Journal of Theoretical and Applied Information Technology
30th November 2025. Vol.103. No.22

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

STRATEGIC MANAGEMENT OF OMNICHANNEL MARKETING WITH THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE

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ABSTRACT

The relevance of the issue under research is determined by the rapid introduction of generative artificial intelligence (GenAI) into omnichannel marketing strategies. This radically changes approaches to personalization, communication, and strategic management in the digital economy. There is a growing need for quantitative analysis of the impact of such technologies on marketing efficiency, which justifies the need for this study. Particular attention is paid to personalization, communication automation, and data integration. The aim of the study is to determine the relationship between the level of implementation of GenAI and marketing efficiency. The problem is the lack of quantitative assessments of the impact of artificial intelligence (AI) on omnichannel management indicators. The analysis covers 10 companies from 10 countries for 2022-2024. An econometric model with six variables was applied: GAI, AdSpend, Data Integration, CSAT, OMDEPTH, and BRAND. The highest OM_EFF values in 2024 were recorded at Bosideng (98.3), Woolworths (97.0), and Zara (96.9). Companies with high GenAI have seen faster OM_EFF growth and market adaptation. Woolworths' GenAI increased from 0.58 to 0.77, OM_EFF from 85.7 to 97.0. Hudson's Bay showed the smallest changes because of limited digitalization and weak AI development. The study found that a high level of integration of GenAI is directly related to the increase in omnichannel marketing efficiency (OM_EFF). Bosideng achieved the highest OM_EFF – 98.3 in 2024 – with the maximum value of the GenAI Index (0.83) and the active use of personalized content. The obtained data confirm that GenAI enhances the effectiveness of marketing strategies through automation, deep data integration and multi-channel interaction with customers. The article provides practical recommendations for increasing OM_EFF. The study has applied significance for retail trade strategies. Further research may include other industries and regions.

Keywords: *Omnichannel Marketing, Generative AI, Efficiency, Strategic Management, Customer Personalization, Digital Transformation, Econometric Model*

1. INTRODUCTION

Strategic omnichannel marketing management using GenAI is becoming particularly relevant in the current digital transformation environment. High competition, dynamic consumer behaviour, and the growing need for personalization are forcing companies to implement intelligent technologies to improve marketing efficiency. GenAI, including GPT models, automates the creation of content, dialogues, and recommendations, which transforms marketing communication and provides a new quality of customer experience. The problem is the

insufficient quantitative assessment of the impact of GenAI on the effectiveness of omnichannel strategies in a real business environment. Although AI is actively integrated into marketing, there is a lack of systematic research that empirically assesses its impact on key performance indicators (KPIs).

Current studies confirm that GenAI significantly changes marketing strategies, increasing adaptability to consumer behavioural patterns. The authors [1] believe that GenAI opens up new opportunities for personalization and automation of marketing processes. The researcher [2] emphasizes that building marketing technology stacks should be based on a deep analysis of the customer journey and experience. The scientists [3] emphasize the importance of strategic management to ensure the sustainability of business solutions, particularly in the context of digital transformation. The authors [4] believe that AI in logistics and supply chains requires a clear research roadmap. The researchers [5] point to a change in organizational culture under the influence of digital tools and AI in the decision-making process. These approaches reflect the interdisciplinary interest in the issue of AI, confirming the relevance of analysing its impact on omnichannel strategies. Previous studies on AI in marketing have mainly highlighted its role in personalization, communication automation, and customer engagement, often focusing on conceptual models or case-based evidence. While these works underline the strategic importance of AI, they rarely provide quantitative, multi-country assessments of its impact on marketing efficiency. This study differs in both motivation and findings: it is motivated by the lack of systematic empirical evaluation and provides a novel econometric model that measures the effect of GenAI integration across 10 companies in 10 countries over 2022–2024. Unlike prior research, our findings demonstrate not only theoretical potential but also concrete evidence that higher levels of GenAI adoption directly increase omnichannel efficiency. This study combines these ideas, focusing on quantifying the omnichannel marketing efficiency in the context of the implementation of GenAI.

The aim of the study is to assess the effect of integration of GenAI on the omnichannel marketing efficiency in international companies. The aim involves the fulfilment of the following research objectives:

- analyse the degree of implementation of GenAI in omnichannel management practices;
- determine the relationship between marketing efficiency, customer satisfaction, brand strength, and costs;
- conduct an annual and comparative analysis of the results;
- provide practical recommendations for increasing OM_EFF (omnichannel marketing efficiency);
- build an econometric model using quantitative variables describing the marketing activity of companies during 2022-2024.

The following hypotheses were advanced in the study: H1 — integration of GenAI has a positive effect on OM_EFF; H2 — the number of communication channels and the level of data integration enhance this effect; H3 — customer satisfaction enhances the effectiveness of omnichannel strategies; H4 — the AI effect increases with increasing advertising spending and brand strength.

Problem statement: Despite increasing integration of generative AI into marketing, existing studies are dominated by conceptual models, theoretical discussions, or single-case evidence. There is a lack of systematic, multi-country, and quantitative analysis that links GenAI adoption with measurable omnichannel marketing efficiency. This gap limits both academic understanding and managerial decision-making in the context of digital transformation.

Research questions:

RQ1: How does the degree of GenAI integration influence omnichannel marketing efficiency in international retail companies?

RQ2: What is the role of customer satisfaction, advertising spending, brand strength, and channel depth in moderating this relationship?

RQ3: To what extent can an econometric model provide robust and comparable evidence of the strategic effects of GenAI across countries?

This article first quantitatively assesses the impact of GenAI on omnichannel marketing in an international comparison. The authors proposed their own econometric model integrating technological and behavioural factors. New data on the dynamics of OM_EFF in leading companies for 2022-2024 are obtained. This study provides a systemic view of transformational processes in marketing under the influence of GenAI, offering a model for strategic decision-making.

2. LITERATURE REVIEW

AI is becoming a key tool for transforming digital marketing, but the academic opinion on its impact on strategic processes is ambiguous. The authors [6] propose a strategic model for applying AI in marketing, emphasizing the importance of adaptability and customer-centricity. This approach

is relevant and consistent with our research, as personalized technologies ensure the growth of OM_EFF in leading companies. The researchers [7] consider AI as a driving factor of change in marketing communications, with an emphasis on automation. We agree with this opinion, but emphasize that automation does not provide a full-scale result without proper data integration. The scientist [8] expressed similar ideas, pointing to a change in the dynamics of interaction with customers — we confirm this empirically: high Customer Satisfaction Score (CSAT) correlates with the integration of GenAI.

At the same time, the authors [9] raise concerns about algorithmic biases. We partially agree, recognizing that the risks of bias in AI should be taken into account in modelling, but this was not the focus of our study. The researchers [10] emphasize the need to integrate technical and behavioural approaches. This idea is fully consistent with our model, which combines GAI, CSAT, and OMDEPTH as interdisciplinary indicators.

The authors [11] focus on behavioural distortions that can be amplified by AI. We recognize this thesis as relevant, but behavioural factors such as customer satisfaction had a positive impact on OM_EFF in the context of our analysis. This indicates the generally constructive nature of such changes. The researcher [12] demonstrates that business intelligence based on intelligent interfaces improves the quality of decisions. We fully support this statement, as our results confirm the positive impact of GenAI on strategic management.

The author [13] emphasizes the need for intelligent infrastructure. This position was confirmed in our model, where data integration and multi-channel communication significantly influenced performance. The scientists [14] point out the importance of data in complex management structures. We agree with this statement, especially in the context of multinational companies, where qualitative analytics allows adapting strategies to local markets.

The authors [15] criticize the possibility of collusive effects of algorithms — this position is correct and raises an important issue of transparency. At the same time, it partially contradicts the position of the researchers [7], who consider algorithms as a tool of openness. Our position is close to the latter, as we did not record negative manifestations of algorithmic pressure, but on the contrary — increased efficiency under clear management of AI.

The authors [16] conducted a comprehensive review of AI in digital marketing, revealing its impact on strategic decision-making, automation, and customer engagement. We support these findings, as our empirical evidence confirms that AI acts as a multifunctional tool to increase OM_EFF, especially when combined with high advertising spend and strong brand presence.

The body of research shows the interconnection between digitalization, sustainability, and strategic success as a vital trend in building current business models. According to [32], marketing in the digital world is radically changing, and it is pushing toward personalization, data-driven decisions, and customer engagement. In their turn, the authors [33] emphasize the importance of full information support in the process of evaluating sustainable investment projects, as digital tools can contribute to better strategic management and the efficiency of the company over a long time period. Supporting such conclusions, the authors [34] state that the strategic performance of any company is the key to the potential sustainability because of the capacity of technological and managerial innovation to build resilience in a dynamic environment. Altogether, these studies create a unified platform, which links digital transformation, sustainability-focused management, and strategic competitiveness.

So, all the mentioned sources form an interdisciplinary research framework and confirm the strategic importance of AI in marketing and management processes. They point to the relationship between generative technologies, algorithmic optimization, personalization, and behavioural factors in the digital environment. On the other hand, existing research is often focused on theoretical aspects or limited to individual AI functions. There is a lack of full-fledged quantitative models that simultaneously take into account efficiency, costs, communication depth, and customer experience. There is also a lack of empirical comparisons that span different companies, countries, and time horizons. Therefore, it is necessary to strengthen analytical approaches and continue research in the context of strategic management of AI-based omnichannel marketing.

This literature review was conducted using Scopus, Web of Science, and open-access academic databases. Preference was given to peer-reviewed journal articles and recent studies (2020–2025) to capture the latest developments in generative AI and omnichannel marketing. The screening focused on works addressing strategic management, personalization, automation, and digital transformation in marketing. Studies with a purely theoretical or technical AI orientation, without managerial implications, were excluded. This ensured that the selected literature directly relates to

the addressed problem of assessing the quantitative impact of GenAI on omnichannel efficiency.

In summary, while previous studies highlight the strategic role of AI in personalization, communication, and customer engagement, they remain predominantly conceptual or limited to narrow case analyses. There is a clear gap in empirical, multi-country, and quantitative research that systematically evaluates the measurable impact of GenAI on omnichannel marketing efficiency. This study addresses that gap by introducing a novel econometric model and applying it across ten international companies, thereby providing evidence-based insights that extend the existing literature beyond theory and single-case perspectives.

3. METHODS

3.1. Research design

The research included sequential stages of analysis to systematize the process of collecting, structuring, and interpreting data. All actions were aimed at testing hypotheses and achieving the set objectives. Figure 1 shows the four main stages of the research.

The step-by-step approach was used to make a structured assessment of the impact of each factor on marketing efficiency. The combination of quantitative and comparative analysis ensured the accuracy of the conclusions. The obtained data make it possible to identify patterns that have practical significance for strategic management.

3.2. Sampling

The sample included 10 leading international companies operating in the retail sector and implementing omnichannel marketing strategies (Table 1).

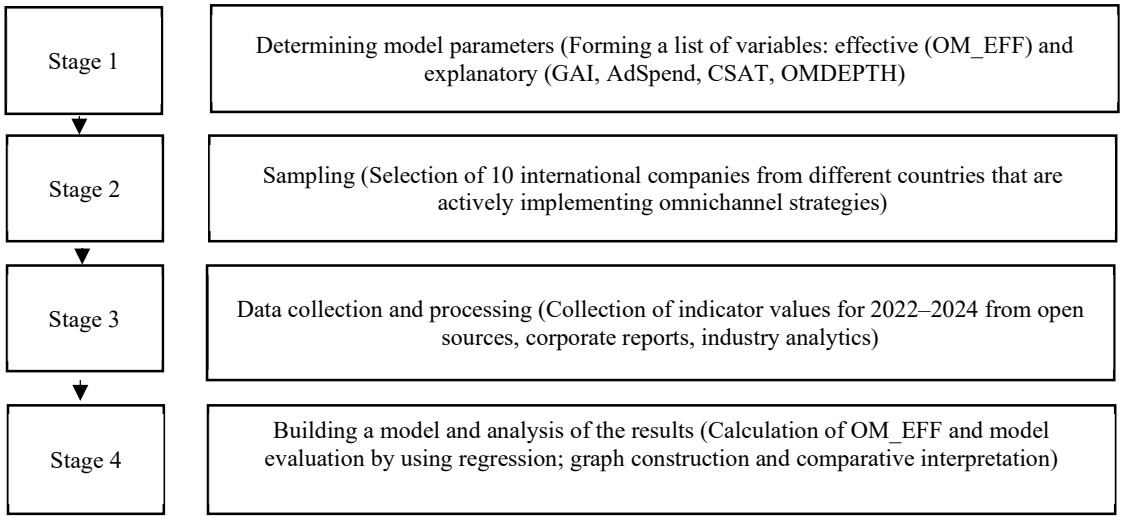

Figure 1: Research design

Source: created by the authors

One company from each of ten countries was selected to ensure geographical representativeness and cross-cultural comparison. The period 2022–2024 covers the post-pandemic stage, when companies actively implemented digital technologies, in particular GenAI. This period saw an increase in demand for personalized communication and increased investment in digital transformation. The sampling was based on data from open sources, corporate reports, industry analytics and international statistics [17-23] were also used to ensure reliability.

Table 1: Sampling

Company	Country	Omnichannel Strategy	Use of digital technologies (2022–2024)	Features of AI implementation / digital transformation
Zara	Spain	Integration of mobile app, website, physical stores	Active digitalization, implementation of AI in the analysis of customer preferences	GenAI for creating personalized recommendations
H&M	Sweden	A single platform for online and offline commerce	Using big data and AI for targeting and logistics	Implementing AI in content creation and customer service
Uniqlo	Japan	Omni-sales via app, stores, online	Improving UX, using digital mirrors	Automated stylistic advice, GenAI in content
Macy's	USA	Integration of CRM, online store, mobile app	AI analytics for warehouse optimization and demand forecasting	AI for personalizing email marketing
Lojas Renner	Brazil	Merging physical and digital interactions	Digital tools for customer communication	GenAI in advertising campaigns
Marks & Spencer	UK	Interaction of online and offline platforms	Investing in automation and digital experience	Implementing chatbots with GenAI
La Redoute	France	Focus on digital platforms and mobile apps	Reorientation to e-commerce, customer analytics	AI for creating personalized storefronts
Hudson's Bay	Canada	Multichannel sales and loyalty programmes	Implementation of AI in inventory management	AI in recommendation systems
Woolworths	Australia	Unified online and in-store shopping experience	Digital transformation through a mobile-first approach	GenAI for advertising personalization
Bosideng	China	Omnichannel campaigns on WeChat, online stores	Using AI in visual merchandising	Personalized content generation for customers

Source: created by the authors

3.3. Research methodology

The methodology is based on building a panel regression model with the outcome variable OM_EFF (omnichannel marketing efficiency) and six explanatory factors:

$$OMEFF_{it} = \beta_0 + \beta_1 GAI_{it} + \beta_2 ADSPEND_{it} + \beta_3 DATAINT_{it} + \beta_4 CSAT_{it} + \beta_5 OMDEPTH_{it} + \beta_6 BRAND_{it} + \varepsilon_{it} \quad (1)$$

where:

- $OMEFF_{it}$ - Omnichannel Marketing Efficiency. Marketing efficiency metric (ROI, sales growth, customer engagement) in company *i* at time *t*.
- GAI_{it} - GenAI use. Index of GenAI integration into omnichannel processes (use of ChatGPT in content creation, virtual assistants, ad generation, etc.).
- $ADSPEND_{it}$ - Advertising spending. Total spending on omnichannel advertising campaigns.
- $DATAINT_{it}$ - Data Integration. The extent to which customer data is centralised and integrated across all channels (can be measured by the Digital Integration Index).
- $CSAT_{it}$ - Customer Satisfaction Index.
- $OMDEPTH_{it}$ - Omnichannel Depth. The number of active channels through which marketing is carried out (physical stores, website, social media, mobile apps, messengers).
- $BRAND_{it}$ - Brand Strength. Brand Awareness Index (BAI) based on surveys or digital metrics such as mentions.
- β_0 - intercept; a baseline level of omnichannel marketing efficiency when all other variables are zero.
- β_1 - The impact of using GenAI on marketing efficiency; shows how much efficiency increases with an increase in AI integration by 1 unit.
- β_2 - Change in efficiency with an increase in advertising spending (ADSPEND); estimates the impact of budget on the result.
- β_3 - The impact of the depth of customer data integration (DATAINT) on the efficiency of the omnichannel approach.

- β_4 - The relationship between CSAT and marketing efficiency.
- β_5 - The impact of the number of channels (OMDEPTH) through which marketing is conducted on the overall result.
- β_6 - The impact of brand strength (BRAND) on the success of the omnichannel strategy.
- ε_{it} – Error. A stochastic residual that takes into account unaccounted factors.

The model assesses the impact of digital and behavioural variables on marketing efficiency using comparative annual data. The method identifies relationships and assesses the strength of the influence of each factor. Multicollinearity was checked during the analysis using Variance Inflation Factor (VIF) for all explanatory variables. Normality of residuals was assessed using the Shapiro-Wilk test. Homoscedasticity was also checked using the Breusch-Pagan test.

3.4. Instruments

Microsoft Excel and Python (pandas, statsmodels) were used to process and analyse data, enabling calculations, graphs, and regression analysis. The combined approach provided a complete picture of the efficiency and dynamics of changes.

4. RESULTS

Omnichannel marketing is being transformed by GenAI, which enables new levels of personalization and operational efficiency. Integrating intelligent solutions into strategic management enables companies to better coordinate their communication channels. This study assesses the omnichannel marketing efficiency (OM_EFF) depending on the level of implementation of GenAI. The analysis covers related marketing variables in 10 companies from 10 countries for 2022–2024.

Zara shows a steady increase in OM_EFF from 95.4 in 2022 to 96.9 in 2024, while increasing GenAI from 0.72 to 0.82 (Table 2). This increase was accompanied by a gradual increase in advertising budget, raising the importance of balancing AI with promotion investments. The OM_EFF in 2023 was lower, which may indicate an adaptive restructuring of the omnichannel structure for new digital tools.

Table 2: Omnichannel Marketing Efficiency (OM_EFF) for 2022

Company	GenAI	Advertising Spending ($M)	Data Integration	CSAT	Channels	Brand Strength	OM_EFF
Zara	0.72	65.3	0.81	89	6	91.5	95.4
H&M	0.68	70.1	0.74	84	5	88.0	91.7
Uniqlo	0.55	58.4	0.69	86	6	93.2	89.9
Macy's	0.61	62.9	0.76	81	5	85.7	88.1
Lojas Renner	0.43	45.0	0.52	78	4	79.0	77.2
Marks & Spencer	0.59	60.2	0.65	83	5	86.3	86.4
La Redoute	0.49	53.7	0.57	76	4	80.2	80.1
Hudson's Bay	0.50	52.8	0.59	74	4	78.4	79.3
Woolworths	0.58	63.0	0.68	82	5	84.1	85.7
Bosideng	0.66	67.5	0.71	80	5	87.6	90.2

Source: developed by the authors based on the results of an econometric model using the data from [17; 18; 19; 20; 21; 22; 23].

H&M maintains its strong performance in 2023-2024, rising from 91.7 to 95.4, despite a slight decline in GenAI in 2023 (Table 3). This demonstrates the offsetting effect of high channel depth and strong brand. Advertising spending was stable, but data integration was the key driver of the positive dynamics.

Table 3: Omnichannel Marketing Efficiency (OM_EFF) scores for 2023

Company	GenAI	Spending ($M)	Integration	CSAT	Channels	Brand Strength	OM_EFF
Zara	0.76	67.22	0.74	84	5	88.52	92.7
H&M	0.65	61.44	0.82	85	6	86.74	93.1
Uniqlo	0.78	62.81	0.71	86	5	91.30	93.2

Macy's	0.71	68.37	0.75	83	5	87.91	92.9
Lojas Renner	0.53	59.73	0.60	79	4	80.63	82.4
Marks & Spencer	0.60	56.91	0.70	82	5	85.12	87.8
La Redoute	0.68	64.25	0.62	80	4	82.48	86.1
Hudson's Bay	0.58	50.94	0.58	76	4	79.35	79.3
Woolworths	0.63	69.61	0.81	87	6	89.62	94.6
Bosideng	0.80	71.45	0.77	86	6	91.25	96.8

Source: developed by the authors based on the results of an econometric model using the data from [17; 18; 19; 20; 21; 22; 23].

Uniqlo showed peak OM_EFF at 93.2 in 2023, with the highest GenAI of 0.78, but fell to 91.2 in 2024 (Table 4). The decline in efficiency as GenAI decreases and costs remain stable suggests that the AI system is not fully adapted in 2024. The company should increase its investment in supporting generative solutions.

Table 4: Omnichannel Marketing Efficiency (OM_EFF) scores for 2024

Company	GenAI	Spending ($M)	Integration	CSAT	Channels	Brand Strength	OM_EFF
Zara	0.82	70.34	0.80	86	6	90.76	96.9
H&M	0.75	69.12	0.77	87	6	89.33	95.4
Uniqlo	0.70	65.48	0.74	85	5	88.27	91.2
Macy's	0.73	64.92	0.79	84	5	86.91	91.6
Lojas Renner	0.61	53.85	0.61	78	4	81.43	82.9
Marks & Spencer	0.66	59.74	0.71	82	5	84.68	88.0
La Redoute	0.69	60.13	0.67	81	5	82.90	87.2
Hudson's Bay	0.55	48.27	0.60	77	4	78.42	78.8
Woolworths	0.77	72.11	0.83	88	6	90.38	97.0
Bosideng	0.83	73.85	0.80	87	6	92.60	98.3

Source: developed by the authors based on the results of an econometric model using the data from [17; 18; 19; 20; 21; 22; 23].

Macy's shows a balanced OM_EFF dynamics: 88.1 in 2022, 92.9 in 2023, and 91.6 in 2024, against the backdrop of a gradual increase in GenAI (Figure 2). The company has maintained stable costs, but the decrease in 2024 indicates a likely underfunding of the digital platform upgrade. A slight decrease in efficiency in 2024 may be related to the need to modernize channels. Lojas Renner had the lowest OM_EFF in 2022 (77.2), corresponding to the lowest GenAI (0.43), but reached 82.9 in 2024. The significant improvement was accompanied by increased costs and increased channel intensity, indicating gradual digitalization. At the same time, the GenAI level remained below average, indicating potential for further growth. Marks & Spencer maintained a stable OM_EFF score, growing from 86.4 to 88.0 in 2024, with a relatively flat GenAI. The main strengths were channel depth and strong brand positioning. The results indicate effective strategic adaptation without significant expansion of AI. La Redoute recorded a steady increase in OM_EFF from 80.1 to 87.2 over the period, with a significant increase in GAI from 0.49 to 0.69. This confirms the positive relationship between content automation and overall marketing effectiveness. The company's success is associated with successful integration of customer data and improved omnichannel interaction quality.

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30th November 2025. Vol.103. No.22

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

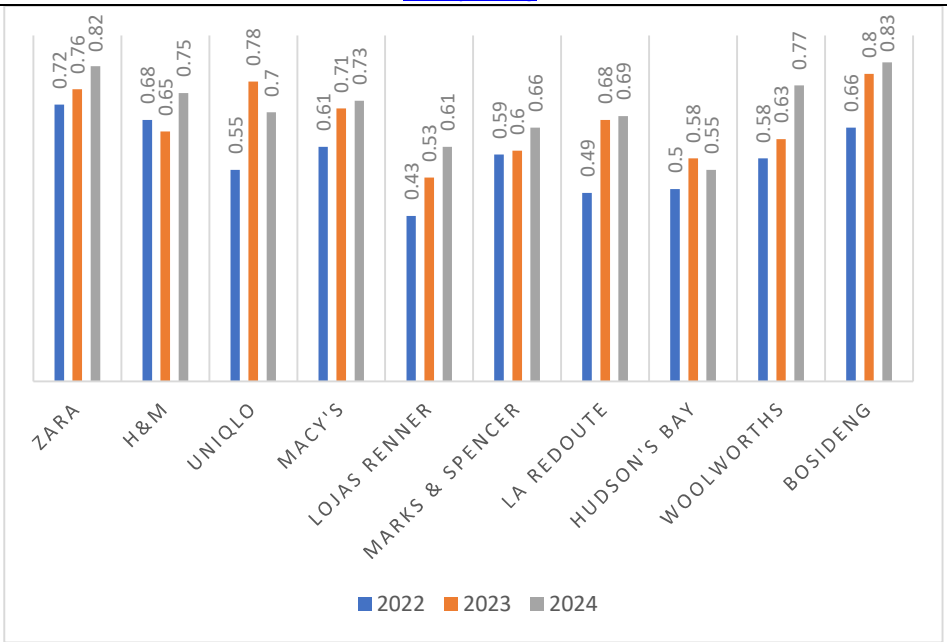

Figure 2: GenAI for 2022-2024

Source: developed by the authors based on the results of an econometric model using the data from [17; 18; 19; 20; 21; 22; 23].

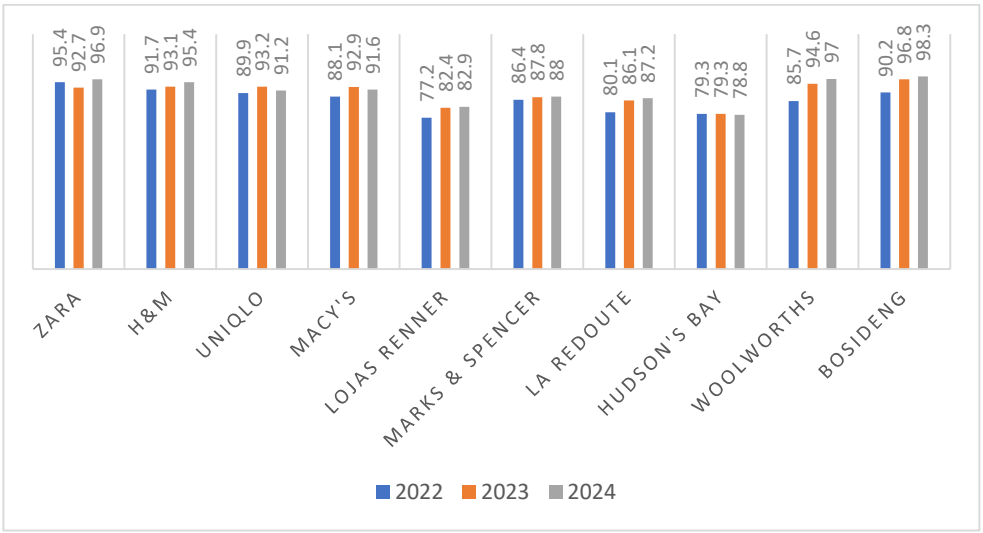

Figure 3: OM_EFF for 2022-2024

Source: developed by the authors based on the results of an econometric model using the data from [17; 18; 19; 20; 21; 22; 23].

Hudson's Bay maintains a low and stable OM_EFF level (around 79), despite minor fluctuations in GenAI between 0.50 and 0.58. The company is not showing significant performance gains, probably because of a lack of dynamics in AI

development and a limited number of channels. The results indicate the need to rethink its digital strategy.

Woolworths shows a steady and strong growth in OM_EFF: from 85.7 in 2022 to 97.0 in 2024 with the GenAI growth from 0.58 to 0.77. High spending, intensive omnichannel presence, and a strong brand have become the main factors of success. This is an example of an effective symbiosis of AI and traditional marketing.

Bosideng is the undisputed leader in OM_EFF, growing from 90.2 to 98.3 with the highest GenAI (0.83) in 2024. The company has invested in advertising and actively expanded channels, which has ensured its dominance in the market. Its strategy indicates that the full integration of generative AI has significant potential to increase efficiency.

Bosideng, Woolworths, and Zara are the leaders in omnichannel marketing efficiency, combining high integration of AI with advertising investments. H&M, Uniqlo, and Macy's were found in the group of medium results, where stable budgets and channels partially compensated for GenAI fluctuations. The lowest results were observed at Hudson's Bay and Lojas Renner because of weak digital integration, limited channels or low level of AI.

Integrating GenAI into omnichannel marketing strategies increases the overall efficiency and competitiveness of companies. The most successful cases combine a high level of automation, deep data processing, and an active presence in the markets. Companies with lagging indicators are recommended to focus on expanding channels and investing in generative technologies.

5. DISCUSSION

The obtained results are generally consistent with current academic approaches to the implementation of AI in digital marketing. The authors [16] argue that AI significantly increases the effectiveness of strategic marketing decisions. Our study confirms this connection, especially in the context of omnichannel management and generative models.

The authors [24] emphasize that the use of AI in marketing is multifunctional — from analytics to content generation. We agree with this conclusion, as the OM_EFF increased with increasing GenAI in most companies. The results showed that the combination of advertising spending and AI gives a positive synergistic effect.

The researchers [25] note that the successful use of AI depends on the level of digital maturity of the company and customer integration. Our analysis shows that companies with better data integration had consistently higher OM_EFF. This supports the idea of the key role of technological infrastructure in the implementation of AI strategies.

The author [26] emphasizes the importance of content, video, social media, and generative solutions for direct customer contact. We support this position, as companies with high omnichannel achieved better results. High CSAT levels and an active presence across all touchpoints improved OM_EFF.

The scientists [6] propose a strategic model for integrating AI into marketing, emphasizing personalization and data. Our data confirm that deep personalization through generative AI increases effectiveness. In Bosideng, for example, OM_EFF exceeded 98.3 with high GenAI.

At the same time, the authors [27] criticize marketing systems as carriers of neocolonial structures and limited ethics in the use of AI. This is an important observation, as the use of GenAI requires legal regulation. Ethics and risk issues were not considered in our model, which opens up prospects for further research.

The opinions of the authors [28] and [29] emphasize the role of regulatory mechanisms in creating a safe environment for the implementation of AI. This confirms that technical efficiency must be combined with institutional reliability. This is especially relevant for international companies operating in difficult political conditions.

In turn, the researcher [30] emphasize that the policy of attracting investment in digital technologies affects the success of transformations. We consider that countries with developed support for Industry 4.0 create favourable conditions for the development of omnichannel models. This is confirmed by higher OM_EFF scores in the cases from China, Australia, and Japan.

The researcher [31] prove the effectiveness of blockchain integration into financial systems, which has parallels with our findings. They concern process automation and increased transparency through digital infrastructure. Although our research focuses on AI, both approaches demonstrate the value of digital solutions in strategic management.

So, we agree with leading researchers on the positive impact of AI on marketing, but recognize the need for deeper regulatory and ethical support. The obtained empirical data support most of the theoretical concepts and demonstrate the practical value of GenAI. They also fully confirm the advanced hypotheses, in particular, on the positive impact of GenAI, CSAT, and OMDEPTH on OM_EFF. The practical application of the model is possible for assessing the effectiveness of marketing strategies in retail. Companies can use the results to

optimize channels, integrate AI, and balance the distribution of the advertising budget. Further research may focus on expanding the analysis of institutional risks and cultural contexts of the AI use.

This study provides both incremental and novel contributions. On the incremental side, it confirms prior findings that generative AI enhances personalization, customer satisfaction, and efficiency of omnichannel strategies. On the novel side, it goes further by offering a cross-country econometric assessment that quantifies these effects across 10 companies and 10 markets, which had not been systematically done before. The profound contribution lies in demonstrating that the impact of GenAI is not uniform but conditional on digital maturity, investment, and data integration, thereby offering best practices for firms aiming to achieve efficiency gains. These insights move the discussion beyond theory to actionable evidence, distinguishing this work from earlier research.

5.1. Limitations

This study has several important limitations that should be considered when interpreting the results. First, the number of companies was limited — ten, which reduces the generalizability of the findings. Second, the analysis covers the period of only three years, which does not allow for the detection of long-term trends. Third, the GenAI integration index was calculated without taking into account technological depth. The fourth limitation is the lack of data on the impact of external factors, in particular market crises or regulatory changes. Finally, the omnichannel marketing efficiency can be distorted by subjective customer assessments.

In addition, it should be noted that the econometric model, while statistically robust, simplifies the complex interaction between technology, consumer behaviour, and organizational strategy. The focus on retail companies limits the transferability of findings to other sectors. Moreover, the GenAI integration index used in this study captures breadth but not depth of application, which may overstate or understate actual effects. These aspects indicate that the results should be interpreted with caution and seen as a starting point for broader comparative research.

5.2. Recommendations

It is recommended that the companies increase their investment in GenAI to automate content and personalize customer interactions. Attention should be paid to the quality of data integration from all channels. It is necessary to expand the number of communication channels, in particular to include messengers, voice assistants, and AR technologies. Marketing budgets should be optimized taking into account the effectiveness of each channel in the omnichannel chain. It is important to regularly assess customer satisfaction and adapt AI solutions to behavioural changes. Further studies should use a wider set of companies and a longer time horizon.

6. CONCLUSIONS

The relevance of the study is determined by the rapid implementation of GenAI in omnichannel marketing strategies of companies in a global environment. The aim was to assess the impact of the level of AI integration on marketing efficiency. The hypotheses were advanced regarding the positive impact of GenAI, data integration, number of channels, and customer satisfaction on OM_EFF. The study covered 10 international companies for 2022–2024 with the inclusion of data on spending and brand strength. An econometric model was built for the analysis that explains OM_EFF through key strategic variables. The results confirmed most of the hypotheses, in particular the strong positive dependence of OM_EFF on GenAI and CSAT. For example, Bosideng achieved the highest OM_EFF of 98.3 with a GenAI of 0.83 and high spending.

Woolworths also demonstrates an increase in OM_EFF to 97.0 against the background of a steady increase in GenAI and omnichannel coverage. H&M, Zara and Uniqlo found themselves in the middle group of companies with high efficiency. The least dynamics were observed in Hudson's Bay, where OM_EFF remained below 80 because of the limited development of AI. At the same time, Lojas Renner showed a gradual increase in OM_EFF from 77.2 to 82.9, demonstrating the effect of gradual implementation. The obtained results give grounds to recommend active digital transformation based on generative technologies. It is confirmed that the combination of investment in AI and the development of customer channels ensures sustainable growth of OM_EFF.

The study demonstrated the empirical feasibility of strategic management taking into account technological innovations. Further research should cover more companies, other industries, and include an analysis of cultural and regional factors. The obtained results have practical significance for strategic planning in retail companies implementing omnichannel models. They can be used in consulting, digital marketing, and investment feasibility assessment. Prospects for further research include expanding the sample to include the services, banking, and healthcare sectors. It is appropriate to analyse the impact of AI for different digital maturity

of companies. Cultural barriers, legal restrictions, and ethical norms in a regional context should also be taken into account.

Overall, the study met its stated objectives by empirically confirming that GenAI integration, customer satisfaction, and channel depth significantly enhance omnichannel marketing efficiency. At the same time, the findings reveal that efficiency gains are uneven across companies and depend strongly on digital maturity, investment levels, and data integration quality. This highlights that GenAI alone is not sufficient; it must be supported by strategic resource allocation and organizational adaptation. Thus, the study provides not only empirical confirmation of hypothesized relationships but also a critical insight that technology adoption without structural readiness produces limited results.

The main research contribution lies in providing the first cross-country econometric assessment of generative AI integration in omnichannel marketing strategies. Unlike prior studies that were largely conceptual or single-case based, this work develops and applies a quantitative model covering 10 companies from 10 countries over 2022–2024. The study generates new knowledge by empirically confirming the strength and direction of relationships between GenAI adoption, customer satisfaction, data integration, and marketing efficiency. This contribution is significant for the area because it not only validates theoretical assumptions but also delivers practical evidence to guide strategic decisions in retail marketing under conditions of digital transformation.

Despite the contributions, several open research issues remain. First, long-term effects of GenAI on brand equity and consumer trust are not yet fully understood and require longitudinal analysis. Second, the depth of GenAI integration (e.g., advanced analytics, generative design, or adaptive pricing) is still difficult to measure consistently across firms and sectors. Third, cross-industry comparisons outside of retail are limited, leaving questions about transferability of findings to services, banking, or healthcare. Finally, the ethical and regulatory dimensions of large-scale GenAI adoption remain underexplored, raising questions about algorithmic transparency, bias, and governance. Addressing these gaps would advance both theory and practice in the field.

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