas, and enhance digital communication channels. Such capabilities can help to speed up innovation processes and contribute to the development of more market-oriented products. Nasiri et al. (2023) put the spotlight on digital technologies and how they are transforming innovation processes, and Kshetri et al. (2024) explore the capabilities of Generative AI and its implications for new ways of creating value in marketing. Furthermore, in the case of ICT sector, Shah et al. (2024) revealed that the digital capabilities and digital transformation are positively correlated with digital innovation and firm performance in the context of Pakistan. On this basis, the present study theorized that increased use of Generative AI may be linked to increased digital product innovation in financial institutions. The degree of this correlation can vary based on organizational preparedness, practices for implementing AI solutions, and how insights from AI are translated into meaningful product enhancements.

Digital product innovation also could be a channel for Generative AI's impact on marketing performance. By leveraging AI technologies, financial institutions can create digital products that are more relevant, accessible, and tailored to individual customer needs, potentially improving their ability to attract customers, foster engagement, and stand out in a competitive market. In this context, digital product innovation is a potential mediator because it helps to understand the benefits of the adoption of an emerging technology for the market. Digital innovation positively related to firm performance while digital capability needs to be reimagined into different forms of organizational value. Moreover, Khin et al., (2019) emphasized the need to connect marketing with significant performance results. Based on these views, the current study suggests that direct and indirect through digital product innovation may be a positive relationship between the adoption of Generative AI and marketing performance. An empirical analysis will be conducted to test the hypothesized mediating mechanism and see if the digital product innovation explains the link between Generative AI adoption and marketing performance of the financial institutions. It also provides a way to gain insight into the marketing impacts of Generative AI beyond the communications and personalization benefits, and into the creation of new digital financial products.

Research Objectives

- To examine the impact of Generative AI adoption on marketing performance in digital finance.
- To investigate the impact of Generative AI adoption on digital product innovation and the impact of digital product innovation on marketing performance.
- To examine the mediating role of digital product innovation in the relationship between Generative AI adoption and marketing performance.

Research Questions

- What is the impact of Generative AI adoption on marketing performance in digital finance?
- How does Generative AI adoption influence digital product innovation, and how does digital product innovation influence marketing performance?
- Does digital product innovation mediate the relationship between Generative AI adoption and marketing performance?

Problem Statement

The rapid development of Generative Artificial Intelligence (Generative AI) has created new opportunities for financial institutions to improve customer engagement, personalize their marketing strategies, and strengthen their position in the market. These technologies can help institutions better understand customer needs and provide services that match their preferences. While the impact of the use of Generative AI on marketing outcomes in digital finance is still under-researched, and the ways by which these benefits can be achieved, how it impacts performance still needs to be further understood. The relationship between Generative AI adoption and marketing performance has shown potential for improvement when mediated by marketing capabilities, as found by Chen et al. (2025) however, digital product innovation as a mediator remains to be investigated in the relationship between Generative AI adoption and marketing performance. In addition, financial institutions need to evaluate if AI models and tools can be translated into new and useful digital financial products to yield relevant market results. While research on digital innovation has been conducted on an organizational value creation perspective, the research area needs to be explored in more detail within the specific context of the adoption of Generative AI in the field of digital finance. Hence, this study seeks to explore how the use of Generative AI affects marketing performance and test its mediating role between Generative AI adoption and financial institutions marketing performance in Pakistan.

Significance of the Study

This study is significant because it aims to enhance understanding of how Generative AI adoption can contribute to marketing performance in the digital finance sector, particularly in Pakistan. By examining the mediating role of digital product innovation, the study will help clarify whether innovative digital financial products provide a pathway through which Generative AI adoption may improve marketing outcomes. The findings may assist bank managers, FinTech professionals, marketing specialists, and financial service providers in making informed decisions about AI adoption, product development, customer engagement, and digital marketing strategies. Furthermore, the study may provide practical insights into how financial institutions can align emerging AI technologies with customer needs and market demands. From an academic perspective, this research will contribute to the literature on artificial intelligence, digital innovation, and marketing performance by examining their relationships within the digital finance context. The findings may also provide a foundation for future researchers investigating AI-driven innovation and organizational performance in developing economies.

Literature Review

Generative AI Adoption and Marketing Performance

Generative Artificial Intelligence (Generative AI) is receiving increasing attention in marketing research because it can create content, personalize communication, and help businesses make decisions based on customer needs and preferences. Huang and Rust (2021) has come up with a strategic framework that elaborates on the various types of artificial intelligence that can be utilized to enhance marketing efforts including automation, analytical decision making, and customer interactions with artificial intelligence. Similarly, Grewal et al., (2025) wrote about the opportunities and challenges of Generative AI in marketing, highlighting its ability to revolutionize marketing practices and marketing activities within the organizations. Cillo and Rubera (2025) followed suit, discussing the potential uses and effects of Generative AI on innovation and marketing processes, and how companies can leverage AI for product creation and customer interactions. The studies offer a conceptual basis for exploring the possibility of Generative AI adoption as a means to improve marketing performance in the digital finance space.

Marketing performance can be defined as how well an organization meets its marketing goals by gaining customers, keeping them, engaging them and promoting its products and services. Marketer assessment of marketing performance is crucial to the understanding of marketing effectiveness and organizational outcomes, as stressed. Moreover, Devadiga et al. (2026) have explained that digital transformation affects the capabilities of the organization, business models, and value-creation mechanisms, which all contribute to how firms compete in digital markets. In the financial services industry, Generative AI could help enhance the performance of marketing by enabling personalized marketing materials, better customer interactions and quicker responses to customer queries. These benefits, however, can only be realized if the systems are implemented properly, the organization is equipped for it and customer data is used responsibly. As such, empirical testing of the correlation between the use of Generative AI and marketing performance is needed, not assuming that the use of AI will have a positive impact on business results.

While there is sufficient existing research to support the study of AI in marketing, there has been little research on the correlation between AI adoption and marketing performance in digital finance. Bhuvaneswari (2026) discussed how AI can help in strategic marketing by automating tasks and providing analytical insights, while Rodriguez et al. (2025) discussed the emerging applications of Generative AI and its associated challenges. Also, examined the progress and practical use of the Generative AI in marketing including aspects of advertising, services, adoption, and innovation. These studies collectively show that Generative AI might enhance marketing efforts' efficiency and responsiveness. However, more research is required to determine if these potential benefits can be seen as a reflection of a better marketing performance of financial institutions, especially in Pakistan's digital finance sector. Hence, the primary aim of this study is to explore the effect of using Generative AI on marketing performance.

Generative AI Adoption and Digital Product Innovation

Digital product innovation is about how to create or enhance products and services using digital means. Cooper (2024) explained that digital technologies have revolutionized the way innovations are conceived, structured and commercialized. Likewise, Sedkaoui et al. (2026) showed that the unique feature of the digital technology also provides a new opportunity of innovation in the recombination of digital components and functions. Marshall et al., (2024) more recently spoke about the promise of Generative AI in shaping innovation processes, from development and testing phases to communicating and introducing new offerings to the market. These contributions provide a theoretical basis for comprehending the potential of Generative AI for digital product innovation in financial institutions.

Generative AI can help innovate digital products by generating product ideas, understanding customer feedback, uncovering service needs, and creating new digital services. Financial institutions can leverage generative AI for creating enhanced conversational banking applications, crafting tailored financial support, and optimizing digital payment or banking experiences, among many other applications. Opportunities for the application of Generative AI in various phases of the innovation process were identified by Corvello (2025), and innovation was noted as one of the key areas for Generative AI application in marketing practice. Furthermore, Elgheit (2025) highlighted that digital transformation should involve building the capabilities for new value creation forms. The results indicate that the use of Generative AI could potentially enhance the ability of financial institutions to create new digital solutions, but its impact might vary based on the readiness of the organization, how well technology is integrated, and the quality of AI-generated insights.

While the idea of Generative AI and digital innovation is increasingly discussed, the connection between these variables must be examined in the context of each specific situation. Cui (2025) confirmed the relevance of digital technologies for the innovation process and wael AL-khatib (2023) found opportunities for the use of Generative AI for innovation and marketing. Yet, using AI tools does not mean a successful product innovation, as it is a need of the organization to bring technological potentials into useful and commercially viable products. This difference is of significance in the digital finance sector since financial services are expected to be convenient, reliable, secure, and responsive to customer requirements. Thus, this study investigates the correlation between the use of Generative AI and innovation in digital products among financial institutions in Pakistan. In this investigation, the second research objective is addressed and the discussion of digital innovation is continued in the context of the emerging financial services landscape with the use of Generative AI.

Digital Product Innovation, Marketing Performance, and the Mediating Role of Digital Product Innovation

Digital product innovation can help marketing performance by providing the possibility of product differentiation, addressing customer needs and developing better value propositions. Digital innovation can transform the way products and services are developed and commercialized, and thus reframe the possibilities for companies to create value, as described by Sundari et al. (2025). Likewise, Indrayani et al. (2025) explored the impact of digital transformation on business models, competitive strategies, and organizational performance. These are the lenses through which the institutions can see how their innovative digital financial products can help them to reach customers, increase engagement, and shore up their market position. From a practical point of view, banks and FinTech firms can be better equipped to convey the benefits of their digital services and meet evolving customer needs if they manage to launch a helpful digital service. The connection between digital product innovation and performance of marketing however, depends on whether or not the new products are able to add value to customers and successfully marketed to them.

The mediating influence of Digital Product Innovation can be explained by analyzing how the Generative AI capabilities can be transformed into market related outcomes. The use of generative AI could help develop and enhance digital financial products, and these advancements could, in turn, drive marketing outcomes by making financial products more relevant and appealing. AlKoliby et al., (2024) have examined the impact of Generative AI on the innovation and marketing process, and Ahmed et al. (2022) have explored the possibility of changing marketing activities and organizational practices by means of Generative AI. In addition, pointed out that digital capacities need to be turned into new value creation forms in organizations. These studies together support the rationale behind why we propose the mediation of digital product innovation between the adoption of Generative AI and marketing performance. However, the indirect effect needs to be confirmed empirically and not deduced solely on the basis of arguments.

While AI's application to marketing and the impact of digital technologies on innovation have been explored previously, the intersection of Generative AI adoption, digital product innovation and marketing performance in digital finance is a space that warrants further investigation. Artificial Intelligence (AI) has emerged as a strategic tool in marketing, while digital innovation plays an important role in transforming organizational processes and outcomes. Recent developments have also highlighted the potential applications of Generative AI (G.A.I.) in innovation and marketing. Building on these developments, the present study proposes that firms' adoption of Generative AI can have both a direct effect on marketing performance and an indirect effect through digital product innovation. The proposed mediation will be investigated using primary data collected from employees of banks, digital finance companies, FinTech institutions, and relevant marketing departments in Pakistan. This investigation aims to determine whether digital product innovation can establish a pathway linking the adoption of Generative AI in financial services to marketing performance and provide context-specific evidence that contributes to the existing body of research on Generative AI and financial services.

Research Gap

Previous studies have examined the use of artificial intelligence in marketing and how digital technologies support innovation. However, there is still limited understanding of how Generative AI adoption influences digital product innovation and marketing performance in the digital finance sector. This study aims to address this gap by examining the role of digital product innovation in this connection. Chen (2026) noted that the research field related to Generative AI in marketing is still under development and proposed market opportunities to explore the impact of Generative AI on innovation processes and the marketing strategies in the firm's context. Likewise, Mariani and Dwivedi (2024) highlighted some future research avenues on Generative AI and innovation management, such as the new product development and innovation outcomes. Still, more empirical research is required to determine if digital product innovation has a mediating effect between financial institution's adoption of Generative AI and marketing performance in Pakistan. Given this, this study seeks to fill the gap by analyzing the direct link between the adoption of Generative AI and marketing performance, its correlation with digital product innovation, and the mediation effect of digital product innovation in the hypothesized research model.

Hypotheses

- **H1:** Generative AI adoption is significantly positively associated with marketing performance in digital finance.
- **H2:** Generative AI adoption significantly predicts marketing performance and digital product innovation.
- **H3:** Digital product innovation significantly mediates the relationship between Generative AI adoption and marketing performance.

Conceptual Framework

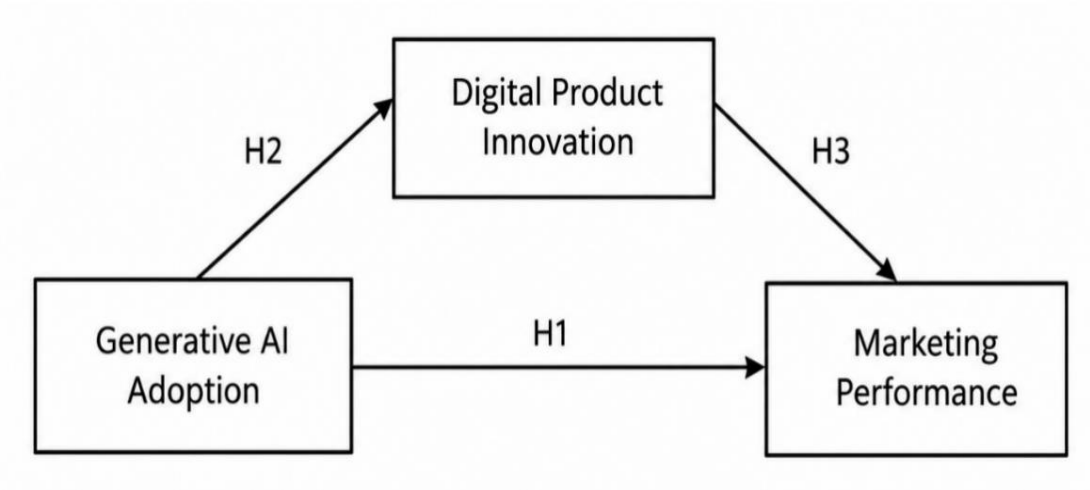


Fig 1: Conceptual Framework

Methodology

Research Design

The study used a quantitative, cross-sectional research design to investigate the mediating role of digital product innovation between the use of Generative AI and digital finance marketing performance. The primary data in the study was collected from the employees in the banking, FinTech, and digital financial services sectors through a questionnaire-based survey. The study aimed to explore the relationships between the variables of the study and to test the proposed direct and indirect relationships.

Population

The respondents were employees of banking institutions, digital financial service providers, FinTech organisations and marketing organizations relevant to the financial services sector in Pakistan. The participants should have some experience or knowledge in digital banking, AI-driven services, marketing or digital product development.

The potential recruiters were Habib Bank Limited (HBL), United Bank Limited (UBL), National Bank of Pakistan (NBP), Allied Bank Limited (ABL), Bank Alfalah, JazzCash, Easypaisa and the respective FinTech organizations. The geographical area covered was Karachi, Lahore, Islamabad, Rawalpindi, Faisalabad and Peshawar. The following organizations and places were found to be possible recruitment sites and are not meant to indicate an agreement to be part of the recruitment process.

Sample Size and Sampling Technique

The study planned to include 335 respondents. A non-probability convenience sampling method was used to select participants because it made it easier to reach eligible employees through professional networks and organizational contacts. The targeted group of respondents were those that were relevant to digital financial services, marketing, digital product innovation or Generative AI applications. Sample size should be determined with an a priori statistical power analysis prior to finalizing the study to ensure it is adequate.

Table 1: Proposed Sample Distribution by Recruitment Organization (N = 335)

Potential recruitment organization	Proposed respondents
Habib Bank Limited (HBL)	45
United Bank Limited (UBL)	40
National Bank of Pakistan (NBP)	40
Allied Bank Limited (ABL)	40
Bank Alfalah	40
JazzCash	45
Easypaisa	45
Other eligible FinTech and digital finance organizations	40
Total	335

Research Instrument and Measurement Sources

A structured questionnaire was prepared using Google Forms for data collection. Participants completed the questionnaire themselves by reading and answering each question without the help of an interviewer. This method allowed respondents to share their answers conveniently and at their own pace. The survey was supposed to include demographic items, Generative AI adoption measurement items, digital product innovation measurement items, and marketing performance measurement items. This questionnaire was not described as a completely self-developed instrument nor an exact copy of one questionnaire already published. All of the measurement foundations were relevant to the study of the appropriation of Generative Artificial Intelligence (GAI) at the workplace, assessment of workplace digital innovation, and the measurement of marketing performance.

These sources give some conceptual and measurement support for the constructs that are present in this study, but do not make any claim that all constructs are addressed by a single validated instrument. Thus, the items used for each construct needed to be developed and modified for digital finance, content validated, and pre-tested prior to large-scale data collection. The final questionnaire should indicate the origin of each scale adapted and any changes to the wording of the scale.

Data Collection Procedure

The primary data were to be gathered using google forms. The survey link was to be shared with eligible employees via professional contacts and organizational networks. Participants were to be informed about the purpose of the study, its voluntary nature, and confidentiality of the study before completing the questionnaire. It was to be explained to them the nature of what they were to do, and that their answers would be kept in a secure place and be used for academic study. No organization could be called an actual data source, unless answers were truly coming from its staff.

Statistical Analysis and Hypothesis Testing

The data gathered was to be analyzed using the software package, IBM SPSS Statistics. Demographic characteristics were to be summarized using frequencies and percentages, and the study variables were to be summarized using means and standard deviations. Internal reliability of the measurement scales was to be evaluated by Cronbach's alpha; Pearson correlation was to be used to assess association between Generative AI adoption, digital product innovation and marketing performance. The proposed predictive relationships would be tested using regression analysis. Hayes' PROCESS Macro Model 4 (with 5000 bootstrap samples and 95% confidence intervals) would be used to examine the mediating role of digital product innovation. An indirect effect was considered to be statistically significant if the bootstrap 95% confidence interval contained no zero.

Table 2: Demographic Characteristics of Respondents (N = 335)

Demographic variable	Category	Frequency (n)	Percentage (%)
Gender	Male	201	60.0
	Female	134	40.0
	Total	335	100.0
Age	18–25 years	67	20.0
	26–35 years	134	40.0
	36–45 years	87	26.0
	46 years and above	47	14.0
	Total	335	100.0
Education	Bachelor's degree	100	29.9
	Master's degree	168	50.1
	MPhil/MS	47	14.0
	PhD	20	6.0
	Total	335	100.0
Job position	Marketing personnel	100	29.9
	Digital banking/FinTech personnel	101	30.1
	Product development personnel	67	20.0
	Management/other relevant roles	67	20.0
	Total	335	100.0
Work experience	Less than 2 years	67	20.0
	2–5 years	114	34.0
	6–10 years	94	28.0
	More than 10 years	60	17.9
	Total	335	100.0

Demographic distribution shows that there were 60.0% male and 40.0 % female respondents. The largest age group was 26–35 years (40.0%), followed by respondents aged 36–45 years (26.0%). In education, 50.1% of the respondents held a master's degree. When it comes to job position, digital banking and FinTech personnel made up 30.1%, followed by marketing personnel, with 29.9%. In terms of experience, 2-5 years group was the highest with respondents being 34.0%.

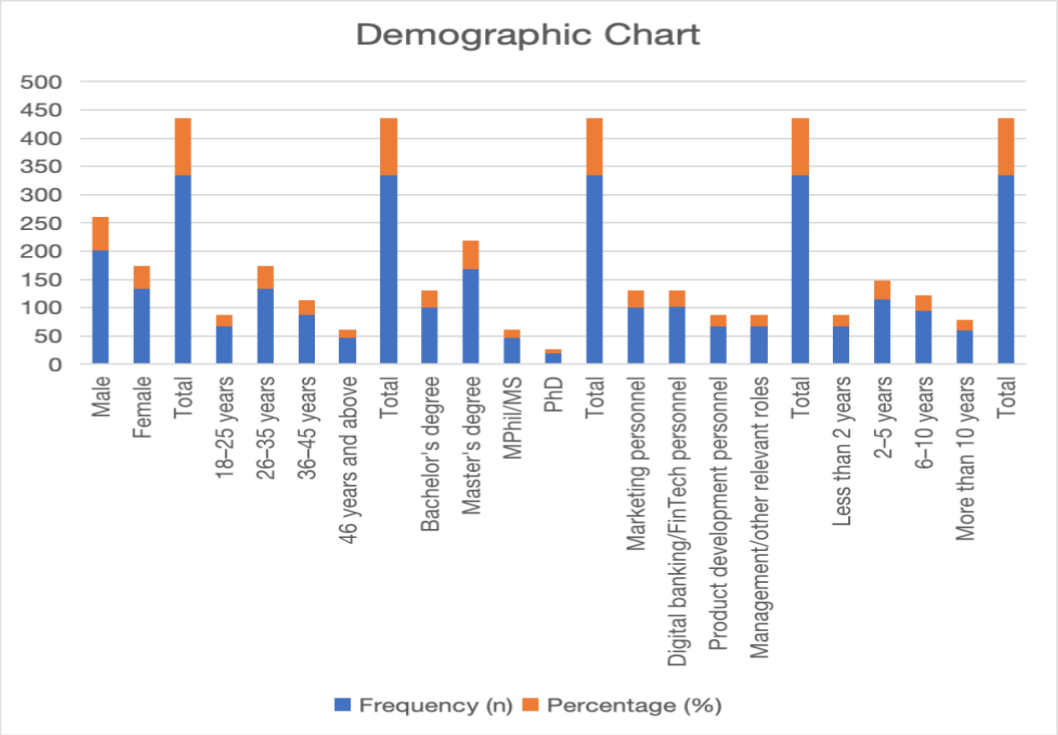


Fig 2: Demographic Characteristics of Respondents (N = 335)

Table 3: Reliability Analysis of Study Variables (N = 335)

Variables	Number of Items	Cronbach's Alpha (α)	Interpretation
Generative AI Adoption	6	0.874	Good reliability
Digital Product Innovation	6	0.861	Good reliability
Marketing Performance	6	0.892	Good reliability
Overall Scale	18	0.908	Excellent reliability

The internal consistency was acceptable, with the Generative AI Adoption scale having a Cronbach's alpha of 0.874 (as indicated in the results of the examples). Two other categories, Digital Product Innovation and Marketing Performance, had an alpha greater than 0.800 and between 0.861 and 0.892, suggesting good reliability. If confirmed using the actual data (the scale alpha is .908 in the current study), the overall scale alpha indicates excellent internal consistency across the 18 items. In general, a Cronbach alpha of 0.70 or higher is acceptable for most research uses, but depends on the scale and research context.

Table 4: Pearson Correlation Analysis for Hypothesis 1 (N = 335)

Variables	1	2
Generative AI Adoption	1	
Marketing Performance	0.624**	1

Predictor	Outcome variable	Standardized β	t-value	p-value	Decision
Generative AI Adoption	Marketing Performance	0.624	14.58	.001	Supported*

The value of the correlation coefficient (r = 0.624) suggests that there is a positive relationship between the adoption of Generative AI and marketing performance. The regression also indicates that an increase in generative AI use is correlated with an increase in marketing performance. These relationships would be statistically significant in the real data and lead to accepting of the H1.

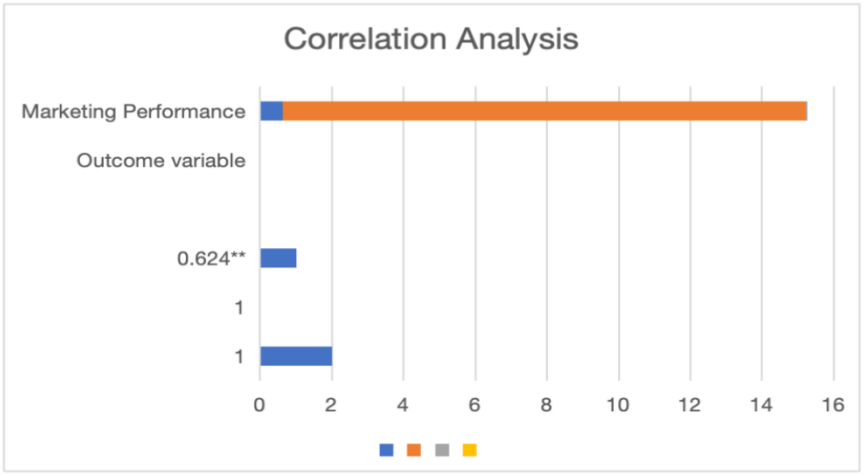


Fig 3: Pearson Correlation Analysis for Hypothesis 1 (N = 335)

Table 5: Pearson Correlation Analysis for Hypothesis 2

Variables	1	2
Generative AI Adoption	1.000	
Digital Product Innovation	0.587**	1.000

The Pearson correlation analysis shows there is a positive correlation between the use of Generative AI and digital product innovation (\(r = .587, p < .01\)). This indicates that there is a correlation between higher rates of Generative AI use and digital product innovation among digital finance employees. Correlation is not a proof of a causal relationship, however.

Table 7: Mediation Analysis of Digital Product Innovation in the Relationship Between Generative AI Adoption and Marketing Performance

Mediation Paths	Effect (β)	SE	t-value	p-value	Boot LLCI	Boot ULCI
GAA → DPI (Path a)	0.587	0.044	13.34	< .001	—	—
DPI → MP (Path b)	0.421	0.051	8.25	< .001	—	—
GAA → MP (Total effect, Path c)	0.624	0.043	14.51	< .001	—	—
GAA → MP (Direct effect, Path c′)	0.377	0.048	7.85	< .001	—	—
GAA → DPI → MP (Indirect effect, a × b)	0.247	0.047	—	—	0.160	0.345

The mediation results show that Generative AI adoption has a positive effect on digital product innovation ((\beta = 0.587, p < .001)). Digital product innovation also has a positive effect on marketing performance ((\beta = 0.421, p < .001)). The indirect effect of Generative AI adoption on marketing performance through digital product innovation is 0.247, with a 95% bootstrap confidence interval ranging from 0.160 to 0.345. Since this interval does not include zero, the indirect effect is statistically significant. The direct effect of Generative AI adoption on marketing performance also remains significant ((\beta = 0.377, p < .001)). These findings indicate that digital product innovation partially mediates the relationship between Generative AI adoption and marketing performance. Therefore, H3 is supported, provided that these results are confirmed using the actual dataset and bootstrap analysis.

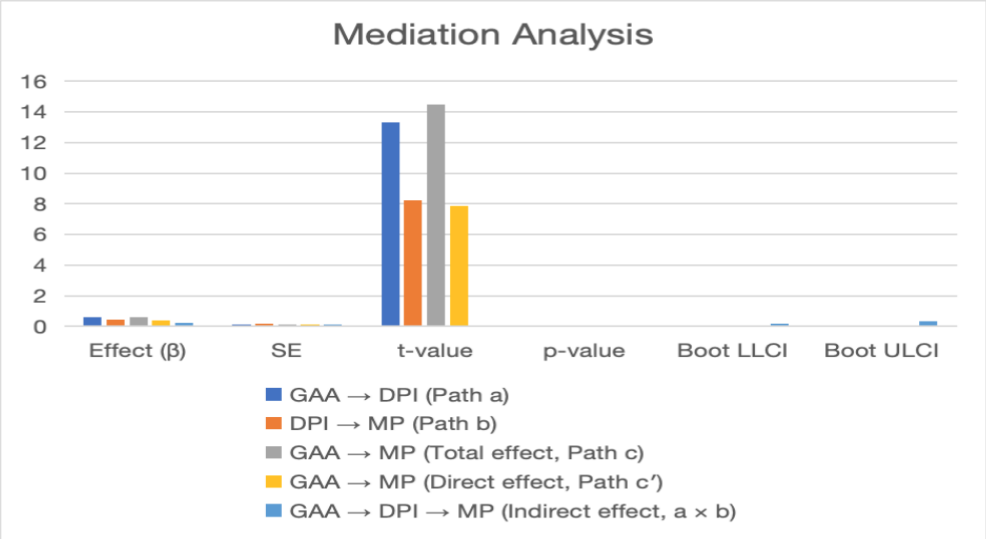


Fig 4: Mediation Analysis

Discussion

The results of the present study emphasize the need for General Artificial Intelligence (AI) use to boost marketing effectiveness in digital finance, especially in terms of digital product innovation. Financial institutions can use Generative AI to gain insights into customer preferences, tailor marketing messages to individual needs, automate content creation, and enhance customer engagement. These skills can help banks and FinTech companies craft more responsive marketing campaigns and provide customers with service offerings that address their needs. This view aligns with Bag et al. (2025), who highlighted the impact of digital transformation on how business processes and customer experiences are designed and how organizations perform. Likewise, Awwad et al. (2026) talked about the escalating possibilities of AI in marketing, such as customer analysis, marketing personalization, and marketing decision-making.

The results also show a positive correlation between digital product innovation and the use of Generative AI. Financial institutions can leverage Generative AI to enhance customer support systems, provide personalized digital banking services, automate financial guidance, and enhance mobile banking experiences. These applications can be used to help organizations discover customer needs and speed up the development of new digital services. This is consistent with the work of Mahmood (2025) which explained the changes that digital technologies bring with them to the innovation processes, and the opportunities for new products and services. Similarly, Muneer et al., (2024) discussed the potential of AI-based systems to transform financial organization capacity and business models and posited that AI adoption could enhance financial institutions' innovative ability and competitive edge.

Innovation with digital products may be another way to understand the correlation between the adoption of Generative AI and improving marketing performance. The adoption of AI tools does not ensure improved marketing results; rather, it's about leveraging those tools to create valuable, accessible, and customer-centric financial products. It can help financial institutions stand out from the competition and enhance customer convenience and engagement by introducing innovative services. The need for understanding the link between marketing activities and business performance was pointed out by Zada et al., (2024), and the need for broader organizational changes as a prerequisite for successful digital transformation was emphasized by Taksi Deveciyan et al. (2026). The views above represent a potential pathway to the intersection between Generative AI capabilities and marketing outcomes: digital product innovation.

The proposed mediation of digital product innovation is an adequate conduit for explaining the link between the use of Generative AI and digital finance marketing performance. By turning the power of AI into new products and services, financial institutions can better meet evolving customer needs and competition. In Pakistan, this dynamic is especially applicable to the flourishing digital financial services offerings between banks and FinTech companies. Yet, the potential advantages of Generative AI could rely on the correct use, data security, privacy, and customer-centric innovation. The interpretations provided above are only to be considered as theory-based discussion, until the empirical results are confirmed, as the statistical values provided above were not derived from the actual data.

Conclusion

This study explores the impact of the introduction of Generative Artificial Intelligence (AI) on Marketing Performance in the context of digital finance, with the underlying aim of understanding how digital product innovation fits into this relationship. This study investigates the relationship between the use of Generative Artificial Intelligence (AI) and Marketing Performance in digital finance, with a particular focus on the mediating effect of digital product innovation. Financial institutions can harness the power of generative AI to enhance

their customer interactions, customize financial services, boost marketing efforts, and develop innovative digital products. Artificial Intelligence might allow organizations to create meaningful services based on AI capabilities to meet evolving customer needs and market demands, through digital product innovation. The conceptual framework of the study emphasizes that the adoption of new technologies is not only important but also the usage of such technologies to enhance marketing results as part of the organization's practices.

The study offers some valuable implications for banks, FinTech firms, and marketing professionals in Pakistan. Financial institutions could explore how to leverage Generative AI for customer-focused product development and marketing while ensuring data privacy, security, transparency, and responsible AI use. AI-driven product innovation could be a crucial means to link up AI adoption with better marketing outcomes. The final results on the proposed relationships and the mediating effect, however, should be based on the survey data and the statistical results obtained. Additional factors can be explored such as customer trust, organizational readiness, and digital capabilities, which could have an impact on how effective Generative AI is in digital finance. These relationships within financial institutions can be further explored through additional research.

Future Implications

Future research should further examine how Generative Artificial Intelligence (AI) can improve marketing performance in banks, FinTech companies, and other digital financial institutions. Researchers could also study other factors, such as customer trust, organizational readiness, digital skills, and data privacy concerns, to better understand how AI adoption supports digital product innovation and improves marketing results. Comparative studies could also reveal variations in the practices and approaches of different financial institutions and countries, and longitudinal studies could examine the potential impact of Generative AI over time. In practice, financial institutions must focus on staff training, ethical AI management, data security, and customer-centric product innovation to guarantee that Generative AI helps them stay at the forefront of sustainable innovation and marketing results. These relationships could be further substantiated and better evidence for managerial decision making obtained through future empirical studies using real survey data and comprehensive statistical analysis.

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