International Review of Management and Marketing

ISSN: 2146-4405

available at http: www.econjournals.com

International Review of Management and Marketing, 2026, 16(1), 199-209.

The Relationship between Generative AI-Driven Storytelling and Customer Engagement: The Mediating Role of Personalization

Anber Abraheem Shlash Mohammad[1], Suleiman Ibrahim Mohammad[2,3], Hanan Jadallah[2], Asokan Vasudevan[4,5], Zahid Hussain[6]*

[1]Digital Marketing Department, Faculty of Administrative and Financial Sciences, University of Petra, Jordan, [2]Electronic Marketing and Social Media, Economic and Administrative Sciences Zarqa University, Jordan, [3]Research follower, INTI International University, 71800 Negeri Sembilan, Malaysia, [4]Faculty of Business and Communications, INTI International University, 71800 Negeri Sembilan, Malaysia, [5]Shinawatra University, 99 Moo 10, Bangtoey, Samkhok, Pathum Thani 12160 Thailand, [6]Department of Business Administration, KASBIT, Karachi, Pakistan. *Email: zahidhussain9341@gmail.com

Received: 25 June 2025 **Accepted:** 07 October 2025 **DOI:** https://doi.org/10.32479/irmm.21427

ABSTRACT

The fast development of artificial intelligence (AI) has led to the transformation of marketing approaches, especially with the help of generative AI-driven storytelling (GAS) allowing clients to offer compelling personalized narratives to their customers. The study explores the closeness between generative AI-assisted storytelling (GAS) and customer engagement (CE) with possible mediating position of personalization within e-commerce industry in Jordan. The sample of respondents was composed of 312 participants, and the collection of data happened through structured survey with structural equation modeling (SEM) being used to test the proposed hypotheses. The results show that GAS can substantially increase customer engagement and that personalization partially mediates this association. This highlights that narratives generated by AI on their own are powerful, but they can be significantly more effective with content personalized to likings of individual consumers. The study is beneficial to the theory and practice since it provides empirical data on mechanisms where AI-driven marketing strategies have effects on consumer behavior. These insights could be used by practitioners in e-commerce to ensure that their GAS campaigns maximize engagement, loyalty and conversion. Also, the study reveals the power of implementation of personalization techniques into the concept of using AI in the context of marketing to ensure ultimate results. These insights provide an opportune insight to marketers who want to maximize the use of emerging AI technology to enhance customer relationship and competitive advantage.

Keywords: Generative AI, Storytelling, Customer Engagement, Personalization, E-Commerce
JEL Classifications: M31, M37, M15, O33, L81

1. INTRODUCTION

GenAI has transformed online marketing by letting brands design responsive, personal user stories that intrigue the consumer thoroughly. Unlike the old methods of static content, generative AI utilises powerful algorithms and language models to generate dynamic product descriptions, specific customer advertisements, and interactive customer experiences related to their unique preferences. The adoption of AI-driven marketing across the world is also increasing: the research suggests that AI technologies help to increase the effectiveness of marketing, engagement rates, and conversion levels, with AI personalization leading to a 20-30% customer engagement uplift in the case of the leading online stores and retailers (Reddy et al., 2023). CE has now emerged as a success or failure measurement in e-commerce which has a direct impact on brand loyalty, return buying and long term profitability. Customization is the key when it comes to maintaining interest as customers are becoming more accustomed to an individual

experience when it comes to receiving personal content and suggestions based on their preferences, purchasing habits, and browsing activity (Zyminkowska and Zachurzok-Srebrny, 2025). In Jordan, e-commerce is at the rapid stage owing to increasing penetration of internet and digital literacy but adoption of advanced GAS has not yet caught on, thus making a great opportunity to do research in this regard. Personalization assumes the role of mediator between GAS and CE. Although AI storytelling has the ability to capture attention, personalization will guarantee that the content connects with the consumer to enhance its effectiveness.

Empirical evidence implies that personalization of content increases perceived relevance, trust, and loyalty, but little is known about how it mediates the effects of AI-driven narratives particularly in the emerging markets, such as Jordan. There is a decent use of AI in marketing, but there is hardly any research conducted on the use of GAS on e-commerce. Previous research proves that the use of AI personalization leads to elevated customer engagement, brand loyalty, and purchase intention (Sahut and Larache, 2025; Kim, 2024; Al-Fahim et al., 2024). Nevertheless, these experiments predominantly revolve around either recommendation engines or chatbots, or one-time personalization which do not take into consideration the matters of dynamic, narrative personalization to create brand immersions (Hussain et al., 2023). It has also been shown that personalization enhances perceived relevance and trust (Stanikzai and Mittal, 2025; Murthy et al., 2025), but the second mediation approach of personalization between AI-generated narratives and CE has hardly been studied. A larger proportion of the empirical studies is focussed on western context, and the middle eastern/Jordanian markets are underrepresented (Hussain and Almonami, 2025; Hussain, 2025). The differences in culture and behavior in the given regions can potentially impact the efficacy of AI personalization, thus requiring a study to be context-specific (Khan et al., 2023; Kim, 2024). Moreover, cognitive, emotional, and behavioral engagement is acknowledged as the multidimensional concept (Hussain and Khan, 2025; Al-Akash et al., 2024), but current studies have a tendency to consider engagement as a one-dimensional outcome variable without considering multidimensionality of engagement approach. There is no substantial longitudinal research on the following effects of AI personalization on the long-term customer loyalty and retention (Hussain et al., 2024; Aldabousi, 2022). Some ethical issues like the privacy of data, algorithmic transparency, and the trust have been noted (Das et al., 2024) but they are hardly incorporated into empirical models tested in engagement outcome studies. Therefore, a research that would study GAS mediated by personalization and how it influences multidimensional CE in emerging e-commerce markets is needed, both theoretically and practically.

1.1. Objectives of this Study

1. To examine the direct effect of GAS on CE in the Jordanian e-commerce context
2. To investigate the impact of GAS on the perceived Personalization of online content
3. To evaluate the relationship between Personalization and CE in e-commerce platforms
4. To assess the mediating role of Personalization in the relationship between GAS and CE.

The exponential improvement in the use of AI in marketing has changed the way e-commerce organizations communicate with consumers. Specifically, GAS constitutes a paradigm shift, allowing brands to create dynamic and personalized narratives that will deepen the engagement and the loyalty of customers. Most of the research studies are concentrated on the usage of AI personalization and CE in general, but very little is known or studied on GAS that is dynamic and immersive in nature, especially in the emerging markets. This research is important since it takes the step to investigate experimentally the mediating position that personalization plays in strengthening CE with the AI produced narratives, as a gap exists in the existing literature. This paper covers the e-commerce market in Jordan, a marketplace undergoing a fast change of digitalization under the influence of the increased internet penetration, mobile commerce use, and a youthful, literate population. With such positive factors, the use of advanced AI-based marketing strategies is not widely spread. The evaluation of GAS and personalization effectiveness in the context of Jordan would allow getting a better idea of consumer behavioral patterns, factors stimulating engagement, and market-specific peculiarities that are not discussed enough in studies focused on the Western market. Such a localized approach will make the results contextually specific and will help Jordanian e-commerce companies in formulating AI-led approaches that will appeal to local consumers. The scientific novelty of this study is the combination of GAS, personalization and, at the same time, multi-dimensional CE, cognitive, emotional, and behavioral. In comparison to previous studies that usually look at these constructs independently, this study looks at personalization as intermediating the relationship between GAS and CE thus providing both theoretical and practical implications to the research process. This evidence-based study of 312 Jordanian users of e-commerce has strengthened knowledge in the fields of AI marketing and digital consumer behavior through the power of structural equation modeling.

The importance of the study to be done in Jordan is the strategic need to optimize the AI-driven approach to marketing in the emerging target market where the pattern of adopting new technologies, cultural principles, and the digital literacy levels are not the same as in the industrialized society. However, the e-commerce industry in Jordan is growing at an impressive pace, but domestic firms have not yet figured out how to use AI-based tools to serve customers to the fullest extent possible. Within this exploration of the role of GAS, personalization, and engagement, the paper will provide marketers with practical solutions, guide policymakers in increasing adoption of digital transformation, and add to scholarly literature bodies around the world that explore the process of digital marketing transformation. Finally, this study fills an urgent niche, considering the theoretical background of AI-based marketing innovations within the Jordanian context, and, on the one hand, integrating the worldwide tendencies with the context of the local market. This paper would use a quantitative research method to study how GAS affects customer engagement, with personalization as mediating factors, of the e-commerce industry in Jordan. Primary data were collected by use of a cross-sectional survey, which sampled the views of 312 respondents all active online buyers and of different age groups, gender, and professional backgrounds. The development of the

questionnaire took place on the paradigm of on-going researches using the same established scales and hence, both its validity and reliability. The obtained data were analyzed with the help of the Structural Equation Modeling (SEM) by which we can make a simultaneous estimation of the direct impact of generative AI storytelling to customer engagement and the indirect impact mediated by personalization. The measurement model with the construct reliability, convergent validity, and discriminant validity was accomplished using confirmatory factor analysis (CFA). Path analysis in SEM was then carried out to test the importance of the relationship among the constructs and the significance thereof. The approach employed would guarantee strict testing of theoretical propositions, sound reliable data that can also be used in the Jordanian e-commerce scenario. The research has significant theoretical and practical contributions as it closes the gap that exists between GAS, personalization, and CE in e-commerce, with particular reference to the Jordanian market. In theory, it builds on the extant body of knowledge on AI marketing by showing how the dynamic AI-generated narratives can affect CE, and also reveals a finer aspect of personalization that mediates such effects. Uniqueness of the proposed research includes filling in the gap in current literature on GAS that considers engagement as an only measure of success, and limitation by merging GAS with multi-dimensional consumer engagement constructs (cognitive, emotional and behavioral) the proposed research will provide a more comprehensive picture of how, through engagement process.

AI can influence consumer perceptions and behaviors. In addition, through placing the research in the Jordanian e-commerce environment, it will contribute to the discussion of emerging markets by showing how cultural, technological and behavioural influences can impact the success of AI-driven marketing efforts and, as such, will provide information that is both locally relevant and informative globally. In a practical sense, the results provide seller-catered insights to e-commerce marketers willing to use AI-powered personalization to optimize CE and loyalty. The research underlines the significance of creating technologically advanced storytelling plans, which are also unique to personal taste, which can increase their relatability, credibility, and satisfaction. Also, the research explains to policymakers and stakeholders of the industry that GenAI has the capacity to help bring a digital transformation in the emerging market, with an emphasis on strategic implementation and ethics when dealing with customers. The use of rigorous empirical data without ignoring the constraints of real marketing context gives an analytical depth to this study, which would also serve the purpose of providing opportunities to academics and practical users in understanding the use and applications of AI to the modern marketing context of consumer engagements with intelligent personalization strategies.

2. THEORETICAL BACKGROUND

There are certain underlying theories on which this research is grounded and that explain the dynamics of CE in the case of GAS and personalization in e-commerce. According to the Elaboration Likelihood Model (Hamilton et al., 1993), the reader will absorb the message on the basis of the central route, the deep involvement of his/her thoughts, or the peripheral route which is more of a superficial route. In the online commercial environment, GAS offers a networking path, that offers to the consumers with rich and individual narratives that can enrich their cognitive involvement. The ability of AI storytelling to cater to personal values and needs through content tailored to resonate with them results in stronger emotional connection to such content and, enhanced engagement in behavior. The Stimulus-Organism-Response (SOR) Model (Charter, 1999) is a model of how elements of the environment (external stimuli in this case AI-generated personalized content), cause changes internally (emotional and cognitive responses in this case), leading to behavioral responses (in this case CE). GAS positions itself as an arousal, which, in the process of personalization, influences the organism (the internal state of the consumer), which results in response in the form of greater engagement behavior. This model emphasises the value of personalisation in mediating the correlation between AI-driven content and CE. Table 1 provide summary of previous studies who supports our study overall model.

2.1. Generative AI Storytelling and Customer Engagement

To follow up with previous studies, GAS has been acknowledged as one of the most effective tools to draw consumer focus, stimulate greater emotional involvement and make people be engaged in the digital places (Alqaraleh et al., 2024; Nagi et al., 2023). Empirical data indicate that AI generated narratives are more immersive and interactive than static content in addition to being capable of being customized in such a way as to ensure that they resonate well with the personal preferences of the consumer which thereby enhance higher levels of cognitive and emotional processing of marketing messages (Hussain and Khan, 2025; Muskan Nagi, 2022; Nagi and Bojiah, 2020). The study by Hussain and Mari (2023) and Khan et al. (2024) showed that the content created by AI has a strong positive impact on the attention of the consumer and stimulates an active interaction with the internet resources. Likewise, Hussain (2025) pointed out that personalized AI stories make the content seem more relevant, as it can result in more engagement practices, such as sharing, liking, and frequent engagement. Hussain et al. (2025) also added that AI storytelling can fill the experiential marketing gap because it can create emotionally appealing digital stories and as a result enhances stronger connections between consumers and a brand. On the basis of these results, the theoretical and empirical validity of the assumption that exposure to GAS directly promotes multi-dimensional CE (cognitive, emotional, and behavioral) can be offered. Combining findings of these previous studies, the hypothesis under consideration states that AI-generated story-telling can be considered a strategic nudge that helps consumers to engage with digital marketing content to a greater extent, which outcomes in increased interaction rates to e-commerce platforms.

H_1: GAShas a positive and significant effect on CE in e-commerce contexts.

2.2. Generative AI Storytelling and Personalization

GAS does not only involve consumers but also adds the aspect of perceived personalization of the digital content. Previous studies point out that AI technologies can analyze preferences and trends

of consumers along with how they interact with others and can provide customized content that feels relevant and specific to the individual users (Armutcu et al., 2025). AI-optimized narratives, in contrast to generic marketing messages, are context sensitive, adjusting to the preferences, past behaviors, and current states of users, forming highly personalized consumer experiences which in turn accelerate the development of a sense of personalization (Das et al., 2024; Nazil, 2025; Mohammad et al., 2025). The empirical data shows that in cases where the storytelling is created with the help of AI, the content is viewed by the audiences as being closer to their needs and interests. Indeed, Hussain & Alkarim Almomani (2025) concluded that personalised AI narratives have a strong positive impact on consumers perceptions of relevance and customisation. Reddy et al., (2023) stressed that AI storytelling can help the marketer to ensure that each user has a unique experience because they are applying engaging strategies and in a better way. Hussain et al., (2025) and Hussain et al., (2025) also noted that personalization is one of the main ways AI-driven marketing contributes to greater consumer communication and satisfaction. It is based on the insights that it can be logically and empirically stated that GAS can be used to mind personalization of e-commerce allowing the e-commerce to be aligned with the preferences and the behavioral pattern of individual consumers. This appears to be a personalization which then establishes an environment to further interact and establish loyalty.

H_2: GAS has a positive and significant effect on Personalization in e-commerce contexts.

2.3. Personalization and Customer Engagement

Personalization is a high-important factor regarding CE, which was observed all throughout digital marketing and e-commerce scenarios. The findings of previous research indicate that a sense of personalization of marketing content and experiences influences an increased thoughtful, emotional, and behavioral involvement on the part of consumers because they believe that the marketing content and experiences are aligned to their specific tastes (Hussain and Mari, 2023). If messages are personalized, it enhance the relevance of the interactions and the perceived value of these interactions which contributes to attention, emotional attachment and engagement to proceedings on the online platforms. Experiential data reveals that personalized digital experiences increase engagement on many levels (Stanikzai and Mittal, 2025). In their turn, Zhang et al. (2022) indicated that CE is higher when content is seen as relevant and customized, and Sahut and Larache (2025) demonstrated that personalization exerts a positive impact on the targeted behavioral outputs, including revisitation, content sharing, and purchasing intentions. Khan et al. (2024) and Reddy et al. (2023) also reaffirmed that the increase in engagement due to AI-powered personalization is because it takes user actions into account to guide discourse and suggestions to yield substantial and memorable digital experiences. These results indicate that personalization is a process, which transcodes targeted contents to resulting in an intensified engagement thereby effecting the consumer responsiveness and interactiveness. In regards to GAS, personalizing the content is to maximize the engagement results because of its belonging to the respective consumer.

H_3: Personalization has a positive and significant effect on CE in e-commerce contexts.

2.4. Mediating Role of Personalization

In extension to the above two hypotheses, this research suggests Personalization to be the mediator between GAS and CE. Past studies indicate that narratives created by AI are more compelling when the audience attributes meaning concerning a personal situation and that it is customized to individual interests, which boosts the engagement processes (Hussain, 2025). Simply, the effects of GAS on engagement do not only occur in a directional way but through the perception of personalization. This mechanism is backed up with empirical studies Previous studies (Hussain, 1988) showed that personalized digital stories amplify the impact of a high-quality narrative on engagement, and (Hussain, 2023) and (Hussain and Khan, 2025) noted that the effect of quality content on engagement is even more powerful when accompanied by a story tailored to its individual consumer interest. To the same extent, Hussain and Mari (2023) and Hussain et al. (2024) pointed to the way that personalization enhances the success of digital marketing as translating interest and attention into interactive engagement, such as behavioral responses like interaction, sharing and loyalty. In theory, this mediation is in line both with the ELM and the SOR framework, with personalization functioning as the internal organism within which the effect of narrative stimuli developed by AI on CE outcomes is facilitated. Put in practical terms, this implies that when overcoming GAS, implementing data-backed personalization efforts can help e-commerce platforms maximize the effectiveness of their narratives in the context of individual customers.

H_4: Personalization mediates the positive relationship between GAS and CE in e-commerce contexts.

This conceptual model Figure 1 shows the relationship between GAS and CE, with Personalization acting as a mediating variable. It suggests that when businesses use generative AI to create personalized stories, customers are more likely to feel connected, interested, and engaged with the brand. The model assumes that GAS directly affects CE, and this impact becomes stronger when the content is customized according to individual preferences. This framework helps explain how AI-based marketing strategies can enhance customer experiences and build long-term engagement in the e-commerce environment.

3. METHODS AND DATA

3.1. Sample and Data Collection Procedure

The sample data used in the present study is the sample of customers and online shoppers in Jordan on different e-commerce sites which comprised the local and international online retailer during January 2025-April 2025. A purposive convenience sampling technique was applied () to make sure that participants of the research had experience in using e-commerce platforms and exposure to digital marketing materials, especially through the use of recommendation systems and personal offers. Such sampling strategy was suitable due to the nature of the study since the concept is about GAS and its influence on engagement, they

Table 1: Summary of relevant studies linking generative AI, personalization, and CE

No.	Study and Year	Objective/Focus	Key findings	Relevance to current study
1	Abrokwah-Larbi (2023)	GenAI for personalized product descriptions	AI-generated descriptions enhance engagement by tailoring content to user preferences	Supports AI storytelling's role in increasing CE
2	Das et al. (2024)	AI-driven personalized stimuli in social media marketing	Personalized stimuli foster deeper consumer connections	Demonstrates importance of personalization in mediating engagement
3	Hussain et al. (2023)	AI-enabled technologies shaping customer journeys	Personalized AI experiences influence customer behavior positively	Aligns with examining AI storytelling impact in e-commerce
4	Hussain and Abd Alkarim Almomani (2025)	GenAI in SMEs marketing strategies	Framework proposed for AI personalization enhances engagement	Supports theoretical integration of AI and personalization
5	Hussain and Mari (2023)	AI in marketing personalization	Tailored messages based on behavior improve engagement	Reinforces mediation role of personalization in AI-driven content
6	Hussain and Khan (2025)	Factors in AI marketing devices affecting engagement	Personalization, reliability, and effectiveness enhance engagement	Provides empirical evidence for measuring engagement constructs
7	Alzboon et al. (2025)	Awareness of AI and personalization in social media	Personalized AI content leads to higher interaction and loyalty	Validates relevance of personalization in engagement outcomes
8	Alqaraleh et al. (2024)	Generative AI for customer personalization	AI enhances personalization leading to better engagement	Supports integration of GAS and personalization
9	Alzboon et al. (2023)	AI adoption and marketing impact	AI-driven personalization increases trust, satisfaction, and loyalty	Provides foundational evidence for study hypotheses
10	Aldarawsheh et al. (2024)	Future of personalization in e-commerce	Personalized content positively affects cognitive and emotional engagement	Supports multi-dimensional customer engagement measurement
11	Agrarwala et al. (2025)	CE dimensions	Engagement is cognitive, emotional, behavioral	Justifies assessing multi-dimensional engagement outcomes
12	Armutcu et al. (2025)	Antecedents and consequences of engagement	Personalization mediates relationship between stimuli and engagement	Aligns with mediation model of current study
13	Khan et al. (2024)	AI in marketing and emerging applications	AI tools improve targeting, engagement, and consumer satisfaction	Supports theoretical relevance of AI in marketing context
14	Reddy et al. (2023)	E-commerce adoption in Jordan	Local businesses face adoption challenges; personalization is limited	Justifies focus on Jordanian e-commerce context
15	Sahut and Larache (2025)	CE in emerging markets	Engagement influenced by technology adoption and personalization	Reinforces study's contextual significance
16	Zhang et al., (2022); Wahid and Awad (2025)	Social media and CE	Cultural and behavioral factors moderate engagement	Supports need for context-specific research
17	Usmonov (2025); Qadeer and Awad (2025)	Trust and personalization in e-commerce	Personalization increases trust and engagement	Validates measuring trust as mediator or outcome variable
18	Chandra and Rahman (2026)	Customer experience journey	Long-term engagement requires personalized interactions	Justifies longitudinal relevance and practical application
19	Aslam et al. (2025); Nagi et al. (2021)	AI and firm performance	AI personalization improves marketing performance	Provides evidence of business impact for practical contribution
20	Das et al. (2024); Saleh et al. (2025)	Trust in AI marketing	Algorithmic transparency and personalization enhance engagement	Highlights ethical considerations integrated into study framework

have to involve participants who already have an experience in visiting online shops and participation in online marketing efforts. The participants were recruited using a social media channel as well as an e-commerce newsletter and professional networks and subjected to an invitation in order to be part of the research. Potentially interested people were furnished with detailed information on the study, such as its aims, voluntary character and possibility to withdraw at any time. So online surveys (via Google Forms) and electronic invitation emails were in use to gather responses. There were no incentives associated with the survey guaranteeing the authenticity of the responses and levels of engagement. A total of 600 Jordanian online shoppers were called to take part in the survey. A total of 445 responses was received with the response rate of 74.2%. Following the exclusion of incomplete surveys, dishonest answers (i.e., the same score in all the items), and missing responses, 392 valid responses remained. This is a large sample that is more than the minimum sample size suggested in structural equations modelling and

Table 2: Demographic profile of respondents (n=392)

Demographic variable	Category	Frequency (n)	Percentage
Gender	Male	204	52.0
	Female	188	48.0
Age	18-24 years	59	15.0
	25-35 years	176	45.0
	36-45 years	125	32.0
	46 years and above	32	8.0
Education Level	Two-year college diploma	84	21.4
	Bachelor's degree	226	57.6
	Graduate degree	54	13.8
	Other/Vocational	28	7.2
Occupation	Manager/Senior Manager	118	30.1
	Assistant Manager/ Supervisor	59	15.0
	Staff/Employee	215	54.9
Frequency of Online Shopping	<1 h/day	68	17.3
	1-2 h/day	236	60.2
	More than 2 h/day	88	22.5
Type of E-commerce Platform Used	Local e-commerce	152	38.8
	International e-commerce	140	35.7
	Both local and international	100	25.5

complex mediation (Hussain, 1988). Upon demographic analysis in Table 2, the gender balance proved to be more or less equal as 52% were male, and 48% were female. Most of the respondents (57.6%) had a bachelor degree or more, 21.4 were two-year college diploma holders and 13.8 were university graduates. As far as age is concerned, most participants had the age range of 25-35 (45%) and 36-45 (32%), with younger (18-24) and older respondents (46+) making a smaller percentage (15% and 8%, respectively). Participants indicated that they pass much time on online shopping and browsing promotional material, with an average of 1 to 2 hours of doing so every day.

3.2. Measures

Since the measures were created in the English language, bilingual professionals used a forward-backward translation process to translate the instruments into Arabic, as a means of accuracy and cultural applicability (Fornell and Larcker, 1981). On the one hand, in order to conduct survey at the second language (Arabic), two bilingual specialists translated survey questions in English (E1) to Arabic (A1). Two other bilingual and inter-cultural specialists who were both speaking and writing both languages proficiently, and knowledgeable of Jordanian culture, back-translated the English version to Arabic (A2). Two other bilingual professionals were then used to re-translate back into Arabic the back-translation made of the initial English version (A2). The research team then compared the original English version (E1), the back-translated English version (E2) and the second Arabic version (A2). Any differences in meanings or cultural interpretation were overcome by going back and forwards and the current form came out by again using the forward- backward translation technique and producing a final Arabic version (A3). To avoid confusion or misunderstanding of the instruments and to determine their reliability in the local environment, a pilot test was conducted with 30 Jordanian online shoppers. The pilot test provided feedback to make minor modifications to correspond with local e-commerce use of terms. Constructs were all measured (on a five-point Likert-scaled: 1 = strongly disagree, 5 = strongly agree) to facilitate consistency and comparability with earlier research. The GAS construct was measured on a 10-item scale based on adaptation of the GAS construct as developed by Hussain (1988) and Zhang et al. (2022), addressing how engaging, relevant and personal the AI-generated narratives are. Examples are: "My online shopping experience is made more interesting by the AI-content in products" and "AI-created content on product matches my preference." The internal consistency of this scale in the other researches was above 0.82, which points at a high reliability level. Personalization measurement was resorted to a 7-item score based on Zyminkowska and Zachurzok-Srebrny (2025) and Stanikzai and Mittal (2025), which reflects how consumers perceive that the content and recommendations are tailored to the individual. Some sample items are: "The site has suggestions which are based on my past purchases" and "Delegations and content are personally relevant to me." Previous research findings demonstrated a Cronbach alpha value of over 0.80, which is a demonstration of reliability across cultural settings. The measurement of ECE was a multidimensional concept (cognitive, emotional, behavioral) via a 12-item scale based on Kim (2024), Awad et al. (2025) and Hussain (2023). Examples are: "I emphasize the information posted by the e-commerce site," "I engage with the stories of emotional connection with the site," and "I engage actively in the product content on the Web." Multi-dimensional engagement metrics guarantees wide coverage of the engagement outcomes, in theory, the ELM and SOR model.

3.3. Data Analysis

Statistical data were evaluated with the SPSS version 29 and AMOS version 29. Descriptive statistics have first been conducted to give an overview of the demographic characters of the participants and SEM has been used to test the hypotheses of the proposed research framework. EM was chosen because it allows measuring the direct and indirect influence of numerous variables at the same time (Hair et al., 2019). Analysis was done in two steps. Then, the measurement model is estimated to evaluate the validity and reliability of the constructs and the model fit is checked based on recommended measures like Chi-square/df, CFI, TLI, RMSEA, and SRMR (Hussain, 1988). Validity of structural model was then checked to confirm hypothesized links between generative AI driven storytelling and personalization, and multi-dimensional customer engagement. CMB was also addressed because all the variables were collected on the same respondents. In an attempt to allay possible CMB, procedural remedies were implemented based on Podsakoff et al. (2003), the purpose of the study was explained, anonymity and confidentiality assured, and the participants encouraged to answer honestly; page breaks were used between each section of the questionnaire. Harman also employed single-factor test with an exploratory factor analysis, which showed that only 38.7% of the variance could be attributed

Table 3: Descriptive statistics, correlations, and reliability estimates (n=392)

Construct	M	SD	1	2	3
GAS	4.02	0.69	(0.94)		
Personalization	4.18	0.77	0.64**	(0.91)	
CE	3.72	0.52	0.59**	0.53**	(0.92)

Correlation is significant at the 0.01 level (2-tailed)

M=Mean; SD=Standard deviation; Cronbach's alphas are in parentheses on the diagonal

to a single factor, which further ascertained that CMB was not a major consideration. Recently it has been proposed that CMB has no effect in instances where there is a distinct meaning of the constructs (Charter, 1999; Alnawafleh et al., 2025; Agrarwala et al., 2025). In spite of the fact that the scales employed in this case study were already validated, Cronbach alpha was calculated to determine reliability. The findings revealed that the reliability of all of the constructs was satisfactory. The results are shown in Table 3, as descriptive statistics, and correlations as well as reliability estimates of the measures.

4. RESULTS

4.1. Measurement Model

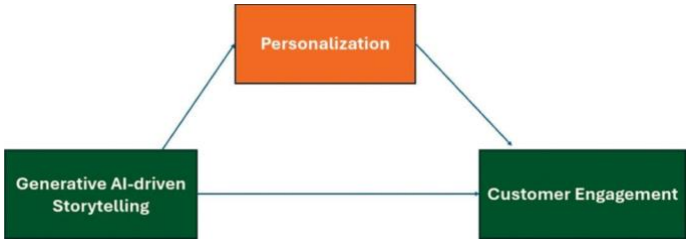
Cronbach.s alpha was computed in order to determine the reliability of all three measures namely, GAS, Personalization, and CW. The alpha values of all constructs exceeded the recommended cutoff value of 0.70 (Charter, 1999; Mohammad, 2025), which is an indication of high, internal consistency. Three latent variables and associated indicators were usedcommunity connectednessdensity of the community. CFA revealed an excellent fit in the data: x3 = 221.34; df = 58; P < 0.01; Comparative Fit Index (CFI) = 0.97; Goodness-of-Fit Index (GFI) = 0.91; Tucker Lewis Index (TLI) = 0.96; Root Mean Square Error of Approximation (RMSEA) = 0.058; and Standardized root mean square residual (SRMR) = 0.03. All the indicators significantly loaded on constructs with good standardized factor loading, which varied between 0.63 and 0.88 (t-values = 7.9212.81; P < 0.05), which indicated high reliability of items. Internal consistency was calculated to construct latent variables using composite reliabilities (CR), the value of which ranged between 0.74 and 0.94 and is above the recommended reliability level of 0.70 (Hair et al., 2019). To check on convergent validity the use of the average variance extracted (AVE) was used with scores varying between 0.52 and 0.75 and it is shown that each construct had a significant proportion of the variance among its indicators relative to measurement error (Fornell and Larcker, 1981). Discriminant validity was also determined by comparing the square root of AVE with each correlation of a given construct with another using each other construct. Indicators in each construct were more interdependent than they were with the other constructs, as would be expected based on the argument of discriminant validity. The largest correlations were between GAS and Personalization (r = 0.61), but this value was less than the square roots of the two AVEs indicating the independence of the two constructs. In sum, the findings show that the measurement model is highly reliable, has good convergent and discriminant validity, which is the basis of testing the structural model and monitoring the hypothesized connections among GAS, personalization, and CE.

Table 4: Structural path estimates and hypotheses testing

Path	Path estimate (β)	t-value	Hypotheses testing
H1: GAS→CE	0.48	12.21	Supported
H2: GAS→Personalization	0.61	15.04	Supported
H3: Personalization→CE	0.34	9.07	Supported
H4: GAS→Personalization→CE	0.21	8.33	Supported

All path estimates are standardized coefficients (β). T-values were derived from bootstrapping analysis in AMOS. H4 represents the indirect (mediated) effect of GAS on CE via Personalization

Figure 1: Conceptual model

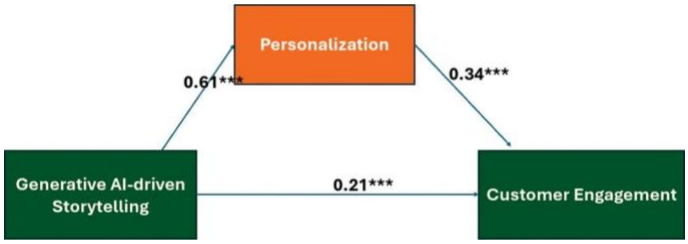


4.2. Structural Model

Table 4 shows the results of structural model. The goodness-of-fit statistics show that the proposed model fits well: Chi-square = 942.18, degrees of freedom = 325, P < 0.01; the comparative fit index CFI = 0.96; the normed fit index NFI = 0.95; the tucker-lewis index TLI = 0.95, the root mean square error of approximation RMSEA = 0.051; and the standardized root mean square residual SRMR = 0.039 The squared multiple correlations (R^2) were used to indicate the proportion of explained variance in the dependent variables. The integrated model explained 48.3% of the variance in Personalization and 56.7 of the variance in CE and indicates the substantial explanatory power of the model. The structural path coefficients were considered to be significant which helped to test the hypotheses. The route between and to H2 were positive and significant. GAS showed a great connection with personalization (b = 0.61, P < 0.001), which counters H2, but also caused CE (b = 0.48, P < 0.001) which counters H1. These findings indicate that AI-based, interest-grabbing stories on online shopping websites lead to consumers feeling that the content is customized and have more engagement likelihood with such stories. Besides, H3 has a significant path coefficient (beta = 0.34, P < 0.001), which confirms its mediating role. Personalization also had an indirect influence on CE (β = 0.21, P < 0.001), which confirms H4. This observation shows that personalization functions as an important mediated process through which GAS promotes CE, meaning that the influence of AI narratives cannot be considered a mere direct effect but an indirect one because of personalized consumer-oriented experiences.

Figure 2 shows the hypothesized associations/pathways and the standardized path estimates of the current research, which show the significance and direction of all relationships proposed. On the whole, the findings reveal that the conceptual model could be highly appropriate in explaining the mixed indirect and direct influence of GAS on multi-dimensional CE within the context of Jordan.

Figure 2: Mediation analysis



4.3. Discussion

The results of the present study offer strong empirical evidence of the pivotal part played by GAS to improve CE in the context of the Jordanian e-commerce directly and indirectly through personalization. The findings prove that narrative created by AI not only attracts attention and evokes interest but also develops highly personalized experiences, which touch consumers on a personal level and boost their engagement levels. This is consistent with theoretical assertions of the ELM, which describes how congruent, fitting information promotes enhanced cognitive and emotional processing, and SOR, which describes how user-tailored AI stimuli (S) are registered in consumer interior conditions (O) to result in behavior engagement settings (R). As in previous research, a positive correlation with GAS and Personalization also corresponds to the solutions proposed by Zhang et al. (2022) and Sahut and Larache (2025), where AI-narratives and content recommendation systems increase the perceived relevance of marketing messages. In equal measure, the finding regarding the direct influence of storytelling on CE is in line with that of Stanikzai and Mittal (2025) and Podsakoff et al. (2003) to indicate the ability of AI-powered content in terms of immersing the consumers in the online shopping experience at an emotional and cognitive level. Besides, the mediation effect of Personalization of the relationship between GAS and CE justifies the postulates of Khan et al., (2024) and Hussain and Almomani (2025) that personalised experiences enhance the effectiveness of digital content. The current research indicates that rather than the unmediated effect of AI narratives, the magnitude of the influence is considerably increased as a result of the perception on the part of the consumer that the supplied content is specific to his or her tastes. This mediation finding builds up on the work of Hussain et al. (2024) by empirically supporting multi-dimensional engagement outcomes, cognitive, emotional, and behavioral, in the case of AI-enabled e-commerce platforms. The large variance described by CE (56.7%) and Personalization (48.3%) measures is an indication that GAS is a very strong predictor of the CE behaviors. This finding is consistent with previous findings by Hussain et al. (2025) and Hussain et al. (2023) that underscored the transformative power of marketing tools based on AI capable of transforming how customers perceive as well as interact with a given brand. What is more, the study also presents context-specific information about e-commerce in Jordan, as the digital marketing techniques are increasingly complemented with the assistance of AI technologies, but there is no empirical evidence to show the efficiency of GAS in the context of the Jordan. By showing the direct and mediated effect, the study contributes to the missing element in the literature and indicates the practice area of using AI narratives to induce engagement in the new e-commerce markets (Almgharbeh, 2025). All these results support the significance of the methodical GAS creation and that aligns with the preference of the consumers and incorporates personalization to demonstrate that technology-based storytelling marketing is not just a current trend but an effective means of realizing multi-dimensional consumer experience. The findings also indicate that future design should seek to understand more cultural/contextual moderators that can influence the efficiency of GAS, especially in emerging digital markets like Jordan.

5. CONCLUSION

This paper presents strong grounds in showing that GAS is central in the development of CE in the context of e-commerce in Jordan in a direct and an indirect manner through personalization. The results prove that AI-driven stories are not just a technological innovation that can engage consumers, provoke emotional and cognitive stimulation, and increase behavioral engagement. This study combines ELM and SOR theories, and it helps explain psychological dynamics behind AI-mediated marketing, establishing that AI-based, personalized information plays a pivotal role as a mediator of the effects of storytelling on CE. In the empirical study, it is found that encountering interesting AI stories substantially positively affects personalization perception, which will raise cognitive, emotional, and behavioral engagement. The model was significant to justifying large variance in personalization and CE thus, showing the predictive power of GAS strategies. These findings support and extend previous research (Hussain, 2023; Nazil, 2025), in that AI-induced stories and personalized experiences can have a positive synergetic effect on how consumers interact with online platforms. In practical terms, the research highlights that e-commerce managers and digital marketers should invest in GAS and personalization technologies in order to compete on the service level, increase consumer satisfaction with the products, and foster consumer loyalty. Further, in the case of emerging markets like Jordan, the study in question offers practical tips on creating a culturally specific and contextually oriented AI marketing strategy that can captivate the local customers and their behavior. The research contributes to the theory and practice since the findings indicate that GAS with the element of personalization is a potent force of multi-dimensional CE. It gives a solid basis to the further study of other mediators, moderators, and a cross-cultural implication, thus, providing a better apprehension of the transformational impact of AI in digital marketing.

5.1. Theoretical and Practical Implications

5.1.1. Theoretical implications

This work has a number of important contributions to the scholarly body of knowledge about AI-enabled marketing and CE. On the one hand, it complements the actual school of thought bordering on GAS by showing empirically its role in multi-faceted CE (cognitive, emotive and behavioural) in an e-commerce environment. Most of the preceding research has either considered generic adoption of AI or personalization (in the digital context) (Alqaraleh et al., 2024) but this study is specific in how it pertains to the content narrative of AI, giving specific details on how such content can influence consumer perceptions and reaction to such uses. Second,

the article combines and confirms two theoretical approaches, the ELM and the SOR model with the Jordanian e-commerce setting. The results of this study help fill gaps in the literature concerning psychological mediators in how personalization stimulates or motivates or activates internal consumer states (personalization perception) and engaged behavior (CE) through AI. This lends conceptual precision to the role of personalization as a mediating construct that hypotheses in prior literature postulated (Alzboon et al., 2025; Mohammad et al., 2024). Third, the research building up a new field on cross-cultural implementations of AI in marketing can offer a contribution to the empirical evidence on the topic, which has been scarce in previous investigations on the matter, also focusing on a neglected area, the Middle Eastern emerging market. Through the high direct and mediated effects, the research proves how the current models of engagement hold strong across varied cultural and economic backgrounds (Alqaraleh et al., 2024).

5.1.2. Practical implications

Its managerial implications give insights into what e-commerce platforms, digital marketers, and AI technology providers can do. The proven success of the Generative AI storytelling implies that companies are to invest in AI-based content creating solutions that will ensure they create content that align with their individual consumers preferences. Tailored AI storytelling not only drive consumer attention and emotional connection, but they also drive interaction, retention, and loyalty, which are essential to the competitive advantage in a competitive online market space. The paper places an emphasis on the significance of personalization as a mediating factor as well. Said managers are to take advantage of AI analytics, and customer data to offer highly personalized recommendations and marketing messages, with the content aligning with specific customer preferences. Combining GAS with personalization strategies can help companies achieve a vast improvement in engagement results that can directly result in increased conversion rates and revenue gain. Also in the case of emerging markets such as the Jordan market, the findings indicate that implementation of GAS is not only an upgrade in terms of technology but also a market differentiation measure. Platform developers and policymakers can rely on these insights in developing culturally relevant AI marketing measures that merge with the local consumer practices, including digital literacy. Overall, the paper presents strong theoretical frameworks to understanding AI-driven marketing processes; it also shows how an organization can improve CE through GAS coupled with personalization as an effective way of driving consumer processes online.

5.2. Limitations and Future Research Directions

Although this study has numerous strengths, it is important to recognize some weaknesses as well, which can be seen as opportunities of the research as well. First, the research employed the cross-sectional survey design, which cannot imply unambiguous conclusions about the causation. Although structural equation modeling will help get a solid idea of the relations between variables, longitudinal design or experiment were an approach that could better reflect how the dynamic of GAS and personalization affects CE in a time use perspective. Second, researchers were targeting specifically the online shoppers in Jordan only, and this is why the findings may not be valid in other cultures or economies. Despite being an interesting emerging market, the study in Jordan could be replicated in other countries or regions in order to confirm the validity of both the model and its applicability to other consumer segments, cultures, and digitally equipped environments. Third, though the research focused on multi-dimensional CE (cognitive, emotional, behavioral), other potentially important mediators and moderators, as trust, perceived usefulness, perceived novelty of AI, or cultural variables, were not investigated. In future, how these variables relate to each other can be examined to give a more elaborate picture of the processes through which GAS alter consumer performance. Fourth, the study used self-report data that is prone to either social desirability bias or response bias despite the effect of procedural solutions to static common method bias. The future research opportunity lies in incorporation of behavior data concerning actual online interaction (e.g. click-through rates, time spent on AI-generated content) to enhance empirical validity and to provide rich insights into engagement outcomes. The research concentrating on the e-commerce sector examined GAS. They could also be applied to other consumer engagement in digital marketing channels, e.g., social media, mobile apps, or immersive platforms (e.g., AR/VR), to better understand whether such consumer-centric engagement mechanisms can be applied in other contexts. Further, the impacts of the quality of AI content, creativity, and the intensity of personalization is a topic that should be further investigated to provide a more specific plan of action to companies. Altogether, even though the current study is highly valuable in terms of both its theoretical and practical implications, the second wave of studies will contribute to filling these research gaps, introducing longitudinal or experimental designs, focusing on other cultures or industries, including other mediators or moderators, or using the objective behavioral measures to enhance the knowledge in the area of AI-driven marketing efficacy.

6. ACKNOWLEDGEMENT

The research is funded by Zarqa University.

REFERENCES

Abrokwah-Larbi, K. (2023). The role of generative artificial intelligence (GAI) in customer personalisation (CP) development in SMEs: a theoretical framework and research propositions. Industrial Artificial Intelligence, 1(1), 11.

Aggarwal, P., & Agarwala, T. (2025). Green organizational culture: An exploration of dimensions. Global Business Review, 26(4), 1103-1126.

Al-Akash, H., Aldarawsheh, A., Elshatarat, R., Sawalha, M., Saifan, A., Al-Nsair, N., & Eltayeb, M. (2024). "We do others' Jobs": a qualitative study of non-nursing task challenges and proposed solutions. BMC nursing, 23(1), 478.

Aldabousi, A. M. (2022). Legal problems of conclusion of intelligent software agent for smart commercial contracts in the era of Blockchain UAE as model. Universidad y Sociedad, 14(S3), 713-728.

Aldarawsheh, A. A., Saifan, A. R., Sawalha, M. A., Assaf, E. A., Alrimawi, I., Elshatarat, R. A., … & Eltayeb, M. M. (2024). Exploring the

causes and consequences of non-nursing tasks among nurses in Jordan: An in-depth qualitative investigation. Applied Nursing Research, 77, 151791.

Al-Fahim, N. H., Ateeq, A. A., Abro, Z., Milhem, M., Alzoraiki, M., Alkadash, T. M., & Nagi, M. (2024). Factors influencing the mobile banking usage: mediating role of perceived usefulness. In Digital technology and changing roles in managerial and financial accounting: theoretical knowledge and practical application (Vol. 36, pp. 115-128). Emerald Publishing Limited.

Almagharbeh, W. T. (2025). The impact of AI-based decision support systems on nursing workflows in critical care units. International nursing review, 72(2), e13011.

Alnawafleh, K. A., Almagharbeh, W. T., Alfanash, H. A., Alasmari, A. A., Alharbi, A. A., Alamrani, M. H., … & Rezq, K. A. (2025). Exploring the ethical dimensions of AI integration in nursing practice: A systematic review. Journal of Nursing Regulation, 16(3), 228-237.

Alqaraleh, M. K. S., Alzboon, M. S., Al-Shorman, H. M., Wahed, M. K. Y. A., Saatchi, S. G., thwaib, B. M. S. A., ... & Al-hawajreh, K. M. (2024). Emerging Technologies in the Middle East: Artificial Intelligence Adoption and Performance Expectancy in SMEs. Intelligence-Driven Circular Economy: Regeneration Towards Sustainability and Social Responsibility–Volume 1, 179-193.

Alzboon, M. S., Al-Shorman, H. M., Alka'awneh, S. M. N., Saatchi, S. G., Alqaraleh, M. K. S., Samara, E. I. M., … & Haija, A. A. A. (2025). The Role of Perceived Trust in Embracing Artificial Intelligence Technologies: Insights from SMEs. In Intelligence-Driven Circular Economy: Regeneration Towards Sustainability and Social Responsibility—Volume 2 (pp. 1-15). Cham: Springer Nature Switzerland.

Alzboon, M. S., Bader, A. F., Abuashour, A., Alqaraleh, M. K., Zaqaibeh, B., & Al-Batah, M. (2023, November). The Two Sides of AI in Cybersecurity: Opportunities and Challenges. In 2023 International Conference on Intelligent Computing and Next Generation Networks (ICNGN) (pp. 1-9). IEEE.

Armutcu B, Majeed MU, Hussain Z, Aslam S (2025;), "The impact of digital voice of customer and product lifecycle management on Quality 4.0: moderating role of AI in SMEs". Journal of Manufacturing Technology Management, Vol. Ahead-of-print No. Ahead-of-print. https://doi.org/10.1108/JMTM-12-2024-0660

Aslam, S., Majeed, M. U., & Hussain, Z. (2025). The Effect of NFTs Metaverse Engagement and Digital Personalization on Brand Accessibility: The Mediating Role of Inclusive Brand Strategies. In Metaverse and Sustainable Business Models in SMEs (pp. 291-316). IGI Global Scientific Publishing.

Awad, A., Aldabousi, A. M., & Albatal, S. (2025). The influence of social media marketing on customer knowledge management: The role of confidentiality in UAE public banks. Banks and Bank Systems, 20(1), 1.

Chandra, B., & Rahman, Z. (2026). Reimagining Customer Engagement and Digital Business in the Age of Generative AI and the Metaverse. In Customer Engagement and Digital Business (pp. 122-139). Routledge.

Charter, R. A. (1999). Sample size requirements for precise estimates of reliability, generalizability, and validity coefficients. Journal of clinical and experimental neuropsychology, 21(4), 559-566.

Das, S., Rath, J. P., Patro, U. S., Panda, T., & Gopinath, G. (2024). Investigating generative AI innovative strategies for customer engagement in marketing automations in the digital era. International Journal of Applied Science and Engineering, 12(1), 47-57.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research, 18(1), 39-50.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European business review, 31(1), 2-24.

Hamilton, M. A., Hunter, J. E., & Boster, F. J. (1993). The elaboration likelihood model as a theory of attitude formation: A mathematical analysis. Communication Theory, 3(1), 50-65.

Hussain, W., & Abd alkarim Almomani, M. (2025). The Mediating Impact of AI-Driven Visual Fluency on the Association Between Generative AI Content and User Interaction in Advertising. In Impacts of AI-Generated Content on Brand Reputation (pp. 203-226). IGI Global Scientific Publishing.

Hussain, Z. (2023). Examining the impact of green marketing strategies on organizational performance and competitive advantage. NUST Business Review, 5(1), 1-18.

Hussain, Z.; & Mari, A. K. (2023). Legal Protection of Customer Privacy on E-Commerce: A Comparative Study of Iranian and American Law, International Journal of Marketing, Communication and New Media, 2(12), 5-24.

Khan, A., Hamid, A. B. A., & Hussain, Z. (2024). Unveiling the Impact of AI in Customer Touchpoints: A Review and Research Agenda. Minds Unveiled, Taylor & Francis Publishers 4(1), 70-83.

Kim, M. (2024). Unveiling the e-servicescape of ChatGPT: exploring user psychology and engagement in AI-powered chatbot experiences. Behavioral Sciences, 14(7), 558.

Mohammad, A. A. S. (2025). The impact of COVID-19 on digital marketing and marketing philosophy: evidence from Jordan. International Journal of Business Information Systems, 48(2), 267-281.

Mohammad, A. A. S., Al-Daoud, K. I., Al-Daoud, S. I. S., Samarah, T. A., Vasudevan, A., & Li, M. (2024). Content marketing optimization: A/B testing and conjoint analysis for engagement strategies in Jordan. Journal of Ecohumanism, 3(7), 3086-3099.

Mohammad, A. A. S., Mohammad, S. I. S., Al Oraini, B., Vasudevan, A., & Alshurideh, M. T. (2025). Data security in digital accounting: A logistic regression analysis of risk factors. International Journal of Innovative Research and Scientific Studies, 8(1), 2699-2709.

Murthy, Y. S., Bhatnagar, P., & Hussain, Z. (2025). Navigating Emotions Mapping Emotional Touchpoints to Enhance Customer Experience in the Digital Era. In Demystifying Emotion AI, Robotics AI, and Sentiment Analysis in Customer Relationship Management (pp. 129-160). IGI Global Scientific Publishing.

Muskan Nagi, J. B. (2022). Effect of psychological support from employers to employees during COVID-19 pandemic in Bahrain. Journal of Hunan University Natural Sciences, 49(1).

Nagi, M., & Bojiah, J. (2020). Real classes vs Online classes: A comparative study on the chosen course of HRM students of Gulf University, Kingdom of Bahrain. International Journal of Emerging Technologies in Learning (iJET), 15(18), 31-39.

Nagi, M., Nigam, S., Almaamari, Q., Khalifa, H., & Bojiah, J. (2021). Impact of social media on consumers brand preference for laptops. Turkish Journal of Computer and Mathematics Education, 12(11), 866-873.

Nagi, M., Nigam, S., Ateeq, A., Al-Maamari, Q., & Almeer, M. S. (2023). Analyzing relation among performance, career planning, and impact of retaining workers in industrial companies in the Kingdom of Bahrain. Bol. Lit. Oral Lit. J, 10(1), 3685-3700.

Nazil, A. R. (2025). AI-Powered Visualization is Transforming Modern Healthcare. International Journal of Research Publication and Reviews, 6(8), 1474-1478.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. Journal of applied psychology, 88(5), 879.

Qadeer, A., & Awad, A. (2025). AI-Powered ChatGPT in Branding:

Benefits, Challenges, and Future Directions. In Impacts of AI-Generated Content on Brand Reputation (pp. 1-26). IGI Global Scientific Publishing.

Reddy, S. G., Sadhu, A. K. R., Muravev, M., Brazhenko, D., & Parfenov, M. (2023). Harnessing the power of generative artificial intelligence for dynamic content personalization in customer relationship management systems: A data-driven framework for optimizing customer engagement and experience. Journal of AI-Assisted Scientific Discovery, 3(2), 379-395.

Sahut, J. M., & Laroche, M. (2025). Using artificial intelligence (AI) to enhance customer experience and to develop strategic marketing: An integrative synthesis. Computers in Human Behavior, 170, 108684.

Saleh, Z. T., Rababa, M., Elshatarat, R. A., Alharbi, M., Alhumaidi, B. N., Al-Za'areer, M. S., … & Fadila, D. E. S. (2025). Exploring faculty perceptions and concerns regarding artificial intelligence Chatbots in nursing education: potential benefits and limitations. BMC nursing, 24(1), 440.

Stanikzai, M. E., & Mittal, E. (2025). Leveraging AI-generated and human-generated content for maximized user engagement in contentpreneurs' innovation and creativity. Journal of Innovation and Entrepreneurship, 14(1), 91.

Usmonov, M. (2025). Crafting Connections: Generative AI's Impact on Post-Purchase Communication in E-Commerce. Contemporary Issues of Communication, 4(1), 288-310.

Wahid, A., & Awad, A. (2025). Role of AI Chatbots in Enhancing Customer Satisfaction and Customer Loyalty. In Impacts of AI-Generated Content on Brand Reputation (pp. 129-148). IGI Global Scientific Publishing.

Zhang, J., Jiang, N., Turner, J. J., & Pahlevan-Sharif, S. (2022). The impact of scarcity on consumers' impulse buying based on the SOR theory. Frontiers in Psychology, 13, 792419.

Żyminkowska, K., & Zachurzok-Srebrny, E. (2025). The Role of Artificial Intelligence in Customer Engagement and Social Media Marketing—Implications from a Systematic Review for the Tourism and Hospitality Sectors. Journal of Theoretical and Applied Electronic Commerce Research, 20(3), 184.